

When to suspect child maltreatment

Clinical Guideline

July 2009

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When to suspect child maltreatment

National Collaborating Centre for Women's and Children's Health

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Guideline Development Group membership and acknowledgements

Guideline Development Group

GDG members

Jane Appleton	Reader in Primary and Community Care (nursing)
Tricia Brennan	Consultant Paediatrician (emergency medicine)
Geoff DeBelle	Consultant Paediatrician (community)
Susan Dunstall	Patient/consumer member (NSPCC)
Danya Glaser	GDG Chair, Consultant Child and Adolescent Psychiatrist
Andrea Goddard	Consultant Paediatrician (general)
Kathryn Gutteridge	Patient/consumer member
Christine Habgood	General Practitioner
Chris Hobbs	Consultant Paediatrician (community)
Elizabeth Hughes	Consultant Nurse Safeguarding Children
Alison Kemp	Clinical Advisor to the GDG, Consultant Paediatrician/Reader in Child Health
Anne Livesey	Consultant Paediatrician (community)
David Lucey	Independent Clinical Child Psychologist
Rosemary Neary	Patient/consumer member (Eaton Foundation)
Annmarie Reeves	Senior Practitioner (social work)
Peter Saunders	Patient/consumer member (NAPAC)
Anubha Sinha	General Practitioner
David Vickers*	Consultant Paediatrician (community)

(*stood down April 2008 because of work commitments, replaced by Geoff DeBelle)

National Collaborating Centre for Women's and Children's Health (NCC-WCH) staff

Jiri Chard	Senior Research Fellow
Rupert Franklin	Work Programme Coordinator
Eva Gautam-Aitken	Project Manager
Paul Jacklin	Senior Health Economist
Angela Kraut	Research Fellow
Monica Lakhanpaul	Clinical Co-Director/Community Paediatrician
Carolina Ortega	Work Programme Coordinator
Julia Saperia	Lead Research Fellow
Samantha Vahidi	Senior Work Programme Coordinator
Danielle Worster	Information Scientist

External advisers

Susan Parekh	Dentist
Karen Rogstad	Genito-urinary medicine specialist
David Spicer	Barrister

Peer reviewers

Vikram Bolaram General Practitioner
Giles Haythornthwaite Consultant Paediatrician (emergency medicine)

North American reviewers

Howard Dubowitz Professor of Pediatrics/Director, Center for Families, University of Maryland
School of Medicine, Baltimore
Robert Reece Clinical Professor of Pediatrics, Tufts University School of Medicine, Boston
David A Wolfe RBC Chair in Children’s Mental Health (CAMH)/Professor, University of
Toronto

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1 Guidance summary

1.1 Summary

Aim of the guidance

This guidance provides a summary of the clinical features associated with maltreatment (alerting features) that may be observed when a child presents to healthcare professionals. Its purpose is to raise awareness and help healthcare professionals who are not specialists in child protection to identify children who may be being maltreated. It does not give healthcare professionals recommendations on how to diagnose, confirm or disprove child maltreatment.

Children may present with both physical and psychological symptoms and signs that constitute alerting features of one or more types of maltreatment, and maltreatment may be observed in parent– or carer–child interactions.

Definitions

Child maltreatment

Child maltreatment includes neglect, physical, sexual and emotional abuse, and fabricated or induced illness. This guidance uses the definitions of various forms of child maltreatment set out in *Working Together to Safeguard Children*.^{1*}

Age groups

This guidance uses the following terms to describe children of different ages:

- infant (aged under 1 year)
- child (aged under 13 years)
- young person (aged 13–17 years).

Exclusions from the guidance

The following topics were outside the scope of this guidance and have therefore not been covered:

- risk factors for child maltreatment, which are well recognised. Examples include:
 - parental or carer drug or alcohol abuse
 - parental or carer mental health
 - intra-familial violence or history of violent offending
 - previous child maltreatment in members of the family
 - known maltreatment of animals by the parent or carer
 - vulnerable and unsupported parents or carers
 - pre-existing disability in the child
- protection of the unborn child
- children who have died as a result of child maltreatment[†]
- diagnostic assessment and investigations, for example X-rays
- treatment and care of the child if maltreatment is suspected
- how healthcare professionals should proceed once they have come to suspect maltreatment
- healthcare professionals' competency, training and behaviour, including behavioural change and the type of healthcare professional who should think about maltreatment

* Supplementary guidance to *Working Together to Safeguard Children* includes: Department of Health, Home Office (2000) *Safeguarding Children Involved in Prostitution*; Department of Health, Home Office, Department for Education and Skills, Welsh Assembly Government (2002) *Safeguarding Children in whom Illness is Fabricated or Induced*; Home Office. *Female Circumcision Act 1985, Female Genital Mutilation Act 2003, Home Office Circular 10/2004*; Association of Directors of Social Services, Department of Education and Skills, Department of Health, Home Office, Foreign and Commonwealth Office (2004) *Young People and Vulnerable Adults Facing Forced Marriage*.

† It should be noted that there are special procedures that should be followed when a child dies unexpectedly.

- service organisation
- child protection procedures
- communication of suspicions to parents, carers or the child
- education and information for parents, carers and the child.

Communicating with and about the child or young person

Good communication between healthcare professionals and the child or young person, as well as with their families and carers, is essential. Communication should take into account additional needs such as physical, sensory or learning disabilities, or the inability to speak or read English. Consideration should be given to cultural needs of children or young people and their families and carers.

There are Local Safeguarding Children Board procedures for safeguarding children. If healthcare professionals have concerns about sharing information with others, they should obtain advice from named or designated professionals for safeguarding children. If concerns are based on information given by a child, healthcare professionals should explain to the child when they are unable to maintain confidentiality, explore the child's concerns about sharing this information and reassure the child that they will continue to be kept informed about what is happening. When gathering collateral information from other disciplines within health and other agencies, professionals need to use judgement about whether to explain to the child, young person and/or parent/carer the need to gather this information for the overall assessment of the child.

Potential obstacles to recognising and responding to possible maltreatment

Healthcare professionals may come across many different obstacles in the process of identifying maltreatment but these should not prevent them from following the appropriate course of action to prevent further harm to the child or young person. Examples of possible obstacles include the following:

- concern about missing a treatable disorder
- healthcare professionals are used to working with parents and carers in the care of children and fear losing the positive relationship with a family already under their care
- discomfort of disbelieving, thinking ill of, suspecting or wrongly blaming a parent or carer
- divided duties to adult and child patients and breaching confidentiality
- an understanding of the reasons why the maltreatment might have occurred, and that there was no intention to harm the child
- losing control over the child protection process and doubts about the benefits
- stress
- personal safety
- fear of complaints.

1.2 How to use this guidance – summary

Definitions of consider and suspect

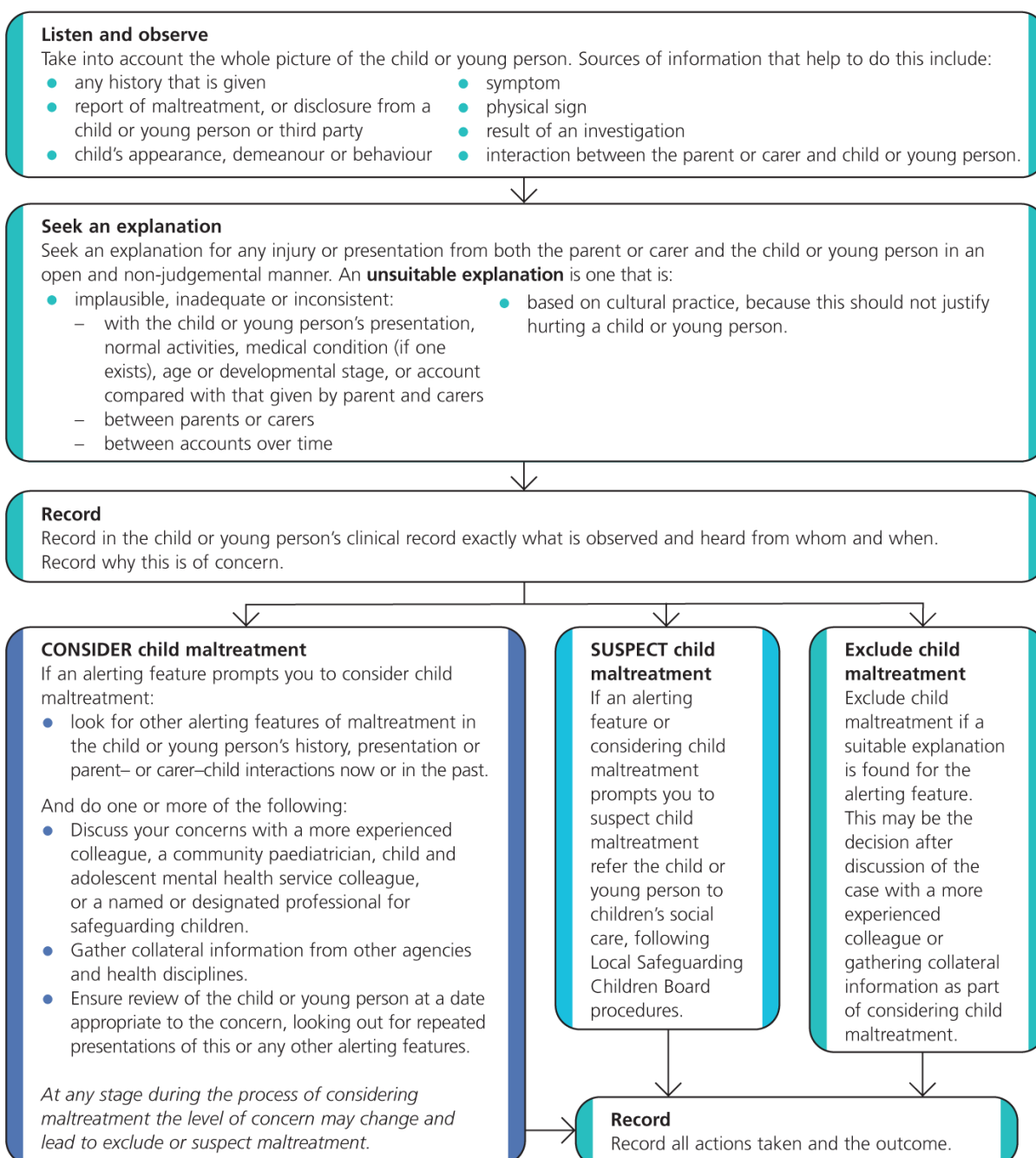
The alerting features in this guidance have been divided into two categories, according to the level of concern, with recommendations to either ‘consider’ or ‘suspect’ maltreatment.

CONSIDER means maltreatment is one possible explanation for the alerting feature or is included in the differential diagnosis.

SUSPECT means serious level of concern about the possibility of child maltreatment but not proof of it.

Using this guidance

If you encounter an alerting feature described in this guidance it is good practice to follow the process outlined below.



1.3 Recommendations

Definitions of terms used in this guidance

The alerting features in this guidance have been divided into two, according to the level of concern, with recommendations to either 'consider' or 'suspect' maltreatment.

Consider

For the purposes of this guidance, to consider child maltreatment means that maltreatment is one possible explanation for the alerting feature or is included in the differential diagnosis.

Suspect

For the purposes of this guidance, to suspect child maltreatment means a serious level of concern about the possibility of child maltreatment but is not proof of it.

Unsuitable explanation

For the purposes of this guidance, an unsuitable explanation for an injury or presentation is one that is implausible, inadequate or inconsistent:

- with the child or young person's
 - presentation
 - normal activities
 - existing medical condition
 - age or developmental stage
 - account compared to that given by parent and carers
- between parents or carers
- between accounts over time.

An explanation based on cultural practice is also unsuitable because this should not justify hurting or harming a child or young person.

Using this guidance

If a healthcare professional encounters an alerting feature of possible child maltreatment that prompts them to consider, suspect or exclude child maltreatment as a possible explanation, it is good practice to follow the process outlined in 1–5 below (see also the diagram in Section 1.2):

1. Listen and observe

Identifying or excluding child maltreatment involves piecing together information from many sources so that the whole picture of the child or young person is taken into account. This information may come from different sources and agencies and includes:

- any history that is given
- report of maltreatment, or disclosure from a child or young person or third party
- child's appearance
- child's behaviour or demeanour
- symptom
- physical sign
- result of an investigation
- interaction between the parent or carer and child or young person.

2. Seek an explanation

Seek an explanation for any injury or presentation from both the parent or carer and the child or young person in an open and non-judgemental manner.

Disability

Alerting features of maltreatment in children with disabilities may also be features of the disability, making identification of maltreatment more difficult.

Healthcare professionals may need to seek appropriate expertise if they are concerned about a child or young person with a disability.

3. Record

- Record in the child or young person's clinical record exactly what is observed and heard from whom and when.
- Record why this is of concern.

At this point the healthcare professional may consider, suspect or exclude child maltreatment from the differential diagnosis.

4. Consider, suspect or exclude maltreatment

Consider

At any stage during the process of considering maltreatment the level of concern may change and lead to exclude or suspect maltreatment.

When hearing about or observing an alerting feature in the guidance:

look for other alerting features of maltreatment in the child or young person's history, presentation or parent- or carer-interaction with the child or young person now or in the past.

Then do one or more of the following:

- Discuss your concerns with a more experienced colleague, a community paediatrician, child and adolescent mental health service colleague, or a named or designated professional for safeguarding children.
- Gather collateral information from other agencies and health disciplines, having used professional judgement about whether to explain the need to gather this information for an overall assessment of the child.
- Ensure review of the child or young person at a date appropriate to the concern, looking out for repeated presentations of this or any other alerting features.

Suspect

If an alerting feature or considering child maltreatment prompts a healthcare professional to suspect child maltreatment they should refer the child or young person to children's social care, following Local Safeguarding Children Board procedures.

This may trigger a child protection investigation, supportive services may be offered to the family following an assessment or alternative explanations may be identified.

Exclude

Exclude maltreatment when a suitable explanation is found for alerting features. This may be the decision following discussion of the case with a more experienced colleague or after gathering collateral information as part of considering child maltreatment.

5. Record

Record all actions taken in 4 and the outcome.

Chapter 4 Physical features

4.1 Injuries

Bruises

Suspect* child maltreatment if a child or young person has bruising in the shape of a hand, ligature, stick, teeth mark, grip or implement.

Suspect* child maltreatment if there is bruising or petechiae (tiny red or purple spots) that are not caused by a medical condition (for example, a causative coagulation disorder) and if the explanation for the bruising is unsuitable.* Examples include:

- bruising in a child who is not independently mobile
- multiple bruises or bruises in clusters
- bruises of a similar shape and size
- bruises on any non-bony part of the body or face including the eyes, ears and buttocks
- bruises on the neck that look like attempted strangulation
- bruises on the ankles and wrists that look like ligature marks.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Bites

Suspect* child maltreatment if there is a report or appearance of a human bite mark that is thought unlikely to have been caused by a young child.

Consider* neglect if there is a report or appearance of an animal bite on a child who has been inadequately supervised.

Lacerations (cuts), abrasions and scars

Suspect* child maltreatment if a child has lacerations, abrasions or scars and the explanation is unsuitable.* Examples include lacerations, abrasions or scars:

- on a child who is not independently mobile
- that are multiple
- with a symmetrical distribution
- on areas usually protected by clothing (for example, back, chest, abdomen, axilla, genital area)
- on the eyes, ears and sides of face
- on the neck, ankles and wrists that look like ligature marks.

Thermal injuries

Suspect* child maltreatment if a child has burn or scald injuries:

- if the explanation for the injury is absent or unsuitable* or
- if the child is not independently mobile or
- on any soft tissue area that would not be expected to come into contact with a hot object in an accident (for example, the backs of hands, soles of feet, buttocks, back) or
- in the shape of an implement (for example, cigarette, iron) or
- that indicate forced immersion, for example:
 - scalds to buttocks, perineum and lower limbs
 - scalds to limbs in a glove or stocking distribution
 - scalds to limbs with symmetrical distribution
 - scalds with sharply delineated borders.

Cold injury

Consider* child maltreatment if a child has cold injuries (for example, swollen, red hands or feet) with no obvious medical explanation.

Consider* child maltreatment if a child presents with hypothermia and the explanation is unsuitable.*

Fractures

Suspect* child maltreatment if a child has one or more fractures in the absence of a medical condition that predisposes to fragile bones (for example, osteogenesis imperfecta, osteopenia of prematurity) or if the explanation is absent or unsuitable.* Presentations include:

- fractures of different ages
- X-ray evidence of occult fractures (fractures identified on X-rays that were not clinically evident). For example, rib fractures in infants.

Intracranial injuries

Suspect* child maltreatment if a child has an intracranial injury in the absence of major confirmed accidental trauma or known medical cause, in one or more of the following circumstances:

- the explanation is absent or unsuitable*
- the child is aged under 3 years
- there are also:
 - retinal haemorrhages or
 - rib or long bone fractures or
 - other associated inflicted injuries
- there are multiple subdural haemorrhages with or without subarachnoid haemorrhage with or without hypoxic ischaemic damage (damage due to lack of blood and oxygen supply) to the brain.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Eye trauma

Suspect* child maltreatment if a child has retinal haemorrhages or injury to the eye in the absence of major confirmed accidental trauma or a known medical explanation, including birth-related causes.

Spinal injuries

Suspect* physical abuse if a child presents with signs of a spinal injury (injury to vertebrae or within the spinal canal) in the absence of major confirmed accidental trauma. Spinal injury may present as:

- a finding on skeletal survey or magnetic resonance imaging
- cervical injury in association with inflicted head injury
- thoracolumbar injury in association with focal neurology or unexplained kyphosis (curvature or deformity of the spine).

Visceral injuries

Suspect* child maltreatment if a child has an intra-abdominal or intrathoracic injury in the absence of major confirmed accidental trauma and there is an absent or unsuitable explanation,* or a delay in presentation. There may be no external bruising or other injury.

Oral injury

Consider* child maltreatment if a child has an oral injury and the explanation is absent or unsuitable.*

General injuries

Consider* child maltreatment if there is no suitable explanation* for a serious or unusual injury.

4.2 Anogenital symptoms, signs and infections*Anogenital symptoms and signs*

Suspect* sexual abuse if a girl or boy has a genital, anal or perianal injury (as evidenced by bruising, laceration, swelling or abrasion) and the explanation is absent or unsuitable.*

Suspect* sexual abuse if a girl or boy has a persistent or recurrent genital or anal symptom (for example, bleeding or discharge) that is associated with behavioural or emotional change and that has no medical explanation.

Suspect* sexual abuse if a girl or boy has an anal fissure, and constipation, Crohn's disease and passing hard stools have been excluded as the cause.

Consider* sexual abuse if a gaping anus in a girl or boy is observed during an examination and there is no medical explanation (for example, a neurological disorder or severe constipation).

Consider* sexual abuse if a girl or boy has a genital or anal symptom (for example, bleeding or discharge) without a medical explanation.

Consider* sexual abuse if a girl or boy has dysuria (discomfort on passing urine) or anogenital discomfort that is persistent or recurrent and does not have a medical explanation (for example, worms, urinary infection, skin conditions, poor hygiene or known allergies).

Consider* sexual abuse if there is evidence of one or more foreign bodies in the vagina or anus. Foreign bodies in the vagina may be indicated by offensive vaginal discharge.

Sexually transmitted infections

Consider* sexual abuse if a child younger than 13 years has hepatitis B unless there is clear evidence of mother-to-child transmission during birth, non-sexual transmission from a member of the household or blood contamination.

Consider* sexual abuse if a child younger than 13 years has anogenital warts unless there is clear evidence of mother-to-child transmission during birth or non-sexual transmission from a member of the household.

Suspect* sexual abuse if a child younger than 13 years has gonorrhoea, chlamydia, syphilis, genital herpes, hepatitis C, HIV or trichomonas infection unless there is clear evidence of mother-to-child transmission during birth or blood contamination.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Consider* sexual abuse if a young person aged 13 to 15 years has hepatitis B unless there is clear evidence of mother-to-child transmission during birth, non-sexual transmission from a member of the household, blood contamination or that the infection was acquired from consensual sexual activity with a peer.

Consider* sexual abuse if a young person aged 13 to 15 years has anogenital warts unless there is clear evidence of mother-to-child transmission during birth, non-sexual transmission from a member of the household, or that the infection was acquired from consensual sexual activity with a peer.

Consider* sexual abuse if a young person aged 13 to 15 years has gonorrhoea, chlamydia, syphilis, genital herpes, hepatitis C, HIV or trichomonas infection unless there is clear evidence of mother-to-child transmission during birth, blood contamination, or that the sexually transmitted infection (STI) was acquired from consensual sexual activity with a peer.[†]

Consider* sexual abuse if a young person aged 16 or 17 years has hepatitis B and there is:

- no clear evidence of mother-to-child transmission during birth, non-sexual transmission from a member of the household, blood contamination or that the infection was acquired from consensual sexual activity *and*
- a clear difference in power or mental capacity between the young person and their sexual partner, in particular when the relationship is incestuous or is with a person in a position of trust (for example, teacher, sports coach, minister of religion) *or*
- concern that the young person is being exploited.

Consider* sexual abuse if a young person aged 16 or 17 years has anogenital warts and there is:

- no clear evidence of non-sexual transmission from a member of the household or that the infection was acquired from consensual sexual activity *and*
- a clear difference in power or mental capacity between the young person and their sexual partner, in particular when the relationship is incestuous or is with a person in a position of trust (for example, teacher, sports coach, minister of religion) *or*
- concern that the young person is being exploited.

Consider* sexual abuse if a young person aged 16 or 17 years has gonorrhoea, chlamydia, syphilis, genital herpes, hepatitis C, HIV or trichomonas infection and there is:

- no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity *and*
- a clear difference in power or mental capacity between the young person and their sexual partner, in particular when the relationship is incestuous or is with a person in a position of trust (for example, teacher, sports coach, minister of religion) *or*
- concern that the young person is being exploited.

Chapter 5 Clinical presentations

5.1 Pregnancy

Be aware that sexual intercourse with a child younger than 13 years is unlawful and therefore pregnancy in such a child means the child has been maltreated.

Consider* sexual abuse if a young woman aged 13 to 15 years is pregnant.

Consider* sexual abuse if a young woman aged 16 or 17 years is pregnant and there is:

- a clear difference in power or mental capacity between the young woman and the putative father, in particular when the relationship is incestuous or is with a person in a position of trust (for example, teacher, sports coach, minister of religion) *or*
- concern that the young woman is being exploited *or*
- concern that the sexual activity was not consensual.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

[†] In these circumstances, consider should include discussion of your concerns with a named or designated professional for safeguarding children.

5.3 Apparent life-threatening events

Suspect* child maltreatment if a child has repeated apparent life-threatening events, the onset is witnessed only by one parent or carer and a medical explanation has not been identified.

Consider* child maltreatment if an infant has an apparent life-threatening event with bleeding from the nose or mouth and a medical explanation has not been identified.

5.4 Poisoning

Suspect* child maltreatment in cases of poisoning in children if:

- there is a report of deliberate administration of inappropriate substances, including prescribed and non-prescribed drugs *or*
- there are unexpected blood levels of drugs not prescribed for the child *or*
- there is reported or biochemical evidence of ingestions of one or more toxic substance *or*
- the child was unable to access the substance independently *or*
- the explanation for the poisoning or how the substance came to be in the child is absent or unsuitable* *or*
- there have been repeated presentations of ingestions in the child or other children in the household.

Consider* child maltreatment in cases of hypernatraemia (abnormally high levels of sodium in the blood) and a medical explanation has not been identified.

5.5 Non-fatal submersion injury (near-drowning)

Suspect* child maltreatment if a child has a non-fatal submersion incident (near-drowning) and the explanation is absent or unsuitable* or if the child's presentation is inconsistent with the account.

Consider* child maltreatment if a non-fatal submersion incident suggests a lack of supervision.

5.6 Attendance at medical services

Consider* child maltreatment if there is an unusual pattern of presentation to and contact with healthcare providers, or there are frequent presentations or reports of injuries.

5.7 Fabricated or induced illness

Consider* fabricated or induced illness if a child's history, physical or psychological presentations or findings of assessments, examinations or investigations leads to a discrepancy with a recognised clinical picture. Fabricated or induced illness is a possible explanation even if the child has a past or concurrent physical or psychological condition.

Suspect* fabricated or induced illness if a child's history, physical or psychological presentations or findings of assessments, examinations or investigations leads to a discrepancy with a recognised clinical picture and one or more of the following is present:

- Reported symptoms and signs only appear or reappear when the parent or carer is present.
- Reported symptoms are only observed by the parent or carer.
- An inexplicably poor response to prescribed medication or other treatment.
- New symptoms are reported as soon as previous ones have resolved.
- There is a history of events that is biologically unlikely (for example, infants with a history of very large blood losses who do not become unwell or anaemic).
- Despite a definitive clinical opinion being reached, multiple opinions from both primary and secondary care are sought and disputed by the parent or carer and the child continues to be presented for investigation and treatment with a range of signs and symptoms.
- The child's normal daily activities (for example, school attendance) are being compromised, or the child is using aids to daily living (for example, wheelchairs) more than would be expected for any medical condition that the child has.

Fabricated or induced illness is a likely explanation even if the child has a past or concurrent physical or psychological condition.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

5.8 Inappropriately explained poor school attendance

Consider* child maltreatment if a child has poor school attendance that the parents or carers know about that has no justification on health, including mental health, grounds and formally approved home education is not being provided.

Chapter 6 Neglect – failure of provision and failure of supervision

Neglect is a situation involving risk to the child or young person. It is the persistent failure to meet the child or young person's basic physical or psychological needs that is likely to result in the serious impairment of their health or development. This may or may not be deliberate. There are differences in how parents and carers choose to raise their children, including the choices they make about their children's healthcare. However, failure to recognise and respond to the child or young person's needs may amount to neglect.

There is no diagnostic gold standard for neglect and therefore decision-making in situations of apparent neglect can be very difficult and thresholds hard to establish. It is essential to place the child or young person at the centre of the assessment.

6.1 Provision of basic needs

Provision within the home

Consider* neglect if a child has severe and persistent infestations, such as scabies or head lice.

Consider* neglect if a child's clothing or footwear is consistently inappropriate (for example, for the weather or the child's size).

Instances of inadequate clothing that have a suitable explanation (for example, a sudden change in the weather, slippers worn because they were closest to hand when leaving the house in a rush) would not be alerting features for possible neglect.

Suspect* neglect if a child is persistently smelly and dirty.

Children often become dirty and smelly during the course of the day. However, the nature of the child's smell may be so overwhelming that the possibility of persistent lack of provision or care should be taken into account. Examples include:

- *child seen at times of the day when it is unlikely that they would have had an opportunity to become dirty or smelly (for example, an early morning visit)*
- *if the dirtiness is ingrained.*

Suspect* neglect if you repeatedly observe or hear reports of the following home environment that is in the parents' or carers' control:

- a poor standard of hygiene that affects a child's health
- inadequate provision of food
- a living environment that is unsafe for the child's developmental stage.

It may be difficult to distinguish between neglect and material poverty. However, care should be taken to balance recognition of the constraints on the parents' or carers' ability to meet their children's needs for food, clothing and shelter with an appreciation of how people in similar circumstances have been able to meet those needs.

Be aware that abandoning a child is a form of maltreatment.

Malnutrition

Consider* neglect if a child displays faltering growth (failure to thrive) because of lack of provision of an adequate or appropriate diet.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

6.2 Supervision

Achieving a balance between an awareness of risk and allowing children freedom to learn by experience can be difficult. However, if parents or carers persistently fail to anticipate dangers and to take precautions to protect their child from harm it may constitute neglect.

Consider* neglect if the explanation for an injury (for example, a burn, sunburn or an ingestion of a harmful substance) suggests a lack of appropriate supervision.

Consider* neglect if a child or young person is not being cared for by a person who is able to provide adequate care.

6.3 Ensuring access to appropriate medical care or treatment

Consider* neglect if parents or carers fail to administer essential prescribed treatment for their child.

Consider* neglect if parents or carers repeatedly fail to attend essential follow-up appointments that are necessary for their child's health and wellbeing.

Consider* neglect if parents or carers persistently fail to engage with relevant child health promotion programmes which include:

- immunisation
- health and development reviews
- screening.

Consider* neglect if parents or carers have access to but persistently fail to obtain NHS treatment for their child's dental caries (tooth decay).

Suspect* neglect if parents or carers fail to seek medical advice for their child to the extent that the child's health and wellbeing is compromised, including if the child is in ongoing pain.

Chapter 7 Emotional, behavioural, interpersonal and social functioning

7.1 Emotional and behavioural states

Consider* child maltreatment if a child or young person displays or is reported to display a marked change in behaviour or emotional state (see examples below) that is a departure from what would be expected for their age and developmental stage and is not explained by a known stressful situation that is not part of child maltreatment (for example, bereavement or parental separation) or medical cause. Examples include:

- recurrent nightmares containing similar themes
- extreme distress
- markedly oppositional behaviour
- withdrawal of communication
- becoming withdrawn.

Consider* child maltreatment if a child's behaviour or emotional state is not consistent with their age and developmental stage or cannot be explained by medical causes, neurodevelopmental disorders (for example, attention deficit hyperactivity disorder (ADHD), autism spectrum disorders) or other stressful situation that is not part of child maltreatment (for example, bereavement or parental separation). Examples of behaviour or emotional states that may fit this description include:

- Emotional states:
 - fearful, withdrawn, low self-esteem
- Behaviour:
 - aggressive, oppositional
 - habitual body rocking

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

- Interpersonal behaviours:
 - indiscriminate contact or affection seeking
 - over-friendliness to strangers including healthcare professionals
 - excessive clinginess
 - persistently resorting to gaining attention
 - demonstrating excessively ‘good’ behaviour to prevent parental or carer disapproval
 - failing to seek or accept appropriate comfort or affection from an appropriate person when significantly distressed
 - coercive controlling behaviour towards parents or carers
 - very young children showing excessive comforting behaviours when witnessing parental or carer distress.

Consider* child maltreatment if a child shows repeated, extreme or sustained emotional responses that are out of proportion to a situation and are not expected for the child’s age or developmental stage or explained by a medical cause, neurodevelopmental disorder (for example, ADHD, autism spectrum disorders) or bipolar disorder and the effects of any known past maltreatment have been explored. Examples of these emotional responses include:

- anger or frustration expressed as a temper tantrum in a school-aged child
- frequent rages at minor provocation
- distress expressed as inconsolable crying.

Consider* child maltreatment if a child shows dissociation (transient episodes of detachment that are outside the child’s control and that are distinguished from daydreaming, seizures or deliberate avoidance of interaction) that is not explained by a known traumatic event unrelated to maltreatment.

Consider* child maltreatment if a child or young person regularly has responsibilities that interfere with essential normal daily activities (for example, school attendance).

Consider* child maltreatment if a child responds to a health examination or assessment in an unusual, unexpected or developmentally inappropriate way (for example, extreme passivity, resistance or refusal).

7.2 Behavioural disorders or abnormalities either seen or heard about

Self-harm

Consider* past or current child maltreatment, particularly sexual, physical or emotional abuse, if a child or young person is deliberately self-harming. Self-harm includes cutting, scratching, picking, biting or tearing skin to cause injury, pulling out hair or eyelashes and deliberately taking prescribed or non-prescribed drugs at higher than therapeutic doses.

Disturbances in eating and feeding behaviour

Suspect* child maltreatment if a child repeatedly scavenges, steals, hoards or hides food with no medical explanation.

Wetting and soiling

Consider* child maltreatment if a child has secondary day- or night-time wetting that persists despite adequate assessment and management unless there is a medical explanation (for example, urinary tract infection) or clearly identified stressful situation that is not part of maltreatment (for example, bereavement, parental separation).

Consider* child maltreatment if a child is reported to be deliberately wetting.

Consider* child maltreatment if a child shows encopresis (repeatedly defecating a normal stool in an inappropriate place) or repeated, deliberate smearing of faeces.

Sexualised behaviour

Suspect* child maltreatment, and in particular sexual abuse, if a prepubertal child displays or is reported to display repeated or coercive sexualised behaviours or preoccupation (for example, sexual talk associated with knowledge, drawing genitalia, emulating sexual activity with another child).

* Refer to Chapter 3 for the definitions of ‘unsuitable explanation’, ‘consider’ and ‘suspect’, and for their associated actions.

Suspect* past or current child maltreatment if a child or young person's sexual behaviour is indiscriminate, precocious or coercive.

Suspect* sexual abuse if a prepubertal child displays or is reported to display unusual sexualised behaviours. Examples include:

- oral–genital contact with another child or a doll
- requesting to be touched in the genital area
- inserting or attempting to insert an object, finger or penis into another child's vagina or anus.

Runaway behaviour

Consider* child maltreatment if a child or young person has run away from home or care, or is living in alternative accommodation without the full agreement of their parents or carers.

Chapter 8 Parent–child interactions

Consider* emotional abuse if there is concern that parent– or carer–child interactions may be harmful. Examples include:

- Negativity or hostility towards a child or young person.
- Rejection or scapegoating of a child or young person.
- Developmentally inappropriate expectations of or interactions with a child, including inappropriate threats or methods of disciplining.
- Exposure to frightening or traumatic experiences, including domestic abuse.
- Using the child for the fulfilment of the adult's needs (for example, children being used in marital disputes).
- Failure to promote the child's appropriate socialisation (for example, involving children in unlawful activities, isolation, not providing stimulation or education).

Suspect* emotional abuse when persistent harmful parent– or carer–child interactions are observed or reported.

Consider* child maltreatment if parents or carers are seen or reported to punish a child for wetting despite professional advice that the symptom is involuntary.

Consider* emotional neglect if there is emotional unavailability and unresponsiveness from the parent or carer towards a child and in particular towards an infant.

Suspect* emotional neglect if there is persistent emotional unavailability and unresponsiveness from the parent or carer towards a child and in particular towards an infant.

Consider* child maltreatment if a parent or carer refuses to allow a child or young person to speak to a healthcare professional on their own when it is necessary for the assessment of the child or young person.

1.4 Research recommendations

1.4.1 Key priorities for research

Fractures

How can abusive fractures be differentiated from those resulting from conditions that lead to bone fragility and those resulting from accidents, particularly in relation to metaphyseal fractures?

Why this is important

The existing evidence base does not fully account for the features that differentiate fractures from different causes in infants and pre-school age children. A prospective comparative study of fractures in physical abuse, those resulting from conditions that lead to bone fragility and those resulting from accidental trauma would help address this question. Any such study should encompass a study of metaphyseal fractures.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Sexually transmitted infections

What is the association between anogenital warts and sexual abuse in children of different ages?

Why this is important

Anogenital warts can be acquired by vertical transmission, sexual contact and by non-sexual transmission within households. A thorough prospective study is needed to investigate the differential causes of anogenital warts in children. Such a study should include full viral typing of the warts in the index case and contacts where possible.

Fabricated or induced illness

Are the indicators of fabricated or induced illness as described in the recommendations valid for discriminating fabricated or induced illness from other explanations?

Why this is important

Although the alerting signs have been developed based on clinical experience and are considered clinically useful in detecting fabricated or induced illness, there is a need to establish their discriminant validity. This could be achieved by a prospective longitudinal study.

Emotional and behavioural states

What aspects of behaviours and emotional states as alerting individual signs discriminate maltreated children from non-maltreated children in the healthcare setting?

Why this is important

Much of the research in this area uses composite scores from instruments or scenarios to discriminate maltreated from non-maltreated children. To translate these scores into items that are usable for healthcare professionals who are meeting children for the first time, it is necessary to know whether particular behavioural and emotional states can be used to identify maltreated children. A prospective comparative study in the healthcare setting is required.

Recurrent abdominal pain

What is the association between unexplained recurrent abdominal pain and child maltreatment?

Why this is important

Recurrent abdominal pain is a common presentation in primary care and is often unexplained. A large observational study on the association between unexplained recurrent abdominal pain and child maltreatment is needed.

1.4.2 Additional research recommendations

Anogenital symptoms and signs

What are the anogenital signs, symptoms and presenting features (including emotional and behavioural features) that distinguish sexually abused from non-abused children?

Why this is important

A well-conducted prospective study is needed in this area to address problems of reporting bias in the existing literature, particularly in relation to non-abused children.

Self-harm

Further research is needed on the link between emotional abuse and neglect, including emotional neglect, and deliberate self-harm.

2 Background and scope

2.1 Child maltreatment

In 2008 there were 29 200 children in England and 2320 in Wales (including 420 and five unborn children, respectively) who were the subject of a child protection plan.² This translates into rates of 26 per 10 000 children younger than 18 years (excluding unborn children) in England for any type of abuse, 12 per 10 000 for neglect, three for physical abuse, two for sexual abuse, seven for emotional abuse and two for multiple types of abuse. There were 538 500 referrals concerning child maltreatment to social services departments in England³ and 43 411 in Wales⁴ during the year ending 31 March 2008. These figures represent those seen by children's social care services as 'at risk' of maltreatment and are likely to be an underestimation of the true scale of the problem, with surveys of the general public suggesting that around 20% of people have suffered some form of maltreatment as a child. This underestimation is in part due to lack of recognition or reporting by professionals, including healthcare professionals, of suspected child maltreatment.

Social advantage is not necessarily protective of child maltreatment, which also affects children in higher socio-economic groups. There is compelling evidence, including that reported in the National Service Framework (NSF) for England, of the harmful short- and long-term effects of various forms of child maltreatment, affecting all aspects of the child's health, development and wellbeing and which can last into and throughout adulthood. These effects can include anxiety, depression, substance misuse and self-destructive behaviours. In adulthood, there may be difficulties in forming or sustaining close relationships, in sustaining work, and future parenting capacity can be affected. The NSF for England states that: 'The high cost of abuse and neglect both to individuals (and to society) underpins the duty on all agencies to be proactive in safeguarding children.' There is some evidence from a number of randomised control trials suggesting that interventions to prevent abuse or recurrence of abuse have some effect on the short- and long-term wellbeing of the child.

It was anticipated that this guidance would support and update the implementation of relevant recommendations from the NSFs for Children, Young People and Maternity Services in England and Wales.

This guidance is predicated on an acceptance of the paramountcy of the needs of children as articulated in the United Nations Convention on the Rights of the Child, specifically Article 19. This guidance applies to all children and young people younger than 18 years.

At the outset, the remit of the guidance was discussed at length with the Department of Health. Following this, workshops were held with key stakeholders and the National Institute for Health and Clinical Excellence (NICE) to discuss the purpose of the guidance, its remit and its main outcomes. Information gathered from these meetings formed the basis of the content of the scope outlined below. It was decided that the guidance provided would integrate published literature with consensus opinion. Formal Delphi consensus methods would be adopted for part of this process.

In this guidance, the definitions of various forms of child maltreatment set out in *Working Together to Safeguard Children*¹ are used, based on the concept of significant harm as the threshold for protective intervention, which was introduced in the Children Act 1989.

In order for effective child protection to occur, all agencies must cooperate and do so at the earliest point possible. This guidance addresses the crucial contribution of healthcare professionals to this endeavour, by setting out the indicators which will alert healthcare professionals to the recognition of possible child maltreatment.

2.2 Aim of the guidance

This guidance provides a summary of clinical features associated with child maltreatment (alerting features) that may be observed when a child presents to healthcare professionals. When used in routine practice, the guidance should prompt all healthcare professionals to think about the possibility of maltreatment. The guidance is not intended to be a definitive assessment tool nor does it define diagnostic criteria or tests. The guidance is about child protection issues rather than the wider context of safeguarding.

2.3 Understanding the obstacles to recognising maltreatment

There are obstacles among healthcare professionals to recognising child maltreatment and to accepting that child maltreatment commonly occurs. Some of these obstacles relate to the healthcare practitioners' professional and personal experiences (including maltreatment) or lack of training. Other obstacles include the following:

- concern about missing a treatable disorder
- healthcare professionals are used to working with parents and carers in the care of children and fear losing the positive relationship with a family already under their care
- discomfort of disbelieving, thinking ill of, suspecting or wrongly blaming a parent or carer
- divided duties to adult and child patients and breaching confidentiality
- understanding the background and reasons why the maltreatment might have occurred, especially when there is no perceived intention to harm the child
- difficulty in saying that a presentation is unclear and there is uncertainty about whether the presentation really indicates significant harm
- uncertainty about when to mention suspicion, what to say to parent(s) or carer(s) and what to write in the clinical file
- losing control over the child protection process and doubts about its benefits
- child protection processes can be stressful for professionals and time-consuming
- personal safety
- fear of complaints, litigation and dealings with professional bodies
- fear of seeking support from colleagues.

2.4 Areas outside the scope of the guidance

The following topics were outside the scope of this guidance and have therefore not been covered:

- risk factors for child maltreatment, which are well recognised. Examples include:
 - parental or carer drug or alcohol abuse
 - parental or carer mental health
 - intra-familial violence or history of violent offending
 - previous child maltreatment in members of the family
 - known maltreatment of animals by the parent or carer
 - vulnerable and unsupported parents or carers
 - pre-existing disability in the child
- protection of the unborn child
- children who have died as a result of child maltreatment*
- diagnostic assessment and investigations, for example X-rays
- treatment and care of the child if maltreatment is suspected
- how healthcare professionals should proceed once they have come to suspect maltreatment
- healthcare professionals' competency, training and behaviour, including behavioural change and the type of healthcare professional who should think about maltreatment
- service organisation

* It should be noted that there are special procedures that should be followed when a child dies unexpectedly.

- child protection procedures
- communication of suspicions to parents, carers or the child
- education and information for parents, carers and the child.

2.5 Terms used to describe age groups

Definition: This guidance uses the following terms and definitions to describe children of different ages:

- infant (aged under 1 year)
- child (aged under 13 years)
- young person (aged 13–17 years).

2.6 Definitions of child maltreatment

For the purposes of this document, child maltreatment includes physical abuse, sexual abuse, emotional abuse, neglect, and fabricated or induced illness (FII). The following definitions of child maltreatment are adopted in this document and correspond to those in *Working Together to Safeguard Children*.¹

Physical abuse

Physical abuse may involve hitting, shaking, throwing, poisoning, burning or scalding, drowning, suffocating, or otherwise causing physical harm to a child. Physical harm may also be caused when a parent or carer fabricates the symptoms of, or deliberately induces, illness in a child.

Emotional abuse

Emotional abuse is the persistent emotional maltreatment of a child such as to cause severe and persistent adverse effects on the child's emotional development. It may involve conveying to children that they are worthless or unloved, inadequate, or valued only insofar as they meet the needs of another person. It may feature age- or developmentally inappropriate expectations being imposed on children. These may include interactions that are beyond the child's developmental capability, as well as overprotection and limitation of exploration and learning, or preventing the child participating in normal social interaction. It may involve seeing or hearing the ill-treatment of another. It may involve serious bullying, causing children frequently to feel frightened or in danger, or the exploitation or corruption of children. Some level of emotional abuse is involved in all types of maltreatment of a child, though it may occur alone.

Sexual abuse

Sexual abuse involves forcing or enticing a child or young person to take part in sexual activities, including prostitution, whether or not the child is aware of what is happening. The activities may involve physical contact, including penetrative (for example, rape, buggery or oral sex) or non-penetrative acts. They may include non-contact activities, such as involving children in looking at, or in the production of, sexual online images, watching sexual activities, or encouraging children to behave in sexually inappropriate ways.

Neglect

Neglect is the persistent failure to meet a child's basic physical and/or psychological needs, likely to result in the serious impairment of the child's health or development.

Neglect may occur during pregnancy as a result of maternal substance abuse. Once a child is born, neglect may involve a parent or carer failing to:

- provide adequate food, clothing and shelter (including exclusion from home or abandonment)
- protect a child from physical and emotional harm or danger
- ensure adequate supervision (including the use of inadequate caregivers)
- ensure access to appropriate medical care or treatment.

It may also include neglect of, or unresponsiveness to, a child's basic emotional needs.

The supplementary guidance to *Working Together to Safeguard Children*¹ includes:

- Department of Health, Home Office (2000) *Safeguarding Children Involved in Prostitution*
- Department of Health, Home Office, Department for Education and Skills, Welsh Assembly Government (2002) *Safeguarding Children in whom Illness is Fabricated or Induced*
- Home Office. *Female Circumcision Act 1985, Female Genital Mutilation Act 2003, Home Office Circular 10/2004*
- Association of Directors of Social Services, Department of Education and Skills, Department of Health, Home Office, Foreign and Commonwealth Office (2004) *Young People and Vulnerable Adults Facing Forced Marriage*.

2.7 For whom is the guidance intended?

This guidance is of relevance to those who work in or use the National Health Service (NHS) in England and Wales and in the independent health sector, in particular:

- GPs, primary care and child health teams
- professional groups who are routinely involved in the care of children and families
- professionals who may encounter children in the course of their professional duties, for example radiographers, adult mental health professionals, surgeons
- those responsible for commissioning and planning healthcare services, including primary care trust commissioners, Health Commission Wales commissioners, and public health and trust managers.

In addition, this guidance may be of interest to professionals working in social services and education/childcare settings.

2.9 Who has developed the guidance?

The guidance was developed by a multi-professional and lay working group (the Guideline Development Group or GDG) convened by the National Collaborating Centre for Women's and Children's Health (NCC-WCH). Membership included:

- one child and adolescent psychiatrist
- two GPs
- two nurses/health visitors
- one child psychologist
- one accident and emergency consultant
- three consultant community paediatricians
- one consultant hospital paediatrician
- one social worker
- four patient/consumer members.

All committee members were recruited because of their expertise in child protection.

Staff from the NCC-WCH provided methodological support for the guidance development process, undertook systematic searches, retrieved and appraised the evidence and wrote successive drafts of the guidance. A clinical adviser with expertise in child protection and the related evidence base was recruited to support the technical team.

All GDG members' interests were recorded on declaration forms provided by NICE. The form covered consultancies, fee-paid work, shareholdings, fellowships and support from the healthcare industry. GDG members' interests are listed in Appendix A. No material conflicts of interest were identified.

2.10 Other relevant documents

This guidance is intended to complement other existing and proposed works of relevance, including related NICE guidance:

- *Eating Disorders: Core Interventions in the Treatment and Management of Anorexia Nervosa, Bulimia Nervosa and Related Eating Disorders* (NICE clinical guideline 9), available from www.nice.org.uk/Guidance/CG9
- *Self-harm: The short-term physical and psychological management and secondary prevention of self-harm in primary and secondary care* (NICE clinical guideline 16), available from www.nice.org.uk/Guidance/CG16
- *Constipation in Children: the Diagnosis and Management of Idiopathic Childhood Constipation in Primary and Secondary Care* (NICE clinical guideline; publication expected March 2010, details available from www.nice.org.uk)
- *Nocturnal Enuresis in Children (Bedwetting): the Management of Bedwetting in Children* (NICE clinical guideline; publication expected August 2010, details available from www.nice.org.uk)
- *What to do if You're Worried a Child is Being Abused*, available from www.dh.gov.uk
- *Working Together to Safeguard Children*, 2006, available from www.everychildmatters.gov.uk/socialcare/safeguarding/workingtogether
- *Safeguarding Children: Working Together under the Children Act 2004*, available from new.wales.gov.uk/topics/childrenyoungpeople/publications/safeguardingunder2004act?lang=en
- *Safeguarding Children in Whom Illness is Fabricated or Induced*, 2008, available from www.everychildmatters.gov.uk/socialcare/safeguarding
- *Safeguarding Children in Whom Illness is Fabricated or Induced*, 2008, available from new.wales.gov.uk/topics/childrenyoungpeople/publications/illnessfabricated/?lang=en
- *Information Sharing Pocket Guide*, available from www.everychildmatters.gov.uk/_files/983B14537FB904C95CA470DAB6928F19.pdf
- *Fabricated and Induced Illness by Carers*, available from www.rcpch.ac.uk/Policy/Child-Protection/Child-Protection-Publications
- *Child Protection Companion*, available from www.rcpch.ac.uk/Policy/Child-Protection/Child-Protection-Publications
- *Standards for Radiological Investigations of Suspected Non-accidental Injury*, available from www.rcpch.ac.uk/Policy/Child-Protection/Child-Protection-Publications
- *The Physical Signs of Child Sexual Abuse*, 2008, available to order from www.rcpch.ac.uk/Research/Research-Activity/Completed-Projects/CSA-Handbook.

2.11 Guideline development methodology

This guidance was commissioned by NICE and developed in accordance with the guideline development process outlined in the NICE *Guidelines Manual*.⁵ The general approach is outlined below. Where deviations to this approach occurred, this is addressed in the relevant section.

In accordance with NICE's Equality Scheme, ethnic and cultural considerations and factors relating to disabilities have been considered by the GDG throughout the development process and specifically addressed in individual recommendations where relevant. Further information is available from: www.nice.org.uk/aboutnice/howwework/NICEEqualityScheme.jsp.

Forming clinical questions

The GDG identified a list of features that were thought to be signs or symptoms of maltreatment. The list was refined based on relevance to the healthcare setting (see Appendix B). The standard clinical question was 'when is feature X a reason to suspect child maltreatment?' It should be noted that clinical features that do not appear in this guidance may be indicators of maltreatment nonetheless.

Literature search strategy

Initial scoping searches were executed to identify relevant guidelines (local, national and international) produced by other development groups. The RCPCH document *The Physical Signs of Child Sexual Abuse*,⁶ the Health Technology Assessment (HTA) 'Performance of screening tests for child physical abuse in accident and emergency departments'⁷ and systematic reviews by the Welsh Child Protection Systematic Review Group were referred to, with permission.

Relevant published evidence to inform the guideline development process and answer the clinical questions was identified by systematic search strategies, unless recent high-quality systematic reviews had been identified. Additionally, stakeholder organisations were invited to submit evidence for consideration by the GDG provided it was relevant to the clinical questions and of equivalent or better quality than evidence identified by the search strategies.

Systematic searches to answer the clinical questions formulated and agreed by the GDG were executed using the following databases via the OVID platform: Medline (1950 onwards), Embase (1980 onwards), Cumulative Index to Nursing and Allied Health Literature (1982 onwards), PsycINFO (1967 onwards), Cochrane Central Register of Controlled Trials (3rd Quarter 2007), Cochrane Database of Systematic Reviews (3rd Quarter 2007), and Database of Abstracts of Reviews of Effects (3rd Quarter 2007).

Search strategies combined relevant controlled vocabulary and natural language in an effort to balance sensitivity and specificity. Unless advised by the GDG, searches were not date-specific. Language restrictions were applied to searches and searches were limited to English language results. Both generic and specially developed methodological search filters were used appropriately.

There was no systematic attempt to search grey literature (conferences, abstracts, theses and unpublished trials). Hand searching of journals not indexed on the databases was not undertaken.

At the end of the guideline development process, searches were updated and re-executed, thereby including evidence published and included in the databases up to 5 September 2008. Any literature published after this date was not included. This date should be considered the starting point for searching for new literature for future updates to this guidance.

Further details of the search strategies, including the methodological filters employed, are provided in separate files on the NICE website.

Synthesis of clinical evidence

Clinical evidence was reviewed using established guides⁸⁻¹¹ and classified using the established hierarchical system shown in Table 2.1.¹¹ This system reflects the susceptibility to bias that is inherent in particular study designs.

The type of clinical question dictates the highest level of evidence that may be sought. In assessing the quality of the evidence, each study receives a quality rating coded as '+ + +', '+ +' or '-'. For issues of therapy or treatment, the highest possible evidence level (EL) is a well-conducted systematic review or meta-analysis of randomised controlled trials (RCTs; EL = 1 + +) or an individual RCT (EL = 1 +). As therapeutic interventions were not part of the scope, no randomised controlled trials were reviewed. Studies of poor quality are rated as '-'. Usually, studies rated as '-' should not be used as a basis for making a recommendation, but they can be used to inform recommendations.

For each clinical question, the highest available level of evidence was selected. Where appropriate, for example if a systematic review or meta-analysis existed in relation to a question, studies of a weaker design were not included. Where systematic reviews or meta-analyses did not exist, comparative studies and large case series (comprising data on more than 50 children) were sought.

Evidence was synthesised qualitatively by summarising the content of identified papers in evidence tables and agreeing brief statements that accurately reflected the evidence.

Table 2.1 Levels of evidence for intervention studies¹¹

Level	Source of evidence
1 + +	High-quality meta-analyses, systematic reviews of randomised controlled trials (RCTs), or RCTs with a very low risk of bias
1 +	Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias
1 –	Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias
2 + +	High-quality systematic reviews of case–control or cohort studies; high-quality case–control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal
2 +	Well-conducted case–control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal
2 –	Case–control or cohort studies with a high risk of confounding, bias or chance and a significant risk that the relationship is not causal
3	Non-analytical studies (e.g. case reports, case series)
4	Expert opinion, formal consensus

Summary results and data are presented in the text. More detailed results and data are presented in the evidence tables provided on the NICE website. Where possible, dichotomous outcomes are presented as relative risks (RRs) with 95% confidence intervals (CIs), and continuous outcomes are presented as mean differences with 95% CIs or standard deviations (SDs).

Delphi consensus

A two-round modified Delphi consensus process^{12,13} was used to derive recommendations in some areas (see Appendix C). These areas were defined by:

- there being a lack of relevant literature on a clinical feature’s importance in child maltreatment, or
- the GDG being unable to reach a congruent opinion, or
- the GDG requiring external validation from a wider group of experts (the Delphi panel) for their opinion.

There were some areas where the evidence base was sparse but the GDG was able to reach internal consensus.

The Delphi panel comprised child protection experts (clinicians with significant experience in child protection). There were 95 respondents to Round 1 of the survey and their affiliations are as follows (see Appendix C for information on the recruitment processes):

- 30 paediatricians (including 13 named/designated doctors for child protection/safeguarding children)
- 15 nurses (including 14 named/designated nurses for child protection/safeguarding children)
- three GPs (one child protection adviser for GPs)
- one genito-urinary medicine physician
- seven health visitors
- four dentists (including one named dentist from a safeguarding children board)
- three psychotherapists
- three forensic physicians
- 11 psychiatrists
- 13 psychologists (including two clinical leads for Child and Adolescent Mental Health Services (CAMHS))
- one gastroenterologist
- one social services representative
- two academics
- one other.

Participants were asked to rate their level of agreement with and comment on a series of statements via an online survey. Agreement was measured using a Likert-like scale taking values between 1 and 9 where 1 represented 'strongly disagree' and 9 represented 'strongly agree'. Consensus was said to have been reached if more than 75% of respondents answered 7, 8 or 9. Statements which did not meet the threshold for agreement in the first round were either excluded or modified according to the comments and sent out for a second round. After the second round, the GDG reviewed the responses using the same threshold for agreement. The GDG accepted statements that met the threshold. The GDG was allowed to amend statements in the light of the Delphi panel's comments after the second validation phase.

Forming recommendations

For each clinical question, recommendations were derived using, and explicitly linked to, the evidence that supported them. In the first instance, informal consensus methods were used by the GDG to agree evidence statements and recommendations. Additionally, in some areas formal consensus methods were used to identify current best practice as described above. A number of recommendations that underpin the suspicion of child maltreatment were formed through GDG consensus. These are based on principles of good clinical practice and form the basis upon which the clinical features section of the guidance rests. Shortly before the consultation period, the GDG members independently assessed all recommendations and group consensus was sought. The agreed draft recommendations were sent to two user reviewers for comment before the consultation phase.

The GDG also identified some areas where information that corresponded to the remit of this guidance was lacking and formulated recommendations for future research. From these recommendations, five key priorities for research were identified based on clinical need.

External review

This guidance has been developed in accordance with the NICE guideline development process. This has included giving registered stakeholder organisations the opportunity to comment on the scope of the guidance at the initial stage of development and on the evidence and recommendations at the concluding stage. The developers have carefully considered all of the comments during the consultations by registered stakeholders and the validation by NICE.

Health economics

NICE clinical guidelines ordinarily have economic input to inform the GDG of potential economic issues and to help ensure that recommendations represent a cost-effective use of healthcare resources.

However, for this guidance, it was decided that such an approach is not appropriate. Economic evaluation involves a comparison of two or more alternatives in terms of their costs and benefits. As such, it is a tool to aid decision-making in selecting between these different alternatives. This guidance does not explicitly address clinical decision-making between different courses of action on economic grounds but rather seeks to promote awareness of features that could indicate child maltreatment. Therefore, without any economic decision-making component to recommendations, it was felt that health economics was not relevant to this guidance.

2.12 Schedule for updating the guidance

Clinical guidelines commissioned by NICE are published with a review date 4 years from date of publication. Reviewing may begin earlier than 4 years if significant evidence that affects guideline recommendations is identified sooner. The updated guidance will be available within 2 years of the start of the review process.

3 How to use consider and suspect in this guidance

3.1 Consider and suspect definitions

In general, there are two types of recommendation in this guidance and both are to be used in the context of differential diagnosis. The first is about considering child maltreatment as a possible explanation and is aimed at supporting the healthcare professional to recognise and act on considerations. The second is about suspecting maltreatment and may lead to a referral to children's social care. Indicators of maltreatment can coexist with organic disorders. The definitions below are key to understanding and using the remainder of the guidance as outlined in Chapters 4 to 8.

The guidance-specific definitions and associated actions have been derived from the collective clinical experience of GDG members informed by evidence identified in systematic searches and the views expressed in the Delphi consensus survey (see Section 2.11).

Definition of consider: For the purposes of this guidance, to consider child maltreatment means that maltreatment is a possible explanation for a report or clinical feature or is included in the differential diagnosis.

Definition of suspect: For the purposes of this guidance, to suspect child maltreatment means a serious concern about the possibility of child maltreatment but is not proof of it.

Definition of an unsuitable explanation: For the purposes of this guidance, an unsuitable explanation for an injury or presentation is one that is implausible, inadequate or inconsistent:

- with the child or young person's:
 - presentation
 - normal activities
 - existing medical condition
 - age or developmental stage
 - account compared to that given by parents and carers
- between those given by the parents or carers
- between accounts over time
- because it is explained as cultural practice or religious belief since this should not justify hurting or harming a child or young person

3.2 How to use consider and suspect

Step 1: Listen and observe

Identification of child maltreatment involves piecing together information like parts of a jigsaw puzzle, with some pieces of information carrying more weight than others. All information should be considered critically and used by the healthcare professional to inform considered clinical suspicion in the context of possible differential diagnosis. The information that the healthcare professional should assess may originate from different sources and agencies. Information may also be gained from the careful assessment of alerting features observed in the child. Alerting features of maltreatment, either on their own or in combination, may include:

- any history that is given

- a report of maltreatment, or disclosure from a child or young person or third party (it is standard practice to refer to children's social services when a child or young person makes a disclosure of maltreatment, even though it may not be precise in every detail)
- the child's appearance
- the child's behaviour or demeanour
- symptoms
- physical signs
- a result of an investigation
- interaction between the parent or carer and child or young person.

Step 2: Seek an explanation

Seek an explanation for any injury or presentation from both the parent/carer and the child or young person unless the child or young person is not at a developmental stage to give an account or it is considered inappropriate or not possible to obtain an account.

Suspect maltreatment if you receive a disclosure or report from a child even though the child's account may not be precise in every detail. The professional should explain to the child the need to discuss this with another appropriate professional and the fact that they cannot keep this confidential.

Disability

The alerting features of maltreatment in children with disabilities may also be features of the disability, thus making identification of maltreatment more difficult. Appropriate expertise should be sought by healthcare professionals when they are concerned about a child or young person with a disability. Additional needs such as physical, sensory or learning disabilities should also be taken into account

Step 3: Record

Record in the child or young person's clinical record:

- exactly what you observe and hear from whom and when
- what, in your opinion, is of concern.

At this point, the healthcare professional may consider, suspect or exclude child maltreatment from the differential diagnosis.

Step 4: Consider, suspect or exclude maltreatment

Consider

At any stage during the process of considering maltreatment, the level of concern may change and lead to exclude or suspect maltreatment.

When hearing about or observing an alerting feature in the guidance, look for other alerting features of maltreatment in the child or young person's history, presentation or parent or carer interaction with the child or young person now or in the past.

Then do one or more of the following:

- discuss your concerns with a more experienced colleague, a community paediatrician, a child and adolescent mental health service colleague, or a named or designated professional for safeguarding children
- gather collateral information from other agencies and health disciplines, having used professional judgement about whether to explain the need to gather this information for an overall assessment of the child
- ensure review of the child or young person at a date appropriate to the concern, looking out for repeated presentations of this or any other alerting features.

Suspect

If an alerting feature or the process of considering child maltreatment leads a healthcare professional to suspect child maltreatment, they should refer the child or young person to children's social care, following Local Safeguarding Children Board procedures.

This may trigger a child protection investigation, supportive services may be offered to the family following an assessment or alternative explanations may be identified.

Exclude

Exclude maltreatment when a suitable explanation is found for alerting features. This may be the decision following discussion of the case with a more experienced colleague or after gathering collateral information, or following review as part of considering child maltreatment.

Step 5: Record

Record all actions taken in step 4 and the outcome.

3.3 Communicating with and about the child or young person

Good communication between healthcare professionals and the child or young person, as well as with their families and carers, is essential. Communication should take into account additional needs such as physical, sensory or learning disabilities, or the inability to speak or read English. Consideration should be given to cultural needs of children or young people and their families and carers.

There are Local Safeguarding Children Board procedures for safeguarding children. If healthcare professionals have concerns about sharing information with others, they should obtain advice from named or designated professionals for safeguarding children. If concerns are based on information given by a child, healthcare professionals should explain to the child when they are unable to maintain confidentiality, explore the child's concerns about sharing this information and reassure the child that they will continue to be kept informed about what is happening. When gathering collateral information from other disciplines within health and other agencies, professionals need to use judgement about whether to explain to the child, young person and/or parent/carer the need to gather this information for the overall assessment of the child.

4 Physical features

4.1 Injuries

4.1.1 Bruises

Children sustain bruises in everyday play and after accidents. In accidental bruising, the most common sites are the bony prominences on the front of the body such as the knees, shins, and sometimes the forehead. The eye area is usually protected from accidental bruising. Children with bleeding disorders sustain bruises more commonly than their peers who do not have such disorders. Medical conditions that result in petechiae can include platelet disorders and clotting factor deficiencies. Lesions that are similar to bruises or petechiae may also appear in children with meningococcal septicaemia. Petechiae are tiny red or purple spots that can result from physical trauma such as excessive coughing, vomiting, crying or a squeezing type of injury. Bruises are also the most common mode of presentation of physical child abuse.

Overview of available evidence

One systematic review was identified.

Narrative summary

The question of when bruises in children are diagnostic or suggestive of abuse was investigated in a narrative systematic review¹⁴ that included 23 studies. Owing to a lack of comparative studies (only two studies were comparative), the authors undertook a comparison by using nine studies that addressed bruising in non-abused children (two case-control studies, four cross-sectional studies and three case series) and 16 studies that addressed bruising in abused children (two case-control studies, one cross-sectional study and 13 case series).

Apart from the age and developmental stage of the child, the location and pattern of bruising was found to be important for distinguishing between accidental and non-accidental bruising.

The conclusions of this paper were that the following patterns of bruising are suggestive of physical child abuse:

- bruises in children who are not independently mobile
- bruising in babies
- bruises to the face (with the exception of the forehead), back, abdomen, arms, buttocks, ears and hands
- bruises that are seen away from bony prominences
- multiple bruises in clusters
- multiple bruises of uniform shape
- bruises that carry the clear imprint of the implement used or a ligature.

The authors emphasise that the interpretation of bruising always needs to take the context of medical and social history, the developmental stage, the explanation given and other available information into account. [EL = 2+]

An update to the above review included a paper that investigated whether petechiae are six times more likely to be seen in physical abuse than non-abuse in children. There was no difference in the distribution of petechiae in the two groups.¹⁵

Evidence statement

A systematic review has summarised findings from studies on bruising.

GDG considerations

The GDG supports the conclusions of the systematic review but notes that it is important to exclude bruises from everyday activity, accidental injury, meningococcal septicaemia and other blood disorders that may appear as signs of bruising before suspecting child maltreatment. Drawing on its clinical experience, the GDG suggests that inflicted bruising can occur on more than one plane of the body, for example both sides of the face, as well as in clusters. The GDG believes that the age of a bruise cannot be judged reliably from interpretation of the colour of a bruise and should not be used in the assessment of bruises. The developmental stage of the child, however, is a reasonable indicator for suspicion, in that if a child is unable to move independently, bruising is unlikely to be accidental unless there is good history of an accident. The GDG also believes that bruises of uniform appearance (bruises with very similar or identical appearances) imply that they may have been caused in the same way on more than one occasion by the same mechanism and as such are unlikely to be accidental.

There was no evidence identified regarding love bites. Bruising from 'love bites' may be identified as oval-shaped lesions with a bruised or petechial appearance. The GDG believes that love bites should be interpreted in a similar way to other bruises. An assessment of the age of the child or distribution (for example, over the breast area) may suggest child sexual abuse (CSA).

There was consensus within the GDG about the recommendations in this section. The Delphi panel's views were sought in relation to love bites (see Statement 2a in Section 4.1.2 on bites).

Recommendations on bruises

Suspect* child maltreatment if a child or young person has bruising in the shape of a hand, ligature, stick, teeth mark, grip or implement.

Suspect* child maltreatment if there is bruising or petechiae (tiny red or purple spots) that are not caused by a medical condition (for example, a causative coagulation disorder) and if the explanation for the bruising is unsuitable.* Examples include:

- bruising in a child who is not independently mobile
- multiple bruises or bruises in clusters
- bruises of a similar shape and size
- bruises on any non-bony part of the body or face including the eyes, ears and buttocks
- bruises on the neck that look like attempted strangulation
- bruises on the ankles and wrists that look like ligature marks.

4.1.2 Bites

Any human bite mark on a child must have been deliberately inflicted. Bites are painful and cause bruising and lacerations to the skin. A bite mark presents as two opposing convex arcs giving an oval appearance and occasionally a central bruise. The arcs may contain irregular indentations from individual teeth of the perpetrator. Forensic evidence is usually required to identify the perpetrator. Bites from animals have a different appearance. Love bites are considered in the Delphi survey in this section and in Section 4.1.1 on bruises.

Overview of available evidence

One systematic review was identified.

Narrative summary

A systematic review of abusive bite marks in children (end search date June 2007) identified five case studies where bites had been inflicted.^{16,17} Four of the children were younger than 30 months and one was in her teens. The perpetrator was a child in one case. [EL = 2+] No suitable published literature was found that links animal bites to maltreatment.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Evidence statement

The literature on abusive bite marks in children is sparse, with only five reported incidents of abusive bite marks.

Delphi consensus (see also Appendix C)

The GDG sought the opinions of the Delphi panel on bite marks. The statements below were drafted.

Round 1

Statement number	Round 1	% agreed	<i>n</i>	Outcome
1a	Healthcare professionals should suspect child maltreatment when there is a report or appearance of a human bite mark, on a child, suspected to be caused by an adult.	92	95	See below.
2a	Healthcare professionals should consider child maltreatment when a prepubertal child has love bites.	86	95	Despite agreement at Round 1, the GDG felt that love bites would be better captured in the statement on bruises.
3a	Healthcare professionals should consider child maltreatment when a child has self-inflicted bites.	60	94	Statement rejected. See below.
4a	Healthcare professionals should consider child maltreatment when a child has animal bites.	41	94	Statement amended for Round 2. See below.

Statement 1a

Ninety-two percent of respondents agreed with this statement. There was strong agreement that adult bite marks should be a reason to suspect maltreatment but, because of anxieties about recognising bite marks from adult dentition, the statement was revised for Round 2 (see Statement 1b below).

Statement 2a

This statement was not considered further in this section (see Section 4.1.1 on bruises).

Statement 3a

Some of the reasons that only 60% of respondents agreed with this statement about self-inflicted bites were that it:

- depends on learning disability
- is difficult to distinguish bites made by child dentition and bites made by adult dentition without expert input.

The GDG decided at this point that self-inflicted bites should be considered under self-inflicted injury (see Section 7.2.1 on self-harm).

Statement 4a

Some of the reasons that only 41% of respondents agreed with this statement about animal bites were that it:

- depends on the animal
- depends on the level of supervision.

The statement was revised for Round 2 in the light of these comments (see Statement 4b below).

Round 2

Statement number	Round 2	% agreed	n	Outcome
1b	Healthcare professionals should suspect child maltreatment when there is a report or appearance of a human bite mark on a child, in the absence of an independently witnessed incident of biting by another young child to account for the mark.	71	82	Despite agreement at Round 1, the GDG wanted to address the issue of children biting one another. The Round 2 statement was rejected and the Round 1 statement retained.
4b	Healthcare professionals should consider neglect when there is a report or appearance of an animal bite in a child who has been inadequately supervised.	77	83	Round 2 statement accepted.

GDG considerations

The evidence base in this area is weak and thus the GDG made consensus-based statements and sought the opinions of the Delphi panel on this topic (see above and Section C.2.1).

It can be difficult for healthcare professionals to ascertain the provenance of a bite mark, whether from an adult, an older child or a young child. The GDG acknowledges that bites can be caused by young children in their play activities and that older children can inflict abusive bite marks. Once it seems unlikely that a bite mark was caused by a young child, the GDG concludes that inflicted injury has occurred and maltreatment should be strongly suspected.

Animal bites can occur when a child has not been adequately supervised and, if there is evidence of a lack of supervision, the GDG believes that healthcare professionals should consider neglect.

The GDG accepted Statements 1a and 4b from the Delphi survey but amended Statement 1a because of the difficulty among frontline healthcare professionals of ascertaining who has inflicted a bite based on appearance alone.

Recommendations on bites

Suspect* child maltreatment if there is a report or appearance of a human bite mark that is thought unlikely to have been caused by a young child.

Consider* neglect if there is a report or appearance of an animal bite on a child who has been inadequately supervised.

4.1.3 Lacerations (cuts), abrasions and scars

Children can sustain cuts and abrasions that may lead to scars from accidents. These are usually from falls and will occur in a similar distribution to bruises, namely to the front of the body and over bony prominences such as knees, shins and forehead. These are generally minor injuries and are treated in the home (see also Section 7.2.1 on self-harm).

Overview of available evidence

No suitable published literature was identified that documented associations between cuts and abrasions and child maltreatment.

GDG considerations

The GDG found no suitable published literature on the question of when cuts, abrasions, scars and scratches are reasons to suspect child maltreatment. The GDG consensus is that, similar to other soft-tissue injuries, a healthcare professional should consider the site, pattern, distribution,

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

characteristics, presentation and explanation of the injuries in order to decide whether to suspect maltreatment. The GDG recognises that these presentations can be consistent with deliberate self-harm (see Section 7.2.1 on self-harm).

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on lacerations (cuts), abrasions and scars

Suspect* child maltreatment if a child has lacerations, abrasions or scars and the explanation is unsuitable.* Examples include lacerations, abrasions or scars:

- on a child who is not independently mobile
- that are multiple
- with a symmetrical distribution
- on areas usually protected by clothing (for example, back, chest, abdomen, axilla, genital area)
- on the eyes, ears and sides of face
- on the neck, ankles and wrists that look like ligature marks.

4.1.4 Strangulation and suffocation

Strangulation and suffocation are rare forms of injury in children and may be fatal. Office for National Statistics figures estimate that around 15–20 children die of suffocation and 20–30 children die of strangulation or hanging in a year. Recognition of a child where there has been attempted strangulation may include bruises or ligature marks around the neck. These children and those who have been suffocated may have petechiae of the face, head and neck and may have breathing difficulties (see also Section 5.3 on apparent life-threatening events and Section 4.1.1 on bruises).

Babies who have suffocated may have been overlain or have slipped down the side of the bed where they become smothered in bed clothes. Strangulation has been reported where infants become stuck in blind cords often placed too close to the cot. Older children may suffer strangulation or hang themselves from self-injurious, suicidal behaviour or in play activities that have tragic consequences. National statistics suggest that just under 10% of children who die from choking, suffocation or strangulation have been deliberately harmed. Repeated attempted suffocation has been recognised as a form of FII (see Section 5.7).

GDG considerations

In the absence of a body of evidence, the GDG recognises that strangulation and suffocation are serious injuries. Any clinical signs of suffocation or strangulation should be a cause for serious concern regarding child maltreatment (see Section 4.1.1 on bruises, Section 4.1.3 on lacerations (cuts), abrasions and scars, Section 5.3 on apparent life-threatening events and Section 7.2.1 on self-harm), but the GDG was unable to make a specific recommendation in this section.

4.1.5 Thermal injuries

Young children need constant supervision around hot items in the household. Cooking implements and containers of hot liquids must be kept well out of reach of the inquisitive child. It takes less than a second for a child to sustain a full-thickness burn from a liquid at 60 °C. Children can sustain accidental scalds from liquids such as hot cups of coffee or tea, and burns from contact with hot objects around the household. More infrequently, burns can result from flames, chemicals and electrical items. Burns are painful and can result in mortality and cause lifelong scars and psychological damage.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Overview of available evidence

The question ‘What patterns of burns in children are seen in physical abuse?’ was investigated separately for scald burns and non-scald burns in two systematic reviews by the same research group.^{18,19}

Narrative summary

The identification of intentional scald burns in children in contrast to accidentally sustained scalds was investigated in a well-conducted systematic review that included 26 studies, comprising one case-control study, eight cross-sectional studies and 17 case series and case studies.¹⁸

In addition to the usual exclusion criteria such as review papers and personal experiences, the authors excluded scalds that were due to neglect and studies that combined scald and contact burn data.

There was no evidence of a difference in gender, age of the child or the total body surface area affected between intentional and accidental scalds. Other features were grouped according to whether a scald was likely to be intentional based on the evidence level of the studies reporting those features.

The following features indicate that intentional scalds are likely:

- immersion scalds or scalds from hot tap water indicated by:
 - the presence of clear upper limits or symmetric scalds on the extremities
 - an isolated scald on the buttock or perineum with or without scald injuries on the lower extremities
 - isolated scald injuries on the lower extremities
- the child presents with associated unrelated injuries
- the history given is incompatible with examination findings
- there are coexisting fractures or other injuries
- the child is passive, introverted or fearful
- a history of previous abuse or domestic violence
- numerous prior accidental injuries.

The presence of one or more of the following features indicates that intentional scalds should be considered as a possibility:

- the scald is of uniform depth, flexures are spared, the centre of the buttock is spared, or the scald appears like a glove or stocking on one or more limbs
- a previous burn injury
- neglect/faltering growth
- a history inconsistent with assessed development
- historical/social features such as:
 - a trigger such as soiling, enuresis, misbehaviour
 - differing historical accounts
 - a lack of parental/carer concern
 - an unrelated adult presenting the child
 - the child is known to children’s social care.

The strength of evidence for this review was limited by the small number of good-quality studies containing comparative data, the relatively small number of children included, the retrospective design and the lack of consistency between studies that does not allow a formal meta-analysis. [EL = 2+]

A systematic review about non-scald burns consisted of 25 case series or studies.¹⁹ The conclusion of the review was that the history should be taken carefully, the clothing should be examined for suspected caustic burns and the burn should be matched to the potential burn agent. The review was limited through the scarce evidence base and it thus describes a small number of children (84 children in total, of which 59 were abused). There were no comparative studies of cigarette burns and a lack of comparative data for contact burns. [EL = 2+]

GDG considerations

Burn injuries can be inflicted or accidental, and some burn injuries can be due to neglect through lack of supervision. The GDG believes that it is difficult to untangle these issues and therefore the story that accompanies a burn injury should be scrutinised for consistency with the injury.

Despite the low evidence level of the literature reviewed in the published systematic review, the GDG agrees with the recommendations made therein, based on the GDG members' own clinical experience. The GDG also believes that parents/carers may delay seeking medical attention when a burn injury has been intentional.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendations on thermal injuries

Suspect* child maltreatment if a child has burn or scald injuries:

- if the explanation for the injury is absent or unsuitable* *or*
- if the child is not independently mobile *or*
- on any soft tissue area that would not be expected to come into contact with a hot object in an accident (for example, the backs of hands, soles of feet, buttocks, back) *or*
- in the shape of an implement (for example, cigarette, iron) *or*
- that indicate forced immersion, for example:
 - scalds to buttocks, perineum and lower limbs
 - scalds to limbs in a glove or stocking distribution
 - scalds to limbs with symmetrical distribution
 - scalds with sharply delineated borders.

See also Chapter 6 on neglect – failure of provision and failure of supervision.

4.1.6 Cold injury

Injuries due to the cold can occur when a child's basic care needs have not been met. This could be due to the failure to provide adequate clothing or shelter. Lack of provision is considered in Section 6.1.

Overview of available evidence

No suitable published literature was identified that documented associations between cold injury and child maltreatment.

GDG considerations

In the absence of suitable evidence, the GDG suggests that injuries due to the cold such as swollen, red hands or feet where there is no medical cause can be reason to consider child maltreatment in the context of the persistent failure to provide adequate warmth, clothing or shelter over a period of time. Similarly, hypothermia without an adequate explanation in a child should be a reason to consider child maltreatment.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on cold injuries

Consider* child maltreatment if a child has cold injuries (for example, swollen, red hands or feet) with no obvious medical explanation.

Consider* child maltreatment if a child presents with hypothermia and the explanation is unsuitable.*

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

4.1.7 Hair loss

Hair can be traumatically pulled out or can fall out spontaneously or because of scalp infections.

Overview of available evidence

No suitable published literature was identified that documented associations between hair loss and child maltreatment.

GDG considerations

Hair loss in children can be caused by hair-pulling or spontaneous hair loss. The GDG identified no literature that suggests spontaneous hair loss occurs secondary to maltreatment. In the GDG's opinion, hair loss caused by inflicted hair-pulling constitutes physical abuse. It is the GDG's experience that children can pull each other's hair while fighting so it is important to establish who has inflicted the hair-pulling. .

The GDG believes that hair loss due to self-inflicted hair-pulling in the absence of a medical cause or other definable stressor may be a sign of emotional distress that could be due to maltreatment (see Section 7.2.1 on self-harm).

The GDG believes that unexplained hair loss is an example of an unusual injury without explanation (see Section 4.1.14 on general injuries). The GDG was unable to make a specific recommendation about hair loss.

4.1.8 Fractures

Children sustain fractures from accidental injury. The majority of accidental fractures are seen in children aged 5 years or over. Up to 60% of children will have sustained a fracture by the age of 16 years. Bone fractures or breaks are the result of stress on the bone. The amount of mechanical stress required to cause a fracture is influenced by a number of factors, with diseases such as osteogenesis imperfecta and osteoporosis significantly reducing the force required. Any non-accidental fracture represents a serious assault and a fracture where maltreatment is suspected must be investigated. Many non-accidental fractures in infants and toddlers are occult and are not clinically evident on physical examination.

Overview of available evidence

One systematic review and five additional studies were included.

Narrative summary

A systematic review (1950 to April 2007) that included 32 comparative studies investigated 'Which fractures are indicative of abuse?'.²⁰ The authors highlighted concerns about the quality of papers available. The main concerns were:

- considerable heterogeneity between studies
- wide age ranges studied
- variable radiological techniques employed
- wide variation in definitions of abuse used in studies.

The statistical methodology adopted for the meta-analysis acknowledged these concerns. A random effects model was used. This method models heterogeneity by assuming that each study has a probability of abuse associated with it and that these form a probability distribution between studies. This probability distribution was estimated by a Bayesian method, using *WinBugs*²¹ and a 95% credible interval (CrI) was derived to summarise the probability of abuse.

The review was able to report two general findings:

- fractures from child abuse are most common in children younger than 18 months
- multiple fractures are more suspicious of abuse.

The results for specific locations are outlined below.

Rib fractures

Seven studies were suitable for meta-analysis, with a total of 233 children of whom 128 had been abused, 24 had diagnosed bone dysplasia, 17 were preterm babies with perinatal complications, 43 had injuries due to motor vehicle accidents or violent trauma, seven had post-surgical fractures, three had birth injuries and 11 had fractures from unknown or non-abusive causes. The study found the overall probability that rib fractures are due to abuse was 71% (95% CrI 42% to 91%) when motor vehicle crashes (MVCs), documented violent trauma and post-surgical cases were excluded. The conclusions made about rib fractures were:

- rib fractures in the absence of major trauma, birth injury or underlying bone disease have the highest specificity for abuse
- multiple rib fractures are more commonly abusive than non-abusive.

Femoral fractures

Thirteen studies were suitable for meta-analysis and included a total of 1100 children, of whom 222 were classified as abused and 120 were suspected to have been abused; 223 of the children had been involved in MVCs or violent trauma, 29 had a pathological fracture and 509 were from other non-abusive incidents. Once MVCs had been excluded, the estimated probability of suspected abuse given a femoral fracture was 43% (95% CrI 32% to 54%). The analysis was unable to consider variation in the probability of abusive fractures across different age groups because of the lack of data across studies.

Data from five studies indicate that children with femoral fractures due to abuse are younger than those with femoral fractures not due to abuse. There were no statistically significant differences between the groups on location of fractures. The conclusions made about femoral fractures were:

- abusive femoral fractures occur predominantly in infants
- statistically significantly more abusive femoral fractures arise in children who are not yet walking
- transverse fracture is the most common fracture in abuse and non-abuse (analysed for all age groups)
- under 15 months of age a spiral fracture is the most common abusive femoral fracture ($P = 0.05$).

Humeral fractures

Six studies met the inclusion criteria, of which four were suitable for meta-analysis. There were 154 children: 30 were abused, 23 had suspected abuse, one had been in an MVC and 100 had had accidents. The overall pooled probability that a fractured humerus was due to suspected abuse was 54% (95% CrI 20% to 88%). The probability that a fractured humerus was due to confirmed abuse was 48% (95% CrI 6% to 94%). Supracondylar fractures were reported to be more likely to be associated with non-abusive injury than with abusive injury.

Skull fractures

Seven studies were suitable for meta-analysis. These involved a total of 520 children all younger than 6.5 years: 124 were classified as abused, 18 were MVCs or violent trauma and 378 fractures were classified as non-abusive. The overall probability that a skull fracture was due to suspected abuse was 30% (95% CrI 19% to 46%). The analysis was unable to consider variation in the probability of abusive fractures across different age groups because of the lack of data across studies.

The most common fractures in both the abuse and non-abuse groups were linear and therefore non-discriminatory. Two studies suggested that complex fractures are more common in severely abused children and two studies showed no difference.

Metaphyseal fractures

There were no published comparative studies of children with metaphyseal fractures. Two studies of femoral fractures found that femoral metaphyseal fractures are more common among abused infants but data were not suitable for meta-analysis.

Other fractures (spinal, pelvic, hands and feet, mandibular, sternal)

Other fractures were assessed and the review found that:

- vertebral, pelvic, hand, foot and sternal fractures occur in physical abuse
- appropriate radiology is required for detection
- vertebral fractures may be unstable and early identification is important (see Section 4.1.11 on spinal injuries).

This was a high-quality systematic review but readers should not place too much emphasis on the pooled results as meta-analysis of observational studies often results in false precision; confidence intervals are wide and reflect the high degree of heterogeneity between studies. [EL = 2+]

Additional studies

Five additional studies were identified.

A retrospective case series ($n = 76$) from the UK published in 2006 examined the skeletal surveys of children (not defined) with suspected maltreatment (based on a skeletal survey being ordered).²² Forty-two fractures were identified in 17 children: there were 22 rib fractures, 8 tibia, 4 femur, 3 metatarsal and one each of radius, ulna, humerus, clavicle and skull. Nine children had only one fracture and three children had at least five. [EL = 3]

A retrospective case series that used an administrative database (2 500 000 with 1794 non-accidental musculoskeletal injuries) from the USA published in 2007 examined musculoskeletal injury (not only fractures) in abused children.²³ The study found the following profile of fracture injuries by age:

- 49% (875) younger than 1 year: skull 202, ribs 159, femoral neck/femur 150, tibia/ankle/fibula 98, humerus 74
- 19% (345) aged 1–2 years: skull 56, ribs 16, femoral neck/femur 26, radius 17, humerus 28
- 18% (316) aged 3–12 years: skull 12, ribs 4, femoral neck/femur 12, radius 13, humerus 6
- 14% (258) aged 13–20 years: skull 19, ribs 1, tibia/ankle/fibula 3, carpus 3, humerus 3.

Other injuries were as follows:

- younger than 1 year: internal injuries 44, wounds 48, contusions 280, burns 22
- aged 1–2 years: internal injuries 54, wounds 40, contusions 243, burns 111
- aged 3–12 years: internal injuries 30, wounds 44, contusions 172, burns 47
- aged 13–20 years: internal injuries 8, wounds 54, contusions 73, burns 6.

Of the 1794 children, 309 (17.2%) had psychiatric or neurological comorbidity. [EL = 4]

A cohort study ($n = 467$) of children from the UK published in 2002 examined fractures in suspected maltreatment (child not defined, maltreatment based on referral to court).²⁴ The study found that 268 children had multiple fractures and 140 had solitary fractures. The specific locations of fractures were:

- multiple fractures: skull 88, metaphyseal 134, long bone 215, ribs 154
- ribs: unilateral – neck 24, shaft 51, both 8; bilateral – neck 5, shaft 39, both 27
- skull: single 86, multiple bilateral 29, unilateral 11
- isolated long bone: femur 25, tibia 14, humerus 27, forearm 9, clavicle 2, rib 11. [EL = 4]

A retrospective case series ($n = 108$) from Australia of children (not defined) who were referred to child protection services for investigation reported on the locations of fracture and the occurrence of multiple fractures.²⁵ The locations of fractures were clavicle 5, humerus 29, radius and ulna 18, hand 1, ribs 24, vertebra 1, femur 29, tibia/fibula 29, foot 1, skull 33 and pelvis 1. The numbers of children who had multiple fractures were as follows:

- one fracture: 41 children
- two fractures: 12 children
- three fractures: 23 children
- four or more fractures: 18 children. [EL = 4]

A retrospective chart review of children younger than 3 years ($n = 127$) with femoral fractures investigated injury patterns and circumstances of injury.²⁶ There were 14 children with non-accidental injuries, ten of whom had an absent or inconsistent explanation or an unwitnessed

injury. There were no specific fracture sites or types in the abuse group compared with the accidental injury group. Multiple injuries were found in six out of 14 of the non-accidentally injured children compared with 13 out of 113 in the accidental injuries group. [EL = 4]

GDG considerations

Evidence from one systematic review and five additional studies showed that fractures in children can be indicative of maltreatment. These studies confirmed that children younger than 18 months are at a heightened risk of sustaining a fracture from physical abuse. No one fracture is characteristic of physical abuse. The probability that fractures are due to maltreatment is increased where multiple fractures are present or the child is yet to gain independent mobility. However, the available evidence from observational studies is inherently open to bias and reported confidence intervals are likely to greatly underestimate the true variance. There are very few comparative data on metaphyseal fractures or fractures other than ribs, long bones or skull fractures.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on fractures

Suspect* child maltreatment if a child has one or more fractures in the absence of a medical condition that predisposes to fragile bones (for example, osteogenesis imperfecta, osteopenia of prematurity) or if the explanation is absent or unsuitable.* Presentations include:

- fractures of different ages
- X-ray evidence of occult fractures (fractures identified on X-rays that were not clinically evident). For example, rib fractures in infants.

Research recommendation on fractures

How can abusive fractures be differentiated from those resulting from conditions that lead to bone fragility and those resulting from accidents, particularly in relation to metaphyseal fractures?

Why this is important

The existing evidence base does not fully account for the features that differentiate fractures from different causes in infants and pre-school age children. A prospective comparative study of fractures in physical abuse, those resulting from conditions that lead to bone fragility and those resulting from accidental trauma would help address this question. Any such study should encompass a study of metaphyseal fractures.

4.1.9 Intracranial injuries

Abusive head injury with associated intracranial injury has an estimated incidence of 35 per 100 000 children younger than 6 months, 14–21 per 100 000 children younger than 1 year and 0.3 per 100 000 children aged 1 year but less than 2 years.^{27,28}

Overview of available evidence

The GDG referred, with permission, to work in this area by the Welsh Child Protection Systematic Review Group that is, as yet, unpublished. Skull fractures and bruising to the head from physical abuse is addressed in Section 4.1.8 on fractures and Section 4.1.1 on bruises.

Narrative summary

Two systematic reviews (search end date 2007) were identified that compared features and neuroimaging of abusive head injury with non-abusive head injury in children.²⁹ Studies were included if the child presented to hospital alive and neuroimaging was completed. Fourteen

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

studies were included in the clinical features review, representing 779 abused and 876 non-abused children. Eighteen studies were included in the neuroimaging review. [EL = 2]

Eight studies showed that the age of children with abusive head injury was statistically significantly younger than non-abused children and two studies found no difference. The mean age of abused children was less than 1 year in all studies, and for non-abused children ranged from 4.8 months to 35.5 months. Intracranial injuries considered in the studies were subdural haemorrhage, subarachnoid haemorrhage and traumatic brain injury. The inclusion criteria for the comparison groups varied across studies.

Eight studies recorded whether there was an explanation of trauma and they all noted a statistically significantly greater number of children in the abuse group with no explanation of trauma. Seven studies recorded minor trauma (a fall under 4 feet): of these, three were general head injury studies and showed no difference between groups. Three of the four studies of children with traumatic brain injury or subdural haemorrhage showed that more children in the abuse group gave a history of minor injury and seven studies found that a history of major trauma was reported statistically significantly more often in non-abused compared with abused children. In five studies there were recorded cases of 'admitted assault'.

Neuroimaging

Subdural haemorrhages:

The fourteen comparative studies that reported the number of children with subdural haemorrhage showed that it was statistically significantly more prevalent in abuse than non-abuse. Multiple haemorrhages, those over the convexity and those in the interhemispheric fissure were more common in abuse than non-abuse. Abusive subdural haemorrhages were more likely to be of different or mixed attenuation on magnetic resonance imaging or computed tomography scan.

Subarachnoid haemorrhages:

Ten studies compared subarachnoid haemorrhage in abuse and non-abuse. Nine of these studies showed no difference between the prevalence in either group and one that it was more common in abusive head injury.

Extradural haemorrhages:

Eleven studies compared extradural haemorrhage in abused and non-abused children. Four studies noted that they were statistically significantly more prevalent in non-abuse and the remainder found no statistically significant difference.

Hypoxic ischaemic injury:

One good-quality magnetic resonance imaging study showed that hypoxic ischaemic injury was more common in abusive head trauma than non-abusive head trauma.

Associated features

Retinal haemorrhages:

Ten studies compared retinal haemorrhages in abused and non-abused children. Six studies stated the number of non-abused children who were examined and all noted that a statistically significantly higher number of children with abuse had associated retinal haemorrhage. In studies of children with subdural haemorrhage or traumatic brain injury, the prevalence of retinal haemorrhage in the abuse group ranged from 50% to 86% but not all cases had an ophthalmological examination. In one study, all cases were known to be examined and 77% of the abused group had retinal haemorrhage compared with 20% in the non-abused group (see also Section 4.1.10 on eye trauma).

Skull fractures:

There were 13 studies that addressed skull fractures. Two studies showed that abused children with intracranial injury had higher rates of fractures than non-abused children. The comparison groups were biased towards non-traumatic causes in one study and excluded MVCs in the second study. Four studies showed no statistically significant difference between abused and non-abused children. Five studies showed a highly statistically significant correlation of skull fracture and intracranial injury with non-abuse.

Skeletal fractures:

Eight studies addressed coexisting rib and/or long bone fractures with inflicted head trauma, of which seven found more fractures in abuse than non-abuse. However, non-abused cases were incompletely investigated with respect to skeletal survey. Fractures coexisted with 46% to 70% of inflicted head trauma that included intracranial injury.

Seizures and apnoea:

Seven studies were identified and all showed that there was a greater association of seizures with abuse in children with traumatic brain injury than without traumatic brain injury. Two studies showed that apnoea was more strongly associated with abuse than non-abuse.

Impaired consciousness

Six studies addressed impaired consciousness at presentation, of which five showed no statistically significant difference between abused and non-abused children. One study showed that impaired consciousness was statistically significantly more prevalent in abuse than non-abuse.

GDG considerations

There is a strong evidence base that states that abusive head injury occurs primarily in babies and infants. These children have varied clinical presentation, ranging from non-specific symptoms such as vomiting and irritability to infants who are unconscious. Intracranial injury includes subdural haemorrhages, with or without subarachnoid haemorrhages, which are often small, multiple and widely distributed. Hypoxic ischaemic injury is more commonly associated with abusive head injury than accidental head injury. There is a strong association between intracranial injury and retinal haemorrhages, apnoeic episodes and skeletal fractures. Children with abusive head injury may present with impaired neurology and no external sign of injury.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendations on intracranial injuries

Suspect* child maltreatment if a child has an intracranial injury in the absence of major confirmed accidental trauma or known medical cause, in one or more of the following circumstances:

- the explanation is absent or unsuitable*
- the child is aged under 3 years
- there are also:
 - retinal haemorrhages *or*
 - rib or long bone fractures *or*
 - other associated inflicted injuries
- there are multiple subdural haemorrhages with or without subarachnoid haemorrhage with or without hypoxic ischaemic damage (damage due to lack of blood and oxygen supply) to the brain.

See also Section 4.1.1 on bruises, Section 4.1.3 on lacerations (cuts), abrasions and scars, Section 4.1.5 on thermal injuries and Section 4.1.8 on fractures.

4.1.10 Eye trauma

Damage to the eye, as opposed to periorbital structures such as eyelids, as a result of child maltreatment is manifested as retinal haemorrhage, subconjunctival haemorrhage, hyphaema, penetrating injury or bruising. Retinal haemorrhage can be associated with trauma to the head, particularly in the context of inflicted head trauma. External injuries to the eye are covered under Section 4.1.1 on bruises and Section 4.1.3 on lacerations (cuts), abrasions and scars.

Overview of available evidence

Many papers retrieved on injuries to the eye discuss retinal haemorrhage in the context of head trauma (see Section 4.1.9 on intracranial injuries).

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Narrative summary

In one report³⁰ and an update to it,³¹ the Ophthalmology Child Abuse Working Party of the Royal College of Ophthalmologists has considered questions relating to the effects on the eye of shaking or indirect trauma to the head in infants and young children. [EL = 4]

The Working Party concluded that:

- retinal haemorrhages are more likely to be due to non-accidental injury than accidental injury
- unilateral retinal haemorrhages can occur in child abuse
- in children younger than 2 years, retinal haemorrhage is highly unlikely to be caused by rough play or an attempt to arouse an apparently unconscious child
- birth-related retinal haemorrhages are common.

One prospective cohort study ($n = 150$) of consecutive referrals for craniocerebral traumatic lesions reported data on retinal haemorrhage in 129 children (median age 3.6 months) excluding neonates.³² Fifty-six children were found to have been abused and, of these, 75% had a retinal haemorrhage. Of the 73 children in the accidental trauma group, 7% had a retinal haemorrhage. There was a high level of confirmation of abuse. [EL = 2+]

No papers that met the inclusion criteria were retrieved on subconjunctival haemorrhage.

GDG considerations

The evidence about eye injury in maltreatment is largely confined to retinal haemorrhages which are closely associated with inflicted head trauma. The GDG supports this association and is of the opinion that retinal haemorrhages in a young child should alert healthcare professionals to the possibility of inflicted head trauma and should be interpreted in that context (see Section 4.1.9 on intracranial injuries). In the absence of evidence relating other eye injuries to maltreatment, the GDG came to a consensus decision that other injuries to the eye should be assessed in the light of the explanation given. If the explanation is absent or not typical of accidental injury, maltreatment should be suspected.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendation on eye trauma

Suspect* child maltreatment if a child has retinal haemorrhages or injury to the eye in the absence of major confirmed accidental trauma or a known medical explanation, including birth-related causes.

See also Section 4.1.1 on bruises and Section 4.1.3 on lacerations (cuts), abrasions and scars.

4.1.11 Spinal injuries

Spinal injury is rare in childhood. Spinal lesions may cause death or lead to permanent neurological sequelae.

Overview of available evidence

A systematic review was identified that set out to characterise the signs and symptoms of abusive spinal injury.

Narrative summary

A systematic review (search dates 1975 to 2006) included 15 studies representing information on 33 children.²⁹ Mortality was high, with 26 of the 33 children fatally injured; two of the seven survivors had quadriplegia. The median age of presentation was 6 months (range 1.2–48 months). Diagnosis was delayed in seven cases as the condition was not suspected. Statements of witnesses and confessions of the perpetrators were recorded. [EL = 2+]

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Cervical spine injuries

Of the 33 children, 25 had sustained cervical injuries. More than half of the children with cervical injuries (13/25) were younger than 6 months. Focal neurological signs, apnoea and signs of raised intracranial pressure and general neurological deterioration were typical presenting features. Seventeen children (68%) had significant head trauma (intracranial bleed, skull fracture) and 23 (92%) had retinal haemorrhages. Among the children with cervical spine trauma, 17 had a definite history of shaking.

Thoracolumbar injuries

Seven children had thoracolumbar injuries (median age 14 months, range 9–16 months). These included three thoracic, one lumbar and three thoracolumbar injuries. Presenting features included focal neurological signs and orthopaedic deformity, a feature not noted among the cervical injuries. Only two children had significant head injury.

Types of spinal injury

The spinal injuries were classified as skeletal injury (bony injury, ligamentous injury), lesions involving both, spinal cord injury with or without skeletal injury, and spinal cord injury without radiological abnormality.

Skeletal injuries

Six children had fracture with subluxation with or without angulations and two had compressed body with displacement. In four cases with skeletal vertebral lesions there were associated changes on imaging suggesting spinal cord trauma. Two children had fracture only. Detailed neuropathology from autopsy findings was given in 18 cases. These involved craniocervical junction axonal injury (five children), spinal cord necrosis and bleeding (one), cervical cord axonal injury beta AAP positive staining (seven) and haematoma on high cervical cord with contusion (five).

Evidence statement

One systematic review suggested that spinal injury is uncommonly reported in child abuse and that it may easily be missed. More than 50% of cases with cervical trauma were younger than 6 months and had associated significant head injury and retinal bleeds. Given the subtle presentation of cervical injuries, these may be masked by associated symptoms or may remain asymptomatic and go undiagnosed. The thoracolumbar lesions occurred in older infants or toddlers and did not show the same association with abusive brain injury. Here, there were clinical signs (neurological or orthopaedic) yet diagnosis was frequently delayed.

GDG considerations

Vertebrospinal injuries of all causes are rare in children and most are associated with a history of significant trauma such as an MVC or sports injury. Abusive spinal cord injury causes significant morbidity and mortality. The substantiated cases of maltreatment in the literature were where there were confessions of perpetrators or statements of witnesses. Therefore the GDG concludes that the absence of an appropriate explanation should be a cause for concern and thus a reason to suspect maltreatment.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendations on spinal injuries

Suspect* physical abuse if a child presents with signs of a spinal injury (injury to vertebrae or within the spinal canal) in the absence of major confirmed accidental trauma. Spinal injury may present as:

- a finding on skeletal survey or magnetic resonance imaging
- cervical injury in association with inflicted head injury
- thoracolumbar injury in association with focal neurology or unexplained kyphosis (curvature or deformity of the spine).

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

4.1.12 Visceral injuries

Visceral injury includes both thoracic and abdominal injury in children and can follow both non-intentional trauma including MVCs, falls, and bicycle handlebar and lap-belt injuries but can also result from physical abuse and have a serious outcome including death. Much more is known about abdominal trauma than thoracic injury, which appears to be rare. Inflicted injury in children accounts for between 4% and 15% of all abdominal trauma and most children affected are younger than 5 years. Injuries following abuse include rupture or haematoma to hollow organs (stomach, small bowel including duodenum and rectum), pancreatic injury including unexplained pancreatitis, solid-organ lacerations, or contusions (liver, spleen, kidney), and injury to major blood vessels (mesenteric vessels are especially vulnerable). Where there is no history of injury and no external bruising to the abdomen, the diagnosis will present a challenge in a sick collapsed child who may have been presented some time after the injury occurred. However, child abuse will need to be considered with any injury that is inadequately explained.

Overview of available evidence

There was a paucity of comparative studies and large case series in this area. Two retrospective studies investigating differences between inflicted and non-inflicted injuries^{33,34} and one concentrating on abdominal injuries³⁵ were identified. All three studies provided epidemiological information.

Narrative summary

A retrospective review of patients attending a trauma centre ($n = 121$ younger than 6 years) found 13 children in whom injuries had been inflicted, 77 who had suffered a high-velocity accident and 31 who had suffered a low-velocity accident.³⁵ Children were excluded from the study if they had an associated neurological injury, an abdominal injury secondary to severe thoracic injury, injuries that could not be classified as accidental or inflicted or, in some child abuse cases, where there was a level of denial that trauma had occurred. Despite the small sample, injuries to the hollow viscus were found to be more common in child abuse cases than accidental injury cases. There was no statistically significant difference between the groups in incidence of injury to solid organs. Eight-two percent of accidental injuries were brought to medical attention within 12 hours compared with 46% of inflicted injuries. The median abbreviated injury scale (AIS) score was statistically significantly higher in the inflicted group compared with the high-velocity trauma and low-velocity trauma groups. [EL = 2–]

A review of data from the US-based National Pediatric Trauma Registry selected children younger than 5 years who had been hospitalised over a 10 year period.³³ A diagnosis of child abuse was ascertained at the treating hospital. There were 1997 abuse cases and 16 831 children who had suffered unintentional injury. Thoracic injury was more likely in children who had been maltreated than in those who had not (OR 1.70; 95% CI 1.39 to 2.08). Similarly, abdominal injury was more likely in the maltreated group (OR 2.71; 95% CI 2.23 to 3.29). [EL = 2–]

A follow-up to this study retrieved records from 1997 to 2001.³⁶ There were 927 children younger than 5 years who had suffered blunt abdominal trauma. Of these, 63% were due to MVCs, 16% were due to abuse, 14% were due to a fall and 8% were due to other causes. After excluding MVCs, abuse accounted for 79% of injuries in children younger than 12 months, 61% in children aged 13–24 months, 39% in children aged 25–36 months and 25% in children aged 37–48 months. [EL = 2–]

The fourth study reviewed medical records from a children's hospital over a 9 year period.³⁴ There were 5733 cases of accidental trauma and 453 cases of non-accidental trauma. The incidence of thoracic injury was lower in the accidental trauma group than in the non-accidental trauma group (6.0% of children versus 17.0% of children; $P < 0.001$). There was no statistically significant difference between the groups in the incidence of abdominal injury (7.6% accidental versus 8.6% non-accidental). [EL = 2–]

Evidence statement

The evidence base suggested that visceral injuries do occur in cases of maltreatment and that, after MVCs are excluded, maltreatment is the most common cause in young children.

GDG considerations

Visceral injuries are found in cases of child maltreatment. Injuries to hollow viscus and delayed presentation were more common in cases of child maltreatment. Visceral injuries can present as acute pancreatitis. The GDG's opinion is that visceral injuries due to child maltreatment can sometimes be missed because of the way they present; there may be no bruises even if the injury was inflicted. The GDG found no reason to specify age categories for the suspicion of maltreatment. As with other abusive injuries, the explanation given for the injury may not be compatible with the child's developmental stage. An abusive visceral injury may be in association with other injuries or in isolation.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendation on visceral injuries

Suspect* child maltreatment if a child has an intra-abdominal or intrathoracic injury in the absence of major confirmed accidental trauma and there is an absent or unsuitable explanation,* or a delay in presentation. There may be no external bruising or other injury.

4.1.13 Oral injury

Injuries to the oral cavity may involve teeth, gums, tongue, lingual and labial frena, hard and soft palate or oral mucosa. Dental staff are particularly likely to identify these injuries.

Overview of available evidence

One systematic review was identified.

Narrative summary

One well-conducted systematic review of the literature identified 19 studies (603 children) that reported oral injuries associated with child maltreatment.³⁷ Twenty-seven abused children had torn labial frena, of whom 22 were younger than 5 years. Two children had non-abusive torn labial frena. The review listed a number of oral injuries that were identified in 580 cases of child abuse: laceration or bruising to the lips, mucosal lacerations, dental trauma, tongue injuries and gingival lesions. The authors presented no comparative data and concluded that oral cavities should be examined in suspected child abuse. [EL = 2+]

Evidence statement

The systematic review indicated that oral injuries can occur in child abuse but that there are no oral injuries that are specific to maltreatment.

GDG considerations

The evidence did not show any means of distinguishing accidental oral injury from intentional injury. The GDG believes that as oral injuries may be inflicted and can be missed, all healthcare professionals who are concerned about maltreatment should inspect the child's mouth. The GDG recommends that, as with all injuries seen in child abuse cases, descriptions that are inconsistent with the injury should raise awareness about the possibility of child maltreatment.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendation on oral injuries

Consider* child maltreatment if a child has an oral injury and the explanation is absent or unsuitable.*

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

4.1.14 General injuries

The evidence base around inflicted injury confirms that the absence of a suitable explanation for an injury is an alerting feature of inflicted injury in all cases. Case reports and serious case reviews reveal that perpetrators of abuse can inflict unusual and unimaginable injuries that cannot be pre-specified in a guideline document such as this. Examples may include hair-pulling, which may be considered unusual, or missing finger nails that have been pulled out, which would be considered serious. The GDG concludes that abusive injuries may present as many forms of unusual or serious injuries and child maltreatment should be considered in this context in order to ascertain the cause. The GDG emphasised that some cases of serious injury may lead the healthcare professional to suspect maltreatment once they have looked for other alerting features and assessed the child.

Recommendation on general injuries

Consider* child maltreatment if there is no suitable explanation* for a serious or unusual injury.

4.2 Anogenital symptoms, signs and infections

Anogenital signs may be identified by healthcare professionals in their routine assessment of children for symptoms related to that anatomical area. A disclosure of sexual abuse should lead to a genital examination. The RCPCH document *The Physical Signs of Child Sexual Abuse*⁶ recommends that ‘In the case of suspected sexual abuse, most general paediatricians will not have the expertise to assess or manage the child/young person themselves but will refer to a clinician with more specialised child protection expertise and with training in forensic assessments.’

Overview of available evidence

The recent report on the physical signs of CSA⁶ was used as the basis for this topic. It was expected that that review would include all comparative studies relating to CSA, so a separate search on genital and anal symptoms was not conducted. Two additional case series^{38,39} were identified that looked at genital symptoms of abuse.

4.2.1 Genital and anal symptoms

A case series of girls who had disclosed sexual abuse by direct genital contact was identified.³⁸ Medical charts of 161 girls (median age 10.5 years, range 3.1–17.8 years) were reviewed for genital symptoms. The girls had attended a specialist centre for victims of sexual abuse and all had been examined by one physician who used a standard procedure for history taking. Genital symptoms were reported as follows: genital pain or soreness (53%), dysuria (37%) and genital bleeding (11%). The time between abuse-specific examination and last perpetrator contact ranged from less than 24 hours (6%) to more than a year (24%). [EL = 3]

Another case series of sexually abused children ($n = 428$, 84% female, mean age 8.6 years, range 1–16 years) documented genital symptoms and signs at a follow-up visit to a specialist sexual assault centre.³⁹ Of the total sample, 85 children (20%) had symptoms. These were vaginal pain ($n = 43$), dysuria ($n = 21$), increased urinary frequency ($n = 20$) and recent onset of daytime or night-time enuresis ($n = 24$) (see Section 7.2.5 on wetting and soiling). [EL = 3]

Delphi consensus (see also Appendix C)

The small amount of relevant literature on genital and anal symptoms led the GDG to develop a number of statements for consideration by the Delphi panel. The GDG sought their opinions about genital and anal symptoms in general and asked questions about specific symptoms in order to offer better guidance to healthcare professionals.

* Refer to Chapter 3 for the definitions of ‘unsuitable explanation’, ‘consider’ and ‘suspect’, and for their associated actions.

Round 1

Statement number	Round 1	% agreed	n	Outcome
	For the purposes of these statements, medical explanations can include worms, urinary tract infection and nappy rash.			
5a	Healthcare professionals should consider sexual abuse when a child has a genital or anal symptom without a medical explanation.	81	88	Statement accepted.
6a	Healthcare professionals should suspect child sexual abuse when a child has a genital or anal symptom that is persistent or repeated without a medical explanation.	82	87	Statement accepted.
7a	Healthcare professionals should consider sexual abuse when a child has genital bleeding without a medical explanation.	96	89	Statement accepted.
8a	Healthcare professionals should suspect sexual abuse when a child has genital bleeding that is persistent or repeated without a medical explanation.	91	88	Statement accepted.
9a	Healthcare professionals should consider sexual abuse when a child has a genital discharge without a medical explanation.	84	89	Statement accepted.
10a	Healthcare professionals should suspect sexual abuse when a child has genital discharge that is persistent or repeated without a medical explanation.	77	87	Statement accepted.
11a	Healthcare professionals should consider sexual abuse when a child has anal bleeding without a medical explanation.	84	89	Statement accepted.
12a	Healthcare professionals should suspect sexual abuse when a child has anal bleeding that is persistent or repeated without a medical explanation.	81	87	Statement accepted.
13a	Healthcare professionals should consider sexual abuse when a child has anal discharge without a medical explanation.	86	88	Statement accepted.
14a	Healthcare professionals should suspect sexual abuse when a child has anal discharge that is persistent or repeated without a medical explanation.	84	85	Statement accepted.
15a	Healthcare professionals should consider sexual abuse when a child has dysuria without a medical explanation.	68	82	Statement amended for Round 2. See below.
16a	Healthcare professionals should suspect sexual abuse when a child has dysuria that is persistent or repeated without a medical explanation.	51	79	Statement amended for Round 2. See below.
17a	Healthcare professionals should consider sexual abuse when a child has anogenital discomfort without a medical explanation.	70	87	Statement amended for Round 2. See below.
18a	Healthcare professionals should suspect sexual abuse when a child has anogenital discomfort that is persistent or repeated without a medical explanation.	59	85	Statement amended for Round 2. See below.
19a	Healthcare professionals should suspect sexual abuse if genital or anal complaints are associated with behavioural or emotional change.	88	90	Statement accepted.
20a	Healthcare professionals should suspect sexual abuse if genital or anal complaints are present with other information that suggests the possibility of child sexual abuse.	98	89	Statement accepted.

Statements 5a to 14a

These statements were agreed in Round 1 and incorporated into recommendations.

Statements 15a to 18a

Statements on dysuria and anogenital discomfort were not agreed by sufficient numbers of respondents. Themes from the comments included:

- confusion about what constitutes a medical explanation and who would be able to provide one
- dysuria not specific to maltreatment.

The statements met greater agreement at the ‘consider’ level so the GDG wrote a new statement that aimed to account for the problems identified by the Delphi panel (Statement 15b below).

Statements 19a and 20a

These statements were agreed in Round 1 and incorporated into recommendations.

Round 2

Statement number	Round 2	% agreed	n	Outcome
15b	Healthcare professionals should consider sexual abuse when a child has discomfort on passing urine (dysuria) or anogenital discomfort that are persistent or recurrent and is not explained by conditions such as worms, urinary infection, skin conditions, poor hygiene or known allergies.	78	74	Round 2 statement accepted.

The GDG considerations and the recommendations for genital and anal symptoms are combined with those for genital and anal signs, and these appear together at the end of the next section.

4.2.2 Genital and anal signs

The systematic reviews undertaken for the RCPCH document⁶ were categorised into genital signs of CSA in girls (analysed according to pubertal or prepubertal status where possible), anal signs of CSA and genital signs of CSA in boys. The topics covered were in girls: genital erythema/redness/inflammation, oedema, genital bruising, genital abrasions, genital lacerations/tears, healing/healed injuries, clefts/notches, hymenal bumps/mounds, size of hymenal orifice, hymenal width, friability, labial fusion, vaginal discharge in prepubertal girls, and vaginal foreign bodies; in girls and boys: anal/perianal erythema, perianal venous congestion, anal/perianal bruising, anal lacerations/tears, fissures, scars and tags, and reflex anal dilatation; and general genital injuries in boys. The findings from these systematic reviews are summarised below. [EL = 2 + +]

A general theme that recurs throughout the document is that the timing of the examination in relation to alleged incidents of abuse affects the ability to observe a sign. The evidence base itself poses problems because there are few comparative studies and few studies where abuse has been rigorously excluded from the comparison groups.

Genital signs in girls

Erythema: In prepubertal girls, genital erythema has been found in sexual abuse cases (7/20) and non-abused controls (2/195) (separate studies). Proportions of sexually abused pubertal girls with erythema ranged from 13% ($n = 204$) to 32% ($n = 214$) in two case series. In one comparison study combining data on prepubertal and pubertal girls, erythema was reported in 34% ($n = 119$) of the CSA group, in 68% ($n = 59$) of girls with genital complaints and in 13% ($n = 127$) of girls undergoing routine examination. Abuse was not rigorously excluded from the comparison groups. The timing of examination after the alleged incident and skin pigmentation influence the finding of erythema.

Oedema: No studies were identified that reported the prevalence of oedema in non-abused girls. Oedema was noted in 19% ($n = 214$) of pubertal sexually abused girls. The timing of examination after the alleged incident influences the finding of oedema.

Bruising: In one comparative study, bruising was noted in one of 192 girls with a history of vaginal penetration and in none of 200 girls who had not been abused. In the abuse cases, examination took place on average 42 days after the abusive event.

In a case series ($n = 43$) of prepubertal girls with a history of vaginal penetration, 13 haematomas were found but it was unclear how many girls this involved. No genital bruising was reported in one study of prepubertal girls selected for non-abuse.

In a case series ($n = 204$) of pubertal girls with a history of penile vaginal penetration, 4% had bruising.

A case series ($n = 155$) of sexually abused prepubertal and pubertal girls examined within 72 hours of the abusive event reported 3% with genital bruising.

Abrasions: Genital abrasions were reported in one study of healing in sexually abused girls with a history of penile and/or digital vaginal penetration. No genital abrasions were reported in a study of non-abused prepubertal girls ($n = 195$). Abrasions were reported in 17% ($n = 214$) of pubertal sexually abused girls. The majority of the cohort reported penile vaginal penetration and had been examined within 72 hours of the incident. In a comparative study of prepubertal and pubertal sexually abused girls, three of 119 girls had abrasions; no abrasions were reported in the genital complaints group ($n = 59$) or the routine health check group ($n = 127$). Abrasions have been reported in one study of prepubertal girls with straddle injury. Abuse was not rigorously excluded from this group.

Lacerations: There was inconsistency of definitions of genital lacerations and tears to the hymen across the studies identified by the authors. Hymenal lacerations were reported in 33% ($n = 205$) of prepubertal sexually abused girls in a case series. The authors reported difficulty in distinguishing small lacerations from notches. Partial hymenal tears were reported in two of 24 girls reporting penile vaginal penetration and four of 19 reporting digital vaginal penetration. In a study of non-abused prepubertal girls, no hymenal lacerations were reported. In two studies of pubertal girls, hymenal lacerations/tears were reported in 3% ($n = 204$) and 6% ($n = 214$) where more than 90% of study participants reported penetrative abuse.

Posterior fourchette/fossa tears were reported in 14 of 24 prepubertal sexually abused girls. No genital lacerations were reported in the study of prepubertal non-abused girls ($n = 195$). Posterior fourchette/fossa tears were reported in 40% of pubertal sexually abused girls examined less than 72 hours after the incident and in 2% of those examined more than 72 hours after the incident ($n = 204$). In a study of prepubertal and pubertal sexually abused girls, one of 155 girls had a vaginal laceration (poor definitions used in this study).

Healing/healed injuries: Hymenal transection was inconsistently defined in the studies. Hymenal transections were found in some prepubertal girls with a history of penetrative abuse; none were found in non-abused girls. The evidence on the importance of scars in prepubertal girls is inconclusive.

Hymenal bumps/mounds: There was inconsistency of definitions in the identified studies but, overall, hymenal bumps/mounds were found to be a normal variant.

Hymenal width and diameter: No conclusions could be drawn about the importance of hymenal width or diameter as signs of sexual abuse.

Friability of the genital tissues is not specific for sexual abuse in prepubertal girls and there is insufficient literature in pubertal girls.

Labial fusion has been found in both abused and non-abused prepubertal girls. There is insufficient evidence to determine the importance of labial fusion in sexual abuse of pubertal girls.

Vaginal discharge in prepubertal girls was observed more often in girls reporting penile vaginal penetration than those reporting digital penetration or no abuse in a case-control study where presence of a sexually transmitted infection (STI) was used to define abuse. Vaginal discharge was found in 1% to 2% of non-abused prepubertal girls.

Vaginal foreign bodies: No suitable comparative studies were identified that investigated vaginal foreign bodies. No studies of foreign bodies in pubertal or non-abused girls were identified. In prepubertal girls, three studies representing data on 47 girls (age range 2–10 years) with vaginal foreign bodies. Nine girls were defined as victims of CSA according to differing criteria.

Anal signs in girls and boys

No comparative studies of suitable quality were identified that reported on anal/perianal erythema, perianal venous congestion, anal/perianal bruising, anal fissures, lacerations, scars and tags, or reflex anal dilatation.

Anal or perianal erythema was observed in 1% ($n = 310$) to 10% ($n = 189$) of CSA cases. The timing of examination in relation to the incident was not stated. In non-abused children, redness was reported in 7% ($n = 89$) of infants and 11% ($n = 276$) of 5- to 6-year-olds.

Perianal venous congestion was observed in 8% ($n = 50$) and 36% ($n = 50$) of anally abused children; the timing of the examination after the incident ranged from 4 weeks to 6 years. In non-abused children, perianal venous congestion was reported in 1% of infants ($n = 89$) and 20% of 5- to 6-year-olds ($n = 276$).

Bruising: In a case series of anally abused children, bruising was observed in 10% ($n = 50$); the timing of examination after the incident was not reported. In another study, 1% of sexually abused children ($n = 190$) examined within 72 hours had anal/perianal bruising. There were no reports of bruising in non-abused children ($n = 305$).

Anal lacerations/tears defined as acute tears in the anus and tissues immediately surrounding it were not found in a study ($n = 305$) where abuse was excluded. Lacerations/tears were found in between 1% and 18% of sexually abused children (based on six case series).

Anal fissures were found in one child in a study of non-abused children ($n = 89$). In a study of abused children, 25 of 50 anally abused children had anal fissures, fissures were present in 7% of sexually abused children who denied anal abuse ($n = 83$) and 3% of children with no allegation of sexual abuse ($n = 81$).

Anal scars were not found in children selected for non-abuse ($n = 305$). In anally abused children, scars were found in 38% and 84% of children ($n = 50$) in two studies. In sexually abused children, anal scars were found in between 1% and 4%.

Anal tags were reported in between 3% and 7% of children selected for non-abuse (two studies) and between 4% and 32% of anally abused children (two studies) where the majority of tags were found away from the midline. In sexually abused children, tags were found in between 3% and 7%.

Reflex anal dilatation: In children selected for non-abuse, reflex anal dilatation has been reported in less than 1% of children examined in the left lateral position and in 5% of those examined in the knee-chest position. It was observed in 10% and 34% (two studies, each $n = 50$) of anally abused children and in 5% of sexually abused children.

Genital signs in boys

Genital injuries in boys following sexual abuse have not been well reported. Four case series of sexual abuse in boys have reported injury to the external male genitalia as a result of sexual abuse in between 0% and 7% of abuse cases. Genital injuries due to sexual abuse occur mostly to the penis. Testicular or scrotal injuries are more commonly due to accidents than abuse (based on one study where confirmation of abuse was unclear).

Evidence statement

The thorough review of the literature on physical signs of sexual abuse⁶ highlights important issues for the use of physical signs in suspecting abuse. The evidence base is lacking in both quality and quantity, in part due to difficulties in conducting research in this area. Observable signs are relatively uncommon and this could be because of the timing of the examination relative to the abuse.

GDG considerations

Among the various signs presented in the systematic review, few are commonly observed and, of those, many will only be seen on examination following a disclosure or report. In the context of this guidance and its intended audience, the GDG believes that the history that the child or parent/carer provides will be of the utmost importance. Therefore the GDG believes that genital or anal symptoms and their context are more likely to become apparent as features of

maltreatment in a routine clinical situation than genital or anal signs. The GDG has considered signs and symptoms outside of the remit of the RCPCH guidance, as the RCPCH did not consider an exhaustive list.

The GDG acknowledges that it is common for newborns to have vaginal discharge and sometimes bleeding, especially if they are breastfed.

There are no studies reporting the prevalence of anal fissures in constipation or the passing of hard stools but the GDG's clinical experience suggests that these, together with Crohn's disease, should be excluded before suspecting anal abuse.

After discussion, the GDG decided that reflex anal dilatation is a sign that would be sought during the full assessment of a child where child abuse was suspected. Such an assessment would be conducted by a professional with expertise in the field and the GDG therefore concluded that reflex anal dilatation is not a sign that a frontline healthcare professional would be expected to recognise. However, a healthcare professional may come across a child with a gaping or dilated anus. In the absence of an obvious medical condition to explain this finding, such as a neurological disorder or severe constipation, the GDG believes that they should consider child maltreatment and seek advice from a more experienced colleague.

The GDG sought the opinions of the Delphi panel on statements about genital and anal symptoms (see above and Section C.2.6). Statements 5a–14a, 15b, 19a and 20a were adopted for use in the recommendations. There was consensus within the GDG about the recommendations on genital and anal signs and thus the views of the Delphi panel were not sought.

Recommendations on anogenital symptoms and signs

Suspect* sexual abuse if a girl or boy has a genital, anal or perianal injury (as evidenced by bruising, laceration, swelling or abrasion) and the explanation is absent or unsuitable.*

Suspect* sexual abuse if a girl or boy has a persistent or recurrent genital or anal symptom (for example, bleeding or discharge) that is associated with behavioural or emotional change and that has no medical explanation.

Suspect* sexual abuse if a girl or boy has an anal fissure, and constipation, Crohn's disease and passing hard stools have been excluded as the cause.

Consider* sexual abuse if a gaping anus in a girl or boy is observed during an examination and there is no medical explanation (for example, a neurological disorder or severe constipation).

Consider* sexual abuse if a girl or boy has a genital or anal symptom (for example, bleeding or discharge) without a medical explanation.

Consider* sexual abuse if a girl or boy has dysuria (discomfort on passing urine) or anogenital discomfort that is persistent or recurrent and does not have a medical explanation (for example, worms, urinary infection, skin conditions, poor hygiene or known allergies).

Consider* sexual abuse if there is evidence of one or more foreign bodies in the vagina or anus. Foreign bodies in the vagina may be indicated by offensive vaginal discharge.

Research recommendation on anogenital symptoms and signs

What are the anogenital signs, symptoms and presenting features (including emotional and behavioural features) that distinguish sexually abused from non-abused children?

Why this is important

A well-conducted prospective study is needed in this area to address problems of reporting bias in the existing literature, particularly in relation to non-abused children.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

4.2.3 Sexually transmitted infections

In this review we sought to establish whether the most common STIs occur more often in children who were sexually abused than in those who were not.

Overview of available evidence

A systematic review for physical signs of CSA builds the evidence base for STIs.⁶ The chapter on STIs is treated as one systematic review for the purposes of this document.

Narrative summary

In a systematic review of some of the most frequent STIs that have been noted in CSA cases, 84 studies were reviewed.⁶ Conclusions were drawn from prevalence figures of:

- sexual abuse in children with the STI, and
- prevalence figures of the STI in sexually abused children. [EL = 2+]

None of the literature was able to establish the age at which mother-to-child (vertical) transmission can be excluded.

Bacterial STIs

Neisseria gonorrhoeae (17 studies included):

Gonorrhoea is not often seen in sexually abused prepubertal and pubertal children. Nevertheless, a significant number of children with gonorrhoea who have been evaluated for sexual abuse were found to have been abused. This suggests that sexual contact was the mode of transmission. Sexual abuse is the most likely mode of transmission in pubertal and prepubertal children.

Chlamydia trachomatis (ten studies included):

Chlamydia infection is rarely seen in sexually abused children. The majority of children with chlamydia who have been evaluated for sexual abuse were found to have been abused. This suggests that sexual contact was the mode of transmission.

Chlamydia is more frequent in pubertal than prepubertal sexually abused girls. This result may be biased because of consensual sexual activity or younger children being less likely to disclose abuse.

Bacterial vaginosis (six studies included):

The authors concluded that there were insufficient data in children to determine the significance of bacterial vaginosis in relation to CSA.

Genital mycoplasmas (six studies included):

The available literature does not help to establish whether or not genital mycoplasmas are sexually transmitted in children.

Syphilis (nine studies included):

No literature was identified that distinguished sexually acquired syphilis from congenitally acquired syphilis in children.

Viral STIs

Anogenital warts (ten studies included):

A significant proportion of children with anogenital warts have been sexually abused. In six studies, sexual transmission was reported to be the cause of infection in 31% to 58% of children with anogenital warts. The evidence does not help to establish the age at which the possibility of mother-to-child transmission during birth can be excluded.

Oral warts (one study included):

The authors' conclusion was that there is currently insufficient evidence to determine the significance of oral warts in relation to CSA.

Genital herpes simplex (five studies included)

There are very few published studies to inform whether sexual abuse is likely to be the mode of transmission. Where infected children had been evaluated, one of two and six of eight children were found to have been abused.

Hepatitis B (four studies included):

There is insufficient evidence to determine the significance of hepatitis B in relation to sexual abuse in children.

Hepatitis C (two studies included):

There is insufficient evidence to determine the significance of hepatitis C in relation to sexual abuse in children.

Human immunodeficiency virus (HIV) (four studies included):

Published studies suggest that sexual abuse is a likely source of infection in children with HIV in whom the possibility of mother-to-child transmission or blood contamination has been excluded.

Trichomonas vaginalis (ten studies included):

Published studies suggest that sexual abuse is a likely source of infection in girls. The evidence does not help to establish the age at which the possibility of mother-to-child transmission can be excluded. Consensual sexual activity should be considered.

Limitations

The limitations of the study are discussed in detail by the authors. For STIs the limitations were that the majority of studies came from outside the UK and need to be interpreted in the context of different population prevalence of STIs and different healthcare and child protection systems. The studies included were of variable quality. They often failed to screen all participants for a particular infection and almost no study rigorously explored other methods of transmission in children with confirmed infection.

Delphi consensus (see also Appendix C)

The GDG sought the opinions of the Delphi panel on the circumstances under which an STI in a young person aged 13 years or over is a reason to suspect sexual abuse. They did not seek validation on the list of STIs that should prompt a concern. The following statements were drafted:

Round 1

Statement number	Round 1	% agreed	n	Outcome
21a	Healthcare professionals should consider sexual abuse when a young person aged 13 to 15 years presents with any sexually transmitted infection unless there is clear evidence of blood contamination or that the STI was acquired from consensual sexual activity with a peer.	93	91	Statement accepted.
22a	Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection unless there is clear evidence of blood contamination or that the STI was acquired from consensual sexual activity.	60	91	See below.
23a	Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity, and when there is a clear discrepancy in power, emotional maturity or mental capacity between the young person and their sexual partner.	91	92	Statement accepted but incorporated into an expanded Statement 22b in Round 2.
24a	Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity, and when there is concern that the young person is being exploited.	90	92	Statement accepted but incorporated into an expanded Statement 22b in Round 2.

Statement 21a

This statement was agreed in Round 1 and incorporated into recommendations.

Statement 22a

40% of respondents did not agree with Statement 22a as a stand-alone statement.

Statements 23a and 24a

Over 90% of respondents agreed with these statements about STIs in 16- and 17-year-olds. Combining statements 22a, 23a and 24a led to Statement 22b in Round 2:

Round 2

Statement number	Round 1	% agreed	n	Outcome
22b	<p>Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years of age presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity with a peer, and one or more of the following is present:</p> <ul style="list-style-type: none"> • a clear discrepancy in power, emotional maturity or mental capacity between the young person and their sexual partner • concern that the young person is being exploited. 	92	79	Round 2 statement accepted.

GDG considerations

It is the GDG's opinion that an STI in children as a direct result of sexual abuse falls within the legal framework outlined in the Sexual Offences Act 2003 (see below). Therefore, an STI in a child younger than 13 years should raise the suspicion of sexual abuse. The GDG was unable to make specific recommendations about the age at which mother-to-child transmission of infections can be ruled out as the evidence in this area is scarce. If vertical transmission is suspected, it is good clinical practice to trace the family member concerned. The GDG believes that hepatitis B can be transmitted non-sexually within households so this should be ruled out as a cause before sexual abuse is considered.

There is a high prevalence of sexual abuse among children with anogenital warts. However, it is not known at what age vertical transmission can be excluded. The GDG were also concerned that it can be difficult for healthcare professionals to tell the difference between cutaneous warts or molluscum contagiosum and anogenital warts in the perineal region. The GDG concluded that healthcare professionals should consider sexual abuse in all children where they are concerned about anogenital warts and seek advice from a more experienced professional.

There is insufficient information about bacterial vaginosis, genital mycoplasma and oral warts in the context of sexual abuse to warrant inclusion in a list of possible STIs due to sexual abuse.

The GDG believes that the issues around consensual experimentation among 13- to 15-year-olds outlined in Crown Prosecution Service guidance⁴⁰ should be taken into account when a young person of this age presents with an STI: that guidance indicates that an STI in this age group is not an immediate reason to suspect sexual abuse.

The GDG believes that to consider an STI in young people aged 16 or 17 years to be a direct result of sexual abuse will depend on the context and nature of the sexual act. Therefore, the presence of an STI in this age group needs to be evaluated in the context of consensual sexual activity.

The GDG sought the opinions of the Delphi panel on recommendations about young people between the ages of 13 and 18 years (see above and Section C.2.5). The GDG accepted statements 21a and 22b from the Delphi survey. Although agreement was reached on Statement 22b, the GDG amended the definition of a 'discrepancy in power, emotional maturity or mental capacity' to provide examples that are meaningful for healthcare professionals.

Recommendations on sexually transmitted infections

Consider* sexual abuse if a child younger than 13 years has hepatitis B unless there is clear evidence of mother-to-child transmission during birth, non-sexual transmission from a member of the household or blood contamination.

Consider* sexual abuse if a child younger than 13 years has anogenital warts unless there is clear evidence of mother-to-child transmission during birth or non-sexual transmission from a member of the household.

Suspect* sexual abuse if a child younger than 13 years has gonorrhoea, chlamydia, syphilis, genital herpes, hepatitis C, HIV or trichomonas infection unless there is clear evidence of mother-to-child transmission during birth or blood contamination.

Consider* sexual abuse if a young person aged 13 to 15 years has hepatitis B unless there is clear evidence of mother-to-child transmission during birth, non-sexual transmission from a member of the household, blood contamination or that the infection was acquired from consensual sexual activity with a peer.

Consider* sexual abuse if a young person aged 13 to 15 years has anogenital warts unless there is clear evidence of mother-to-child transmission during birth, non-sexual transmission from a member of the household, or that the infection was acquired from consensual sexual activity with a peer.

Consider* sexual abuse if a young person aged 13 to 15 years has gonorrhoea, chlamydia, syphilis, genital herpes, hepatitis C, HIV or trichomonas infection unless there is clear evidence of mother-to-child transmission during birth, blood contamination, or that the sexually transmitted infection (STI) was acquired from consensual sexual activity with a peer.†

Consider* sexual abuse if a young person aged 16 or 17 years has hepatitis B and there is:

- no clear evidence of mother-to-child transmission during birth, non-sexual transmission from a member of the household, blood contamination or that the infection was acquired from consensual sexual activity *and*
- a clear difference in power or mental capacity between the young person and their sexual partner, in particular when the relationship is incestuous or is with a person in a position of trust (for example, teacher, sports coach, minister of religion) *or*
- concern that the young person is being exploited.

Consider* sexual abuse if a young person aged 16 or 17 years has anogenital warts and there is:

- no clear evidence of non-sexual transmission from a member of the household or that the infection was acquired from consensual sexual activity *and*
- a clear difference in power or mental capacity between the young person and their sexual partner, in particular when the relationship is incestuous or is with a person in a position of trust (for example, teacher, sports coach, minister of religion) *or*
- concern that the young person is being exploited.

Consider* sexual abuse if a young person aged 16 or 17 years has gonorrhoea, chlamydia, syphilis, genital herpes, hepatitis C, HIV or trichomonas infection and there is:

- no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity *and*
- a clear difference in power or mental capacity between the young person and their sexual partner, in particular when the relationship is incestuous or is with a person in a position of trust (for example, teacher, sports coach, minister of religion) *or*
- concern that the young person is being exploited.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

† In these circumstances, consider should include discussion of your concerns with a named or designated professional for safeguarding children.

Research recommendation on sexually transmitted infections

What is the association between anogenital warts and sexual abuse in children of different ages?

Why this is important

Anogenital warts can be acquired by vertical transmission, sexual contact and by non-sexual transmission within households. A thorough prospective study is needed to investigate the differential causes of anogenital warts in children. Such a study should include full viral typing of the warts in the index case and contacts where possible.

5 Clinical presentations

5.1 Pregnancy

Under the Sexual Offences Act 2003, any sexual intercourse with a girl younger than 13 years is unlawful and will be charged as rape. It is illegal for children aged 13–15 years to have sexual intercourse. However, the Crown Prosecution Service⁴⁰ has released guidelines instructing that children of these age groups involved in consensual experimentation should not be prosecuted.

The age of consent in the UK is 16 years unless there is a proven abuse of trust between a young person and an adult, in which case the age of consent rises to 18 years. This would, for example, apply to residential social workers considering becoming sexually involved with any of the young people with whom they are working, teachers, sports coaches and ministers of religion. This also applies to people who are not blood related when they live with the family or sometimes take part in family life, for example longstanding lodgers or extended family members. It is also unlawful for 16- to 18-year-olds to have sexual intercourse with closely related people including aunts and uncles, half-siblings, step- and foster parents and also cousins when they live in the same household.

Overview of available evidence

No suitable published literature was identified that addressed whether pregnancy is a direct result of child maltreatment. We did not search for epidemiological literature on teenage pregnancy.

Delphi consensus (see also Appendix C)

The GDG sought the opinions of the Delphi panel on statements about 16- and 17-year olds because of sensitivities around the age of consent. The following statements were included in the survey:

Round 1

Statement number	Round 1	% agreed	n	Outcome
25a	Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and there is a clear discrepancy in power, emotional maturity or mental capacity between the young woman and the putative father.	87	92	Statement accepted.
26a	Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and there is concern that the young person is being exploited.	90	92	Statement accepted.
27a	Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and the identity of the father is concealed.	60	92	Statement amended for Round 2. See below.

Statements 25a and 26a

These statements were agreed in Round 1 and incorporated into recommendations.

Statement 27a

The most common reason for participants not agreeing with the Statement 27a about concealed identity of the father was that there are many reasons why pregnant girls may conceal the

identity of the father, including shame and fear of familial disapproval. This was addressed in Round 2 with the following amended statement:

Round 2

Statement number	Round 1	% agreed	n	Outcome
27b	Healthcare professionals should consider child maltreatment as one of the reasons that a young person aged 16 or 17 years of age who is pregnant might conceal the identity of the father.	66	83	Statement rejected.

GDG considerations

It is the GDG's opinion that pregnancy in children as a direct result of sexual abuse falls within the legal framework outlined in the Sexual Offences Act 2003. Therefore, any pregnancy in a child younger than 13 years should be recognised to be a result of maltreatment. This still applies if two minors have engaged in sexual intercourse as it represents neglect by lack of supervision.

The GDG believes that the issues around consensual experimentation among 13- to 15-year-olds outlined in Home Office guidance should be taken into account when a young person of this age is pregnant: that guidance indicates that a pregnancy in this age group is not an immediate reason to suspect sexual abuse.

Despite the age of consent being 16 years in the UK, the GDG believes that healthcare professionals may observe circumstances around a pregnancy that should give rise to a suspicion of maltreatment. Namely, when there is a clear discrepancy in power, emotional maturity or mental capacity between the young woman and the putative father, or concern about incest or that the young person is being exploited.

The GDG sought the opinions of the Delphi panel on the recommendation about pregnancy in 16- and 17-year-olds (see above and Section C.2.4). The GDG accepted statements 25a and 26a from the Delphi survey. Although agreement was reached on Statement 25a, the GDG amended the definition of a 'discrepancy in power, emotional maturity or mental capacity' to provide examples that are meaningful for healthcare professionals. Based on the views of the Delphi panel, the GDG rejected its proposed statement about a concealed identity of the father. There was consensus within the GDG about the recommendation about children younger than 13 years and thus the views of the Delphi panel were not sought.

Recommendations on pregnancy

Be aware that sexual intercourse with a child younger than 13 years is unlawful and therefore pregnancy in such a child means the child has been maltreated.

Consider* sexual abuse if a young woman aged 13 to 15 years is pregnant.

Consider* sexual abuse if a young woman aged 16 or 17 years is pregnant and there is:

- a clear difference in power or mental capacity between the young woman and the putative father, in particular when the relationship is incestuous or is with a person in a position of trust (for example, teacher, sports coach, minister of religion) *or*
- concern that the young woman is being exploited *or*
- concern that the sexual activity was not consensual.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

5.2 Dehydration

No suitable published literature was identified about dehydration in child maltreatment. The GDG chose not to pursue this topic as it is a complex problem in normal clinical practice. Dehydration can occur as a result of poisoning (see Section 5.4).

5.3 Apparent life-threatening events

The term apparent life-threatening event (ALTE) was introduced in 1986 by the National Institutes of Health Consensus Development Conference on Infantile Apnea and Home Monitoring.⁴¹ The term ALTE was introduced to replace other terms such as 'near-miss SIDS' or 'aborted cot death' that misled people into thinking that there was a direct association between these symptoms and sudden infant death syndrome (SIDS). The consensus conference defined ALTE as being a combination of the following symptoms:

- apnoea – usually no respiratory effort (central) or sometimes effort with difficulty (obstructive)
- colour change – usually cyanotic or pallid, but occasionally erythematous or plethoric (red)
- marked change in muscle tone (usually limpness or rarely rigidity)
- choking or gagging.

This review examines the evidence linking ALTEs with maltreatment.

Overview of available evidence

A total of 201 articles (194 from the main search and seven from bibliographies) were identified and 60 articles were selected for detailed assessment. Of these, one systematic review and 11 additional studies have been included in the review.

Narrative summary

One systematic review (eight papers; search undertaken in 2002) assessed the initial diagnosis given when infants presented with an ALTE.⁴² The review included eight studies involving 643 infants seen in emergency departments or paediatric units. The study calculated that 0.6% to 0.8% of emergency admissions for infants were for ALTE. A total of 728 diagnoses covering 50 conditions were reported, of which 227 were gastro-oesophageal reflux disease (GORD), 169 were unknown, 83 were seizures, 58 were lower respiratory tract infection, 26 were ear, nose and throat (ENT) problems, 17 were breath-holding, 11 were metabolic disease, 11 were ingestion of toxins or drugs, eight were urinary tract infection (UTIs), six were cardiac problems, five were benign cause, and two were fabricated illness (0.3% of children). The study concluded that careful investigation of ALTE is needed because of many possible causes. [EL = 2+]

A prospective cohort study ($n = 44184$) undertaken in Austria investigated the epidemiology of ALTE.⁴³ The study identified 164 cases of ALTE, or 2.46 per 1000 live births. An underlying cause was identified in 91 of 164 cases (55%): 29% were respiratory, 22% were digestive (gastrointestinal) tract, 2% were congenital cardiac malformation, 1% were inborn metabolic errors and 1% were convulsions. The study made no conclusions in relation to child maltreatment. [EL = 3]

A prospective cohort study ($n = 340$) undertaken in Australia examined the diagnosis of ALTEs: 289 of 340 had a diagnosis of which 211 were GORD, 17 were airway pathology, 25 were fits/seizures, two were brain-stem tumours, two were hypoglycaemia, eight were respiratory syncytial virus, five were fabricated or induced illness (FII) (1.7% of those diagnosed, 1.5% of total) and 27 were abnormal pneumograms (11 with reflux).⁴⁴ Fifty-one had no abnormal finding. The study made no conclusions in relation to child maltreatment. [EL = 3]

A prospective case series ($n = 128$) from the USA of children younger than 24 months presenting at a single emergency department examined the diagnosis applied to cases of ALTE.⁴⁵ Of the 128 cases of ALTE, 51 were GORD, 38 were apnoea, 11 were choking episode, six were infection, five were bronchiolitis, five were upper respiratory infection, four were seizures, three were abuse (2.3% of total), three were swallowing disorder and two were breathing-holding

spell. The study concluded that abuse was diagnosed in 2.3% of cases of ALTE and this should be considered in patients who present with ALTE. [EL = 3]

A prospective case series ($n = 157$) from the UK of children (aged 1 week to 96 months) presenting once or more in one hospital setting examined the diagnosis applied to cases of ALTE.⁴⁶ The study reported that, of the 157 reported cases, 80 had no diagnosis. Of those diagnosed, two had disturbances in skin perfusion, seven had fabricated illness (9% of those diagnosed and 4% of the total), 18 had suffered suffocation (23% of those diagnosed and 11.5% of the total), 40 had hypoxaemic events with no evidence of suffocation or epilepsy, and ten had hypoxaemia induced by epilepsy. The study concluded that identification of mechanisms is essential to the appropriate management of infants with ALTEs. [EL = 3]

A prospective case series ($n = 243$) of infants younger than 12 months admitted to one tertiary unit in the USA examined the diagnosis given to cases of ALTE.⁴⁷ The study found 35 different causes for ALTE. Of the total cases, 80 were caused by infection, 69 were gastrointestinal, 32 were neurological including six (2.5% of total) abusive head injuries within this group, seven were airway obstruction, six were congenital or birth-related problems, 39 had an unknown cause, three were breath-holding spells, two were periodic breathing and one was vasovagal response. The study concluded that a wide spectrum of diseases and disorders can precipitate an ALTE. In relation to maltreatment, the study concluded that 'Among them, abusive head injury, a recently recognized cause, occurs frequently enough to obligate its inclusion in the differential diagnosis.' [EL = 3]

A retrospective case series ($n = 60$) from the USA examined the diagnosis applied to infants with ALTE.⁴⁸ The study setting was a single emergency medical service (EMS) over a 12 month period. The study found that 60 (7.5%) of 804 infants encountered met the criteria for ALTE (absence of breath, colour change, change in muscle tone). The diagnoses applied to these cases were: 20 (33%) had no diagnosis, seven (12%) were pneumonia or bronchiolitis, six (10%) were GORD, five (8%) were seizures, four (7%) were sepsis, four (7%) were upper respiratory infection, three (5%) were apnoea episodes, two (3%) were intracranial haemorrhage, two (3%) left against advice, one (2%) was bacterial meningitis, one (2%) was dehydration and one (2%) was severe anaemia. Furthermore, 35% of the 60 infants had been diagnosed with underlying conditions. The study reported one case of intracranial injury caused by maltreatment, but highlighted that in 20 cases no diagnosis was made and in two cases the parents left against medical advice. The study concluded that 'An apparent life-threatening event in an infant can present without signs of acute illness and is commonly encountered in the EMS setting. It is often associated with significant medical conditions, and EMS personnel should be aware of the clinical importance of an apparent life-threatening event. Infants meeting criteria for an apparent life-threatening event should receive a timely and thorough medical evaluation.' [EL = 3]

A retrospective case series ($n = 73$) of infants (mean age 7.4 weeks) who were seen at a single apnoea programme in the USA reported that 47 infants had negative investigation, 17 had recurrent events but no diagnosis, five had respiratory infection, two had GORD, one had pallid syncope and one had tracheal stenosis.⁴⁹ [EL = 3]

A retrospective partially controlled case study ($n = 85$) from the UK compared the medical and family history of maltreated children (30 of 39 children with maltreatment confirmed by covert videoing) and non-maltreated children (46 children with confirmed respiratory disease or epilepsy) presenting with ALTE.⁵⁰ The mean age of maltreated children when they first presented with ALTE was 3.6 months. The study found that in the 41 siblings of the maltreatment group there were 12 unexpected deaths compared with one unexpected death among the 52 siblings of the control group ($P < 0.0001$). [EL = 2-]

A survey of 11 apnoea monitoring programmes and four apnoea monitoring device vendors in the USA examined reports of infant deaths.⁵¹ Over a 5 year period, 1841 children were monitored. There were 25 reported deaths in this group: 13 due to SIDS, four due to non-accidental trauma (0.2% of total), six due to sudden unexpected death at home, one due to subarachnoid haemorrhage and one caused by cardiac disease. The study reported no specific conclusions relating to maltreatment. [EL = 3]

A retrospective case series ($n = 28$) from the USA of children who suffered proven non-accidental head injury examined their presentation and outcome.⁵² Of the children examined, only three were aged 1 year or over. The results showed that 16 of 28 presented with apnoea. Of those who presented with apnoea, 57% had a history of apnoea and 71% had previous seizures within 24 hours. The study found that 12 were left with severe disability, four died, one was in a vegetative state and seven survived. The authors concluded that trauma-induced apnoea is more important to outcome than the mechanism of injury. [EL = 3]

A survey of 51 of 127 ($n = 20\,090$) apnoea monitoring programmes in the USA investigated the prevalence of FII. The results showed that 54 (0.25% of total) cases of FII were reported. The mean age of infants with this diagnosis was 8.2 weeks. Detailed information on 32 of these cases showed that 18 were re-hospitalised between one and four times, 13 were re-hospitalised five or more times and one was unknown. The study concluded that FII presents as unexplained multiple, serious apnoea events occurring in the presence of only one person (not witnessed).⁵³ [EL = 3]

Nasal bleeding

A systematic review of nasal bleeding in deliberate suffocation was identified. Studies that were found in the literature search often reported post-mortem findings; this is beyond the scope of the guidance.

A systematic review of associations between nasal bleeding and deliberate suffocation in infants identified six studies that reported on facial bleeding, of which it appears that four are of children who were dead on presentation.⁵⁴ A case-control study of ALTEs found nine deliberate suffocation patients with nasal bleeding ($n = 30$) and no children with nasal bleeding in the group suffering ALTE from medical causes ($n = 46$). A case series of children with recurrent ALTE reported 12 of 138 children with facial bleeding. [EL = 2+]

Evidence statement

Evidence from one systematic review, six prospective case series, three retrospective case series and two surveys were included in the review. The evidence shows that ALTEs account for 0.25% to 0.8% of emergency hospital attendances. Studies showed that infections, gastrointestinal problems, seizures and 'unknown' causes were the most common diagnosis applied, accounting for 545 of 728 diagnoses in the systematic review. The evidence shows that maltreatment is diagnosed in 0% to 15.5% of cases, but these figures were dependent on the aim of study, date of study, patient population and the investigations undertaken. One survey of apnoea monitoring programmes showed that 18 of 32 (56%) of infants who were subject to FII were readmitted to hospital on multiple occasions.

GDG considerations

There are many causes of ALTEs and the literature suggests that an ALTE due to maltreatment is rare. However, the high number of children with unknown diagnosis represents a potentially hidden population of maltreated children. The GDG found no clear evidence on the significance of multiple ALTE presentations in an individual child. Drawing on their collective clinical experience, the GDG believes that multiple ALTE presentations in the absence of a medical cause indicates a reason to be increasingly concerned about maltreatment. The GDG believes that a child who has had repeated ALTEs that have only been witnessed by one parent or carer can be at risk of serious harm and therefore this presentation represents a reason to suspect maltreatment.

The systematic review of nosebleeds in infants shows that nosebleeds can occur in cases of deliberate suffocation. The GDG believes that a nosebleed in an infant in conjunction with an ALTE should prompt investigations into the cause of these events.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on apparent life-threatening events

Suspect* child maltreatment if a child has repeated apparent life-threatening events, the onset is witnessed only by one parent or carer and a medical explanation has not been identified.

Consider* child maltreatment if an infant has an apparent life-threatening event with bleeding from the nose or mouth and a medical explanation has not been identified.

5.4 Poisoning

Intentional poisoning is an unusual manifestation of child abuse which is difficult to diagnose because of the variation in presenting signs and symptoms.⁵⁵ In this review we sought to identify features of or indicators for intentional poisoning by establishing how intentional poisoning differs from accidental poisoning.

Overview of available evidence

No relevant evidence that fulfilled the inclusion criteria was identified.

GDG considerations

The GDG's opinion is that the clinical signs and symptoms of poisoning do not differ between accidental and intentional poisoning and therefore concluded that it is of utmost importance to identify indicators relating to the circumstances and context of the poisoning incident.

The result of a biomedical investigation in a child may reveal that the child has hypernatraemia. This can be a result of, for example, diarrhoea and vomiting, over-concentrated preparations of formula feeds or deliberate salt poisoning. The GDG believes that the cause of hypernatraemic dehydration should be elicited and maltreatment excluded if appropriate and therefore recommends that maltreatment be considered if a child has hypernatraemia.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on poisoning

Suspect* child maltreatment in cases of poisoning in children if:

- there is a report of deliberate administration of inappropriate substances, including prescribed and non-prescribed drugs *or*
- there are unexpected blood levels of drugs not prescribed for the child *or*
- there is reported or biochemical evidence of ingestions of one or more toxic substance *or*
- the child was unable to access the substance independently *or*
- the explanation for the poisoning or how the substance came to be in the child is absent or unsuitable* *or*
- there have been repeated presentations of ingestions in the child or other children in the household.

Consider* child maltreatment in cases of hypernatraemia (abnormally high levels of sodium in the blood) and a medical explanation has not been identified.

5.5 Non-fatal submersion injury (near-drowning)

Children occasionally present to medical services after they have experienced a submersion event that is potentially fatal. If they survive the submersion event, the case has in the past been labelled a near-drowning event. Children can be left disabled owing to brain asphyxia after such an event. Such episodes are not trivial. A child can suffer a submersion injury in any amount of

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

water. The youngest children are at risk from buckets of water, water in the domestic bath and garden ponds. Older children who have a greater degree of independence can drown or suffer submersion injuries in rivers, canals or unsupervised swimming pools.

When assessing whether a non-fatal submersion injury case could have arisen from child maltreatment, consideration needs to be given to whether levels of adult supervision were appropriate for the age and developmental level of the child or whether there are any indications that the submersion was deliberate.

Overview of available evidence

One case series was identified.

Narrative summary

A case series ($n = 205$, ages younger than 19 years) sought to improve the understanding and recognition of inflicted paediatric submersion in children who sustained submersion injury and were hospitalised or autopsied.⁵⁶ All events were categorised as either having been inflicted or unintentional through a review of abstracted case scenarios by two paediatricians using pre-established criteria. Sixteen submersions were judged to have been inflicted and 186 as having been unintentional. Two cases were confirmed as having been intentional submersions. In the inflicted submersion group, all children were younger than 5 years.

By comparing these two groups, it was found that submersions were four times more likely to occur in bathtubs than in other sites (RR 4.14; 95% CI 2.35 to 7.29 according to our own calculations from published data; the given RR was 6.28; 95% CI 2.51 to 15.69) The data published showed that nine of 16 bathtub submersions were inflicted and 25 of 184 were unintentional.

There were no differences found between inflicted and unintentional submersions in the duration of submersion. In general, the numbers in the inflicted group were very small and therefore differences between the groups are difficult to verify. Only two cases were confirmed as being inflicted. The authors concluded that unexplained physical injuries, developmental implausibility or changing history are the main features for the recognition of inflicted submersion. [EL = 3]

Evidence statement

One study suggests that it is difficult to distinguish inflicted from unintentional submersions.

GDG considerations

The GDG believes that a non-fatal submersion injury due to maltreatment can be caused by deliberate submersion or can occur as a result of lack of supervision. The account of the incident is key in determining the probability that maltreatment has occurred and suspicion should be raised when the account is inconsistent with the injuries. A drowning incident could also give reason to suspect maltreatment but unexpected child deaths are addressed by processes that are beyond the scope of this guidance.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendations on non-fatal submersion injuries (near-drowning)

Suspect* child maltreatment if a child has a non-fatal submersion incident (near-drowning) and the explanation is absent or unsuitable* or if the child's presentation is inconsistent with the account.

Consider* child maltreatment if a non-fatal submersion incident suggests a lack of supervision.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

5.6 Attendance at medical services

There are a number of reasons why maltreated children are thought to attend frequently at healthcare services. The first is that overt physical injuries, either inflicted or due to inadequate supervision, are likely to need treatment and maltreatment is unlikely to be an isolated incident. Secondly, children in whom illness has been fabricated or induced are likely to be presented frequently to health services.

Overview of available evidence

A systematic review and a comparative study were identified that considered repeated healthcare use as a sign of maltreatment.

Narrative summary

A systematic review that searched for studies that reported repeat attendances at accident and emergency departments (A&E) for injury in physically abused and non-abused injured children attending A&E found no relevant studies.⁷ Three studies were identified but excluded because of the way in which abused children were identified. Using a data set on injured children admitted for suspected physical abuse and a separate data set on re-attendance at hospital for injuries regardless of abuse status (both from the UK), estimates of re-attendance were calculated. Of 108 children attending A&E with an injury due to suspected abuse, 22 re-attended at least once with an injury. In a database of injured children regardless of abuse status, between 20% and 49% of pre-school injured children re-attended A&E with an injury within 12 months of the initial visit; 13% to 21% had at least three injury-related visits in a year. [EL = 2+]

A longitudinal study from the USA was identified that aimed to determine whether injury-related emergency department visits among children younger than 5 years were associated with child maltreatment reports.⁵⁷ During one calendar year, there were 56 364 injury visits by 50 068 children. Sexual assault cases were excluded from the study. The relative risk of having a substantiated report of physical abuse or neglect was 2.5 (95% CI 2.1 to 2.9) when children attended for two different injuries compared with one. For children with three injuries, the relative risk was 2.3 (95% CI 1.5 to 3.6) and for children with four or more injuries, the relative risk was 4.7 (95% CI 2.4 to 9.2). [EL = 2+]

Evidence statement

According to the systematic review, there is no UK-based published study that addresses the rate of previous attendance at A&E departments for injury in physically abused children in comparison with non-abused children. A recent US longitudinal data linkage study found a strong link between repeated attendance and substantiated maltreatment, suggesting that there is an increased tendency for children who have been maltreated to have sought medical opinion more often than non-abused children. Indirect data from the UK suggest that it is not uncommon for pre-school children to re-attend at A&E in a 12 month period irrespective of abuse status.

Delphi consensus (see also Appendix C)

The GDG sought the opinions of the Delphi panel on this topic. The following statements were drafted:

Statement number	Round 2	% agreed	n	Outcome
35a	Healthcare professionals should consider child maltreatment when they become aware of an unusual pattern of presentation to, and contact with, healthcare providers.	76	84	Statement accepted.
36a	Healthcare professionals should consider child maltreatment when they become aware of frequent presentations or reports of injuries.	92	84	Statement accepted.

GDG considerations

Several studies of children who have sustained abusive fractures, thermal injury, inflicted head trauma and sexual abuse (see Section 4.1.8 on fractures, Section 4.1.5 on thermal injuries, Section 4.1.9 on intracranial injuries and Section 4.2 on anogenital signs, symptoms and infections) suggest that these maltreatments are repeated or ongoing. It is therefore likely that frequent presentation with injury is suggestive of child abuse.

The GDG considered that data from other countries could not be extrapolated directly to the UK population of children and young people. This is based on the fact that non-UK-based studies were conducted in health service settings with configurations and support infrastructures different to those found in the NHS. However, the relevant data were discussed by the GDG and used to inform their consensus-based recommendation.

The GDG believes that there are many innocent reasons why children may re-attend, so frequent re-attendance should not prompt an immediate suspicion of maltreatment without an examination of the circumstances.

The GDG sought the opinions of the Delphi panel on this recommendation and sufficient agreement was reached (see above and Section C.2.9).

Recommendation on attendance at medical services

Consider* child maltreatment if there is an unusual pattern of presentation to and contact with healthcare providers, or there are frequent presentations or reports of injuries.

5.7 Fabricated or induced illness

Fabricated or induced illness (FII) has had a number of names and a number of definitions. It is considered a form of physical abuse under the *Working Together to Safeguard Children* definition (see Section 2.6 on definitions of child maltreatment).¹ Münchhausen syndrome by proxy (MSBP) and factitious disorder by proxy are also referred to in the literature under this subheading. FII is difficult to identify because the fabrications, usually by a parent or carer, are usually denied, often intricate and believable. This form of maltreatment can cause children to undergo unnecessary investigations and treatments, including surgery. Many of the illnesses that are fabricated or induced present as common childhood problems; many of the children also suffer from genuine or naturally caused conditions, which complicate diagnosis further. At the time of writing, the RCPCH is due to publish a detailed document on the recognition and management of FII. There are separate reviews on ALTE (Section 5.3), poisoning (Section 5.4) and suffocation (Section 5.3).

Overview of available evidence

A number of systematic reviews were identified that brought together case reports of MSBP.

Narrative summary

A systematic review was identified that synthesised data on 451 cases of MSBP found in the literature between 1972 and 1999.⁵⁸ This review was an update of a paper published in 1987 that included 117 cases.⁵⁹ The mean age at diagnosis was 48.6 months (range 0–204 months) ($n = 404$) and 52% of cases were male. The estimated time between onset and diagnosis was 21.8 months (range 0–195 months) ($n = 201$). In 78.5% of cases, the perpetrator was the mother and in 6.7% of cases it was the father. Within the reports, children had, on average, three medical problems reported (range up to 19 per child). The most commonly reported symptom was apnoea (26.8% of case reports), followed by diarrhoea (24.6%) and seizures (17.5%). Seventy-six other symptoms were recorded in this case series and included behaviour (not defined), asthma, allergy, fevers, unspecified pain, infection and bleeding. Symptoms were induced in 57.2% of cases, and nearly half of these were induced while the child was in

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

hospital. While the synthesis of information in this review is of high quality, reporting bias in case reports must be considered. [EL = 2+ +]

A second systematic review searched for cases of MSBP that occurred outside the main countries where it is known to be well documented (the UK, the USA, Canada, Australia and New Zealand).⁶⁰ In 59 articles from 24 countries, 122 cases were identified. Some of these also appeared in the review cited above. The mother was the perpetrator in 86% of cases, the father in 4%, a spouse unrelated to the child in 4% and the grandmother in 2% ($n = 93$). The majority of children were aged between 3 and 13 years (52%) with 26% younger than 3 years and 12% aged 13 years or over; 9% were adults ($n = 76$). Male children comprised 54% of cases ($n = 81$). Counts were not given on the different presentations but the authors commented on similarities in distribution with other systematic reviews. A dissimilarity in the prevalence of induced apnoea was noted. [EL = 2+ +]

A narrative systematic review⁶¹ summarised the two articles above and added information from a study by Folks⁶² in which two patterns of presentation were identified: apnoea, seizures and cyanosis or diarrhoea, and vomiting, nausea and bone and joint problems. The most common forms of assault were suffocation, giving drugs and poisoning. The authors also noted the wide variety in fabricated illnesses. Histories of multiple hospitalisations and repeated medical investigations were also mentioned in cases of FII. [EL = 2+ +]

A study from the Netherlands identified cases of MSBP from the literature in paediatric gastroenterology patients.⁶³ The authors gave details of the mechanisms of fabrication and the medical investigations that were undertaken. No data were presented on the cases identified. [EL = 2-]

One study sought out cases of MSBP in children aged 6 years or over.⁶⁴ The authors identified nine cases from their clinic over a 2 year period (2001–2003) and 42 from the literature (1966–2002) and the oldest patient was 17 years (mean age across both groups was 9.3 years) ($n = 41$ as data were only available on 32 cases from the literature). False reporting occurred in all of the clinic cases ($n = 9$) and in 62% of the literature sample. [EL = 2-] Many of the cases from the literature are addressed in the systematic review discussed at the start of this section.⁵⁸

A retrospective chart review of 24 years detailed presenting complaints and associated falsified or induced conditions in cases of paediatric condition falsification.⁶⁵ Comparisons were made between cases where there was a history of allergy, asthma, sinopulmonary infections, ENT surgery or drug sensitivity ($n = 71$) and other cases of paediatric condition falsification ($n = 33$). Presenting features were asthma, sinopulmonary disease or hearing loss (14 children), CNS disease/seizure (23), apnoea (17), gastrointestinal symptoms (15), other infections (eight), failure to thrive (five), sexual abuse (two), immune dysfunction (one) and other (three). Associated falsified or induced conditions included haematological bleeding, infections, vomiting, diarrhoea, failure to thrive, apnoea, seizures and a number of others. [EL = 3]

Evidence statement

Studies that bring together reported cases of FII suggest that the most common presentations are apnoea, diarrhoea and seizures. Males are no more likely than females to be subject to this type of maltreatment and the perpetrator is the mother in most cases.

GDG considerations

The complexity of FII suggests that a case is unlikely to cause suspicion on first presentation to a healthcare professional as the histories that perpetrators provide are often intricate, knowledgeable and believable. Common methods of inducing illness are smothering and poisoning but any symptom or sign can represent FII. The GDG's clinical experience suggests that FII may only be diagnosed once there has been recognition that there are inconsistencies in the history, presentations and assessment findings. The GDG found descriptions of the indicators of FII made in *Working Together to Safeguard Children*¹ and its supplementary guidance⁶⁶ to be good representations and has adapted them for use here.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on fabricated or induced illness

Consider* fabricated or induced illness if a child's history, physical or psychological presentations or findings of assessments, examinations or investigations leads to a discrepancy with a recognised clinical picture. Fabricated or induced illness is a possible explanation even if the child has a past or concurrent physical or psychological condition.

Suspect* fabricated or induced illness if a child's history, physical or psychological presentations or findings of assessments, examinations or investigations leads to a discrepancy with a recognised clinical picture and one or more of the following is present:

- Reported symptoms and signs only appear or reappear when the parent or carer is present.
- Reported symptoms are only observed by the parent or carer.
- An inexplicably poor response to prescribed medication or other treatment.
- New symptoms are reported as soon as previous ones have resolved.
- There is a history of events that is biologically unlikely (for example, infants with a history of very large blood losses who do not become unwell or anaemic).
- Despite a definitive clinical opinion being reached, multiple opinions from both primary and secondary care are sought and disputed by the parent or carer and the child continues to be presented for investigation and treatment with a range of signs and symptoms.
- The child's normal daily activities (for example, school attendance) are being compromised, or the child is using aids to daily living (for example, wheelchairs) more than would be expected for any medical condition that the child has.

Fabricated or induced illness is a likely explanation even if the child has a past or concurrent physical or psychological condition.

Research recommendation on fabricated or induced illness

Are the indicators of fabricated or induced illness as described in the recommendations valid for discriminating fabricated or induced illness from other explanations?

Why this is important

Although the alerting signs have been developed based on clinical experience and are considered clinically useful in detecting fabricated or induced illness, there is a need to establish their discriminant validity. This could be achieved by a prospective longitudinal study.

5.8 Inappropriately explained poor school attendance

All children of compulsory school age (the term following a child's fifth birthday to the end of the school year in which they turn 16) must receive a suitable full-time education. Parents are legally responsible for ensuring that this is the case, either at a school or by making other arrangements in conjunction with the local authority. All schools must keep attendance registers and so can provide data about individual children.

GDG considerations

A literature search was not conducted in this area as an evidence base in the medical literature was not expected. Poor school attendance or persistent lateness may constitute neglect of the child's education due to parental/carer failure to ensure that their child attends school. The stated reason for the poor attendance may be ill health and this may or may not be valid. The GDG believes that, in some circumstances, these absences may be due to fabricated illness and may go unnoticed by the school as ill health is an accepted reason for absence. The GDG notes that this is an uncommon occurrence but maltreatment should be excluded in these circumstances.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendation on inappropriately explained poor school attendance

Consider* child maltreatment if a child has poor school attendance that the parents or carers know about that has no justification on health, including mental health, grounds and formally approved home education is not being provided.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

6 Neglect – failure of provision and failure of supervision

The harm that can be caused to children by directly abusive actions of their parents or carers is often the most easy to recognise and to understand how such actions are harmful to children, as in the cases of physical abuse, sexual abuse and more dismissive forms of emotional abuse. However, children require more from their parents and carers than for them to desist from abusive actions; they need to recognise and effectively respond to their developing needs. Neglect is the most common reason for being deemed to need a child protection plan in the UK and this chapter aims to support all healthcare professionals in the recognition of it.

Neglect can be conceptualised as a process involving accumulating risk to the child due to a failure to provide or omission rather than actual incidents of abuse. It is a persistent failure to meet the child's or young person's needs that may or may not be wilful.

Neglect is defined as the persistent failure to meet a child's basic physical and/or psychological needs and which is likely to result in the serious impairment of the child's health or development. Neglect may involve a parent or carer failing to:

- provide adequate food, clothing and shelter (including exclusion from home or abandonment)
- ensure access to appropriate medical care or treatment
- ensure adequate supervision to protect a child from physical and emotional harm or danger (including the use of inadequate caregivers)

It also includes neglect of, or unresponsiveness to, a child's basic emotional needs.

While there are obvious variations in parenting styles, extreme failure to recognise and respond to such needs can lead to neglect and cause children's development to be harmed. This can include their physical wellbeing, more general physical and motor development, cognitive and intellectual development, speech and language development, behavioural development, emotional development and social development, and children's health needs can be compromised if parents or carers fail to recognise and respond appropriately to changes in children's physical presentation or persistently fail to respond to advice from healthcare professionals once health concerns in children are recognised.

There is a wide range of responsibilities taken on by parents and carers and it is readily recognised that there are obvious variations in how parents and carers set about the task of caring and bringing up their children. The knowledge that a child's development can be harmed in extreme and persistent cases of their needs being unmet emphasises that neglect is just as important an element of child maltreatment as more active acts of abuse. Established neglect equates to serious harm to the child or young person, and indications of it should be not ignored.

It may be difficult to disentangle the physical privation of material poverty from the privation of emotional poverty. Professionals may also find it difficult to make judgements about vulnerable parents/carers. There is a danger that the parents/carers may become the primary client in an attempt to empower and support them while the risk to the child is accumulating. Thus, decision-making in situations of apparent neglect can be very difficult and 'thresholds' hard to establish. There is no diagnostic 'gold standard' for neglect. Nevertheless, it is thought that the

effects of neglect on the child can be irreversible. The need to place the child or young person at the centre of the assessment is paramount.

The aspects of neglect relevant to healthcare professionals have been divided in this chapter into three categories where a child or young person is being failed in relation to:

- provision of basic needs
- ensuring access to appropriate medical care or treatment
- ensuring adequate supervision.

Neglect of the basic emotional needs of children is addressed in Chapter 8.

6.1 Provision of basic needs

6.1.1 Provision within the home

Overview of available evidence

One study was identified that investigated cognitive development in neglected children. The particular aspect of neglect was not stated.

Narrative summary

A longitudinal study was identified that investigated cognitive development in extremely low birthweight infants ($n = 352$, 52 referrals for maltreatment).⁶⁷ Cognitive development was assessed at ages 1, 2 and 4 years. Of the children referred for maltreatment, 32 were referred before the 4 year assessment and of these, 16 were referred before the age of 5.5 months. Twenty-seven children were reported on more than one occasion. At age 4 years, children ($n = 269$, of whom 21 were referred for neglect) were assessed with the General Cognitive Index (GCI) and neglected children were found to score statistically significantly lower than all of the other children in the study (difference of 17.6 points, 95% CI 3.3 to 31.9). [EL = 2+]

Evidence statement

One low-quality study implies that there is an association between neglect and impaired/delayed cognitive development in extremely low birthweight infants; confidence intervals are wide because of the small numbers in the neglect group and therefore this study is not conclusive.

GDG considerations

The GDG recognised that the responsibilities of parenthood and caring for children are daunting and this is especially so for those who find themselves in disadvantaged positions, or who are experiencing financial and material hardship. It may be difficult to distinguish between neglect and material poverty but persistent failure to provide for basic needs is integral to neglect. Care must be taken to balance a recognition of the constraints on the parents' or carers' ability to adequately meet their children's needs for food, clothing and shelter with an appreciation of how others in similar circumstances have been able to meet those needs in an adequate manner. The GDG were aware that some families face great adversity. However, aspects of neglect cannot be dismissed because the cause is understood. The child or young person should be placed at the centre of the assessment process.

Neglect is also a marker of serious vulnerability. The GDG acknowledged that the persistent failure to be provided with, for example, a clean school uniform or never being provided with a deodorant is recognised as unacceptable to children and young people and can lead to serious vulnerability.

The GDG concluded that some markers of neglect should cause the healthcare professional to be concerned about the child and to follow the process of 'consider' in this guidance. These markers include severe and persistent infestations, such as scabies or head lice, and consistently inappropriate clothing or footwear. The GDG appreciated that children may have persistent infestations that would not be considered as neglect. However, the persistent failure of a parent or carer to do something about infestations would be an important marker of neglect and alert

the professional to be concerned. Similarly, one-off instances of inadequate clothing (such as children getting wet in the rain or wearing slippers as they happened to be closest to hand when leaving the house in a rush) would not be considered as neglect.

The GDG also acknowledged experience from serious case reviews that possible neglect can alert the healthcare professional to other forms of maltreatment that should at least prompt the process of 'consider' in this guidance (see Section 3.2). The process of consideration and follow up, as described in this guidance, may lead to a serious level of concern that prompts the professional to follow the process of 'suspect' neglect in this guidance.

The GDG concluded that healthcare professionals may in some instances infer repeated indications of possible neglect from a single contact with a child or young person and in such circumstances the professional should follow the process of 'suspect'. The nature of the child's smell may be so overwhelming that the possibility of persistent lack of provision or care should be taken into account. Examples include children or young people seen at times of the day when it might be expected the child would not have had an opportunity to become dirty (as in a visit early in the morning) and in those cases where the dirtiness is more than superficial, (as in ingrained dirt under fingernails or a school uniform that the child turns back to front or wears inside out to hide the dirt). Persistent neglect may also be inferred from a single encounter of poor standards of hygiene (such as urine-soaked mattresses) that are very likely to indicate that a child's health may be affected.

The GDG concluded that repeated inadequate provision of food and children being exposed to physical circumstances that are inappropriate or unsafe for the child's developmental stage represent examples of failure to meet a child's basic physical needs. In addition, the GDG highlighted that abandonment of a child or young person is a form of maltreatment.

Recommendations on neglect (provision within the home)

Introduction to the recommendations on neglect

Neglect is a situation involving risk to the child or young person. It is the persistent failure to meet the child or young person's basic physical or psychological needs that is likely to result in the serious impairment of their health or development. This may or may not be deliberate. There are differences in how parents and carers choose to raise their children, including the choices they make about their children's healthcare. However, failure to recognise and respond to the child or young person's needs may amount to neglect.

There is no diagnostic gold standard for neglect and therefore decision-making in situations of apparent neglect can be very difficult and thresholds hard to establish. It is essential to place the child or young person at the centre of the assessment.

Consider* neglect if a child has severe and persistent infestations, such as scabies or head lice.

Consider* neglect if a child's clothing or footwear is consistently inappropriate (for example, for the weather or the child's size).

Instances of inadequate clothing that have a suitable explanation (for example, a sudden change in the weather, slippers worn because they were closest to hand when leaving the house in a rush) would not be alerting features for possible neglect.

Suspect* neglect if a child is persistently smelly and dirty.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Children often become dirty and smelly during the course of the day. However, the nature of the child's smell may be so overwhelming that the possibility of persistent lack of provision or care should be taken into account. Examples include:

- *child seen at times of the day when it is unlikely that they would have had an opportunity to become dirty or smelly (for example, an early morning visit)*
- *if the dirtiness is ingrained.*

Suspect* neglect if you repeatedly observe or hear reports of the following home environment that is in the parents' or carers' control:

- a poor standard of hygiene that affects a child's health
- inadequate provision of food
- a living environment that is unsafe for the child's developmental stage.

It may be difficult to distinguish between neglect and material poverty. However, care should be taken to balance recognition of the constraints on the parents' or carers' ability to meet their children's needs for food, clothing and shelter with an appreciation of how people in similar circumstances have been able to meet those needs.

Be aware that abandoning a child is a form of maltreatment.

6.1.2 Malnutrition (over- and under-nutrition)

Under-nutrition due to inadequate calories and other nutrients and over-nutrition leading to obesity can have adverse short- and long-term health consequences for children. Both are usually defined through centile growth charts, either by plotting height, weight and head circumference or by calculating and plotting body mass index (BMI). In under-nutrition, weight is affected before height. There is no clear cut-off centile for under-nutrition; although weight below the 2nd centile suggests under-nutrition, some congenital medical conditions or genetic factors can cause this and an assessment of the child as a whole is necessary. A child is obese when their weight is on a centile well above their height centile, although over-nutrition also causes acceleration in height. Obesity in children is defined as those with a BMI on or above the 98th centile of the UK 1990 reference chart for age and sex.^{68,69}

Overview of available evidence

A total of 1072 articles were identified and 67 articles were selected for detailed assessment. Five articles were included in the final review. A detailed description of each study is provided below.

Narrative summary

A cohort study ($n = 260$) undertaken in the UK compared the growth patterns of maltreated children (diagnosis based on case conference and social services intervention) based on remaining at home or entering foster care.⁷⁰ The study found that, of the 260 children, 39 had height greater than two standard deviations (SD) below mean for the cohort, and 21 had weight greater than two SD below mean for cohort. The study reported that 10 of 11 children in foster care compared with four of 28 children who remained at home showed 0.5 SD increase in height ($P = 0.001$). However, eight of 16 children who remained at home compared with four of four who were in foster care showed a 0.5 SD increase in weight (not statistically significant). [EL = 3]

A case-control study ($n = 196$) undertaken in the USA compared the growth patterns of children who had been maltreated ($n = 53$, 64.2% female, 86.5% non-white, 84% younger than 5 years) or not ($n = 143$, 51% female, 59.3% non-white, 87% younger than 5 years).⁷¹ The study reported low weight for height in 16.4% of abused and 0.7% of non-maltreated children (OR 16.6; 95% CI 1.9 to 145.0; $P < 0.05$). The study found a low height for age in 11.6% of abused and 5.6% of non-maltreated children (OR 2.2; 95% CI 0.61 to 7.9). All the figures were

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

adjusted for age, sex and ethnicity. The study concluded that malnutrition was found more among abused children than among non-abused children. [EL = 2+]

A cohort study ($n = 2412$) undertaken in the USA assessed the association between obesity (BMI above 95th centile on the USA standard reference charts 2000) and maltreatment (based on parent/carer-child conflict tactics scale: neglect, physical punishment, psychological aggression) in children (aged 3 years, 48.2% female, 19.4% white).⁷² The study found that 23.6% of neglected children were obese compared with 17.5% of children who were not neglected (OR 1.56; 95% CI 1.14 to 2.14; adjusted for maternal BMI and other covariates). For physical punishment the study found that 19.8% of children whose parents reported zero to two incidents per year were obese, 19.8% for those that reported two to six, 18.4% for those that reported seven to 14, 15% for those that reported 15 to 30, and 17.8% for those that reported 31 to 104 (OR 0.94; 95% CI 0.72 to 1.24). For psychological aggression the study found that 19.7% of children whose parents reported zero to five incidents per year were obese, 18% for those that reported six to 16, 17.5% for those that reported seven to 29, 17.4% for those that reported 30 to 49, and 18% for those that reported 50 to 125 (OR 0.90; 95% CI 0.70 to 1.18). The study concluded that neglect was associated with obesity. [EL = 3]

A case-control study ($n = 173$) undertaken in the USA examined the link between childhood sexual abuse (based on child protection services, $n = 84$, 39% minority) or not ($n = 89$, 51% minority) and obesity (BMI above 95th centile on the USA standard reference charts 2000) from childhood to adulthood in females.⁷³ The study found that as children (aged 6–14 years) 25.4% of abused compared with 21.9% of non-abused were obese (OR 1.25; 95% CI –0.05 to 3.00; $P = 0.52$). As adolescents (aged 15–19 years) the figures were 27.9% versus 15.5% (OR 2.03; 95% CI 0.54 to 4.60; $P = 0.09$). [EL = 2+]

A community-based prospective cohort study ($n = 782$ mothers and offspring) undertaken in the USA examined the link between childhood adversity (abuse based on referral to child protection services) and weight problems during adolescence and early adulthood.⁷⁴ Children were interviewed three times over a 10 year period. Ninety-one percent were white and 385 of 782 were female. In addition to maltreatment, the study examined a number of factors such as parenting style, psychiatric problems and socio-economic variables. The study found that five of 24 who reported neglect were obese compared with 36 of 711 who did not report neglect (OR 4.66; 95% CI 1.65 to 13.16). The figures for recurrent weight change and physical abuse were ten of 24 compared with 117 of 711 (OR 3.63; 95% CI 1.58 to 8.36). For recurrent weight change and sexual abuse the figures were nine of 22 compared with 120 of 644 (OR 3.02; 95% CI 1.26 to 7.24). The figures for strict dieting and physical abuse were nine of 24 compared with 120 of 711 (OR 2.96; 95% CI 1.26 to 6.91). The study also undertook subgroup analysis on females. For females, the figures for low body weight and physical abuse were four of 24 compared with 13 of 319 (OR 4.71; 95% CI 1.41 to 15.76). The figures for obesity and physical neglect were three of 14 compared with 14 of 356 (OR 6.66; 95% CI 1.67 to 26.59). The study reported that parental relationship factors were the most significant for eating disorders and weight problems. [EL = 2+]

Failure to thrive

A cohort of children with failure to thrive was identified in Newcastle by population screening over a period of 2 years and was assessed on various demographic measures ($n = 94$, median age at assessment 15 months).⁷⁵ Of the families involved in the study, 21 (22%) were involved with social services; four children were registered at being at risk of abuse or neglect. [EL = 3]

Obesity

The GDG postulated that failure to provide appropriate food may result in obesity. One study was identified that investigated an association between maltreatment and obesity.⁷² Children and their mothers ($n = 2412$) were recruited from a birth cohort study; mothers completed the Parent-Child Conflict Tactics Scale (an instrument designed to measure intra-familial conflict) for measurement of maltreatment, and child obesity was defined as being above the 95th percentile for BMI on the Centers for Disease Control and Prevention 2000 growth reference at age 3 years. Eleven percent of the mothers responded that they had exhibited one of the neglect items in the year before assessment. Eighteen percent of the sample were obese. After controlling for covariates such as birthweight, maternal weight and socio-economic variables,

the odds ratio for obesity associated with neglect was 1.56 (95% CI 1.14 to 2.14). Odds ratios for corporal punishment and psychological aggression were not statistically significant. [EL = 3]

Evidence statement

A total of five studies were reviewed. Meta-analysis was not possible owing to heterogeneity between study types. One study found statistically significant 'catch up' height gain ($P = 0.001$) but not weight gain (not statistically significant) in children who were moved into foster care compared with those who remained at home. A second study found low weight for height in abused compared with non-maltreated children (OR 16.6; 95% CI 1.9 to 145.0) but not low height for age. A third study found that neglected children were more likely to be obese than those who were not neglected (OR 1.56; 95% CI 1.14 to 2.14). No association was found for physical abuse or psychological aggression. A fourth study found no relationship between abuse and obesity (OR 1.25; 95% CI -0.05 to 3.00). A fifth study found links between neglect and obesity (OR 4.66; 95% CI 1.65 to 13.16), recurrent weight change and physical abuse (OR 3.63; 1.58 to 8.36) and sexual abuse (OR 3.02; 95% CI 1.26 to 7.24), and strict dieting and physical abuse (OR 2.96; 95% CI 1.26 to 6.91). For females, the study found links between low body weight and physical abuse (OR 4.71; 95% CI 1.41 to 15.76), and between obesity and physical neglect (OR 6.66; 95% CI 1.67 to 26.59).

In addition, maltreatment is usually found in association with a set of other personal, familial and wider social problems. Therefore, the casual pathway of any statistical association may not be direct.

GDG considerations

While the evidence on associations between maltreatment and over- and under-nutrition is unclear, the GDG concluded that a growth trajectory that differs from normal should prompt queries about child maltreatment when no suitable medical explanation is available. It was noted that obesity is regarded as a public health issue. The GDG therefore decided to focus on faltering growth. However, it was recognised that there can be an overlap between child protection issues, feeding difficulties and medical explanations. The GDG ultimately decided to limit its recommendation to faltering growth because of lack of provision of an adequate or appropriate diet.

Recommendation on neglect (malnutrition)

Consider* neglect if a child displays faltering growth (failure to thrive) because of lack of provision of an adequate or appropriate diet.

6.2 Supervision

Overview of available evidence

One study was identified that investigated the cause of burns in children and young people in the context of neglect.

Narrative summary

A study in a UK burns unit reviewed paediatric (younger than 16 years) burns cases.⁷⁶ 440 children were identified in a 3 year period; concern was raised about the circumstances of the burns in 178 of these. After investigation by a family services team, four were found to be inflicted, 133 were accidental and 41 were considered to be due to neglect. For the purposes of analysis, the inflicted injury patients were excluded and comparisons were made between neglect cases and accidental burn patients. The circumstance of the presentation were addressed: there were statistically significantly more neglect cases that presented more than 24 hours after the injury occurred (49% versus 14%) and first aid was performed in 22% of

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

neglect cases compared with 70% of accidents. Seventy-one percent of the neglect cases had deep burns compared with 54% of the accidental cases ($P = 0.49$) and 76% of neglect cases required skin grafting compared with 41% of the accidental cases ($P < 0.0001$). There were no statistically significant differences in the age of children, gender, anatomical site of burn, mean body surface area affected and the mechanism of injury. [EL = 3] This study is considered in the systematic review¹⁸ cited in Section 4.1.5 on thermal injuries.

Evidence statement

One study found that the majority of burns attributed to maltreatment were due to neglect rather than inflicted injury.

GDG considerations

The GDG considered that a lack of supervision can result from behaviours that involve a failure to 'protect a child from physical and emotional harm or danger' or a failure to 'ensure adequate supervision' (see Section 2.6). Both may arise when a young child is left alone in a situation where they are unable to cope or are given inadequate guidance to avoid hazards. Parents or carers may persistently fail to anticipate dangers and not take adequate safety precautions to protect the child from harm.

The GDG concluded that the consequences of these failings may result in injuries, and that these can become apparent when the explanation for the injury is given. Injuries may include significant scalds and burns from household thermal hazards as identified in the literature, dog bites or attacks if young children are left unsupervised in the presence of a dog, or injuries caused by sunburn because of the long-term harmful effects on children of extended, unprotected exposure to the sun.

The GDG recognised that the responsibilities of parenthood and assuming care of children are daunting, especially for those who parent or care in unsupportive family circumstances or those parents or carers with personal restrictions on their level of functioning or ability to focus on the parenting or caring task. The GDG concluded that the lack of appreciation on the part of the parent or carer of the significance of their failure to supervise, or the lack of a realistic expectation of the individual child's need for supervision, should prompt the healthcare professional to follow the 'consider' process in this guidance.

The GDG also concluded that not being cared for by a person who is able to provide adequate care can be a marker for other forms of maltreatment. The difficulty for the healthcare professional arises in deciding what is adequate supervision at different ages and stages of cognitive development of the child or young person and therefore the GDG advise the healthcare professional to follow the 'consider' process in this guidance as described in Section 3.2.

Recommendations on neglect (supervision)

Supporting information

Achieving a balance between an awareness of risk and allowing children freedom to learn by experience can be difficult. However, if parents or carers persistently fail to anticipate dangers and to take precautions to protect their child from harm it may constitute neglect.

Consider* neglect if the explanation for an injury (for example, a burn, sunburn or an ingestion of a harmful substance) suggests a lack of appropriate supervision.

Consider* neglect if a child or young person is not being cared for by a person who is able to provide adequate care.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

6.3 Ensuring access to appropriate medical care or treatment

6.3.1 Immunisation

Overview of available evidence

One study was identified in the general search that investigated the relationship between immunisation status and maltreatment.

Narrative summary

A comparative case series from the USA was identified that investigated an association between maltreatment and under-immunisation. Immunisation records of children referred to a child advocacy centre were matched with their maltreatment status (confirmed, suspected, ruled out or indeterminate).⁷⁷ Logistic regression controlling for race/ethnicity, medical insurance status and maternal education found a statistically significant association between under-immunisation and confirmed maltreatment (compared with ruled out maltreatment) at 3 months of age (OR 4.0; 95% CI 1.7 to 9.5) and 7 months of age (OR 4.8; 95% CI 1.5 to 15.7). Neglected children were not looked at separately. [EL = 2–]

Evidence statement

One low-quality observational study found a relationship between under-immunisation and maltreatment, but not specifically neglect.

6.3.2 Oral health

Oral health is, according to the World Health Organization, ‘a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity.’⁷⁸

Poor oral health can present as untreated dental caries, gum disease, mouth ulcers or teeth that appear dirty and uncared for. All of these conditions may cause discomfort and distress. Untreated dental caries in a child may indicate failure by parents/carers to seek dental attention and therefore an aspect of neglect as a failure to ensure access to appropriate medical care or treatment. However, it should be remembered that dental caries is a multifactorial disease associated with poor oral hygiene and diet.

Overview of available evidence

Two case–control studies and a case series were identified.

Narrative summary

Two case–control studies from the same research group in the USA compared the oral health of children who had been abused or neglected and those who had not.^{79,80} In both studies, confirmed abuse cases were drawn from the social services register of a major military medical centre and the controls were recruited from a general oral survey of children at the same military base. Controls were matched to cases on age, parental education and parent/carer’s military rank. Outcome measures were presence of any dental caries in the child’s lifetime and presence of untreated decay.

The first study investigated the relationship between abuse and oral hygiene in the primary dentition.⁷⁹ There were 42 cases (age range 3–11 years) and 822 controls. There was no relationship reported between abuse/neglect and ever having had dental caries but the relationship between abuse/neglect and untreated dental caries depended on the type of unit the parent/carer was assigned to. [EL = 2+]

The second study investigated the permanent dentition.⁸⁰ There were 30 cases of child maltreatment and 873 controls (age range 5–13 years). There was no statistically significant difference between abused/neglected children and controls in the presence of lifetime caries (treated or untreated) in children’s permanent teeth (OR 2.20; 95% CI 0.90 to 5.42). It was found to be more likely that children had untreated dental caries if they had been

abused/neglected than if they had not been abused or neglected (OR 8.00; 95% CI 3.90 to 17.7). [EL = 2+]

Both studies were conducted well but the results are not applicable to a general UK population.

Dental records of a group of children ($n = 66$, mean age 4.1 years) under the care of the Children's Aid Society of Toronto were reviewed in a study which compared data on abused/neglected children with population figures.⁸¹ Oral health was measured using the dmft (decayed, missing or filled teeth) index. No children had received dental treatment when they first came into contact with the dental service of the Aid Society. Population figures came from a study of 5-year-olds ($n = 3185$) in the city of Toronto. Fifty-six percent of the study sample had early childhood caries compared with 30% of the population and the mean dmft index was 3.78 (standard error (SE) 0.73) in 4- to 6-year-olds in the study sample and 0.42 (SE 0.02) in the population. [EL = 3]

Evidence statement

The available evidence shows no certainty about the relationship between poor oral health and child maltreatment.

6.3.3 Delphi consensus (see also Appendix C)

The GDG sought validation on the aspect of 'failing to ensure access to appropriate medical care or treatment' to engage the widest possible experience before formal consultation and this was readily available through the Delphi panel. This was deemed desirable for the aspects of medical care or treatment such as administration of interventions, and children and infants who were not presented for medical checks or follow-up appointments.

The following statements were put into the Delphi survey:

Round 1

Statement number	Round 1	% agreed	<i>n</i>	Outcome
28a	Healthcare professionals should consider neglect if parents or carers repeatedly fail to seek and adhere to appropriate medical advice for their children.	91	94	See below for explanation.
29a	These situations can include:	45	92	See below for explanation.
30a	<ul style="list-style-type: none"> ● persistent failure to have a child immunised 	70	94	See below for explanation.
31a	<ul style="list-style-type: none"> ● persistent failure to attend follow-up outpatient appointments 	83	92	See below for explanation.
32a	<ul style="list-style-type: none"> ● persistent failure to treat a child for dental caries 	54	92	See below for explanation.
33a	<ul style="list-style-type: none"> ● persistent failure to adhere to weight management programmes 	93	94	See below for explanation.
34a	<ul style="list-style-type: none"> ● failure to administer essential prescribed medication 	80	94	See below for explanation.
	<ul style="list-style-type: none"> ● delay in seeking medical advice. 			

Statement 29a

The general theme from the comments was that there are two types of parent/carer who do not have their children immunised. Those who choose not to have their children immunised after being provided with information about immunisation were thought not to be neglectful; parents/carers who do not engage in health promotion were thought to be neglectful.

Statement 30a

For non-attendance at follow-up appointments, themes from the comments included:

- it depends on whether the problem has resolved
- it depends why the appointment was made in the first instance.

Statement 32a

The statement about weight management was considered too complex an issue to be categorised as neglect.

Round 2

In Round 2, the GDG chose to separate these items from the umbrella ‘consider’. The statements on dental caries (31a), essential medication (33a) and delay in seeking medical advice (34a) were accepted in principle, but were asked about in Round 2 under the ‘suspect’ category.

The statement on attendance at follow-up appointments (30a) was revised in the light of comments and asked about at ‘consider’ and ‘suspect’ levels.

The issues around weight management were thought be about health promotion and lack of engagement with service provision as a marker of neglect. The GDG therefore drafted a statement to this effect.

Statement number	Round 2	% agreed	n	Outcome
29b	Healthcare professionals should consider neglect if parents persistently fail to engage with the Child Health Promotion Programme, which includes health and development reviews, screening, immunisation, anticipatory guidance about infant/child behaviour, injury prevention, feeding and dietary advice and prevention of obesity.	70	82	Statement rejected but included in modified form for consultation based on comments.
30b(i)	Healthcare professionals should consider neglect if parents or carers persistently fail to attend follow-up outpatient appointments for their children that are essential to the child’s health and wellbeing.	87	83	Accepted at Round 2.
30b(ii)	Healthcare professionals should suspect neglect if parents or carers persistently fail to attend follow-up outpatient appointments for their children that are essential to the child’s health and wellbeing.	64	83	Rejected at ‘suspect’ level (see above)
31b	Healthcare professionals should suspect neglect if parents or carers persistently fail to treat their child’s dental caries.	64	83	Accepted at Round 1 (‘consider’ level)
33b	Healthcare professionals should suspect neglect if parents or carers fail to administer essential prescribed medication for their child.	73	83	Accepted at Round 1 (‘consider’ level)
34b	Healthcare professionals should suspect neglect if parents or carers fail to promptly seek medical advice for their child to the extent that the child’s health and wellbeing is compromised or the child is in ongoing pain.	89	82	Accepted at Round 2

6.3.4 GDG considerations

The GDG sought the opinions of the Delphi panel on all aspects of medical care (see also Section C.2.7). The GDG accepted statements 28a, 30b(i), 31a, 33a and 34b from the Delphi survey.

The GDG discussed examples of essential medication and advised that it should include prescribed treatment that if not administered could have a significant and adverse impact on the child. Although the Delphi process affirmed ‘suspect’, the GDG concluded that a single episode of a failure to administer essential treatment should prompt a healthcare professional to be concerned and follow the ‘consider’ process in this guidance by looking for other alerting features of maltreatment and then looking for collateral information and/or ensuring follow-up, etc. The GDG also confirmed that in some instances the process of ‘consider’ would appropriately take the healthcare professional to ‘suspect’ maltreatment. Examples include medication for diabetes, or anti-convulsants for epilepsy.

The GDG considered the absence of legitimate reasons for non-attendance at follow-up appointments which have been highlighted in several serious case reviews.⁸² The GDG

discussed the legitimate need for professional judgments to be made about appointments that were repeatedly not attended by following the 'consider' process (see Section 3.2). The GDG concluded that this alerting feature could not be ignored and should prompt action within health services. The GDG affirmed the results of the Delphi process.

The GDG considered the Delphi statement on preventive child health promotion programmes (29b). Comments from the Delphi process about informed parental and carer decision-making and the distinction between the two groups of parents were also noted by the GDG. The GDG concluded that parents who made informed choices about immunisation were thought not to be neglectful while those who made no effort to engage or understand the options of healthcare professionals which led to a failure to immunise their child were thought to be neglectful.

The GDG noted that preventive health programmes are established policy within the NHS and wished to support them while balancing a full appreciation of informed parental choice. The GDG also noted the Department for Children, Schools and Families assessment framework for assessing adequate parental care, which states the need to establish that 'the parent has adequate explanation as to why immunisations are not up to date'.⁸³

The GDG considered that parental styles and informed choice can make it difficult for healthcare professionals to make decisions about possible neglect. The GDG concluded that, when followed up, a parent or carer who can explain why immunisations were not up to date would be excluded from consideration of possible neglect.

The GDG affirmed the results of the Delphi panel that failure on the part of a parent/carer to seek or implement dental care such that a child's teeth and oral cavity are in visibly poor health is a reason to consider neglect. The GDG also accounted for lack of access to dental care in its considerations. The GDG therefore adopted Statement 31a from the Delphi survey and modified it to account for variations in availability and access to NHS dental care throughout England and Wales.

The GDG also affirmed the results of the Delphi panel that in cases of failure to seek medical advice, such as cases of ongoing pain, referral to social care was appropriate.

Recommendations on neglect (ensuring access to appropriate medical care or treatment)

Consider* neglect if parents or carers fail to administer essential prescribed treatment for their child.

Consider* neglect if parents or carers repeatedly fail to attend essential follow-up appointments that are necessary for their child's health and wellbeing.

Consider* neglect if parents or carers persistently fail to engage with relevant child health promotion programmes which include:

- immunisation
- health and development reviews
- screening.

Consider* neglect if parents or carers have access to but persistently fail to obtain NHS treatment for their child's dental caries (tooth decay).

Suspect* neglect if parents or carers fail to seek medical advice for their child to the extent that the child's health and wellbeing is compromised, including if the child is in ongoing pain.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

7 Emotional, behavioural, interpersonal and social functioning

All forms of child maltreatment have the potential to compromise a child's emotional, behavioural and interpersonal development. This may occur because of:

- a significant failure of parents/carers to provide adequate stimulation of and responsiveness to a child's developing emotional, behavioural and interpersonal needs, as in cases of neglect
- distorted emotional and interpersonal communications by parents/carers, as in emotional abuse
- trauma possibly associated with physical or sexual abuse.

In many cases of maltreatment, disturbances to a child's emotional, behavioural and interpersonal development may be the most obvious and enduring sign of the maltreatment.

7.1 Emotional and behavioural states

7.1.1 Demeanour and behaviour

Certain emotional and behavioural states, as indicated by self-report or observed through a child's behaviour, can become heightened or more dominant, with a corresponding reduction in the range of emotions experienced and behaviours displayed, in a child who has suffered maltreatment.

Overview of available evidence

Systematic literature searches identified a large body of literature that addresses behavioural and emotional characteristics in association with child maltreatment. Secondary screening identified systematic reviews for some of these characteristics. Where systematic reviews were not identified for particular aspects, individual studies were reported.

Narrative summary

Two systematic reviews synthesised data on the psychological effects in children of witnessing domestic violence.^{84,85}

In the first review (search date end 2000), the authors addressed six general categories of psychosocial adjustment (internalising (including somatic complaints), externalising, other psychological problems, total psychological problems and academic problems) and six types of specific responses to hypothetical episodes of interpersonal conflict (negative affect/distress, negative cognitions, withdrawal, intervention, aggression and positive coping).⁸⁴ The results of the meta-analyses are summarised in Box 7.1. The methodology of the review was found to be good but there was variation in the quality of studies used in the synthesis, particularly in the way non-witnesses of domestic violence were ascertained. [EL = 2+]

The second systematic review on domestic violence extracted data on 41 studies and found that 40 studies showed that children exposed to domestic violence had worse outcomes on internalising, externalising and post-traumatic stress disorder, although the pooled effect size was stated to be small.⁸⁵ The authors found that outcomes were similar in boys and girls and drew no conclusions about the effect of age on outcome. [EL = 2-]

A narrative review of sexual abuse of boys (search dates 1985–1997) reported on the consequences of sexual abuse.⁸⁶ This review included some studies in adult males and a number of studies in specific populations such as chemical abusers. In studies that compared abused with non-abused males, rates of the following were statistically significantly higher in abused than non-abused males: major depression (four times), bulimia (three times), antisocial personality disorder, behaviour problems, low self-image, runaway behaviour and legal problems.

A review synthesised research on the impact of sexual abuse on children.⁸⁷ The authors extracted data from studies that compared CSA cases with non-clinical controls on the following demeanours: anxiety, fear, depressed, withdrawn, poor self-esteem and the composite symptoms of internalising and externalising behaviours. [EL = 1 +] A summary of results is shown in Box 7.1.

Box 7.1 Demeanours and behaviours of children who have experienced child sexual abuse (CSA) or who have witnessed domestic violence, as reported in the literature

Demeanour	
Fearful	CSA cases more symptomatic than non-clinical controls in 5/5 studies ⁸⁷
Anxious	CSA cases more symptomatic than non-clinical controls in 5/8 studies ⁸⁷
Withdrawn	CSA cases more symptomatic than non-clinical controls in 11/11 studies ⁸⁷
	Witnesses of domestic violence versus non-witnesses: no statistically significant difference in pooled result (5 studies) ⁸⁴
Low self-esteem	CSA cases more symptomatic than non-clinical controls in 3/6 studies ⁸⁷
Social avoidance or isolation	No statistically significant difference between maltreated and non-maltreated children ⁸⁸
Unhappy, depressed	CSA cases more symptomatic than non-clinical controls in 10/11 studies ⁸⁷
Internalising	CSA cases more symptomatic than non-clinical controls in 8/8 studies ⁸⁷
	Witnesses of domestic violence significantly worse than non-witnesses in pooled result (47 studies) ⁸⁴
	Moderate association in children exposed to domestic violence (58 studies) ⁸⁹
Negative affect/distress	Witnesses of domestic violence significantly worse than non-witnesses in pooled result (11 studies) ⁸⁴
Frozen watchfulness	No suitable published literature retrieved
Behaviour	
Aggression	Witnesses of domestic violence versus non-witnesses: no statistically significant difference in pooled result (3 studies) ⁸⁴
Social problems	Witnesses of domestic violence significantly worse than non-witnesses in pooled result (15 studies) ⁸⁴
Academic problems	Witnesses of domestic violence significantly worse than non-witnesses in pooled result (11 studies) ⁸⁴
Externalising	CSA cases more symptomatic than non-clinical controls in 7/7 studies ⁸⁷
	Witnesses of domestic violence significantly worse than non-witnesses in pooled result (45 studies) ⁸⁴
	Moderate association in children exposed to domestic violence (53 studies) ⁸⁹

Evidence statement

The systematic reviews indicate that abused children, regardless of the manner of abuse, display more emotional and behavioural problems than children who have not been maltreated. The heterogeneity of definitions, ascertainment and reporting in the studies should be taken into account when drawing conclusions.

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.2 Challenging antisocial and aggressive behaviour

Challenging aggressive and antisocial behaviour can be elevated in a child who has suffered maltreatment. This may occur because of the failure by parents/carers to place effective boundaries on a child's early behavioural demands or in cases where the child is actively

modelling aggressive behaviour witnessed in the home, either directly towards the child as in emotional or physical abuse or between adults in the home as in domestic violence.

Narrative summary

A narrative systematic review examined the link between child maltreatment and youth violence between the ages of 12 and 21 years.⁹⁰ No formal synthesis of results was conducted. The authors concluded that physical abuse is a predictor of youth violence but also that other forms of abuse of varying severity can lead to youth violence. [EL = 2 +]

A study of young people showing fire-setting behaviour ($n = 205$, mean age 11.2 years, SD 3.1 years) investigated differences in fire-setting behaviour between maltreated and non-maltreated children.⁹¹ The children and their caregivers were recruited from an assessment and treatment centre for juvenile fire-setters. Maltreatment status was ascertained by asking the caregiver whether the child had ever been abused or neglected; suspected abuse cases were excluded. Forty-eight percent were found to have been maltreated. Fire-setting behaviour was recorded using a semi-structured interview. Maltreated children were found to have statistically significantly more frequent fire-setting episodes and to use a wider range of media. The differences between groups were small in both cases. [EL = 3]

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.3 Sudden and unexplained behavioural or emotional change

Unexplained behavioural or emotional change is unlikely to occur in situations where a child is exposed to more chronic deficiencies in the care offered them by parents/carers, as in many cases of neglect and emotional abuse, but is more likely to occur in response to more discrete experiences of abuse as in certain cases of physical and sexual abuse.

Narrative summary

A case-control study aimed to determine how often sexually abused boys present with somatic and behavioural symptoms.⁹² One hundred and seven (sexually abused) schoolboys (cases) were compared with 107 schoolboys not sexually abused (controls). The results showed that somatic and behavioural symptoms were uncommon in both cases and controls: 83.6% of cases and 76.7% controls did not have symptoms. No statistically significant differences were found between the numbers of cases and controls who had presented with somatic and behavioural complaints (18 cases versus 25 controls). There were statistically significant differences between cases and controls with symptoms lasting over 1 year ($P < 0.05$). [EL = 2 -]

A cohort study sought to explore the relationship between child abuse or neglect and school performance, mainly academic success, peer status and adaptive functioning.⁹³ The study found that the mean academic performance (100–500) at age 6 years was 260 (SD 85) and at age 8 years was 263 (SD 95). The mean peer status (1–5) at age 6 years was 3.5 (SD 0.85) and at age 8 years was 3.3 (SD 0.96). The total adaptive functioning (4–28) at age 6 years was 14.6 (SD 5.16) and at age 8 years was 14.6 (SD 5.28). Maltreatment was statistically significantly associated with poorer academic performance ($P < 0.01$) and poorer adaptive functioning ($P < 0.001$) but not with peer status. [EL = 2 -]

Another study aimed to determine the relationship between child maltreatment and timing of learning difficulties.⁹⁴ Three-hundred maltreated children were compared with 300 non-maltreated children. The study found maltreated children were at higher risk of repeating kindergarten and first grade than non-maltreated children. There was no difference in the risk of repeating a grade for the first time. The absolute risk of receiving a poor English or mathematics grade changed across elementary years whereas the relative risk by maltreatment status did not. [EL = 3]

A comparative study was conducted in a community sample of 420 maltreated children to determine the relationship between child abuse and neglect, and academic performance, discipline referrals and suspensions.⁹⁵ The study found that maltreated children performed statistically significantly below non-maltreated children in standardised tests and grades, and were more likely to repeat a grade. Maltreated children also had statistically significantly more discipline referrals and suspensions. [EL = 3]

A descriptive study aimed to identify the predictors of attributions of self-blame and internalising behaviour problems in sexually abused children by using the Sexual Assault Profile, Child Behaviour Checklist (CBCL) and Social Adjustment Scale.⁹⁶ The study found that a child having a close relationship with the perpetrator, severe sexual abuse, perceiving sexual abuse as disgusting and coping with abuse by pretending it never happened led to increased attributions of self-blame. These factors did not predict internalising behaviour problems. [EL = 3]

Another descriptive study investigated the differences in achievement and related classroom behaviours among maltreated and non-maltreated children (receiving public assistance and lower middle class).⁹⁷ The Hahnemann Elementary School behaviour rating scale was used. The study found that maltreated children exhibited less classroom behaviour positively linked with academic achievement compared with non-maltreated children receiving public assistance and with non-maltreated children of lower middle class. [EL = 3]

A study tested the hypothesis that physically abused children are characterised by increased usage of immature defence mechanisms as compared with non-abused/non-neglected children.⁹⁸ The investigators used the Child Suicidal Potential Scales (CSPS), a clinician-administered interview schedule consisting of nine sections. The comparison group consisted of children neglected by their parents and children who were neither abused nor neglected. The results showed statistically significant differences between the physically abused and the non-abused/non-neglected children for all ego defences except displacement. Statistically significant differences were found between physically abused and neglected children for regression, denial and splitting, projection, and introjection (high scores for the physically abused children) and for compensation and undoing (higher scores for the neglected children). [EL = 3]

A study compared parent symptom reports from three prepubescent groups: non-abuse group (NA), sexual abuse with perpetrator confession (SA) and sexual abuse without perpetrator confession (AA).⁹⁹ The Structured Interview for Signs Associated with Sexual Abuse (SASA) was used. The results showed that both SA and AA groups reported increased sleep problems, fearfulness, emotional and behavioural changes, concentration problems, and sexual curiosity and knowledge than the NA group. [EL = 3]

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.4 Selective mutism

Selective mutism (previously known as elective mutism) is defined as consistent failure to speak in specific social circumstances (in which there is an expectation for speaking, for example at school) despite speaking in other situations.¹⁰⁰ It is thought to be an anxiety disorder where a person is unable to speak in certain select situations rather than voluntarily refusing to speak.

Narrative summary

A small case-control study ($n = 18$ in each group) identified children who were selectively mute at school for at least 1 year and compared their maltreatment status with controls matched on age and sex from the same school class.¹⁰¹ The two control groups were children with speech or language problems and children with no speech or language problems. There were five definite abuse cases in the selectively mute children and three possible abuse cases; there was one possible abuse case in the group with speech or language problems and no abuse, either definite or suspected, in the normal controls. [EL = 2-]

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.5 Disturbances of attachment

Problematic attachments become evident through the interactions that young children have with other people and emanate from earlier interactions between the child's primary caregivers and the child. Probable indicators of problematic attachments are being over-friendly with strangers and craving attention and affection from adults who are not the primary carers. Attachment problems are also probably indicated by the lack of seeking or accepting affection and comfort when the child is significantly distressed, frightened or feels threatened. The degree to which these behaviours are observed and are concerning depends on the age of the child.

Overview of available evidence

Two systematic reviews were found that reported on the association between insecure attachment and child maltreatment.^{102,103} There was some overlap in the samples that were included in the accompanying meta-analyses.

Narrative summary

The more recent systematic review (search dates 1988–2005) identified eight studies (involving a total of 791 children) that investigated an association between child maltreatment and attachment difficulties.¹⁰² The inclusion criteria were that the maltreated children were younger than 48 months, the study included comparison groups, the Strange Situation procedure (a procedure that takes place under controlled conditions that is designed to assess infant attachment style) or an adaptation of it was used and data were reported in sufficient detail to warrant meta-analysis. By pooling data from the studies, the authors found that 80% of maltreated children had insecure attachment compared with 36% of the comparison group. Using meta-analytic techniques, the odds ratio for having insecure attachment and being maltreated compared with not being maltreated was 6.5 (95% CI 3.7 to 11.6). [EL = 2+]

The second review identified five studies that investigated the relationship between maltreatment and disorganised attachment.¹⁰³ These studies included a total of 323 children aged between 11 and 48 months. Using the study size to weight the effect from each individual study revealed a pooled correlation coefficient of 0.41 for disorganised attachment in maltreated children compared with non-maltreated children. The review reported that 48% of maltreated children had insecure attachment compared with 17% of the comparison groups. [EL = 2+]

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.6 Emotional dysregulation

Emotional regulation is viewed as a key indicator of effective emotional development during a child's early years, charting the move from the more emotionally labile presentation of the infant to the more measured and more easily understood presentation of the older child, whose emotional responses are seen as appropriate and proportionate to the incident or experience causing the emotion. A child who has suffered maltreatment may either not have gained this level of regulation owing to the adverse nature of the parenting or care offered them or may have lost the ability to regulate their emotions because of their experience of maltreatment.

No relevant literature was identified as much of the literature in this area is based on scenarios set up by researchers rather than clinical reports.

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.7 Repeated nightmares in the absence of an obvious cause

Nightmares are different from night terrors. Night terrors are similar to sleepwalking, in that the child is unable to recollect the experience after waking. When a child wakes from a nightmare they can be comforted, but children who undergo night terrors cannot be comforted during the terror period. There was no literature search on night terrors.

Overview of available evidence

No suitable published literature was identified in relation to the question of whether repeated nightmares in the absence of an obvious cause are a reason to suspect child maltreatment. However, presence or absence of nightmares is an item on the Child Behaviour Checklist, so there are some studies that mention nightmares in relation to maltreatment but which were not designed to answer the question.

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.8 Compliance

No suitable published literature was identified.

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.9 Role reversal

No suitable published literature was identified.

See Section 7.1.11 for the GDG considerations and the recommendations.

7.1.10 Dissociation

Dissociation is a transient state in which the child (or adult) becomes detached from current, conscious interaction and this detachment is not under voluntary control. Dissociation is associated with past trauma including child abuse. It is often brought about by an emotional need to avoid awareness of distressing or traumatic memories or thoughts.

Overview of available evidence

Out of 21 retrieved papers, eight were found to be suitable for inclusion and addressed the question as to whether dissociation is a reason to suspect maltreatment.^{104–111}

The eight included papers comprised one prospective longitudinal study [EL = 2+], six case–control series [EL = 2–] and one questionnaire validation study [EL = 2–]. Six of the studies were from the USA and one each from Canada and Sweden. All but two of the studies recruited the participants from specialised setting such as social services and child maltreatment clinics, and many of participants in these studies were from low socio-economic groups. The Child Dissociative Checklist (CDC) and the Adolescent Dissociative Experiences (ADE) scales were the most frequently used although, in the majority of the studies, the primary outcome was not to determine an association between child maltreatment and the clinical feature of dissociation. The most frequent types of maltreatment investigated by these studies were sexual and physical maltreatment, usually both separately and together. Neglect was investigated in two studies.

Narrative summary

In a prospective longitudinal study, 585 children were randomly recruited from two cohorts starting at kindergarten in 1987 and 1988 in three public schools in the USA.¹⁰⁴ On recruitment, the developmental history of the child was taken by an interviewer (no details) in the family home and included details on child misbehaviour and discipline practices. At this point, the interviewer rated whether physical maltreatment had occurred or not. The follow-up for presence of dissociation symptoms was assessed in the 11th grade at school by the mothers completing the CBCL and the child completing the Youth Self-report Form of the CBCL. Both unadjusted analysis and analysis adjusted for covariates showed a statistically significant association with suspected child physical maltreatment and dissociation later in school life. The covariate-adjusted analysis of parental CBCL report was not maltreated 1.58 (SD 0.16) versus maltreated 2.8 (SD 0.37) ($F = 10.01$; $P < 0.01$). [EL = 2+]

In a case–control series, 198 pre-school children (mean age 5.5 years, SD 0.5 years) were recruited from families who had been referred to social services in the USA.¹⁰⁵ The children were classified as physical, sexual, neglected and no maltreatment (no numbers given per group) by social services records. The main outcome measure was the CDC and it was shown that there was a statistically significant overall effect for maltreatment sub-types on dissociation ($P < 0.00001$). All clinical groups (mean CDC values (no SD given) were physical abuse 8.91, sexual abuse 7.27, neglected group 5.52) demonstrated greater dissociation than the non-maltreated group ($P < 0.001$ for all). Further sub-analysis showed that between the three maltreatment groups, physical abuse and neglect were statistically significantly related to dissociation ($P < 0.001$) but sexual abuse was not ($P > 0.1$). [EL = 2–]

In a case–control series in the USA, 114 children and adolescents (age range 10–18 years) were recruited from social services and classified as no maltreatment ($n = 27$) sexual maltreatment ($n = 25$), physical maltreatment ($n = 18$) or sexual and physical maltreatment ($n = 44$), and were assessed using the ADE scale or the CDC scale according to age.¹⁰⁶ Results from the ADE scale showed that children with sexual abuse reported statistically significantly higher levels of dissociation (mean scores): no abuse 2.4 (SD 4.7), sexual abuse 3.4 (SD 2.6), physical abuse 2.4 (SD 1.8), sexual and physical abuse 3.7 (SD 2.1); $P < 0.01$. Results from the CDC scale showed that children with a history of sexual and physical abuse had higher levels of ‘perceived’

dissociation (mean scores): no abuse 4.7 (SD 2.0), sexual abuse 6.0 (SD 4.8), physical abuse 6.2 (SD 6.1), sexual and physical abuse 10.4 (SD 6.9); $P < 0.05$. [EL = 2–]

In a case–control series carried out in the USA, 189 children (age range 3–17 years) were recruited in a hospital-based child abuse evaluation unit.¹⁰⁷ The children took part in a 5 day physical and psychological assessment which included the Children’s Perceptual Alteration Scale (CPAS), ADE and CDC. The results were presented in two ways: by age groups (3–5 years, 6–10 years and 11–17 years) and by abuse status (abused, neglected and control) but no statistical analysis was reported. The authors concluded that there was no statistically significant association between prior histories of abuse in any of the groups with any of the dissociation measures. [EL = 2–]

In a case–control series, 134 French-speaking girls were recruited either from referrals to a child protection clinic ($n = 67$, mean age 9.0 years, SD 1.4 years) or from one of three public schools ($n = 67$, mean age 9.2 years, SD 1.7 years) in Canada and assessed with the CDC in French.¹⁰⁸ The demographics of the two groups were broadly similar but differed in terms of family structure and parental level of education. In the sexually abused (SA) group, 65.6% were classified as very serious cases and 46.9% of the girls had experienced chronic abuse over months or years. The results were expressed in seven SA subgroups: no penetration, penetration, no intrafamilial, intrafamilial, no chronic abuse and chronic abuse. In the SA group 20 girls (29.9%) and in the control group three girls (4.5%) presented with clinical levels of dissociation ($P < 0.01$). After correcting for covariables, the odds of presenting with dissociative tendencies were presented as eight-fold in the SA group compared with the control group. The degree or type of sexual abuse did not prove to be predictive of dissociation symptoms. [EL = 2–]

In a case–control series of 57 adolescents (age range 11 years and 3 months to 17 years and 8 months) were recruited following admission into an acute adolescent inpatient unit in the USA and assessed using the ADE scale.¹⁰⁹ These children were of low socio-economic class and were categorised as sexually abused, physically abused or both sexually and physically abused. Their data were compared with a historical ‘control’ group of adolescents aged 13–17 years with a variety of diagnosis and abuse backgrounds. The mean ADE score of the total study group was 32 (no SD given) and this was compared with the mean ADE of the ‘control’ group 19.2 (SD 15.0) ($P < 0.005$). Individual ADE scores for the study subgroups showed sexually abused adolescents to have a greater score (34.7; SD 31.7) than physically abused adolescents (28.1; SD 25.1) but this was not statistically significant. [EL = 2–]

In a case–control series, 350 children (age range 7–18 years) were recruited from four different settings to form four study groups: non-psychiatric comparative (local schools) ($n = 75$, mean age 11.96 years, SD 2.25 years), psychiatric non-abused (from consecutive inpatient admission to a psychiatric unit) ($n = 165$, mean age 12.56 years, SD 2.74 years), psychiatric abused (consecutive children and adolescents seen in inpatient and outpatient settings with social services or police record of sexual abuse) ($n = 72$, mean age 12.05 years, SD 2.84 years), psychiatric suspected abuse (from inpatient and outpatient settings with unsubstantiated reports of sexual abuse) ($n = 38$, mean age 12.05 years, SD 2.84 years).¹¹⁰ The main outcome measures of interest were the dissociation subscale of the Trauma Symptom Checklist for Children (TSC-C) and the parent-reported CDC. The results showed ‘significant differences’ between the three clinical groups and the non-psychiatric control group but no differences between the three clinical groups in terms of the dissociation subscale of the TSC-C. There was no reporting of details of these statistical tests although means and standard deviations of the groups were given. The CDC results were also brief and the authors describe *post hoc* analysis of the data producing similar results to the dissociation subscale on the TSC-C. [EL = 2–]

In a retrospective questionnaire validation study, 523 adolescents were recruited to validate the Dissociation Questionnaire in Swedish (DIS-Q).¹¹¹ A clinical group of 74 adolescents (mean age 16.03 years) with a history of sexual and or physical maltreatment were recruited from a child and adolescent psychiatric clinic. A control group of 449 adolescents (mean age 15.07 years) was recruited from within schools in the same city. The main aim of the study was to validate the DIS-Q in Swedish but, in addition, the results showed that the prevalence of dissociation was 2.3% in the control group (mean score 1.42, SD 0.43) and 50% (2.52; SD 0.8) in the clinical group ($P < 0.001$). [EL = 2–]

Evidence statement

The type of evidence available to answer this question was low in terms of quality, i.e. mostly case–control studies, but it is important to note that this question could not be answered by an intervention study and therefore the design of the studies is appropriate and the grading less important. The choice of control group was not always appropriate and covariates not always controlled for. Numbers of participants were low. Overall, the evidence suggests there is a positive association of the presence of dissociation symptoms with previous and or current maltreatment. There was insufficient or no evidence to comment on the role of age or gender, or degree, type or chronicity of maltreatment in the development of dissociation symptoms.

Delphi consensus (see also Appendix C)

The GDG sought the opinions of the Delphi panel for its statement on dissociation. The following statement was used in the survey:

Round 1

Statement number	Round 1	% agreed	n	Outcome
39a	Healthcare professionals should consider child maltreatment if a child shows dissociation (transient episodes of detachment from current interaction that are outside the child’s voluntary control) that can be distinguished from daydreaming, seizures or deliberate avoidance of interaction.	61	85	Statement amended for Round 2. See below.

Themes from the comments included:

- it is difficult to distinguish dissociation from daydreaming, seizures or deliberate avoidance of interaction
- traumatic events other than maltreatment can lead to dissociation.

The GDG accepted both of these themes but pointed out that maltreatment should only be considered if the distinction between dissociation and daydreaming, seizures or deliberate avoidance of interaction has been made. Therefore, this statement only applies to healthcare professionals who are able to make that distinction.

Round 2

Statement number	Round 2	% agreed	n	Outcome
	For the purposes of the following statement, dissociation is defined as transient episodes of detachment from current interaction that are outside the child’s voluntary control that can be distinguished from daydreaming, seizures or deliberate avoidance of interaction.			
39b	Healthcare professionals should consider child maltreatment if a child shows dissociation that is not explained by a known traumatic event unrelated to maltreatment.	78	76	Round 2 statement accepted.

7.1.11 GDG considerations

Much of the research in this field uses composite scores in instruments measuring internalising and externalising behaviours to assess demeanour and behaviour problems. In order to make useful recommendations, the GDG proposes that individual items in these instruments be used to inform healthcare professionals in their assessment. The GDG believes that any behaviour or demeanour that is not consistent with a child’s age and developmental stage should be a reason to seek information about the origins of that demeanour or behaviour. The GDG wishes to note that, in the context of child maltreatment, labelling behaviour problems, for example as oppositional defiant disorder, may not be helpful in the absence of eliciting the cause.

The GDG notes that maltreatment is a major psychosocial stressor in children and that emotional and behavioural problems are major consequences of child maltreatment, although they are often not recognised as such. The GDG’s clinical experience is that emotional and

behavioural problems due to maltreatment are not always specific to the particular maltreatment and are hard to quantify, yet no less important in raising concerns or suspicion of abuse than overt physical signs. Children can show a wide range of responses to maltreatment and the GDG believes that it is important for healthcare professionals to be aware of the possibilities ranging from extreme withdrawal to aggression and anger.

The attachment literature uses hypothetical scenarios to measure attachment. From the results of the systematic reviews, it can be inferred that disorganised attachment in young children is associated with maltreatment. Aggression and difficulties in interpersonal relationships, compulsive caregiving and coercive controlling towards the parent are associated with disorganised attachment.

Role reversal, where a child takes on a parenting role, either to the primary caregivers or to siblings, is a cause for concern when it means that the child or young person is undertaking tasks that are not appropriate for his or her developmental stage and when taking on a parenting role means that the child forgoes school in order to care for the parent/carer. The GDG's opinion is that role reversal can be apparent when a child or young person takes on the task of habitually assuming a comforting responsibility for a distressed parent/carer or where the child takes excessive care not to upset the parent/carer.

There is a paucity of evidence for the association between maltreatment and selective mutism. Moreover, selective mutism is thought to be a complex anxiety disorder and its underlying mechanism has not been adequately assessed. The GDG thus agreed not to suggest or consider selective mutism as an indicator of maltreatment. However, they acknowledged that some situations where children stop communication suddenly (known as 'traumatic mutism') can indicate maltreatment.

The GDG believes that nightmares can be caused by abuse by commission, not omission. The GDG believes that, while night terrors are common in children, any link with preceding disturbing events is too unclear to be used in this guidance. Nightmares can be distinguished from night terrors, even in children who are too young to communicate, because with nightmares it is possible for the parent/carer to comfort the child.

Children who are having repeated nightmares but where there is no obvious non-abusive stressor (such as bullying at school or parental divorce) should be assessed to ascertain the nature of the disturbance causing the nightmares. The themes of the nightmares might be elicited but the GDG warns against dream interpretation.

The GDG believes that the occurrence of nightmares in relation to abuse relates to a change in behaviour and the recommendation on this topic appears in that context.

It is the GDG's clinical experience that some children who have been sexually abused can be overly compliant or passive in situations, such as anogenital examinations, where one would expect them to be resistant or reactive. In these situations, some maltreated children can react in other ways that are not developmentally appropriate.

The GDG believes that the presence of a neurodevelopmental disorder such as attention deficit hyperactivity disorder (ADHD) or difficulties within the autistic spectrum do not preclude the possibility of maltreatment.

Psychologically traumatic events can lead to dissociation. It is not specific to maltreatment and so maltreatment should be considered in the differential diagnosis. Dissociation is a trance-like state that is involuntary. There is no loss of consciousness. The GDG acknowledges that it can be difficult to distinguish dissociation from daydreaming and seizures. The GDG sought the opinions of the Delphi panel on the recommendation about dissociation and sufficient agreement was reached (see above and Section C.2.2).

There was consensus within the GDG about the remainder of the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on emotional and behavioural states

Consider* child maltreatment if a child or young person displays or is reported to display a marked change in behaviour or emotional state (see examples below) that is a departure from what would be expected for their age and developmental stage and is not explained by a known stressful situation that is not part of child maltreatment (for example, bereavement or parental separation) or medical cause. Examples include:

- recurrent nightmares containing similar themes
- extreme distress
- markedly oppositional behaviour
- withdrawal of communication
- becoming withdrawn.

Consider* child maltreatment if a child's behaviour or emotional state is not consistent with their age and developmental stage or cannot be explained by medical causes, neurodevelopmental disorders (for example, attention deficit hyperactivity disorder (ADHD), autism spectrum disorders) or other stressful situation that is not part of child maltreatment (for example, bereavement or parental separation). Examples of behaviour or emotional states that may fit this description include:

- Emotional states:
 - fearful, withdrawn, low self-esteem
- Behaviour:
 - aggressive, oppositional
 - habitual body rocking
- Interpersonal behaviours:
 - indiscriminate contact or affection seeking
 - over-friendliness to strangers including healthcare professionals
 - excessive clinginess
 - persistently resorting to gaining attention
 - demonstrating excessively 'good' behaviour to prevent parental or carer disapproval
 - failing to seek or accept appropriate comfort or affection from an appropriate person when significantly distressed
 - coercive controlling behaviour towards parents or carers
 - very young children showing excessive comforting behaviours when witnessing parental or carer distress.

Consider* child maltreatment if a child shows repeated, extreme or sustained emotional responses that are out of proportion to a situation and are not expected for the child's age or developmental stage or explained by a medical cause, neurodevelopmental disorder (for example, ADHD, autism spectrum disorders) or bipolar disorder and the effects of any known past maltreatment have been explored. Examples of these emotional responses include:

- anger or frustration expressed as a temper tantrum in a school-aged child
- frequent rages at minor provocation
- distress expressed as inconsolable crying.

Consider* child maltreatment if a child shows dissociation (transient episodes of detachment that are outside the child's control and that are distinguished from daydreaming, seizures or deliberate avoidance of interaction) that is not explained by a known traumatic event unrelated to maltreatment.

Consider* child maltreatment if a child or young person regularly has responsibilities that interfere with essential normal daily activities (for example, school attendance).

Consider* child maltreatment if a child responds to a health examination or assessment in an unusual, unexpected or developmentally inappropriate way (for example, extreme passivity, resistance or refusal).

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Research recommendation on emotional and behavioural states

What aspects of behaviours and emotional states as alerting individual signs discriminate maltreated children from non-maltreated children in the healthcare setting?

Why this is important

Much of the research in this area uses composite scores from instruments or scenarios to discriminate maltreated from non-maltreated children. To translate these scores into items that are usable for healthcare professionals who are meeting children for the first time, it is necessary to know whether particular behavioural and emotional states can be used to identify maltreated children. A prospective comparative study in the healthcare setting is required.

7.2 Behavioural disorders or abnormalities either seen or heard about**7.2.1 Self-harm**

Self-injurious behaviour includes cutting, scratching, picking, biting or tearing skin to cause injury, taking prescribed or non-prescribed medications at higher than therapeutic doses when the intention is not suicide, taking illicit drugs or alcohol when the intention is to harm the self, burning, and pulling out hair or eyelashes. In some situations there may be the intention of harm to the self by means of abnormal patterns of eating.

It may be difficult to be certain whether the intention of a self-injurious behaviour was suicide or self-harm and it may be unclear whether a risk-taking behaviour is part of normal adolescence. Suicidal thoughts may exist on their own and are not synonymous with suicidal behaviour. A number of terms are used in the literature to describe aspects of self-injurious behaviour, including deliberate self-harm, self-destructive behaviour and non-fatal self-harm.

Overview of available evidence

A total of 4326 articles were identified and 32 articles were selected for detailed assessment. No relevant systematic reviews were identified. All the studies used an observational design, i.e. case-control, cohort or case series. A detailed description of each study is provided below.

Narrative summary

A prospective cohort study ($n = 842$) undertaken in the USA examined the relationship between behavioural and emotional problems and physical, sexual and emotional abuse (based on questionnaire responses) in a population of incarcerated adolescents (mean age 15.8 years, 84.2% male, 40% white).¹¹² The study found that, after adjusting for demographic variables (age, gender and ethnicity), emotional abuse was a predictor ($P < 0.05$) of internalising behaviour (including self-harm), and that physical and sexual abuse were predictors ($P < 0.01$) of externalising behaviour (including self-destructive behaviour). However, other variables such as age ($P < 0.01$), gender ($P < 0.01$) and ethnicity ($P < 0.001$) were also significant factors in internalising and externalising behaviour. The study concluded that different forms of maltreatment have different behavioural impacts. [EL = 3]

A case-control study ($n = 86$) from the USA examined the relationship between maltreatment (based on questionnaire responses) and non-suicidal self-injury (NSSI) in a community sample of adolescents (aged 12–19 years, mean age 17.4 years, 78% female, 73% white).^{113,114} Two groups were selected: Group 1 ($n = 64$) with a history of NSSI and Group 2 ($n = 30$) without a history of NSSI (94 total, only 86 completed all questionnaires). The results of univariate analysis showed that physical neglect ($P < 0.05$), emotional abuse ($P < 0.01$) and sexual abuse ($P < 0.05$) were all predictors of NSSI but emotional neglect and physical abuse were not. However, the study also found that a self-critical cognitive style was a mediating factor between emotional abuse and NSSI. The study concluded that not all types of maltreatment are associated with self-harm. [EL = 2-]

A case-control study ($n = 2485$) from Australia examined the relationship between sexual abuse (based on questionnaire responses) and suicidal behaviour in a community sample of schoolchildren (mean age 14 years, 55.5% males).¹¹⁵ The study found that 87 (3.6%) children had been sexually abused. Furthermore, the study found that 659 (27.1%) had suicidal ideation, 328 (13.7%) had plans for suicide, 253 (10.5%) threatened to commit suicide, 442 (18.4%) self-harmed, 139 (5.8%) had attempted suicide and 25 had required emergency treatment as a result of a suicide attempt. The study compared those who had been sexually abused with those who had not. The study found that 73% of abused compared with 25% of non-abused had had suicidal thoughts ($P < 0.001$), 30% versus 5% had injured themselves five or more times ($P < 0.001$), and 36% compared with 8% had been hospitalised as a result of a suicide attempt ($P < 0.001$). Using multivariate analysis the authors examined the mediating factor of distress (none, low, high) adjusting for depression, hopelessness and family functioning on suicidal behaviour in boys and girls. The study examined differences due to severity of abuse based on three categories: abused, low-level abuse and high-level abuse. The study found adjusted ORs of 5 (95% CI 1.5 to 16.8), not statistically significant, and 7.4 (95% CI 1.7 to 31.8) for suicidal ideas, respectively. For self-harm the adjusted ORs were 4.3 (95% CI 1.5 to 12.6), not statistically significant, and 4.8 (95% CI 1.4 to 16.6). For attempted suicide the adjusted ORs were 15.0 (95% CI 4.7 to 47.9), not statistically significant, and 18.7 (95% CI 5.0 to 70.1). For having planned suicide the adjusted ORs were 10.6 (95% CI 3.5 to 32.7), not statistically significant, and 13.3 (95% CI 3.6 to 49.6). For suicide threats the adjusted ORs were 10.9 (95% CI 3.9 to 30.4), 10.4 (95% CI 1.4 to 77.3), and 11.1 (95% CI 3.4 to 35.7). The study found that for girls the idea of suicide was statistically significantly higher among those who reported a high level of abuse compared with those who had not been abused (OR 3.3; 95% CI 1.1 to 10.2), but for self-harm and attempted suicide there was no difference between abused and non-abused. The study concluded that sexual abuse leads to increased risk of self-harm and suicide, especially in boys. [EL = 2-]

A cross-sectional survey ($n = 489$) undertaken in Hong Kong examined the psychological impact (self-harm and substance abuse) of physical maltreatment (diagnosed by responses to questionnaire) in adolescents from a school survey (aged 13 years or over).¹¹⁶ The study found that 4.5% had received corporal punishment from family members within the past 6 months, 10.9% had been beaten by a family member for no reason within the past 6 months and 10.4% reported being beaten to injury by a family member at some point. The study found an association between self-injury and 'beaten to injury', with an OR of 4.42 for 'would hurt themselves when faced with difficulties', an OR of 5.03 for 'think of hurting themselves' and an OR of 8.47 for 'who have tried hurting themselves' (all $P < 0.01$). Physical maltreatment was not associated with 'tried hurting self' ($P = 0.054$). The study concluded that physical maltreatment had an impact on psychological wellbeing. [EL = 3]

A case-control study ($n = 405$) undertaken in the USA examined factors associated with suicide attempts in children (aged 7-17 years, mean age 12.7 years, 54% male, 83% white) being treated for bipolar disorder.¹¹⁷ The study found that 128 of 405 had attempted suicide and that 41 (32%) of these children had been physically or sexually abused (based on responses to questionnaire) compared with 54 (20%) of the non-attempter group ($P = 0.006$). The study also found that psychiatric hospitalisation, self-injurious behaviour, mixed episodes, psychosis and age were statistically significant factors on suicide attempts. In addition, family factors such as depression, familial substance use and suicide attempts, and comorbid conditions, such as panic disorders and substance use were also predictors of suicide attempts. The regression model produced by the authors to explain maximum variance did not include either sexual or physical maltreatment. The study concluded that multiple clinical factors had to be taken into account when assessing suicide risk. [EL = 3]

A case-control study ($n = 105$) undertaken in the USA examined the relationship between physical and sexual abuse (based on any report to authorities) and psychological problems and suicide attempts in children (aged 12-18 years; 73 female) admitted to an inpatient psychiatric facility.¹¹⁸ There were four groups: no abuse ($n = 35$), sexual abuse ($n = 17$), physical abuse ($n = 22$), and sexual and physical abuse ($n = 31$). The study found no statistical difference between groups in terms of suicidal ideation (thoughts 60.0%, 82.4%, 59.1% and 74.2%, respectively; suicidal behaviour 37.1%, 29.4%, 40.9% and 29.0%, respectively; threats of

suicide 32.3%, 31.3%, 26.3% and 43.3%, respectively; suicide attempts 48.6%, 47.1%, 45.5% and 61.3%, respectively). The study concluded that the symptoms of adolescents who are psychiatrically hospitalised do not differ with abuse history. [EL = 3]

A prospective cohort study ($n = 140$) undertaken in the USA examined the relationship between childhood sexual abuse in females (abuse reported by child to have happened before the age of 14 years) and re-victimisation and self-harm in children who had been sexually abused (mean age 18.81 years).¹¹⁹ The study found that in the sexually abused group ($n = 70$) 32.3% had self-harmed compared with 8.8% in the comparison group ($n = 70$, $P = 0.02$). In addition, the study found no relationship between physical abuse, neglect or emotional abuse and self-harm. The results from multiple regression found an OR of 5.64 for those who had been sexually abused and self-harmed ($P < 0.01$), but an OR of 2.26 for physical, 0.74 for neglect and 0.57 for emotional (all not statistically significant). The study concluded that people who had been sexually abused were more likely to self-harm than those who had not been sexually abused. [EL = 2+]

A case-control study ($n = 188$) undertaken in the USA examined the relationship between physical abuse and suicidal behaviour in adolescents (aged 12–18 years) who had either been physically abused ($n = 99$, based on social service register) or not ($n = 99$, randomly identified via telephone interview, age 15 or 16, sexually abused excluded).¹²⁰ The study found a difference between groups for suicide ideation ($P = 0.014$) but not for probability of suicide. Multivariate analysis found that physical abuse was not a predictor of suicide probability ($P = 0.099$), while other factors were: family cohesion ($P = 0.004$), adult disruptive disorder ($P = 0.0003$) and adolescent unipolar depression ($P = 0.003$). The study concluded that abused adolescent had higher suicide probability scores than non-abused, but the link between the two was not direct. [EL = 2+]

A case-control study ($n = 71$) undertaken in the USA examined the relationship between abuse and neglect (based on childhood trauma questionnaire) and suicidal behaviour in children (52.2% girls, mean age 14.8 years, 5% white) admitted to an acute medical facility over a 1 year period.¹²¹ The study found that sexual abuse ($P < 0.001$), physical abuse ($P < 0.01$), emotional abuse ($P < 0.01$), emotional neglect ($P < 0.001$) but not physical neglect (not statistically significant) were linked with suicide attempts. Multivariate analysis showed that sexual abuse ($P < 0.01$) and emotional neglect ($P < 0.05$) but not physical abuse, emotional abuse or physical neglect were linked to attempted suicide. Furthermore, the analysis showed that sexual abuse ($P < 0.01$) and emotional neglect ($P < 0.05$) but not physical abuse, emotional abuse or physical neglect were linked to self-harm. When gender was added into the model, female gender ($P = 0.001$) and sexual abuse ($P = 0.05$) were predictors of attempted suicide. The study concluded that emotional neglect was an unrecognised predictor of attempted suicide. [EL = 2-]

A case-control study ($n = 3416$) undertaken in the USA examined the factors associated with suicide attempts in female adolescents involved in a twins cohort study (mean age 15.5 years, 13% non-white).¹²² The study found that 143 (4.2%) had attempted suicide. The study found using multiple regression that physical abuse (based on questionnaire; 2.2% versus 15.7%) was associated with attempted suicide (OR 3.5; 95% CI 1.6 to 7.3). It also found that alcohol dependence, conduct disorder, major depression, social phobia, and African-American ethnicity were statistically significant markers, but alcohol abuse, any specific phobia and generalised anxiety were not. Furthermore the study found that suicide within the family was a statistically significant predictor for attempting suicide. The study concluded that familial factors and possibly genetics played a role in suicide attempts. [EL = 2-]

A case-control study ($n = 292$) undertaken in New Zealand examined the risk factors for suicide attempts in adolescents (aged 13–24 years).¹²³ The study compared those who had attempted suicide requiring medical treatment ($n = 129$) against a randomly selected group of people who had not ($n = 153$, age and gender stratified). The study found that sexual abuse (adjusted OR 3.7; 95% CI 1.6 to 8.3; $P < 0.005$) was a marker for suicide attempts. However, it also found that poor parental relationship, affective disorder, substance use, antisocial behaviour, age, low education outcome, low income and residence changed within 6 months were also statistically significant predictors ($P < 0.001$ to 0.05). The study concluded that risk of suicide increased as social adversity increased. [EL = 2-]

A case-control study ($n = 88$) undertaken in Australia examined the risk-factors associated with self-harm in adolescents (mean age 16.4 years).¹²⁴ The study compared those who had self-harmed ($n = 52$, 69% female) against a reference group ($n = 36$, 61% female) being treated for medical conditions or undergoing surgery with a no history of self-harm or psychological illness. The study found that physical abuse (based on responses to a questionnaire; 13 versus two; OR 6.5; 95% CI 1.5 to 29), but not sexual abuse (six versus three; OR 2.0; 95% CI 0.5 to 8) was a predictor of self-harm. The study also found that family structure and substance use were statistically significant predictors of self-harm. The study concluded that self-harm was linked to serious personal and interpersonal problems and a multidisciplinary approach was required to identify and treat it. [EL = 2-]

A cross-sectional survey ($n = 352$) undertaken in the USA examined the relationship between sexual and/or physical abuse (reported by questionnaire) and substance use and suicide among pregnant teenagers.¹²⁵ The study found that 39 had been physically abused, 52 had been sexually abused, 11 had been sexually and physically abused and 272 had not been abused. Of these groups, 46%, 33%, 83% and 12%, respectively, reported suicidal ideation ($P < 0.0001$). The study concluded that pregnant teenagers should be screened for abuse and suicidal ideation. [EL = 3]

A case-control study ($n = 114$) undertaken in Israel examined the relationship between depression and suicide in abused children (aged 6–12 years, 61.4% males).¹²⁶ There were three groups: Group 1 ($n = 41$) had been physically abused (based on questionnaire responses); Group 2 ($n = 38$) had been neglected; and Group 3 ($n = 35$) had been neither abused nor neglected. The study reported that suicidal ideation was found in 22 of Group 1, two of Group 2 and two of Group 3 ($r^2 = 33.63$; $P < 0.001$). Suicidal expression was found in 23 of Group 1, two of Group 2 and two of Group 2 ($r^2 = 37.21$; $P < 0.001$). Risk-taking behaviour was found in 31 of Group 1, two of Group 2 and three of Group 3 ($r^2 = 57.54$; $P < 0.001$). The study concluded that the physically abused group had higher suicidality than the others. [EL = 2-]

A case-control study ($n = 117$) undertaken in the USA examined the relationship between maltreatment and suicide in adolescents (aged 13–18 years, mean age 14.6 years, 66 females, 82.4% white) admitted to a psychiatric facility.¹²⁷ The group was split between those who had attempted suicide, suicidal ideators and those who were not. The study found that those reporting having been abused (based on questionnaire, $n = 55$) were statistically significantly more likely to have attempted suicide or have suicidal ideation than those who were not ($n = 62$) ($P < 0.05$). Furthermore, the study found that frequency of abuse was related to number of suicide attempts and suicidal ideation for both sexual and physical abuse ($P < 0.05$). The study found that duration of abuse was related to number of suicide attempts and suicidal ideation for sexual abuse ($P < 0.05$) but not for physical abuse. The study concluded that history of abuse was related to number of suicide attempts. [EL = 3]

A case-control study ($n = 157$) undertaken in the Netherlands examined the relationship between life events in childhood (younger than 12 years) and suicidal behaviour in adolescents (aged 12 years or over) in a group aged 14–21 years (mean age 17.5 years, 41 females).¹²⁸ The study compared three groups: Group 1 ($n = 48$) were people who had attempted suicide (selected within mental health services); Group 2 ($n = 66$) were depressed (selected within mental health services); and Group 3 ($n = 43$) were non-depressed people who had never attempted suicide (selected at random from a student population). The study found statistically significant differences ($P < 0.05$) between the rate of physical abuse before the age of 12 years between the three groups: on average, people who had attempted suicide reported 0.19 (SD 0.49) sexual abuse events, depressed adolescents reported 0.14 (SD 0.43) events and normal controls reported 0.00 events per person. The study found no statistically significant differences between the three groups in the number of episodes of sexual abuse before the age of 12 years: 0.17 (SD 0.48) versus 0.05 (SD 0.21) versus 0.05 (SD 0.21). The study found 0.23 (SD 0.42), 0.29 (SD 0.46) and 0.07 (SD 0.26), respectively, episodes of physical abuse after the age of 12 years ($P < 0.05$ for difference between depressed and normal controls). The study found on average in each group 0.44 (SD 0.68), 0.26 (SD 0.54) and 0.05 (SD 0.21), respectively, episodes of sexual abuse after the age of 12 years ($P < 0.05$ for difference between attempters and normal controls). The study found on average in each group 0.13 (SD 0.33), 0.09 (SD 0.29) and 0.00, respectively, episodes of physical abuse within the past year (not

statistically significant). The study found on average for each group 0.10 (SD 0.31), 0.05 (SD 0.27) and 0.00, respectively, episodes of sexual abuse within the past year ($P < 0.05$ for difference between attempters and normal controls). However, change in living situation, change in caregiver, separation of parents and total number of life events experienced were all associated with differences between groups ($P < 0.05$). The study concluded that the number of life events was linked to suicidal behaviour. [EL = 2-]

A case-control study ($n = 597$) undertaken in the USA examined the relationship between sexual abuse and psychological problems (suicide and self-harm) in females (mean age 15.6 years) being treated for substance abuse.¹²⁹ The girls were divided into four groups: Group 1 were non-victims ($n = 383$); Group 2 experienced extra-familial abuse (based on questionnaire, $n = 120$); Group 3 experienced intra-familial abuse ($n = 47$); and Group 4 experience both extra-familial and intra-familial abuse ($n = 43$). The study found that suicidal behaviour was statistically significantly more likely in the abused girls than non-abused ($P < 0.0001$). There was no difference between groups for suicide attempts (20.4%, 35.7%, 56.5% and 44.2%, respectively). Suicidal thoughts were more likely in the abused than non-abused (52.4%, 64.1%, 65.2% and 74.4%, respectively; $P < 0.05$) and eating problems were also more prevalent ($P < 0.05$). However, nervousness ($P < 0.01$), sleeplessness ($P < 0.001$) and sexual problems ($P < 0.001$) were also linked to suicidal behaviour. The study concluded that within a group who already had multiple problems, sexual abuse leads to different and more serious psychopathology. [EL = 2-]

A case-control study ($n = 570$) undertaken in the Netherlands examined the characteristics of children (aged 15 or 16 years) who did or did not have a history of suicidal behaviour.¹³⁰ The sample was taken from a larger school survey of 13 400 children. Group 1 had a history of suicidal behaviour ($n = 185$ females, 100 males) and Group 2 did not ($n = 185$ females, 100 males). Analysis was undertaken by gender. For females the study found that physical abuse (based on questionnaire) (51% versus 24%; $P < 0.001$) and sexual abuse (32% versus 7%; $P < 0.001$) were related to attempting suicide. In addition, depression, suicidal thoughts, low self-esteem, feeling of failure, negative future achievements and substance abuse were all statistically significantly related to suicide attempts. For males the study found that physical abuse was not statistically significant (37% versus 32%) and sexual abuse (22% versus 2%; $P < 0.001$) was statistically significantly related to attempting suicide. In addition, depression, suicidal thoughts, low academic achievement and substance abuse were statistically significantly related to attempted suicide. The study concluded that, in addition to other variables, sexual and physical abuse need to be taken into account when dealing with youngsters demonstrating suicidal behaviour. [EL = 2+]

A cross-sectional survey ($n = 775$) undertaken in the USA examined the relationship between sexual/physical abuse and suicidal behaviour in children (aged 12-19 years, 65% male, 46% white) who were homeless.¹³¹ The study found that 451 (58%) had thought about suicide (195 of 272 females and 256 of 505 males) and 266 of 775 (34%) had attempted suicide (130 of 272 females and 136 of 505 males). There were statistically significant differences between genders in suicidal thoughts and suicide attempts ($P < 0.05$). The study found that 119 of 503 males and 189 of 272 females had been sexually abused (based on questionnaire), and of these, for 96 males and 167 females it had happened before they left home. The study reported that 175 of 503 males and 153 of 272 females had been physically abused before leaving home. The study found that 225 of 503 males and 217 of 272 females had been sexually and/or physically abused. In all cases, females were statistically significantly ($P < 0.05$) more likely to have been abused than males. Logistic regression found that for females being sexually abused before leaving home (OR 3.2; 95% CI 1.8 to 5.6) and being physically abused at home (OR 1.9; 95% CI 1.1 to 3.3) was associated with suicidal behaviour. For males it found that being sexually abused at home (OR 4.3; 95% CI 2.5 to 7.1) and being physically abused at home (OR 4.2; 95% CI 2.6 to 6.5) was associated with suicidal behaviour. The study concluded that interventions on homeless children must take account of physical and sexual abuse. [EL = 3]

A cross-sectional survey ($n = 1051$) undertaken in the USA examined the relationship between suicidal ideation and maltreatment or risk of maltreatment in a group of children (52.5% female, 55.1% white) who were 8 years old.¹³² The study found that 9.9% of the sample had thought about suicide. The study found that white ethnicity (OR 0.55; 95% CI 0.32 to 0.84),

maltreatment (OR 1.91; 95% CI 1.14 to 3.20) and witnessed violence (OR 1.68; 95% CI 1.34 to 2.06) were markers of suicidal ideation ($P < 0.05$). The study also found that psychological problems and substance use were statistically significant predictors of suicide ideation ($P < 0.05$), but that maltreatment was not (OR 1.49; 95% CI 0.74 to 2.78). Subgroup analysis on children who had been maltreated (rather than those at high risk) found that severity of physical abuse (OR 1.24; 95% CI 1.04 to 1.48), chronicity of maltreatment (OR 1.19; 95% CI 1.02 to 1.39) and multiple types of maltreatment (OR 1.81; 95% CI 1.11 to 2.95) were markers of suicide ideation. The study concluded that the risk factors of ethnicity, maltreatment and witnessed violence were all mediated by a child's psychological and behavioural variables. [EL = 3]

A survey of secondary school students ($n = 839$, aged 14–17 years, mean age 15.9 years) in Turkey investigated the relationship between child maltreatment (physical, emotional and sexual abuse, and neglect) and attempted suicide, self-mutilation and dissociation.¹³³ Thirty-four percent of the cohort reported at least one type of maltreatment. Suicide attempt was reported by 10% of the cohort and self-mutilation (including banging head, hitting, cutting, hair-pulling and burning) was reported by 20%. A statistically significant relationship was found between ever having been maltreated and both attempting suicide and self-mutilation. Dissociation scores according to the Turkish version of the Dissociative Experiences Scale were statistically significantly higher in maltreated children than non-maltreated children. [EL = 3]

A case-control study ($n = 352$) undertaken in Australia examined the relationship between family functioning, sexual abuse and suicidal behaviour in children (aged 14–18 years, mean age 15.2 years, 99% white) from a single high school.¹³⁴ The study found that 20 females (13.2%) and nine males (4.5%) claimed to have been sexually abused. Of those who claimed to be abused, 24.1% had no suicidal behaviour, 13.8% had suicidal thoughts, 10.3% had made plans, 1% had self-harmed, 13.8% had made a single attempt, and 10% had made multiple attempts. Of the non-abused, 32 (9.1%) had thought of suicide, 16 had planned suicide, 15 had self-harmed, 20 had made a single attempt, and 16 (4.6%) had made multiple attempts. The study found that, of 161 children from dysfunctional families, abused children (53% of 19) were more likely than non-abused (8.5% or 142) ($\chi^2 = 24.1$; $P < 0.001$). In functional families with abuse, the RR of suicidal behaviour was 7.1, in abused children in dysfunctional families the RR was 6.2, and in abused children in dysfunction families the RR was 9.4, compared with normal children. The study concluded that sexual abuse was more important to suicidal behaviour than family dysfunction. [EL = 3]

A case-control study ($n = 127$) undertaken in the USA examined the correlates between child abuse (based on questionnaire responses) and risk of suicide in children (aged 12–18 years, mean age 15.8 years, 38 males, 109 white) admitted to a psychiatric unit.¹³⁵ Group 1 were children who reported abuse based (on the Millon Adolescent Clinical Inventory (MACI) abuse scale, $n = 74$, mean age 16.0 years) and those who reported depression (on the DSM-III-R criteria and Beck depression scale, $n = 53$, mean age 15.6 years). The study found no difference in reported suicidal behaviour (mean suicide risk scale score 9.1 (SD 2.6) versus 8.3 (SD 2.6)) between abused or not. The study found that self-criticism ($P = 0.02$) on a depressive experience questionnaire for adolescents, alcohol abuse ($P = 0.02$) on an alcohol abuse involvement scale and previous feelings or acts of violence ($P = 0.08$) on a past feelings and acts of violence scale were associated with suicidal behaviour. The study concluded that abused children at risk of suicide report different psychological profiles from those who have not been abused. [EL = 2–]

A prospective cohort study ($n = 144$) undertaken in the UK examined the relationship between sexual abuse and psychological disturbance in children (aged 16 or younger, 75% females) where alleged or suspected sexual abuse had taken place.¹³⁶ All were investigated then followed-up at 4 weeks, 9 months and 2 years. The study found that by 4 weeks there were no self-mutilation or suicide attempts ($n = 99$), by 9 months there were five and five ($n = 91$), respectively, and by 2 years ($n = 66$) there five and eight, respectively. The study found no statistically significant change in the frequency of events over time. The study made no conclusions in relation to maltreatment and psychological problems, but highlighted that the level of problems did not change with time. [EL = 3]

A retrospective case series ($n = 112$) undertaken in Australia examined factors associated with repeat suicide attempts in adolescents (aged 13–20 years, 36 males of mean age 18.6 years, 76 females of mean age 17.5 years).¹³⁷ Multivariate analysis found that chronic medical conditions (OR 3.29; 95% CI 1.11 to 9.78), non-affective psychotic disorder (OR 3.81; 95% CI 1.05 to 13.89), alcohol abuse (OR 3.56; 95% CI 1.02 to 12.42) and drug abuse (OR 4.22; 95% CI 1.29 to 13.84), but not sexual abuse (OR 3.03; 95% CI 0.95 to 9.71), were statistically significantly associated with repeat suicide attempts. The study concluded that a multidisciplinary approach was required to investigate and treat adolescents who have attempted suicide. The study further concluded that sexual abuse was likely to be under-reported in the retrospective sample, so was likely to be a more important factor than the results suggest. [EL = 3]

A cross-sectional survey ($n = 7241$) undertaken in the USA examined the risk factors associated with suicide among Navajo adolescents (mean age 14.4 years) as part of a community survey.¹³⁸ Multiple regression analysis adjusted for age and gender found that physical abuse (OR 1.9; 95% CI 1.5 to 2.4), sexual abuse (OR 1.5; 95% CI 1.2 to 1.9), being female (OR 1.7; 95% CI 1.4 to 2.0), a family history of suicidal behaviour (OR 2.3; 95% CI 1.6 to 3.2), friend attempt (OR 2.8; 95% CI 2.3 to 3.4), poor health (OR 2.2; 95% CI 1.3 to 3.8), mental health problems requiring professional help (OR 3.2; 95% CI 2.2 to 4.5), extreme alienation from family (OR 3.2; 95% CI 2.1 to 4.4) and alcohol abuse (OR 2.7; 95% CI 1.9 to 3.9) were all associated with suicide attempts. The study concluded that prevention of suicide needs to target certain risk factors. [EL = 3]

A cohort study ($n = 659$, 91% white) undertaken in the USA examined the relationship between childhood adversity and suicide attempts during late adolescence and early adulthood (mean age 22 years) from a community sample of families surveyed four times over 18 years.¹³⁹ The study reported that physical childhood abuse (16/587 versus 5/36; OR 5.10; 95% CI 1.78 to 14.64) and sexual abuse (19/602 versus 4/21; OR 7.22; 95% CI 2.22 to 23.53), controlling for age, sex, psychiatric symptoms and parental psychiatric disorders, were statistically significantly related to suicide attempts during late adolescence and early adulthood. However, the study found statistically significant relationships on a further 20 variables. The study found that the effects of childhood maltreatment and adversity were mediated by interpersonal problems during middle adolescence. The study concluded that maladaptive parenting and childhood maltreatment may be associated with severe interpersonal difficulties during adolescence. [EL = 3]

A case-control study ($n = 664$) undertaken in Canada examined the relationship between sexual abuse and delinquent and self-destructive behaviour in girls.¹⁴⁰ Three groups were compared: Group 1 ($n = 140$, mean age 14.8 years) who had recently disclosed sexual abuse to authorities; Group 2 ($n = 94$, mean age 15.05 years) who reported sexual abuse in a survey; and Group 3 ($n = 430$, mean age 14.97 years) who had not reported sexual abuse. The study found that victims of sexual abuse were more likely than the non-abused to report the following: self mutilation, eating disorders, resisting help and dangerous acting-out (all $P < 0.001$). Those that had disclosed abuse were statistically significantly more likely ($P < 0.01$) than those who had not reported abuse to open veins (OR 4.96), to bang head (OR 1.73), to refuse medication (OR 1.94), to not ask for help (OR 1.72), to refuse to eat (OR 2.08), to display daredevil behaviour (OR 1.72), to induce vomiting (OR 2.24) and to scratch till bleeding (OR 1.29), but not to burn skin, punch walls, throw self from vehicle, cut self, strangle self, swallow poison, hit/prick self or use laxatives. The study examined the family structure correlates for maltreatment, and a model containing family adversity, economic problems, violence during abuse, relation with mother and depression explained 48% of the variance of self-injury. The study reported statistically significant differences between abused and non-abused children. [EL = 2-]

A cross-sectional survey ($n = 661$ males and $n = 1323$ females) undertaken in the USA examined the risk factors for attempting suicide among Native Alaskan youths (aged 12–18 years) who responded to a survey that they had attempted suicide.¹⁴¹ The study found that sexual abuse was linked to attempted suicide in males (OR 2.17; 95% CI 1.39 to 3.39) and in females (OR 1.46; 95% CI 1.21 to 1.77). The study found that physical abuse was linked to attempted suicide in males (OR 1.60; 95% CI 1.16 to 2.19) and in females (OR 1.73; 95% CI 1.44 to 2.08). However, age, substance misuse, friend or family suicide, mental health and family structure were also found to relate to suicide. [EL = 3]

A cohort study ($n = 3017$) undertaken in Canada examined the correlates with suicide attempts.¹⁴² Surveys were undertaken at three points in the individual's life: aged 6–12 years, then 15–18 years, then 19–24 years. The study included a random selection of 2000 (999 females) children and a second sample of 1017 (424 females) children who showed disruptive behaviour. Multiple regression analysis identified sexual abuse (OR 1.2; 95% CI 1.1 to 1.3) as being linked with suicide attempts. However, persistent ideation, insecure attachment, disruptive disorders and female gender were also statistically significant. Physical abuse was not statistically significant on univariate analysis and thus not included in the model. A regression model stratified by gender found that sexual abuse was statistically significant for suicide attempts in females (OR 1.22; 95% CI 1.06 to 1.41) but not males, and that different sets of variables were related to suicidal ideation in both groups. The study concluded that suicide ideation changes with persistence of ideation and gender. [EL = 3]

A case-control study ($n = 134$) undertaken in the USA examined the familial risk factors for suicide in adolescents.¹⁴³ Two groups were assessed: Group 1 ($n = 67$, mean age 17 years, 95% white, 85% male) were adolescents who had committed suicide, relatives of whom were interviewed; Group 2 ($n = 67$) were randomly identified and demographically matched adolescents. The study found that physical abuse within the past year was statistically significantly related to suicide ($P = 0.06$) but physical abuse before the past year was ($P < 0.01$). Sexual abuse was not statistically significantly related to suicide. Parent/carer-child conflict, parental unemployment, parent somatic illness, parent legal trouble, move from neighbourhood and parental mental disorders were found to be related to suicide. A multiple regression model showed that family history of depression, family history of substance abuse and lifetime history of parent-child discord were statistically significantly related to suicide. The study concluded that children of people with depression and/or substance abusers should be screened for suicidal behaviour. However, the study was based on relatives' recall and was thus liable to bias. [EL = 2-]

Additional evidence

In addition to the evidence on the relationship between maltreatment and self-harm in children there is a larger body of work examining the long-term impact of child maltreatment in adults. This evidence has not been reviewed here but points to a relationship between childhood maltreatment, particularly sexual abuse, and later self-harm (suicide, self-destructive behaviour and self-harm).

Evidence statement

Evidence from 16 studies found a statistical link ($P < 0.05$) between sexual abuse and suicidal behaviour compared with five studies that showed no association. Evidence from ten studies found a statistical link ($P < 0.05$) between physical abuse and suicidal behaviour compared with five studies that found no association. Evidence from four studies showed a statistical link ($P < 0.05$) between sexual abuse and self-harm compared with one that did not, and two studies found a statistical link ($P < 0.05$) between sexual abuse and self-destructive behaviour. Evidence from two studies found a statistical link ($P < 0.05$) between physical abuse and self-harm compared with two that did not, and one study found a link between physical abuse and self-destructive behaviour. Few studies examined emotional abuse or neglect.

There were general problems in the research due to self-reporting of maltreatment (28 of 31 studies) and varying definitions used for maltreatment and self-harm. This makes comparison of studies and reporting of figures unreliable.

In addition, maltreatment is usually found in association with a set of other personal, familial and wider social problems. Therefore, the causal pathway of any statistical association may not be direct.

GDG considerations

While many activities undertaken by children and young people may be harmful (for example, ingesting alcohol or illicit drugs), the GDG believes it is important to focus on the issue of intent to harm the self and for healthcare professionals to be alert to the deliberate nature of self-harm in some children and young people and its link to child maltreatment. The GDG wishes to raise

awareness of the clinical evidence for pre-teenage children to present with deliberate self-harm even though traditionally such behaviour might be thought to be restricted to teenagers.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendation on self-harm

Consider* past or current child maltreatment, particularly sexual, physical or emotional abuse, if a child or young person is deliberately self-harming. Self-harm includes cutting, scratching, picking, biting or tearing skin to cause injury, pulling out hair or eyelashes and deliberately taking prescribed or non-prescribed drugs at higher than therapeutic doses.

Research recommendation on self-harm

Further research is needed on the link between emotional abuse and neglect, including emotional neglect, and deliberate self-harm.

7.2.2 Recurrent abdominal pain

Chronic abdominal pain, often referred to as recurrent abdominal pain, is a common disorder that affects between 0.5% and 19% of children and adolescents worldwide.¹⁴⁴ In children, it has been defined in the past as pain that waxes and wanes, occurs for at least three episodes within 3 months and is severe enough to affect the child's activities. More recently, the term 'childhood chronic abdominal pain' has been preferred and although the disorder has been divided into five well-defined categories (functional dyspepsia, irritable bowel syndrome, functional abdominal pain, functional abdominal pain syndrome and abdominal migraine), it is suggested that further research is still needed in this area.

Children with chronic abdominal pain represent a heterogeneous population comprising both organic and functional gastrointestinal disorders.¹⁴⁴ Currently, little is known about an association between maltreatment and chronic abdominal pain in children.

Narrative summary

One case-control study was found that reported the differences in somatic and emotional reactions of girls who had reported sexual abuse and those who had not.¹⁴⁵ Seventy-two children who had attended a referral centre for sexual abuse were identified for inclusion in the study and controls of similar age and initial clinic visit date and no history of physical abuse were selected from admission records to a general clinic. Data were extracted from medical records on a number of reported symptoms including gastrointestinal irritability and chronic abdominal pain. Children who had been sexually abused were more likely to have reported chronic abdominal pain than those in the control group ($P < 0.01$). [EL = 2-]

GDG considerations

The GDG did not identify a good evidence base for whether a history of recurrent abdominal pain is a reason to suspect child maltreatment. The GDG believes that, in the absence of an obvious medical cause, recurrent abdominal pain can be caused by emotional disturbances resulting from child maltreatment. However, as recurrent abdominal pain is common and often unexplained, the GDG was not able to make a recommendation.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Research recommendation on recurrent abdominal pain

What is the association between unexplained recurrent abdominal pain and child maltreatment?

Why this is important

Recurrent abdominal pain is a common presentation in primary care and is often unexplained. A large observational study on the association between unexplained recurrent abdominal pain and child maltreatment is needed.

7.2.3 Disturbances in eating and feeding behaviour

There is a large literature on the possible association between child abuse, particularly sexual abuse, and eating disorders in adults. In addition to anorexia nervosa and bulimia nervosa, this search encompassed behaviours associated with food such as hoarding, hiding and stealing food, bingeing, pica and disturbed feeding patterns. These behaviours are thought to be associated with different types of maltreatment. The onset of bulimia and anorexia is complicated and its possible relationship with child abuse is further complicated by a number of mediating factors.

Overview of available evidence

Five studies were identified that looked at disordered eating in association with maltreatment. No suitable published literature was identified that looked specifically at hoarding or stealing behaviours.

Narrative summary

A US-based case-control study ($n = 40$, aged 10–15 years) investigated whether sexually abused (defined as unwanted sexual activity or sexual activity that involved a person more than 5 years older) girls in treatment for abuse showed more eating disorder behaviours than non-abused girls and whether multiple forms of abuse increased the severity of the eating disturbance.¹⁴⁶ Girls in both groups were asked to fill in the Childhood Trauma Questionnaire (CTQ), the Body Rating Scale for Adolescents, the McKnight Risk Factor Survey and the Kids' Eating Disorder Survey (KEDS). Fifteen items were reported on and the sexually abused girls had statistically significantly greater weight dissatisfaction, reported eating less when they were bored, upset or trying to feel better about themselves, had a lower score on perfectionism and chose a thinner figure that represented how they would like to look than non-abused girls. [EL = 2–]

A number of studies in this area have arisen out of a large US survey of secondary school students in Minnesota conducted in 1987. The first paper reviewed here selected females who reported that they had ever been sexually abused and had discussed the problem with someone ($n = 1011$, mean age 15.28 years).¹⁴⁷ They were compared with a group selected randomly from the survey cohort who had not been sexually abused according to the survey questions ($n = 1011$, mean age 14.92 years). Prevalence of evaluating oneself as overweight (55.6% versus 43.7%), binge-eating (40.3% versus 31.7%), non-stop eating (24.6% versus 16.7%), more than ten dieting episodes in the preceding year (17.9% versus 12.3%), self-induced vomiting more than once a week (4.4% versus 2.7%), use of diuretics (4.4% versus 2.7%) and use of laxatives (3.7% versus 2.2%) were found to be statistically significantly higher in the girls who reported abuse than those who did not. [EL = 3]

A 10% subsample ($n = 6224$) from the Minnesota study was used to investigate associations between abuse history and disordered eating in 9th and 12th graders only.¹⁴⁸ Adolescents were said to have disordered eating if they reported two of out-of-control eating, using laxatives and vomiting. There were 318 females and 84 males who met these criteria and reported at least one type of abuse. Some participants reported more than one type of abuse but this was not accounted for in the analysis. Approximately twice as many abused females had disordered eating than non-abused females; in males, approximately ten times as many had disordered eating in the abused group compared with the non-abused group. [EL = 3]

Another study compared eating behaviours and weight perception of males ($n = 370$, mean age 15.26 years, SD 1.7 years) and females ($n = 2681$, mean age 15.37 years, SD 1.7 years) who reported past sexual abuse (defined as ‘someone in your family, or someone else, touches you in a place you did not want to be touched, or does something to you sexually which they shouldn’t have done’).¹⁴⁹ More abused girls than boys thought of themselves as overweight (52% versus 21%), reported binge-eating episodes (41% versus 22%), reported being afraid of not being able to stop eating (23% versus 8%), had dieted in the preceding year (70% versus 27%), had induced vomiting in themselves (20% versus 10%) and had used diuretics to lose weight (3.7% versus 1.4%). More boys than girls were satisfied with their body weight and proud of their body. There were no statistically significant differences between males and females in the use of laxatives (1.6% versus 3%) or ipecac (1.4% versus 1.1%). [EL = 2–]

Another large survey of adolescent females in the USA ($n = 7903$, mean age 14.5 years, SD 1.6 years) investigated whether increasing numbers of episodes of physical or sexual abuse led to increasing numbers of purging episodes.¹⁵⁰ The study found an association between physical abuse and purging behaviour (OR 1.81; $P = 0.0014$) after adjusting for some confounders but found no relationship between sexual abuse and purging behaviour. [EL = 3]

Evidence statement

A number of surveys have investigated eating behaviours and attitudes to body weight and their relationship with maltreatment. The studies are generally of poor quality but suggest that children who had been maltreated reported more bingeing than those who had not.

GDG considerations

There is a range of disturbance in eating behaviour in children, including hoarding, hiding and stealing food, bingeing, pica and disturbed feeding patterns. It is the GDG’s view that these can be associated with various forms of maltreatment because they may be a manifestation of underlying distress, of a lack of physical and emotional nurturing, or of disturbed parent/carer–child interactions focused around feeding. The GDG believes that once medical causes such as bulimia and problems in the autistic spectrum have been ruled out, these behaviours are concerning. The GDG is also of the view that eating disorders, seen more commonly in older children and adolescents, which include anorexia nervosa, bulimia and obesity, may also be associated with a past history of maltreatment. The strength of association varies according to the type of disorder. The GDG chose not to make a recommendation about eating disorders in relation to current abuse.

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendation on disturbances in eating and feeding behaviour

Suspect* child maltreatment if a child repeatedly scavenges, steals, hoards or hides food with no medical explanation.

7.2.4 Head-banging and body rocking

Head-banging and body rocking are sometimes referred to as stereotypical behaviours. They are considered to be a form of behaviour in which the child soothes itself by performing a repetitive action.

Overview of available evidence

One cross-sectional study was identified.

Narrative summary

A German study of children ($n = 140$, aged 10 months to 11 years) in residential care homes asked caregivers to rate the occurrence of 15 stereotyped behaviours in non-handicapped children in their care.¹⁵¹ Of the children included in the study, 45 had a history of suspected

* Refer to Chapter 3 for the definitions of ‘unsuitable explanation’, ‘consider’ and ‘suspect’, and for their associated actions.

child abuse; this was not defined in the paper. In the questionnaire, caregivers were asked to rate how often each child performed each behaviour. The results cited were based on daily occurrences. Body rocking was observed in 11.1% of suspected abuse cases and in 6.3% of the remaining children, head nodding or shaking was observed in 4.4% of the suspected abuse cases and in 4.2% of the remaining children and head-banging was observed in 4.4% of the suspected abuse cases and in 1.1% of the other children. None of these proportions were statistically significantly different between groups. This result could be due to the reasons that the children are in residential care. [EL = 2 –]

Evidence statement

The retrieved study indicates that head-banging and body rocking are uncommon behaviours in children who have a history of suspected abuse and are no longer living with their families.

Delphi consensus (see also Appendix C)

The lack of literature in this subject caused the GDG to seek external validation for their opinions. The following statement on body rocking was put into the Delphi survey:

Round 1

Statement number	Round 1	% agreed	n	Outcome
37a	Healthcare professionals should consider emotional neglect if a child displays habitual body rocking in the absence of medical causes or neurodevelopmental disorders.	79	92	Statement accepted.

The following statement on head-banging was drafted:

Round 2

Statement number	Round 2	% agreed	n	Outcome
38a	Healthcare professionals should consider child maltreatment when a child shows habitual head-banging in the absence of a medical cause or other definable stressor.	54	78	Statement rejected because responses were diffuse.

GDG considerations

The GDG believes that body rocking is associated with emotional neglect and that it is a sign of inadequate stimulation. Body rocking is common in children and young people with learning disabilities and, while it is important to exclude neurodevelopmental disorders as the cause of the rocking, it is imperative to recognise that abuse may be the cause. The GDG sought the opinions of the Delphi panel on Statement 37a about body rocking and sufficient agreement was reached (see above and Section C.2.3). The GDG incorporated this statement into the above recommendation on behaviours and emotional states (see Section 7.1).

Habitual head-banging can be distinguished from that associated with an outburst of anger. While habitual head-banging is a relatively uncommon clinical finding, there is no general prevalence data. The data linking it with child maltreatment are weak. Therefore, the GDG, having sought the opinion of the Delphi panel, chose not to make a recommendation about head-banging (see above and Section C.2.8).

7.2.5 Wetting and soiling

Enuresis or wetting is involuntary voiding of the bladder beyond an age at which bladder control is expected. The American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders (DSM IV)*¹⁰⁰ uses the term enuresis for the repeated voiding of urine into clothing, occurring at least twice a week, for at least three consecutive months, in children aged 5 years or over in the absence of congenital or acquired defects of the central nervous system. Many children have less frequent episodes of bedwetting and/or daytime urinary incontinence

that normally decrease in frequency with increasing age. Parents/carers respond to episodes of wetting in a variety of ways.

Bedwetting is considered primary when bladder control has never been attained. Primary nocturnal enuresis is more common in boys. Bedwetting at least twice a week is found in 2.5–10% of 7-year-old children,¹⁵² declining to 0.5% in adults.¹⁵³

Enuresis is considered secondary when incontinence reoccurs after at least 6 months of continence. Medical causes include urinary tract infection and neurological disorders. It is thought that emotional upset due to parental separation or illness, bullying at school or sexual abuse may also cause secondary nocturnal enuresis.

Daytime wetting is more common in girls than in boys and can be caused by a heterogeneous group of urological disorders associated with bladder instability. Daytime wetting has been found to have occurred more than once a week in 3% of girls with a mean age of 5.9 years.¹⁵⁴ Voluntary wetting is not common. It is associated with such psychiatric disorders as oppositional defiant disorder and is substantially different from ordinary night-time bedwetting. Voluntary enuresis is always secondary.

Constipation, soiling, smearing and encopresis are complex issues. For the purposes of this document, soiling is defined as defecation in an inappropriate place and encopresis as deliberate defecation of a normal stool in an inappropriate place.

Narrative summary

A case series of sexually abused children ($n = 428$, 84% female, mean age 8.6 years, age range 1–16 years) documented genital symptoms and signs at a follow-up visit to a specialist sexual assault centre.³⁹ Of the total sample, 85 children (20%) had symptoms. These were vaginal pain in 43 girls, dysuria in 21 children, increased urinary frequency in 20 and recent onset of daytime or night-time enuresis in 24. [EL = 3]

As part of a validation study for the Child Sexual Behaviour Inventory (CSBI), one paper reports on the value of encopresis (defined as a response of 'sometimes true' or 'often true' to the 'bowel motion outside the toilet' item on the CBCL) in determining whether a child has been sexually abused.¹⁵⁵ Normative ($n = 1114$), psychiatric ($n = 577$) and abused ($n = 620$) children and their primary female caregiver were recruited to the study. In a total of 1536 children (aged 2–12 years), the sensitivity of encopresis to predict CSA was 10% and the positive predictive value was 45%. The positive predictive value ranged from 27% in 10- to 12-year-old boys to 80% in 10- to 12-year-old girls. Note that the positive predictive value depends on the prevalence of abuse in the population being studied. [EL = 2+]

GDG considerations

Wetting disorders are heterogeneous, common and encompass a wide range of underlying medical disorders. Psychological stressors including the stresses associated with maltreatment are possible causes of secondary forms of wetting. The GDG believes that it is also important to consider the role of parents/carers in training children to be continent, the parents'/carers' response to episodes of wetting (emotional abuse) and the extent to which parents/carers have engaged with treatment programmes for children with primary enuresis.

Soiling is the passage of faeces into inappropriate places at a stage in the child's development when this would not be expected to occur. The association between soiling, constipation and maltreatment is complex. The GDG is of the opinion that where the act is clearly perceived to be deliberate (encopresis) on the part of the child there is an association with maltreatment. The GDG also agrees that where constipation is associated with soiling it is more difficult to define a clear link with maltreatment. Cases where soiling persists despite determined efforts to treat attract greater concern regarding possible underlying maltreatment. Poor treatment compliance is considered in Section 6.3 on ensuring access to appropriate medical care or treatment.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on wetting and soiling

Consider* child maltreatment if a child has secondary day- or night-time wetting that persists despite adequate assessment and management unless there is a medical explanation (for example, urinary tract infection) or clearly identified stressful situation that is not part of maltreatment (for example, bereavement, parental separation).

Consider* child maltreatment if a child is reported to be deliberately wetting.

Consider* child maltreatment if a child shows encopresis (repeatedly defecating a normal stool in an inappropriate place) or repeated, deliberate smearing of faeces.

7.2.6 Sexualised behaviour

In this review we sought to establish whether children who had been sexually abused showed more sexualised behaviours than non-cases. Many children display some sexualised behaviours so it is important for a healthcare professional to be able to ascertain whether observed or described sexualised behaviours are appropriate for the child's age and developmental stage. Community-based studies have investigated which behaviours are commonly observed.^{156,157} In pre-school children, it is not uncommon to observe children touching their own genitalia, attempting to touch a woman's breasts, looking at another child's genitalia and showing their own genitalia.¹⁵⁶ Behaviours that are rarely or never observed include touching another person's genitalia, asking for genitalia to be touched, inserting a finger or penis into another person's vagina or anus and having oral contact with another person's or a doll's genital area.¹⁵⁷ A number of validated tools are sometimes used for evaluating sexual behaviours in children, for example the Child Sexual Behaviour Inventory (CSBI).¹⁵⁸

Narrative summary

One systematic review pooled comparative data on the effects of CSA,⁸⁷ acknowledging that source materials were heterogeneous. This review found eight studies which compared sexualised behaviours in sexually abused children and controls from the community. In all eight studies, sexually abused children showed more sexualised behaviour than the children who had not been sexually abused. [EL = 2-]

One descriptive systematic review on the sexual abuse of boys concluded that abused males (younger than 19 years) showed more sexualised behaviours, such as difficulty controlling sexual feelings, hypersexuality, coercive behaviour towards others, engagement in prostitution and unprotected sexual intercourse, than non-abused boys.⁸⁶ [EL = 2-]

A comparative study of girls who were being treated after sexual abuse within a 2 year period of reporting abuse reported scores on the CSBI in 20 CSA cases, 20 psychiatric controls and 20 non-psychiatric controls.¹⁵⁹ Mean CBSI scores were found to be 30.6 (SD 20.3), 15.2 (SD 9.9) and 10.8 (SD 9.6), respectively, and the groups were found to be statistically significantly different. [EL = 2+]

A retrospective study matched children who had been sexually abused ($n = 22$, 13 girls, age range 2–7 years) with controls recruited from a paediatric practice and a public health centre.¹⁶⁰ The children were interviewed with a questionnaire about sexual knowledge. No differences were found in the sexual knowledge of the two groups. [EL = 2-]

One case-control study compared children ($n = 17$, age range 5–15 years) who had been sexually abused and were protected from the perpetrator at the time of investigation with a group of controls ($n = 17$) matched on age, sex, socio-economic status and current living situation (single parent, divorced parents, etc).¹⁶¹ A number of validated questionnaires were applied to all children in the study or their caregivers as appropriate, including the CBCL, on which the six sex problem items were combined to give a sex problem score. On this measure, the abused children scored higher than those in the control group ($P = 0.05$). In the abused group, the alleged abuse had happened within the year before the study and a wide range of abuses was reported. [EL = 2-]

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

A longitudinal survey of children who had either been maltreated early in life or who were at risk of early maltreatment investigated the effects of maltreatment other than sexual abuse on sexualised behaviours ($n = 690$, age approximately 8 years at data collection, 53% male).¹⁶² A modified version of the CSBI was used to measure sexualised behaviours; maltreatment reports to child protective services were classified as early if they occurred before age 4 years and late if they occurred between age 4 years and the time of the survey. Children who had reports of sexual abuse were excluded. Late physical abuse was associated with boundary problems (OR 1.9; 95% CI 1.1 to 3.5), displaying private parts (OR 2.4; 95% CI 1.0 to 5.6) and sexual intrusiveness (OR 2.6; 95% CI 1.3 to 5.2). Late emotional abuse was associated with sexual knowledge (OR 2.0; 95% CI 1.2 to 3.4). Early physical abuse was associated with displaying private parts (OR 2.4; 95% CI 1.1 to 5.4). Early emotional abuse was protective against displaying private parts (OR 0.3; 95% CI 0.1 to 0.8) and early neglect was protective against sexual intrusiveness (OR 0.4; 95% CI 0.2 to 0.9). There was no normative sample in this study. [EL = 2–]

A survey of sexually active African-American females ($n = 725$, mean age 16.6 years, SD 1.6 years) attending an adolescent primary care and prevention clinic investigated associations between reports of sexual abuse and attitudes towards condom use.¹⁶³ Participants were asked whether they had ever been sexually abused or molested and at what age. Those who said they had ($n = 167$) reported a greater number of sexual partners in their lifetime (6.5 versus 4.4; $P < 0.05$) and a greater frequency of unprotected vaginal sex in the preceding 90 days (5.7 versus 4.5; $P < 0.05$) than those who had not ($n = 558$). There were no differences between the groups in frequency of protected vaginal sex in the preceding 90 days or condom use consistency. [EL = 2–]

Evidence statement

The comparative studies cited here show that, for the most part, sexualised behaviour occurs more often in children who have been sexually abused than those who have not. One small study showed that sexual knowledge did not differ between the two groups.

GDG considerations

Based on the GDG's clinical experience and studies of normative behaviour, the GDG believes that certain sexualised behaviours that are uncommonly encountered are a cause for concern and that the explanation of the behaviours should be sought; sexualised behaviours can be associated with sexual exposure, which may be a part of sexual grooming behaviour or contact sexual abuse, both of which form the definition of sexual abuse adopted in this document (see Section 2.6 on definitions of child maltreatment).

The GDG believes that sexualised behaviours as a result of maltreatment become different in nature as children move into adolescence; these include promiscuity, sexually precocious behaviour and risk-taking sexual behaviours. Risk-taking sexual behaviours may be recognised as such or their results come to light when a child or young person has an STI or is pregnant (see Section 4.2.3 on STIs and Section 5.1 on pregnancy). The GDG's clinical experience is that sexual behaviours due to maltreatment are often resistant to limits or distractions set by the parents/carers. However, difficulties in the autistic spectrum should be taken into account.

The GDG believes that children and young people involved in prostitution and sexual exploitation are in need of protection but recognises that the decision to initiate child protection proceedings should not deter the young person from seeking and receiving medical attention.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on sexualised behaviour

Suspect* child maltreatment, and in particular sexual abuse, if a prepubertal child displays or is reported to display repeated or coercive sexualised behaviours or preoccupation (for example, sexual talk associated with knowledge, drawing genitalia, emulating sexual activity with another child).

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Suspect* past or current child maltreatment if a child or young person's sexual behaviour is indiscriminate, precocious or coercive.

Suspect* sexual abuse if a prepubertal child displays or is reported to display unusual sexualised behaviours. Examples include:

- oral–genital contact with another child or a doll
- requesting to be touched in the genital area
- inserting or attempting to insert an object, finger or penis into another child's vagina or anus.

7.2.7 Runaway behaviour

Children or young persons who run away from their home are, by definition, distancing themselves actively from something they perceive to be unpleasant. Maltreatment, including sexual, physical and emotional abuse is foremost among causes. A child or young person might also run to something, for example a promised relationship. However, this would suggest difficulties in the relationship between the child and their primary caregivers if done without the caregivers' permission. British government guidance on children missing from care and from home was published in July 2009.¹⁶⁴

Overview of available evidence

A number of surveys of homeless and runaway youth were identified. Given the low quality of the evidence, a small number of studies have been reviewed in detail and some others have been presented in Table 7.1.

Narrative summary

In a US study of homeless female adolescents ($n = 216$, mean age 17.7 years, range 13–20 years), sexual abuse (defined as prepubertal sexual contact with an older person) was reported by 38% of study participants.¹⁷⁴ The mean age of the first incident of abuse was 6.7 years (SD 2.9 years) and the mean age of becoming homeless was 14.3 years (SD 2.5 years).

A survey of homeless and runaway youth ($n = 372$, median age 17 years, range 13–21 years) found that 47% of responders ($n = 326$) had been physically abused before they left home and 29% of responders had been sexually abused.¹⁷⁵ There was no difference between males and females in the rates of physical abuse but more females than males had been sexually abused.

A survey of runaways at a shelter ($n = 187$, median age 18 years, range 16–21 years) reported the reasons why the young people had left home for the first time and the most recent time.¹⁷⁶ Respondents were asked to rate a list of given reasons using a Likert-like scale of importance. Reasons for leaving home the first time, rated as somewhat important, important or very important, were physical abuse (40%), sexual abuse (12%), being thrown out (38%), conflict with a male adult (57%), conflict with a female adult (57%) and feeling unloved (56%). Seventy-four percent of the people surveyed had run away from home more than once; the important reasons for running away the most recent time was physical abuse (33%), sexual abuse (9%), being thrown out (55%), conflict with a male adult (56%), conflict with a female adult (55%) and feeling unloved (48%). The median age of onset of physical abuse was reported to be 12 years. [EL = 3]

Evidence statement

A number of surveys of young people who are either homeless or have run away from home indicate that up to 62% have suffered some form of abuse in the past. Definitions of homelessness and runaway behaviour differ between studies; maltreatment is measured in different ways and is not substantiated in any of the studies. Many studies asked questions about physical or sexual abuse but few reported on neglect or emotional abuse.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

Table 7.1 Surveys of homeless and runaway youth identified

Study	Number of participants	Proportion maltreated	Sample	Age at interview
Powers <i>et al.</i> (1990) ¹⁶⁵ and Powers <i>et al.</i> (1988) ¹⁶⁶	223	Sexual abuse: 13% Physical abuse: 42% Neglect: 43%	Young people who sought services from runaway and youth homeless services in New York state: 49% runaways, 17% homeless, 13% considering running, 21% in crisis but not on the run	
Stiffman (1989) ¹⁶⁷	291	History of physical or sexual abuse: 48%	Youth who sought shelter at one of two homes for runaway youth	12–18 years
Gary <i>et al.</i> (1996) ¹⁶⁸ Warren <i>et al.</i> (1997) ¹⁶⁹ and Warren <i>et al.</i> (1994) ¹⁷⁰	69 (number who gave information about abuse)	Physical: 29% Sexual: 14% Emotional: 1% Combination: 17% Any: 62%	Convenience sample who had been admitted to referral shelter for runaway youth	Mean age: 15 years (range 11–17 years)
Thompson <i>et al.</i> (2004) ¹⁷¹	156	Physical: 35% Sexual: 12% Emotional: 30% Neglect: 29%	Consecutive entrants to a shelter for runaway youth (recorded up to 48 hours after admission)	Mean age: 16 years (SD 1.5 years)
Kufeldt and Nimmo (1987) ¹⁷²	474	Physical: 28% Sexual: 7%	Night-time interviews of young people on the street	Mean age: ~15 years (all younger than 18 years)
Feitel <i>et al.</i> (1992) ¹⁷³	150 (different numbers responded to different questions)	Fear of being hit: 55% Being badly beaten: 68% Being sexually molested: 25%	Clients of youth shelter	Mean age: 18.45 years (range 13–22 years)

GDG considerations

Many of the reasons given by children and young people for leaving home are to do with a negative atmosphere in the home; either conflict or abuse, or fear of conflict or abuse. Although the literature does not indicate clearly that young people who exhibit runaway behaviour are currently in need of protection, the GDG is of the opinion that running away from home implies that the young person perceives the home to be a place that is unsafe or intolerable. The GDG believes that it is important to establish whether parental/carer consent has been given if a child or young person is found not to be living at home, but notes that maltreatment is less of a concern in 16- and 17-year-olds. Refer to the national guidelines on runaways.¹⁶⁴

There was consensus within the GDG about the recommendation in this section and thus the views of the Delphi panel were not sought.

Recommendation on runaway behaviour

Consider* child maltreatment if a child or young person has run away from home or care, or is living in alternative accommodation without the full agreement of their parents or carers.

* Refer to Chapter 3 for the definitions of 'unsuitable explanation', 'consider' and 'suspect', and for their associated actions.

8 Parent–child interactions

The features of harmful parent/carer–child interaction are encapsulated in the definition of emotional abuse within *Working Together to Safeguard Children*¹ (see Section 2.6 on definitions of child maltreatment). The definition is based on a thorough review of literature and clinical experience at the time that it was drawn up and updated for the 2006 version. The definition establishes that it is important to look at reported or evident troubling parent/carer–child interactions. The effects on the child of these interactions can be caused by other types of maltreatment, including emotional abuse.

GDG considerations

The GDG’s opinion is that the UK government’s definition of emotional abuse is well formulated and that direct observation of parent/carer–child interactions by healthcare professionals can provide significant pointers to more fundamental concerns that the nature of the relationship between parent/carer and child may be harmful. Therefore, the GDG believes that healthcare professionals should be alerted to how the general concerns in the definition of emotional abuse can translate into specific interactions between parents/carers and children. The GDG also believes that infants are particularly vulnerable to the effects of emotional neglect and has highlighted this.

The GDG discussed the issue of wetting (see Section 7.2.5 on wetting and soiling). In addition, the parent or carer’s interaction with the child in cases of wetting is considered to be important and the GDG concluded that punishing a child for involuntary wetting when, for example, the parents had been advised that the symptom was involuntary would be a cause for concern.

A concerning parent–child or carer–child interaction that presents as an obstacle to recognising maltreatment is when the parent or carer does not allow the healthcare professional to talk to the child in the absence of the parent or carer. The GDG believes this behaviour to be concerning because it disempowers the child or young person.

There was consensus within the GDG about the recommendations in this section and thus the views of the Delphi panel were not sought.

Recommendations on parent–child interactions

Consider* emotional abuse if there is concern that parent– or carer–child interactions may be harmful. Examples include:

- Negativity or hostility towards a child or young person.
- Rejection or scapegoating of a child or young person.
- Developmentally inappropriate expectations of or interactions with a child, including inappropriate threats or methods of disciplining.
- Exposure to frightening or traumatic experiences, including domestic abuse.
- Using the child for the fulfilment of the adult’s needs (for example, children being used in marital disputes).
- Failure to promote the child’s appropriate socialisation (for example, involving children in unlawful activities, isolation, not providing stimulation or education).

Suspect* emotional abuse when persistent harmful parent– or carer–child interactions are observed or reported.

* Refer to Chapter 3 for the definitions of ‘unsuitable explanation’, ‘consider’ and ‘suspect’, and for their associated actions.

Consider* child maltreatment if parents or carers are seen or reported to punish a child for wetting despite professional advice that the symptom is involuntary.

Consider* emotional neglect if there is emotional unavailability and unresponsiveness from the parent or carer towards a child and in particular towards an infant.

Suspect* emotional neglect if there is persistent emotional unavailability and unresponsiveness from the parent or carer towards a child and in particular towards an infant.

Consider* child maltreatment if a parent or carer refuses to allow a child or young person to speak to a healthcare professional on their own when it is necessary for the assessment of the child or young person.

See also Section 7.2.5 on wetting and soiling.

* Refer to Chapter 3 for the definitions of ‘unsuitable explanation’, ‘consider’ and ‘suspect’, and for their associated actions.

Appendix A

Declarations of interest

GDG member	Interest
Jane Appleton	<p><i>Non-personal pecuniary interest</i> October 2003–June 2007, post-doctoral research fellowship funded through the Health Foundation Consortium for Healthcare Research on ‘Safeguarding Children, the Management and Organisation of Child Protection Responsibilities in Primary Care’.</p> <p><i>Personal non-pecuniary interest</i> Has previously conducted research on how health visitors identify vulnerable families. This work has been published in peer-reviewed journals. Co-Editor of <i>Child Abuse Review</i>. National Executive Committee Member of BASPCAN. Professional Editor of <i>Community Practitioner</i>.</p>
Tricia Brennan	<p><i>Personal non-pecuniary interest</i> Member of the child protection special interest group of the Royal College of Paediatrics and Child Health (RCPCH).</p>
Geoff Debelles	<p><i>Personal pecuniary interest</i> Payment received from the Legal Aid Commission for independent, expert medico-legal reports for Family and Criminal Court proceedings. This is work undertaken outside of NHS time.</p> <p><i>Personal non-pecuniary interest</i> Paediatric Advisor appointed by the GMC. Fellow of the Royal College of Paediatrics and Child Health (RCPCH). National Executive Committee Member of BASPCAN and CPSIG. Member of Birmingham Safeguarding Children Board. Member of ISPCAN (International Society for the Prevention of Child Abuse and Neglect). Has prepared consultation documents on safeguarding for RCPCH and mentored a Designated Senior Doctor in a London trust.</p>
Susan Dunstall	No interests declared.
Danya Glaser	<p><i>Personal non-pecuniary interest</i> President/immediate past president of the International Society for the Prevention of Child Abuse and Neglect, research on emotional abuse and neglect and publication on child abuse and neglect in <i>Lancet</i> 2008.</p>
Andrea Goddard	No interests declared.
Kathryn Gutteridge	<p><i>Personal non-pecuniary interest</i> Council member of the Royal College of Midwives.</p>
Christine Habgood	<p><i>Personal pecuniary interest</i> Shares to the value of £70 in South East Health Holdings Ltd, the local provider of out-of-hours primary care.</p> <p><i>Personal non-pecuniary interest</i> Has previously sat on East Sussex and Brighton and Hove Area Child Protection Committees. Currently lectures annually on child protection matters at Brighton and Sussex Medical School where she holds the post of Honorary Clinical Tutor.</p>
Chris Hobbs	<p><i>Personal non-pecuniary interest</i> Has publications in the area, most recently a publication on child abuse and neglect in <i>Lancet</i> 2008. A member of CPSIG, BASPCAN, ISPCAN. Involved in research within the NHS into the physical signs of sexual abuse in children.</p>
Elizabeth Hughes	No interests declared.

GDG member	Interest
Alison Kemp	No interests declared.
Anne Livesey	No interests declared.
David Lucey	No interests declared.
Rosemary Neary	No interests declared.
Annmarie Reeves	<i>Personal non-pecuniary interest</i> A Senior Practitioner/Social Worker for Milton Keynes Council, Referral and Assessment Team. Undertakes assessments and Section 47 investigations with regard to children in need and children in need of protection.
Peter Saunders	No interests declared.
Anubha Sinha	No interests declared.
David Vickers ^a	No interests declared.

^a Stood down in April 2008 because of work commitments, and replaced by Geoff Debelle.

Appendix B

Clinical question

Question

When is feature X a reason to suspect child maltreatment?

Table B.1 Features addressed in the guidance

Physical features	Neglect – failure of provision and failure of supervision	Clinical presentations	Emotional, behavioural and interpersonal/social functioning	Parent–child interactions
Bruises	General features of neglect	Repeated attendance at medical services	Emotional and behavioural states	
Bites				
Cuts and abrasions	Over- and under-nutrition	Dehydration	Self-harm	
Thermal injuries	Oral health	Strangulation and suffocation	Abdominal pain	Disturbances in eating and feeding behaviour
Cold injury				
Hair loss		Apparent life-threatening event	Selective mutism (elective mutism)	
Fractures		Poisoning	Head-banging and body rocking	
Intracranial injuries		Near drowning	Wetting and soiling	
Eye trauma		Fabricated or induced illness	Sexualised behaviour	
Spinal injuries		Inappropriate or unexplained poor school attendance	Runaway behaviour	
Visceral injuries			Dissociation	
Oral injury				
Genital and anal symptoms/genital and anal signs				
Sexually transmitted infections				
Pregnancy				

Table B.2 Features identified that were subsumed under features finally addressed within the guideline (see above)

Demeanour	Parent-child interactions	Challenging antisocial and aggressive behaviour	Wetting and soiling	Lack of attachment	Self-harm	Head-banging and body rocking	Over-and under-nutrition and disturbances in eating and feeding behaviour	Emotional and behavioural states	General features of neglect
Anxiety Poor concentration /preoccupied Unhappiness Distress Withdrawn Lack of trust /mistrustful Phobic behaviour Fearful Frozen/watchful Social isolation Unexplained low self-esteem Unexplained specific fearfulness	Overly attentive parent Parents acting on developmentally inappropriate expectations Threats Distorted parental understanding of the child Inappropriate parental response Scapegoat Inappropriate or unrealistic parental expectations on child's development Abnormal interaction with carer Suspicious parental behaviour Lack of involvement	Affect regulation Tantrums Oppositional-defiant disorder Aggression Preoccupation with violence Poor school behaviour	Constipation unresponsive to treatment Elimination Persistent unexplained diarrhoea	Lacking boundaries Over-friendly	Self-endangering/ self-destructive	Self-soothing	Weight problems	Sleep problems Emotional changes	Pica

Table B.3 Features identified that were excluded from the guideline

Feature	Reason for exclusion
Bullied	Bullying, which refers to hurtful and abusive peer interaction, is not included. Children who behave in a bullying manner and who are subject to being bullied may have been or continue to be maltreated. Bullying may thus be considered an alerting sign to the existence of child maltreatment. However, since bullying occurs and is primarily recognised in peer and educational, rather than in health, settings, it is not considered as of direct relevance to healthcare professionals' recognition of child maltreatment.
Conversion disorder	Needs treatment in its own right in the first instance, whatever the possible cause, and those treating will look for possible past/present maltreatment.
Hyperactivity	Very common; need to exclude ADHD.
Impaired consciousness	Result of an injury
Lies	Common in children
Parental affect	Risk factor
Poor peer relationships	Could be due to several factors.
Poor school performance	Not observed in a healthcare setting.
Stress-related illness	Healthcare professional would first have to identify that stress was contributing to the illness.
Substance abuse	Consequence of past episodes/dealt with by substance abuse specialists.

Appendix C

Delphi consensus surveys

C.1 Background

NICE clinical guidelines are typically based on a review of evidence from published literature, ideally from large, well-conducted studies. The methods used to develop these guidelines are explicit and transparent. They include literature search, assessment and synthesis of evidence and the judgements made by the Guideline Development Group (GDG) to finalise recommendations. While the use of formal consensus methods in NICE guidance is not customary, there are circumstances when they may be warranted, particularly in the absence of robust evidence. The process is separate from the stakeholder consultation on the draft documentation.

A core objective of this guidance on when to suspect child maltreatment was to improve child protection by promoting early recognition of suspected maltreatment by:

- raising awareness of the clinical features associated with maltreatment and the possibility of it
- providing a concise summary of the major features associated with maltreatment that can be referred to when a child initially presents to the NHS.

The need for consensus methods in the development of this guidance was identified when an extensive review of the literature revealed major deficiencies with the evidence for many of the clinical features of child maltreatment to answer some of the key clinical questions. Against this background, the GDG decided to use a formal consensus approach with a larger external group of consultees on selected questions. Formal consensus methods are used increasingly in combination with the best available evidence to develop clinical practice guidelines.¹⁷⁷ The purpose of the consensus work was to obtain the opinions of an external multidisciplinary group to assist the GDG in making reliable recommendations in at least one of the following circumstances:

- in areas where there was no evidence on a clinical feature's importance in child maltreatment
- where the GDG could not reach internal consensus
- to support the GDG consensus.

Methods

Choosing the consensus method

The GDG chose a modified Delphi method.¹² Delphi is one of the most widely used formal consensus techniques for obtaining opinions from groups of experts and stakeholders. It involves sending participants questionnaires and asking them for their views. The responses are collated and sent back to participants in a summary form allowing them to review their original opinion in light of the group feedback.¹³ This process is repeated several times with the aim of obtaining consensus. The GDG used a two-round online survey.

Defining the project plan

A plan protocol was designed initially that incorporated all stages and details of the work, including the consensus method to be used, recruitment of participants, data collection and analysis. Importantly, the GDG agreed the ground rules they would use for analysing the results and for formulating the recommendations based on the results from the survey:

- The results of the group ratings will be presented to the GDG, together with comments.
- Whenever appropriate, the GDG will aim to formulate a recommendation for each statement. The statements will be worded in a way that can be directly translated into recommendations.

- The GDG will explicitly state the basis for its decision.
- Statements for which 75% or more of the ratings fall in the 7–9 range will be classified as agreement and the GDG will use the statement as a basis for making a recommendation.
- Statements for which 75% or more of the ratings fall in the 1–3 range will be classified as disagreement. The GDG will usually make a negative recommendation (for example, do not recommend). In certain circumstances, the GDG may decide to make a research recommendation or discard the statement. The decision not to make a negative recommendation will need to be agreed by the GDG and it will need to be justified.
- In all other cases, the GDG will discard the statement. Exceptionally, it may decide to make a recommendation, depending on the degree of variation in the ratings for that statement. Again, this decision will need to be justified and agreed by the GDG.
- In cases where there is agreement in the rating group but the GDG considers there are grounds to discard the results, the GDG reserves the right to use its own opinion in making the recommendation. This will need to be agreed by the GDG. In such cases, the GDG will explain in detail the reasons why it rejected the results.

Selecting participants

Participants were sought using an external advertising campaign with the aim of recruiting at least 50 volunteers with professional expertise in each of the following areas of maltreatment: sexual, physical and emotional abuse, neglect and FII. Applicants were asked to rate their own level of expertise in each of these areas and to describe their professional experience in child protection.

The advertisement was placed with the organisations listed in Table C.1 as well as on the NCC-WCH and NICE websites.

Table C.1 Placing of advertisements for Delphi participants

Organisation	Method
British Association for the Study and Prevention of Child Abuse and Neglect	Charity mailing and advertisement on website
Community Practitioners' and Health Visitors' Association	Advertisement in monthly publication
Local Safeguarding Children boards	E-mail sent to chairs
National Safeguarding Children Association for Nurses	Information circulated to all members via their list of designated nurses in the UK
National Society for the Prevention of Cruelty to Children	Web entry to information in their weekly newsletter
Royal College of General Practitioners	Advertisement and link distributed to GPs with child health interest/child welfare group
Royal College of Paediatrics and Child Health	Advertisement on website and mail-out to members
Royal College of Psychiatrists	E-mail sent to members

The numbers of participants in each stage of the Delphi survey process were as follows:

- applicants: 144
- applications meeting the selection criteria: 124
- respondents in Round 1: 95
- respondents in Round 2: 85.

The Delphi panel in Round 1 comprised:

- 30 paediatricians (including 13 named/designated doctors for child protection/safeguarding children)
- 15 nurses (including 14 named/designated nurse for child protection/safeguarding children)
- three GPs (one child protection adviser for GPs)
- one genito-urinary medicine physician
- seven health visitors
- four dentists (including 1 named dentist for safeguarding children board)
- three psychotherapists

- three forensic physicians
- 11 psychiatrists
- 13 psychologists (including two clinical leads for Child and Adolescent Mental Health Services (CAMHS))
- one gastroenterologist
- one social services
- two academics
- one other.

Acknowledgements

We would like to thank the following individuals for their valuable contribution to the consensus survey:

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C.2 Results

Agreement was said to be reached when more than 75% of respondents answered 7, 8 or 9 where 1 = strongly disagree and 9 = strongly agree. Participants had the option of responding 'I do not have enough expertise to answer this question'. (See Section C.3 for the surveys.) Percentage agreement is based on the number of participants who responded with expertise (*n*).

C.2.1 Bites

Round 1	% agreed	<i>n</i>	# responded	Round 2	% agreed	<i>n</i>	# responded	RESULT
Healthcare professionals should suspect child maltreatment when there is a report or appearance of a human bite mark, on a child, suspected to be caused by an adult.	92	95	95	→ Healthcare professionals should suspect child maltreatment when there is a report or appearance of a human bite mark on a child, in the absence of an independently witnessed incident of biting by another young child to account for the mark	71	82	84	Despite agreement at Round 1, the GDG wanted to address the issue of children biting one another. The Round 2 statement was rejected and the Round 1 statement retained.
Healthcare professionals should consider child maltreatment when a prepubertal child has love bites.	86	95	95					Despite agreement at Round 1, the GDG felt that love bites would be better captured in the statement on bruises.
Healthcare professionals should consider child maltreatment when a child has self-inflicted bites.	60	94	95					This statement was withdrawn from further consideration.
Healthcare professionals should consider child maltreatment when a child has animal bites.	41	94	95	→ Healthcare professionals should consider neglect when there is a report or appearance of an animal bite in a child who has been inadequately supervised.	77	83	84	Round 2 statement accepted.

C.2.2 Dissociation

For the purposes of the Round 2 statement, dissociation is defined as transient episodes of detachment from current interaction that are outside the child’s voluntary control and that can be distinguished from daydreaming, seizures or deliberate avoidance of interaction.

Round 1	% agreed	<i>n</i>	# responded		Round 2	% agreed	<i>n</i>	# responded	RESULT
Healthcare professionals should consider child maltreatment if a child shows dissociation (transient episodes of detachment from current interaction that are outside the child’s voluntary control) that can be distinguished from daydreaming, seizures or deliberate avoidance of interaction.	61	85	95	→	Healthcare professionals should consider child maltreatment if a child shows dissociation that is not explained by a known traumatic event unrelated to maltreatment.	78	76	84	Round 2 statement accepted.

C.2.3 Body rocking

Round 1	% agreed	<i>n</i>	# responded	RESULT
Healthcare professionals should consider emotional neglect if a child displays habitual body rocking in the absence of medical causes or neurodevelopmental disorders.	79	92	95	Round 1 statement accepted.

C.2.4 Pregnancy

Round 1	% agreed	n	# responded
Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and there is a clear discrepancy in power, emotional maturity or mental capacity between the young woman and the putative father.	87	92	95
Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and there is concern that the young person is being exploited.	90	92	95
Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and the identity of the father is concealed.	60	92	95

→

Round 2	% agreed	n	# responded
Healthcare professionals should consider child maltreatment as one of the reasons that a young person aged 16 or 17 years of age who is pregnant might conceal the identity of the father.	66	83	83

RESULT
Round 1 statement accepted.
Round 1 statement accepted.
Statement rejected.

C.2.5 Sexually transmitted infections

For the purposes of these statements, sexually transmitted infections include *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, bacterial vaginosis, genital mycoplasmas, syphilis, anogenital warts, oral warts, genital herpes simplex, hepatitis B and C and *Trichomonas vaginalis*.

Round 1	% agreed	n	# responded	Round 2	% agreed	n	# responded	RESULT
Healthcare professionals should consider sexual abuse when a young person aged 13 to 15 years presents with any sexually transmitted infection unless there is clear evidence of blood contamination or that the STI was acquired from consensual sexual activity with a peer.	93	91	95					Round 1 statement accepted.
Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection unless there is clear evidence of blood contamination or that the STI was acquired from consensual sexual activity.	60	91	95	→ Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years of age presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity with a peer, and one or more of the following is present: <ul style="list-style-type: none"> • a clear discrepancy in power, emotional maturity or mental capacity between the young person and their sexual partner • concern that the young person is being exploited 	92	79	83	Round 2 statement accepted.

When to suspect child maltreatment

Round 1	% agreed	<i>n</i>	# responded
Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity, and when there is a clear discrepancy in power, emotional maturity or mental capacity between the young person and their sexual partner.	91	92	95
Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity, and when there is concern that the young person is being exploited.	90	92	95

Round 2	% agreed	<i>n</i>	# responded
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RESULT
Round 1 statement accepted (see above).
Round 1 statement accepted (see above).

C.2.6 Genital and anal symptoms

For the purposes of these statements, medical explanations can include worms, urinary tract infection and nappy rash.

Round 1	% agreed	<i>n</i>	# responded	Round 2	% agreed	<i>n</i>	# responded	RESULT
Healthcare professionals should consider sexual abuse when a child has a genital or anal symptom without a medical explanation.	81	88	95					Round 1 statement accepted.
Healthcare professionals should suspect child sexual abuse when a child has a genital or anal symptom that is persistent or repeated without a medical explanation.	82	87	95					Round 1 statement accepted.
Healthcare professionals should consider sexual abuse when a child has genital bleeding without a medical explanation.	96	89	95					Round 1 statement accepted.
Healthcare professionals should suspect sexual abuse when a child has genital bleeding that is persistent or repeated without a medical explanation.	91	88	95					Round 1 statement accepted.
Healthcare professionals should consider sexual abuse when a child has genital discharge without a medical explanation.	84	89	95					Round 1 statement accepted.
Healthcare professionals should suspect sexual abuse when a child has genital discharge that is persistent or repeated without a medical explanation.	77	87	95					Round 1 statement accepted.

When to suspect child maltreatment

Round 1	% agreed	n	# responded
Healthcare professionals should consider sexual abuse when a child has anal bleeding without a medical explanation.	84	89	95
Healthcare professionals should suspect sexual abuse when a child has anal bleeding that is persistent or repeated without a medical explanation.	81	87	95
Healthcare professionals should consider sexual abuse when a child has anal discharge without a medical explanation.	86	88	95
Healthcare professionals should suspect sexual abuse when a child has anal discharge that is persistent or repeated without a medical explanation.	84	85	95
Healthcare professionals should consider sexual abuse when a child has dysuria without a medical explanation.	68	82	95
Healthcare professionals should suspect sexual abuse when a child has dysuria that is persistent or repeated without a medical explanation.	51	79	95

Round 2	% agreed	n	# responded
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→ Healthcare professionals should consider sexual abuse when a child has discomfort on passing urine (dysuria) or anogenital discomfort that are persistent or recurrent and is not explained by conditions such as worms, urinary infection, skin conditions, poor hygiene or known allergies.	78	74	83
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RESULT
Round 1 statement accepted.
Round 1 statement accepted.
Round 1 statement accepted.
Round 1 statement accepted.
Round 2 statement accepted.
Rejected at 'suspect' level.

Round 1	% agreed	n	# responded
Healthcare professionals should consider sexual abuse when a child has anogenital discomfort without a medical explanation.	70	87	95
Healthcare professionals should suspect sexual abuse when a child has anogenital discomfort that is persistent or repeated without a medical explanation.	59	85	95
Healthcare professionals should suspect sexual abuse if genital or anal complaints are associated with behavioural or emotional change.	88	90	95
Healthcare professionals should suspect sexual abuse if genital or anal complaints are present with other information that suggests the possibility of child sexual abuse.	98	89	95

Round 2	% agreed	n	# responded
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RESULT
Incorporated into above.
Rejected at 'suspect' level.
Round 1 statement accepted.
Round 1 statement accepted.

C.2.7 Neglect

Round 1	% agreed	n	# responded
Healthcare professionals should consider neglect if parents or carers repeatedly fail to seek and adhere to appropriate medical advice for their children.	91	94	95
These situations can include: <ul style="list-style-type: none"> ● persistent failure to have a child immunised 	45	92	95
<ul style="list-style-type: none"> ● persistent failure to attend follow-up outpatient appointments 	70	94	95

<ul style="list-style-type: none"> ● persistent failure to treat a child for dental caries 	83	92	95
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Round 2	% agreed	n	# responded
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→ Healthcare professionals should consider neglect if parents persistently fail to engage with the Child Health Promotion Programme, which includes health and development reviews, screening, immunisation, anticipatory guidance about infant/child behaviour, injury prevention, feeding and dietary advice and prevention of obesity.	70	82	83
→ Healthcare professionals should consider neglect if parents or carers persistently fail to attend follow-up outpatient appointments for their children that are essential to the child's health and wellbeing.	87	83	83
Healthcare professionals should suspect neglect if parents or carers persistently fail to attend follow-up outpatient appointments for their children that are essential to the child's health and wellbeing.	64	83	83
→ Healthcare professionals should suspect neglect if parents or carers persistently fail to treat their child's dental caries.	64	83	83

RESULT
Statement not carried forward as essence captured in those below.
Statement rejected but included in modified form for consultation.
Accepted at Round 2.
Rejected at 'suspect' level (see above).
Accepted at Round 1 ('consider' level).

Round 1	% agreed	n	# responded	Round 2	% agreed	n	# responded	RESULT
● persistent failure to adhere to weight management programmes	54	92	95					Rejected at Round 1.
● failure to administer essential prescribed medication	93	94	95	→ Healthcare professionals should suspect neglect if parents or carers fail to administer essential prescribed medication for their child.	73	83	83	Accepted at Round 1 ('consider' level).
● delay in seeking medical advice.	80	94	95	→ Healthcare professionals should suspect neglect if parents or carers fail to promptly seek medical advice for their child to the extent that the child's health and wellbeing is compromised or the child is in ongoing pain.	89	82	83	Accepted at Round 2.

C.2.8 Head-banging

Round 2	% agreed	n	# responded	RESULT
Healthcare professionals should consider child maltreatment when a child shows habitual head-banging in the absence of a medical cause or other definable stressor.	54	78	85	Omitted at Round 1 and rejected at Round 2 because of a wide spread of results.

C.2.9 Patterns of healthcare use

Round 2	% agreed	n	# responded	RESULT
Healthcare professionals should consider child maltreatment when they become aware of an unusual pattern of presentation to, and contact with, healthcare providers.	76	84	85	Omitted at Round 1 and accepted at Round 2.
Healthcare professionals should consider child maltreatment when they become aware of frequent presentations or reports of injuries.	92	84	85	Omitted at Round 1 and accepted at Round 2.

C.3 Surveys

C.3.1 Round 1

National Collaborating Centre for Women's and Children's Health

NICE guidance on when to suspect child maltreatment

Delphi consensus questionnaire – part 1

Thank you for agreeing to take part in this survey.

Please read this introductory page before answering any of the questions.

Completing the survey

This survey consists of a number of statements about which you will be asked your level of agreement. It is preferable that you answer all of the questions in one sitting as the software will not remember your answers if you come back to it a second time. Once started, you cannot revisit questions you've already answered. The survey should take 30 minutes to complete. You should provide your own responses and should not answer on behalf of others.

Confidentiality agreement

By taking part in this survey, you are agreeing to keep its contents confidential until such time as the full guidance is published (expected publication date May 2009).

The guidance

The guidance that we are developing is aimed at frontline healthcare professionals who are not experts in recognising and diagnosing child maltreatment. Its aim is to raise awareness of child maltreatment in these people and offer advice on clinical situations that are a cause for concern where they should **suspect** or **consider** child maltreatment (see below for definitions). When answering the survey, you should bear in mind that, as someone with experience in child protection, you see a different case mix than general and specialist healthcare professionals.

This guidance recognises that child maltreatment is rarely identified from one symptom or sign alone. Some features carry more weight than others and should raise the healthcare professional's level of suspicion to a greater extent. Other features may be less concerning on their own, but in combination with others or when they persist may be of more concern. We have therefore drawn up two categories of importance to help healthcare professionals **consider** the action that they should take.

Definitions

Child refers to someone who is younger than 18 years.

Child maltreatment is defined as physical abuse (including fabricated or induced illness), sexual abuse, emotional abuse or neglect as set out in Working Together to Safeguard Children (2006).

For the purposes of this guidance, to **suspect** maltreatment implies serious concern; healthcare professionals should follow local guidance on what to do when they think a child is being maltreated.

For the purposes of this guidance, to **consider** maltreatment means that maltreatment should be considered in the differential diagnosis or as a possible explanation of a sign or symptom. It implies that the healthcare professional should record the concern and take one or more of the following courses of action: look for other signs of maltreatment, review the child, look for repeated presentations of this indicator, discuss the case with a suitable colleague and/or consult Contact Point.

These definitions can be referred to throughout the survey by clicking on the definitions link.

Survey questions

The questions in this survey are about features of maltreatment on which there is no conclusive scientific evidence. The guideline development group has decided that consensus agreement would add value in deciding whether these recommendations should be included in the final NICE guidance 'when to **suspect** child maltreatment'. The full set of recommendations in the NICE guidance will be much greater than what you see in the survey.

Please consider carefully whether the recommendations reflect the appropriate level of concern (**consider/suspect**) and make any suggestions for revision in the comments section.

Security and validation

Please enter the reference number (four digits followed by two letters) that you were sent in your acceptance email. Your answers will only be valid if the PIN you enter matches our records.

Bites

Please rate your level of agreement with the following statements where 1 = strongly disagree and 9 = strongly agree:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should suspect child maltreatment when there is a report or appearance of a human bite mark, on a child, suspected to be caused by an adult.										
Healthcare professionals should consider child maltreatment when a prepubertal child has love bites.										
Healthcare professionals should consider child maltreatment when a child has self-inflicted bites.										
Healthcare professionals should consider child maltreatment when a child has animal bites.										

Comment

Dissociation

Please rate your level of agreement with the following statement where 1 = strongly disagree and 9 = strongly agree:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider child maltreatment if a child shows dissociation (transient episodes of detachment from current interaction that are outside the child's voluntary control) that can be distinguished from daydreaming, seizures or deliberate avoidance of interaction.										

Comment

Body rocking

Please rate your level of agreement with the following statement where 1 = strongly disagree and 9 = strongly agree:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider emotional neglect if a child displays habitual body rocking in the absence of medical causes or neurodevelopmental disorders.										

Comment

Pregnancy

These statements have been written in the context of the sexual offences act. Separate recommendations have been made concerning children aged 15 years and younger that do not form part of this survey.

Please rate your level of agreement with the following statements where 1 = strongly disagree and 9 = strongly agree:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and there is a clear discrepancy in power, emotional maturity or mental capacity between the young woman and the putative father.										
Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and there is concern that the young person is being exploited.										
Healthcare professionals should consider child maltreatment when a young person aged 16 to 17 years of age is pregnant and the identity of the father is concealed.										

Comment

Sexually transmitted infections

For the purposes of these statements, sexually transmitted infections include *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, bacterial vaginosis, genital mycoplasmas, syphilis, anogenital warts, oral warts, genital herpes simplex, hepatitis B and C and *Trichomonas vaginalis*.

These statements have been written in the context of the age boundaries set out in the sexual offences act. A separate recommendation has been made concerning children younger than 13 years that does not form part of this survey.

Please rate your level of agreement with the following statements where 1 = strongly disagree and 9 = strongly agree:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider sexual abuse when a young person aged 13 to 15 years presents with any sexually transmitted infection unless there is clear evidence of blood contamination or that the STI was acquired from consensual sexual activity with a peer.										
Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection unless there is clear evidence of blood contamination or that the STI was acquired from consensual sexual activity.										
Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity, and when there is a clear discrepancy in power, emotional maturity or mental capacity between the young person and their sexual partner.										
Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity, and when there is concern that the young person is being exploited.										

Comment

Genital and anal symptoms

For the purposes of these statements, medical explanations can include worms, urinary tract infection and nappy rash.

Please rate your level of agreement with the following statements where 1 = strongly disagree and 9 = strongly agree:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider sexual abuse when a child has a genital or anal symptom without a medical explanation.										
Healthcare professionals should suspect child sexual abuse when a child has a genital or anal symptom that is persistent or repeated without a medical explanation.										
Healthcare professionals should consider sexual abuse when a child has genital bleeding without a medical explanation.										
Healthcare professionals should suspect sexual abuse when a child has genital bleeding that is persistent or repeated without a medical explanation.										
Healthcare professionals should consider sexual abuse when a child has a genital discharge without a medical explanation.										
Healthcare professionals should suspect sexual abuse when a child has genital discharge that is persistent or repeated without a medical explanation.										

When to suspect child maltreatment

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider sexual abuse when a child has anal bleeding without a medical explanation.										
Healthcare professionals should suspect sexual abuse when a child has anal bleeding that is persistent or repeated without a medical explanation.										
Healthcare professionals should consider sexual abuse when a child has anal discharge without a medical explanation.										
Healthcare professionals should suspect sexual abuse when a child has anal discharge that is persistent or repeated without a medical explanation.										
Healthcare professionals should consider sexual abuse when a child has dysuria without a medical explanation.										
Healthcare professionals should suspect sexual abuse when a child has dysuria that is persistent or repeated without a medical explanation.										
Healthcare professionals should consider sexual abuse when a child has anogenital discomfort without a medical explanation.										
Healthcare professionals should suspect sexual abuse when a child has anogenital discomfort that is persistent or repeated without a medical explanation.										
Healthcare professionals should suspect sexual abuse if genital or anal complaints are associated with behavioural or emotional change.										
Healthcare professionals should suspect sexual abuse if genital or anal complaints are present with other information that suggests the possibility of child sexual abuse.										

Comment

Neglect

Please rate your level of agreement with the following statements where 1 = strongly disagree and 9 = strongly agree:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider neglect if parents or carers repeatedly fail to seek and adhere to appropriate medical advice for their children.										
These situations can include:										
• persistent failure to have a child immunised										
• persistent failure to attend follow-up outpatient appointments										
• persistent failure to treat a child for dental caries										
• persistent failure to adhere to weight management programmes										
• failure to administer essential prescribed medication										
• delay in seeking medical advice.										

Comment

C.3.2 Round 2

National Collaborating Centre for Women's and Children's Health

NICE guidance on when to suspect child maltreatment

Delphi consensus questionnaire – part 2

Thank you for completing part 1 of this survey.

There were 95 respondents to part 1.

In part 2, there are two new topics for you to consider and you will revisit topics that were not agreed or disagreed with by sufficient numbers of respondents in the first round. Your views have been taken into account to formulate revised statements. If sufficient agreement is reached, the statements will form the basis of recommendations in the guidance. If there is sufficient disagreement, the statement will be dropped from consideration.

As before, you should complete the survey in one sitting (allow 20 minutes), the definitions of 'consider' and 'suspect' will be available by clicking the definitions link and you should keep the contents of this survey confidential.

Patterns of healthcare use

Please rate your level of agreement with the following statements where **1 = strongly disagree** and **9 = strongly agree**:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider child maltreatment when they become aware of an unusual pattern of presentation to, and contact with, healthcare providers.										
Healthcare professionals should consider child maltreatment when they become aware of frequent presentations or reports of injuries.										

Comment

Head banging

Please rate your level of agreement with the following statements where **1 = strongly disagree** and **9 = strongly agree**:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider child maltreatment when a child shows habitual head-banging in the absence of a medical cause or other definable stressor.										

Comment

Bites

40% of respondents did not agree with the following:

Healthcare professionals should **consider** child maltreatment when a child has self-inflicted bites.

Themes from the comments were:

- it depends on learning disability
- it is difficult to distinguish bites made by child dentition and bites made by adult dentition without expert input.

There was strong agreement that adult bite marks should be a reason to suspect maltreatment but because of anxieties about recognising bite marks from adult dentition, the statement has been revised. The guideline development group has developed a recommendation on self-inflicted injury (not considered in this survey) and this topic will be referred to there.

Please rate your level of agreement with the following revised statement where **1 = strongly disagree** and **9 = strongly agree**:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should suspect child maltreatment when there is a report or appearance of a human bite mark on a child, in the absence of an independently witnessed incident of biting by another young child to account for the mark.										

Comment

59% of respondents did not agree with the following:

Healthcare professionals should **consider** child maltreatment when a child has animal bites.

Themes from the comments were:

- it depends on the animal
- it depends on the level of supervision

Please rate your level of agreement with the following revised statement where **1 = strongly disagree** and **9 = strongly agree**:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider neglect when there is a report or appearance of an animal bite in a child who has been inadequately supervised.										

Comment

Dissociation

39% of respondents did not agree with the following:

Healthcare professionals should **consider** child maltreatment if a child shows dissociation (transient episodes of detachment from current interaction that are outside the child's voluntary control) that can be distinguished from daydreaming, seizures or deliberate avoidance of interaction.

Themes from the comments include:

- it is difficult to distinguish dissociation from daydreaming, seizures and deliberate avoidance of interaction
- traumatic events other than maltreatment can lead to dissociation

The guideline development group accepts both of these themes but points out that maltreatment should only be considered if the distinction between dissociation and daydreaming, seizures or deliberate avoidance of interaction has been made. Therefore, this statement only applies to healthcare professionals who are able to make that distinction.

Please rate your level of agreement with the following revised statement where **1 = strongly disagree** and **9 = strongly agree**:

For the purposes of this statement, dissociation is defined as transient episodes of detachment from current interaction that are outside the child's voluntary control that can be distinguished from daydreaming, seizures or deliberate avoidance of interaction.

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider child maltreatment if a child shows dissociation that is not explained by a known traumatic event unrelated to maltreatment.										

Comment

Pregnancy

40% of respondents did not agree with the following:

Healthcare professionals should **consider** child maltreatment when a young person aged 16 to 17 years of age is pregnant and the identity of the father is concealed.

The general theme from the comments was that there are many reasons why pregnant girls may conceal the identity of the father, including shame, fear of familial disapproval etc.

Please rate your level of agreement with the following revised statement where **1 = strongly disagree** and **9 = strongly agree**:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider child maltreatment as one of the reasons that a young person aged 16 or 17 years of age who is pregnant might conceal the identity of the father.										

Comment

Sexually transmitted infections

40% of respondents did not agree with the following as a stand-alone statement:

Healthcare professionals should **consider** sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection, unless there is clear evidence of blood contamination or that the STI was acquired from consensual sexual activity.

However, over 90% of respondents agreed with the following two statements:

Healthcare professionals should **consider** sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection when there is no clear evidence of blood contamination, or that the STI was acquired from consensual sexual activity, and when there is a clear discrepancy in power, emotional maturity or mental capacity between the young person and their sexual partner.

Healthcare professionals should **consider** sexual abuse when a young person aged 16 or 17 years presents with any sexually transmitted infection when there is no clear evidence of blood contamination, or that the STI was acquired from consensual sexual activity, and when there is concern that the young person is being exploited.

Please rate your level of agreement with the following revised statement where **1 = strongly disagree** and **9 = strongly agree**:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider sexual abuse when a young person aged 16 or 17 years of age presents with any sexually transmitted infection when there is no clear evidence of blood contamination or that the STI was acquired from consensual sexual activity with a peer, and one or more of the following is present: <ul style="list-style-type: none"> • a clear discrepancy in power, emotional maturity or mental capacity between the young person and their sexual partner • concern that the young person is being exploited 										

Comment

Genital and anal symptoms

The following statements on dysuria and anogenital discomfort were not agreed by sufficient numbers of respondents:

Healthcare professionals should **consider** sexual abuse when a child has dysuria without a medical explanation.

Healthcare professionals should **suspect** sexual abuse when a child has dysuria that is persistent or repeated without a medical explanation.

Healthcare professionals should **consider** sexual abuse when a child has anogenital discomfort without a medical explanation.

Healthcare professionals should **suspect** sexual abuse when a child has anogenital discomfort that is persistent or repeated without a medical explanation.

Themes from the comments include:

- confusion about what constitutes a medical explanation and who would be able to provide one
- dysuria not specific to maltreatment

Please rate your level of agreement with the following revised statement where 1 = strongly disagree and 9 = strongly agree:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider sexual abuse when a child has discomfort on passing urine (dysuria) or anogenital discomfort that are persistent or recurrent and is not explained by conditions such as worms, urinary infection, skin conditions, poor hygiene or known allergies.										

Comment

Neglect

In Round 1, we asked separate questions about each of the following bullet points:

Healthcare professionals should **consider** neglect if parents or carers repeatedly fail to seek and adhere to appropriate medical advice for their children.

These situations can include:

- **persistent failure to have a child immunised**
- **persistent failure to attend follow-up outpatient appointments**
- persistent failure to treat a child for dental caries
- **persistent failure to adhere to weight management programmes**
- failure to administer essential prescribed medication
- delay in seeking medical advice.

Bullet points in **bold typeface** were not agreed on by 55% (immunisation), 46% (weight management) and 30% (follow-up outpatient appointments) of respondents respectively.

For immunisation, the general theme from the comments was that there are two types of parent who do not have their children immunised. Those who choose not to have their children immunised after being provided with information about immunisation were thought not to be neglectful; parents who do not engage in health promotion were thought to be the neglectful ones.

For non-attendance at follow-up appointments, themes from the comments include:

- it depends on whether the problem has resolved
- it depends why the appointment was made in the first instance.

The statement about weight management was considered too complex an issue to be categorised as neglect.

When to suspect child maltreatment

Please rate your level of agreement with the following revised statements where **1 = strongly disagree** and **9 = strongly agree**:

	1	2	3	4	5	6	7	8	9	I do not have enough expertise to answer this question.
Healthcare professionals should consider neglect if parents persistently fail to engage with the Child Health Promotion Programme, which includes health and development reviews, screening, immunisation, anticipatory guidance about infant/child behaviour, injury prevention, feeding and dietary advice and prevention of obesity.										
Healthcare professionals should suspect neglect if parents or carers fail to promptly seek medical advice for their child to the extent that the child's health and wellbeing is compromised or the child is in ongoing pain.										
Healthcare professionals should suspect neglect if parents or carers fail to administer essential prescribed medication for their child.										
Healthcare professionals should suspect neglect if parents or carers persistently fail to treat their child's dental caries.										
Healthcare professionals should consider neglect if parents or carers persistently fail to attend follow-up outpatient appointments for their children that are essential to the child's health and wellbeing.										
Healthcare professionals should suspect neglect if parents or carers persistently fail to attend follow-up outpatient appointments for their children that are essential to the child's health and wellbeing.										

Comment

Appendix D

Stakeholder organisations

Action for M.E.
Airedale Acute Trust
Alder Hey Children's NHS Foundation Trust
Ambulance Service Association
Association for Clinical Biochemistry
Association for Continence Advice
Association for Improvements in the Maternity Services
Association for Psychoanalytic Psychotherapy in the NHS (APP)
Association of Catholic Nurses of England and Wales
Association of Child Psychotherapists
Association of Dance Movement Therapy UK
Association of Educational Psychologists
Association of Paediatric Emergency Medicine
Association of Professional Music Therapists
Association of Young People with ME
Barnsley Hospital NHS Foundation Trust
Barnsley PCT
Berkshire Healthcare NHS Trust
Birmingham Women's NHS Trust
Bournemouth and Poole PCT
Brighton and Sussex University Hospitals Trust
British Association for Community Child Health
British Association for Counselling and Psychotherapy
British Association for Sexual Health and HIV
British Association of Art Therapists
British Association of Drama Therapists
British Association for the Study and Prevention of Child Abuse and Neglect (BASPCAN)
British Dental Association
British National Formulary (BNF)
British Nuclear Medicine Society
British Paediatric Mental Health Group
British Paramedic Association
British Psychological Society
British Society of Paediatric Dentistry
British Society of Paediatric Gastroenterology, Hepatology and Nutrition (BSPGHAN)
British Society of Paediatric Radiology
Buckinghamshire PCT
Children and Family Court Advisory Support Service (Cafcass)
Calderdale and Huddersfield Acute Trust
Calderdale PCT
Cambridge University Hospitals NHS Foundation Trust (Addenbrooke's)
Central Manchester PCT
CIS'ters
Clinical Effectiveness Committee
College of Emergency Medicine
Commission for Social Care Inspection
Community Practitioners and Health Visitors Association
Connecting for Health

Consultants in Paediatric Dentistry Group
Conwy & Denbighshire Acute Trust
Cornwall & Isles of Scilly PCT
Department for Communities and Local Government
Department of Health
Department of Health, Social Security and Public Safety of Northern Ireland
Derbyshire Mental Health Services NHS Trust
Det Norske Veritas – NHSLA Schemes
Drinksense
East and North Hertfordshire PCT and West Hertfordshire PCT
Eaton Foundation
Education and Resources for Improving Childhood Continence
Education Otherwise
Faculty of Dental Surgery
Faculty of Forensic and Legal Medicine
Ferring Pharmaceuticals
Forensic Arts Therapies Advisory Group
Foundation for the Study of Infant Deaths
Greater Manchester West Mental Health NHS Foundation Trust
Guy's and St Thomas' NHS Trust
Hampshire Partnership NHS Trust
Harrogate and District NHS Foundation Trust
Health and Safety Executive
Healthcare Commission
Heart of England Acute Trust
Hertfordshire Partnership NHS Trust
KCC Children and Families Directorate
Kingston Hospital NHS Trust
Leeds PCT
Liverpool PCT
Luton and Dunstable Hospital NHS Foundation Trust
Luton PCT
Medicines and Healthcare products Regulatory Agency (MHRA)
Mental Health Act Commission
Mental Health Nurses Association
Mersey Care NHS Trust
Milton Keynes PCT
National Association for People Abused in Childhood (NAPAC)
National Autistic Society
National Patient Safety Agency (NPSA)
National Public Health Service – Wales
National Safeguarding Children Association for Nurses (NSCAN)
National Society for the Prevention of Cruelty to Children (NSPCC)
National Treatment Agency for Substance Misuse
National Collaborating Centre for Acute Care
National Collaborating Centre for Cancer
National Collaborating Centre for Chronic Conditions
National Collaborating Centre for Mental Health
National Collaborating Centre for Nursing & Supportive Care
National Collaborating Centre for Primary Care
National Collaborating Centre for Women's and Children's Health (NCC-WCH)
National Coordinating Centre for Health Technology Assessment (NCCHTA)
NHS Bedfordshire
NHS Clinical Knowledge Summaries Service (SCHIN)
NHS Direct
NHS Plus
NHS Purchasing and Supply Agency
NHS Quality Improvement Scotland

NHS Sheffield
NICE Centre for Public Health Excellence (CPHE)
North East London Mental Health Trust
North Staffordshire Combined Healthcare NHS Trust
North Tees and Hartlepool Acute Trust
Nottinghamshire Acute Trust
Office of the Children's Commissioner
Oxfordshire and Buckinghamshire Mental Health Partnership NHS Trust
Partners in Paediatrics
Partnerships for Children, Families, Women and Maternity
Peach
Peninsula Primary Care Psychology & Counselling Services
PERIGON Healthcare
Pottergate Centre for Dissociation & Trauma
Public Health Research Group
Queen Mary's Hospital NHS Trust (Sidcup)
Royal College of General Practitioners
Royal College of Midwives
Royal College of Nursing
Royal College of Ophthalmologists
Royal College of Paediatrics and Child Health
Royal College of Pathologists
Royal College of Physicians of London
Royal College of Psychiatrists
Royal College of Radiologists
Royal Pharmaceutical Society of Great Britain
Royal United Hospital Bath NHS Trust
SACAR
Sandwell and West Birmingham Hospitals NHS Trust
Sandwell PCT
Scottish Intercollegiate Guidelines Network (SIGN)
Scottish Nutrition and Diet Resources Initiative
Sedgefield PCT
Sefton PCT
Sexual Violence and Awareness Network
Sheffield Children's NHS Foundation Trust
Sheffield PCT
Sheffield Teaching Hospitals NHS Foundation Trust
Social Care Institute for Excellence (SCIE)
Social Interface
Social Perspectives Network
South Central Ambulance Service NHS Trust
South Essex Partnership NHS Foundation Trust
Southampton University Hospitals NHS Trust
St Andrew's Healthcare
Staffordshire Ambulance headquarters
Staffordshire Moorlands PCT
Stockport PCT
Surrey PCT
Sussex Partnership NHS Trust
Tavistock and Portman Foundation Trust
Afiya Trust
Chartered Society of Physiotherapy
David Lewis Centre
Haemophilia Society
Neurological Alliance
Royal Society of Medicine
Survivors Trust

Triangle Services for Children
United Lincolnshire Hospitals NHS Trust
University College London Hospitals (UCLH) Acute Trust
Welsh Ambulance Service Trust
Welsh Assembly Government
Welsh Scientific Advisory Committee (WSAC)
West London Mental Health NHS Trust
West Midlands Ambulance Service NHS Trust
Western Cheshire PCT
Western Health and Social Care Trust
Wiltshire PCT
Wirral Hospital Acute Trust
York NHS Foundation Trust
Yorkshire and the Humber LSA

Appendix E

Abbreviations

A&E	accident and emergency department
ADE	Adolescent Dissociative Experiences
ADHD	attention deficit hyperactivity disorder
ALTE	apparent life-threatening event
BMI	body mass index
CBCL	Child Behaviour Checklist
CDC	Child Dissociative Checklist
CI	confidence interval
CrI	credible interval
CSA	child sexual abuse
CSBI	Child Sexual Behaviour Inventory
EL	evidence level (level of evidence)
ENT	ear, nose and throat
FII	fabricated or induced illness
GCI	General Cognitive Index
GDG	Guideline Development Group
GORD	gastro-oesophageal reflux disease
GP	general practitioner
HTA	Health Technology Assessment
MSBP	Münchausen syndrome by proxy
MVC	motor vehicle crash
NAPAC	National Association for People Abused in Childhood
NCC-WCH	National Collaborating Centre for Women's and Children's Health
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
NSF	National Service Framework for Children, Young People and Maternity Services
NSPCC	National Society for the Prevention of Cruelty to Children
NSSI	non-suicidal self-injury
PCT	primary care trust
PPIP	Patient and Public Involvement Programme
OR	odds ratio
RCPCH	Royal College of Paediatrics and Child Health
RCT	randomised controlled trial
RR	relative risk
SD	standard deviation
SIDS	sudden infant death syndrome
SIGN	Scottish Intercollegiate Guidelines Network
STI	sexually transmitted infection

Appendix F

Glossary of terms

The GDG acknowledges the RCPCH document *Physical Signs of Child Sexual Abuse*⁵ for some of its definitions.

Absolute risk reduction	The difference between the observed rates of an event (i.e. the proportions of individuals with the outcome of interest) in the groups being compared.
Abandonment	Leaving a child on his or her own without any intention of returning to ensure their safety and wellbeing.
Affect	Emotion, feeling.
Apnoea	A period when there is no external breathing.
Apparent life-threatening event (ALE)	A sudden event characterised by a combination of apnoea, colour change, marked change in muscle tone and choking or gagging.
Body mass index (BMI)	A person's weight (in kilograms) divided by the square of their height (in metres). It is used to determine whether a person is underweight, overweight or obese.
Cognition	Thinking, believing, knowing.
Craniocerebral	Related to the skull and the brain.
Cyanosis	An appearance of blueness in skin and mucous membranes due to a lack of oxygen or fall in arterial oxygen saturation.
Dental caries	Tooth decay.
Dysuria	Pain on passing urine.
Ecchymosis	A type of bruise that looks bluish-black and which is caused by the leaking of blood into tissues as a result of injury or blood disorder.
Emotional dysregulation	The inability to regulate emotions such that reactions to situations are out of proportion to or inappropriate for the situation causing the reaction.
Erythema	Redness of the skin.
Externalising	Behaviours that represent interpersonal conflict such as aggression, oppositional behaviour and other antisocial behaviour.
Failure to thrive	When a child's growth falls through two or more centile spaces on standard growth charts.
Femoral	Of the femur, the thigh bone.
Gaping, anal gaping	An anus that is open (dilated) on separation of the buttocks such that a view into the anal canal or rectum is possible, and which remains so for the duration of the examination in a fixed or constant way. This is a static sign.
Genital mycoplasmas	A bacterial sexually transmitted infection.
Gingival	Of the gums.
Hymenal laceration	A fresh wound made by tearing through the hymen which may be partial or complete.
Hymenal notch	An indentation in the hymen not extending to its base.
Hymenal transection	A discontinuity in the hymenal membrane that extends through the width of the hymen to its base so that there appears to be no hymenal

	tissue remaining at that location. The term is used to describe healed appearances.
Hypernatraemia	An elevated level of sodium on biochemical blood test.
Hyperphagic	Excessive eating.
Hypoxic ischaemia	Damage to the brain due to lack of blood and oxygen supply.
Internalising	Describes a number of internal stresses such as anxiety and depression.
Labial frenum	The small piece of tissue that connects the lips to the gums.
Laceration	A tear in the flesh.
Metaphyseal	A fracture to the portion of bone between the shaft (diaphysis) of a long bone and the epiphysis or growing point at either end of the bone.
Mucosal laceration	A cut to the mucosa, which is the cellular lining of the alimentary canal from mouth to anus and the male and female genital areas.
Near-drowning	Survival after suffocation caused by a (potentially fatal) submersion in water/fluid.
Neurological sequelae	Consequences that manifest as neurological symptoms or signs, for example impaired consciousness, fits and nerve damage.
Normative	Normal/usual.
Oedema	Excessive accumulation of fluid in the body tissues.
Oppositional defiant disorder	A psychiatric disorder where a child is excessively defiant and hostile towards figures of authority.
Osteogenesis imperfecta	A congenital disorder in which the bones are unusually fragile and brittle.
Osteopenia of prematurity	Brittle or weak bones in preterm infants.
Petechiae	Minute haemorrhages into the skin giving an appearance of clusters of tiny red dots.
Posterior fourchette/fossa	The anatomical area of the female genitalia at the base of the vagina where the labia minora (thin folds of tissue on either side of the vaginal opening) join. It lies between the vaginal opening and the anus.
Post-traumatic stress disorder	An anxiety disorder that arises after exposure to one or more extreme stressors.
Reflex anal dilatation	The dynamic action of the opening of the anus due to relaxation of the external and internal sphincter muscles with minimal buttock traction.
Somatic	Relates to the body (as distinguished from the mind).
Subconjunctival	Anatomical part of the eye below the conjunctiva, which is a clear membrane (thin layer) that covers the white of the eye.
Supracondylar	Portion of the bone, namely humerus above the condyle or articular lower portion of the bone (elbow).
<i>Trichomonas vaginalis</i>	A single-cell anaerobic protozoan that causes trichomoniasis, which is a sexually transmitted infection.
Visceral injury	An injury to the organs within the body cavities.

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- Antenatal care: routine care for the healthy pregnant woman
- Fertility: assessment and treatment for people with fertility problems
- Caesarean section
- Type 1 diabetes: diagnosis and management of type 1 diabetes in children and young people
- Long-acting reversible contraception: the effective and appropriate use of long-acting reversible contraception
- Urinary incontinence: the management of urinary incontinence in women
- Heavy menstrual bleeding
- Feverish illness in children: assessment and initial management in children younger than 5 years
- Urinary tract infection in children: diagnosis, treatment and long-term management
- Intrapartum care: care of healthy women and their babies during childbirth
- Atopic eczema in children: management of atopic eczema in children from birth up to the age of 12 years
- Surgical management of otitis media with effusion in children
- Diabetes in pregnancy: management of diabetes and its complications from preconception to the postnatal period
- Induction of labour
- Surgical site infection: prevention and treatment of surgical site infection
- Diarrhoea and vomiting caused by gastroenteritis: diagnosis, assessment and management in children younger than 5 years

Guidelines in production include:

- Hypertensive disorders in pregnancy
- Neonatal jaundice
- Constipation in children
- Bacterial meningitis and meningococcal septicaemia in children
- Pregnant women with complex social factors
- Autism in children and adolescents
- Multiple pregnancy

Enquiries regarding the above guidelines can be addressed to:

National Collaborating Centre for Women's and Children's Health

King's Court
Fourth Floor
2-16 Goodge Street
London
W1T 2QA
enquiries@ncc-wch.org.uk

A version of this guideline for parents and carers is available from the NICE website (www.nice.org.uk/CG089) or from NICE publications on 0845 003 7783; quote reference number N1901.

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