Pain in Palliative Care

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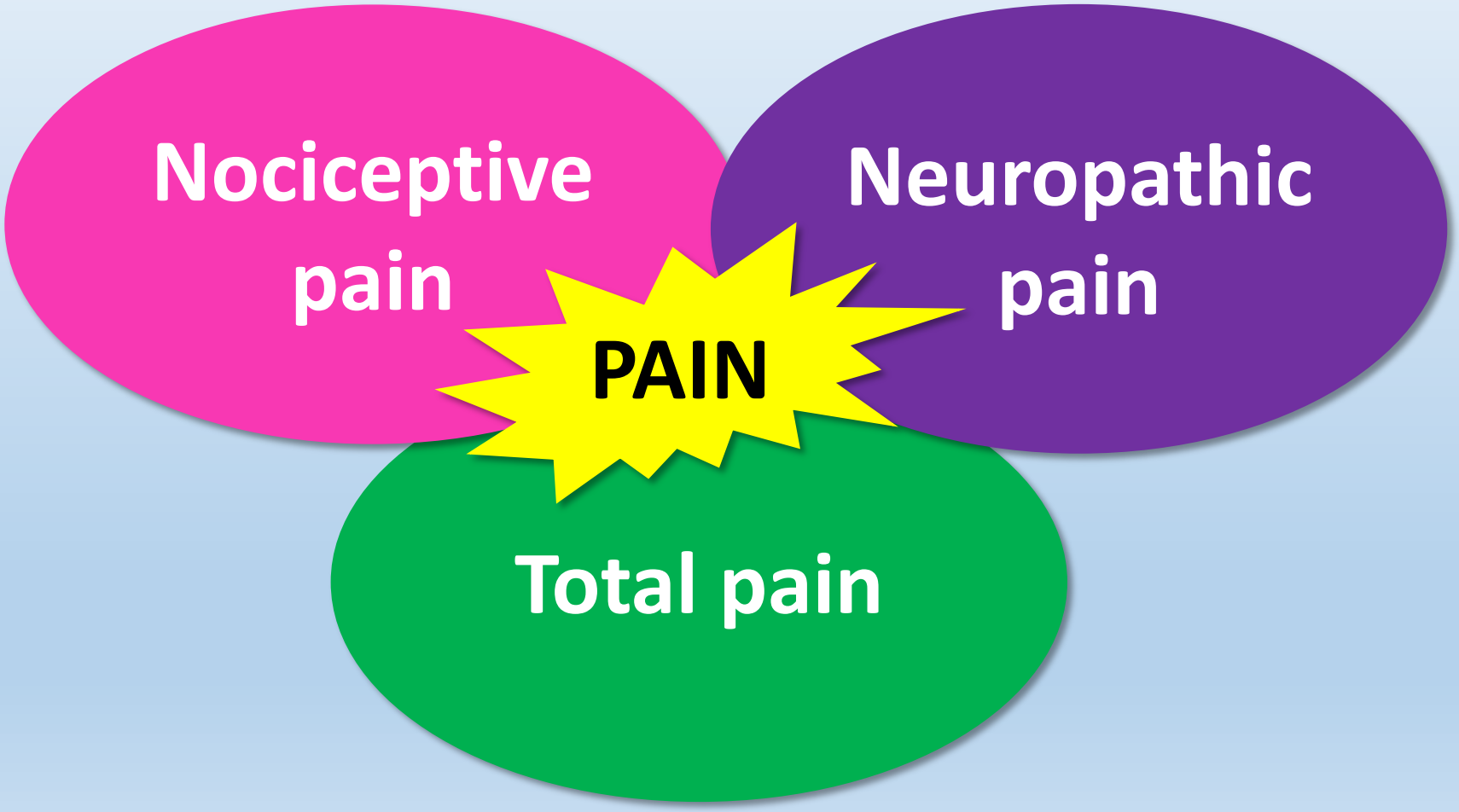
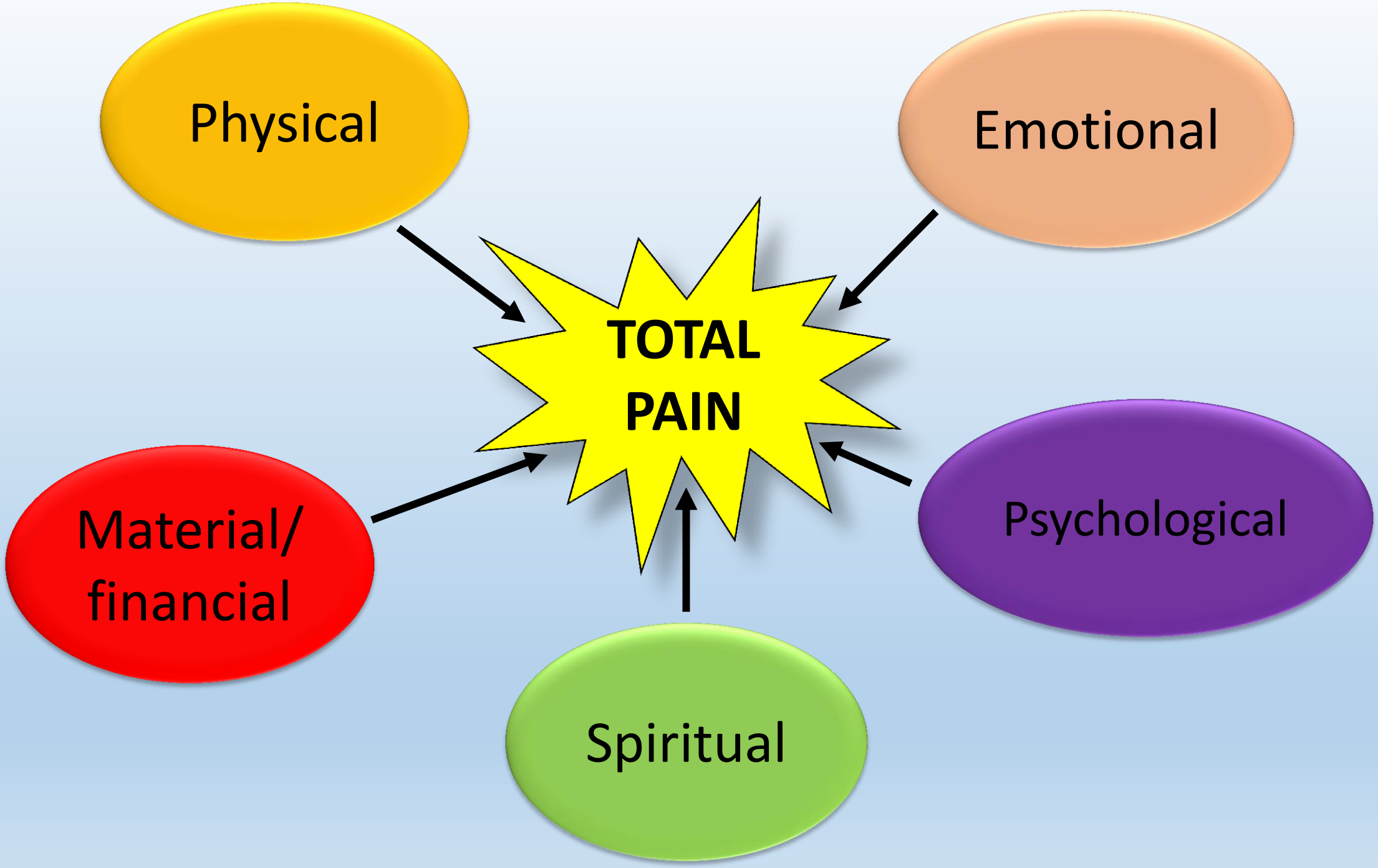
Summary of talk

- Types of pain
- Pain assessment
- WHO ladder
- Principles of prescribing
- Pain relieving medications
- Opiate toxicity

Types of pain




Physical
Emotional
TOTAL PAIN
Material/ financial
Psychological
Spiritual

Typical features indicative of total pain

- Pain relief works too quickly
- Pain relief wears off too quickly
- Pain relief requested when appears pain free
- Quicker acting preparations preferred
- Clock watching
- PRN pain relief requirements unchanging despite increased in background pain relief

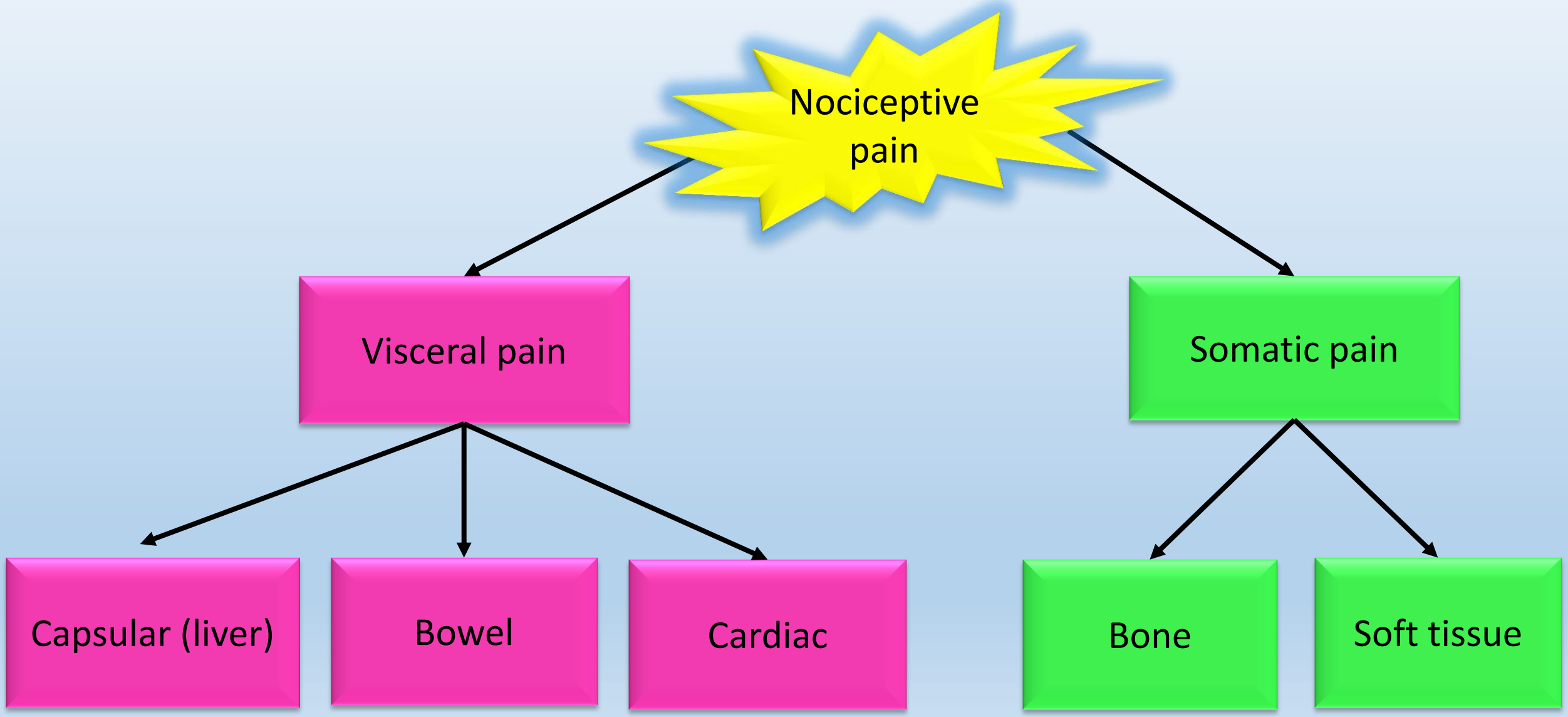
How to manage total pain

Management depends on cause. Consider….

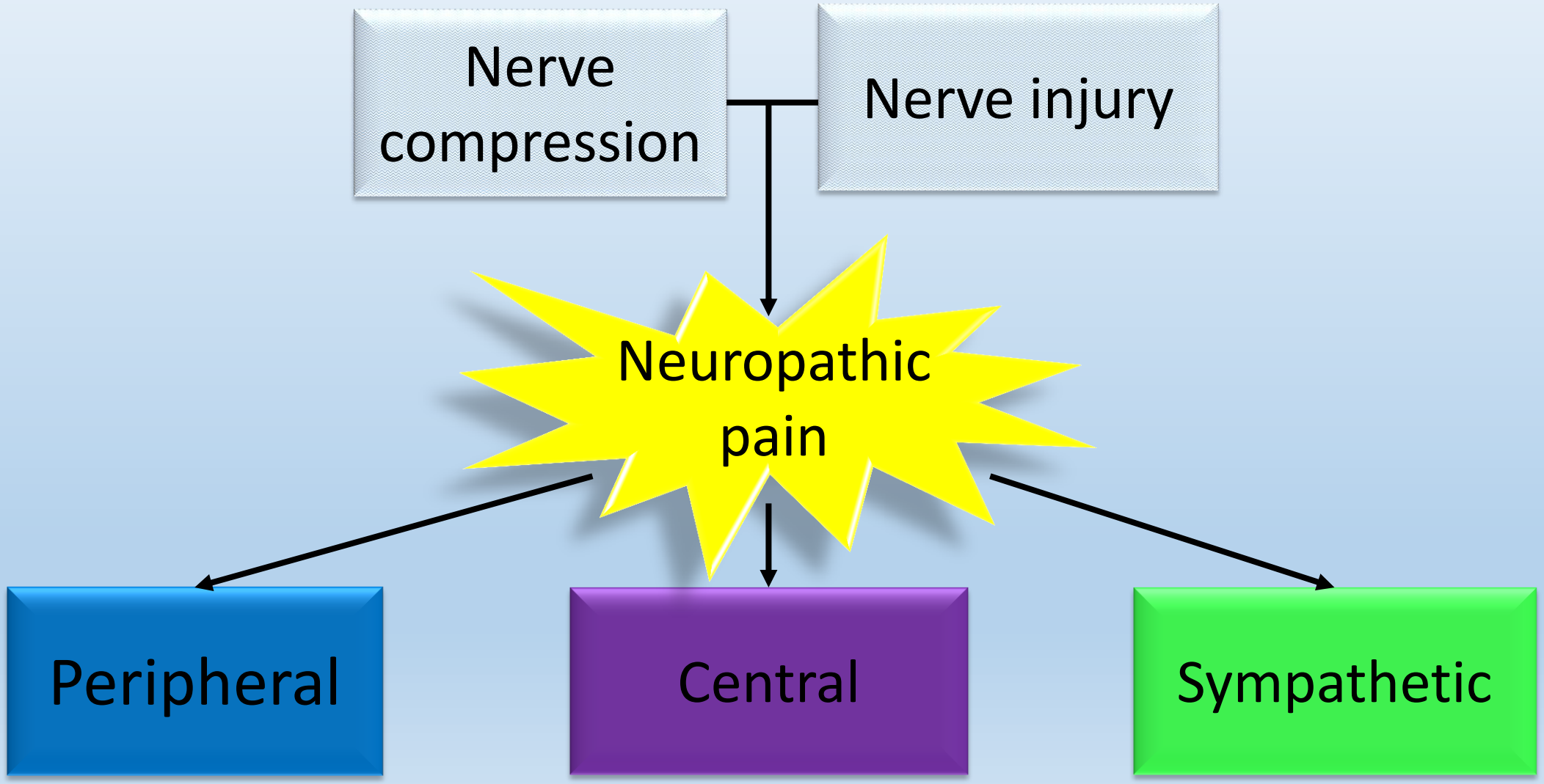
- Talking to patient/family about issues
- Psychological support - psychologist or counselling
- Citizens Advice Bureau/referral for benefits review
- Legal advice
- Spiritual support
- Liaison with school, work etc
- Social services/social worker

Always consider a hospice/specialist palliative care referral!

Physical pain: Nociceptive pain



Physical pain: Neuropathic pain



Descriptors for physical pain

Nociceptive

- Dull
- Aching
- Colicky
- Squeezing
- Poorly localised
- No associated neurological symptoms

Neuropathic

- Shooting/electrical
- Burning
- Stabbing
- Tingling/pins and needles
- Loss of sensation
- Allodynia
- Hyperalgesia

Assessing pain - principles

- Pain characteristics
- Effect of pain treatments
- Background medical, social, psychological
- Examination +/- investigations

Assessing pain

Background
- Medical history
- Other issues
- Patient's goals

Other
- Examination
- Appropriate investigations

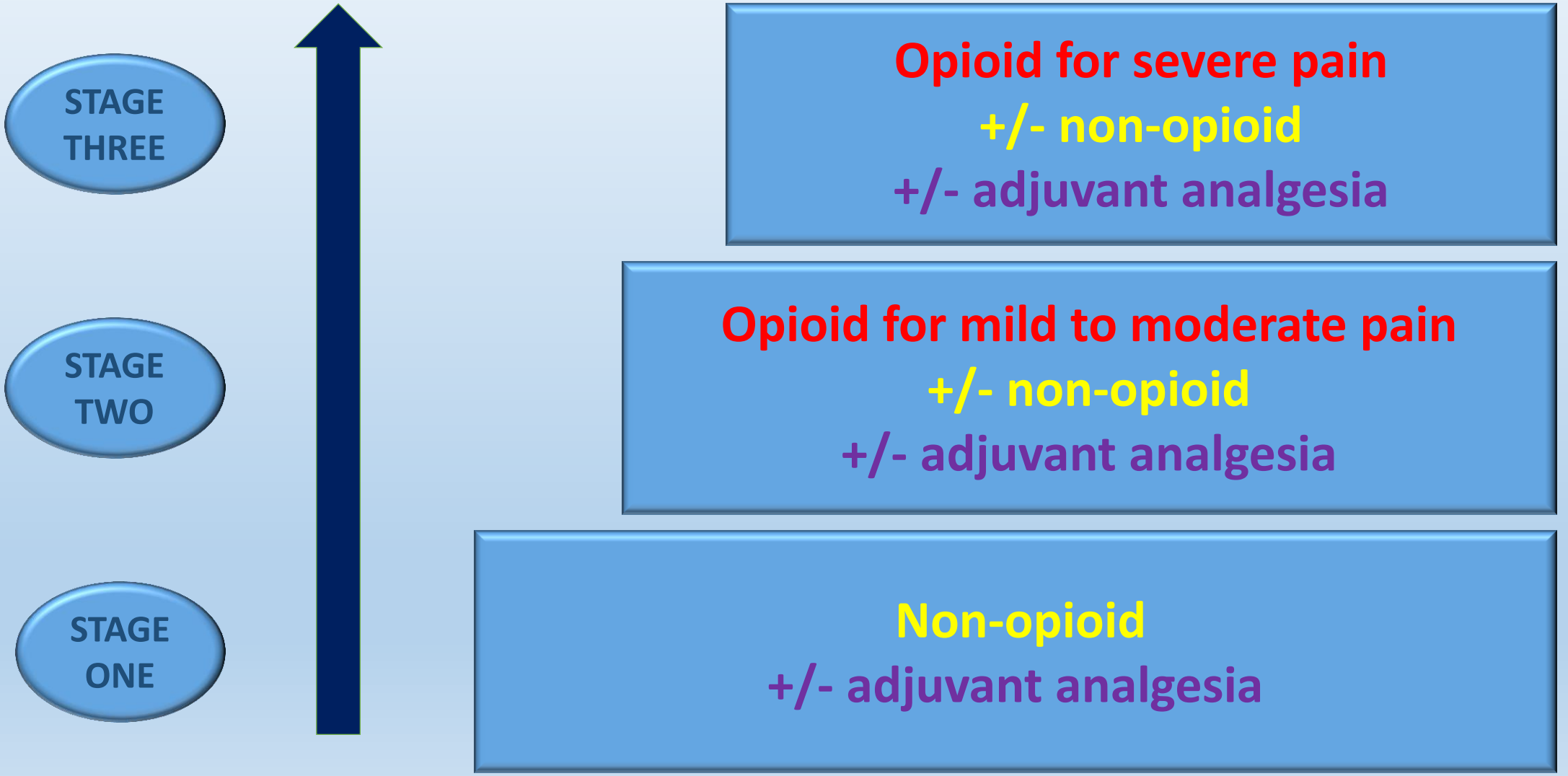
Pain characteristics
- Onset and duration
- Where and when
- Description/type
- Severity
- Exacerbations/relieving factors
- Patterns/causal associations
- Effect on life

Effect of pain relievers
- Effectiveness of each type for each pain
- Effectiveness – for PRNs, background etc
- Speed of onset
- Duration of action
- Adverse reactions to pain relief

What would you ask?

- Mr White, 73, widow, lives alone
- Accompanied by daughter and her baby
- Prostate carcinoma with bone mets
- No further active treatment
- Been using Oramorph 5mg PRN and paracetamol 1g PRN

The W.H.O. Pain Ladder



Non-opioid analgesics

- **Paracetamol:** always consider
  lower dose may be advised
- **NSAIDs:** frequently useful, frequently contraindicated!

Adjuvant analgesics

Analgesic	Use
• Antispasmodic	• Colic
• Bisphosphonate	• Bone met pain
• Corticosteroid	• Oedema or nerve compression
• Muscle relaxant	• Spasm or cramp
• Antidepressant	• Neuropathic pain
• Anticonvulsant	• Neuropathic pain
• NMDA-receptor blocker	• Neuropathic pain

Opioids

- Codeine – oral i/r & in combination with paracetamol
- Tramadol – oral i/r & m/r
- **Morphine** – oral i/r & m/r, injectable
- **Oxycodone** – oral i/r & m/r, injectable
- **Alfentanil** - injectable
- **Fentanyl** – transdermal patch, oral transmucosal tabs
- Buprenorphine – transdermal patch

i/r = immediate release m/r = modified release

Opioids for mild to moderate pain

Codeine

- About 1/10th as potent as oral morphine
- Variability in effects
- More constipating than morphine

Tramadol

- Opioid and non-opioid properties → effective for some neuropathic pain
- Rapid stopping can cause withdrawal reactions
- About 1/10th as potent as oral morphine
- Above 400mg/24 hours → risk of fitting

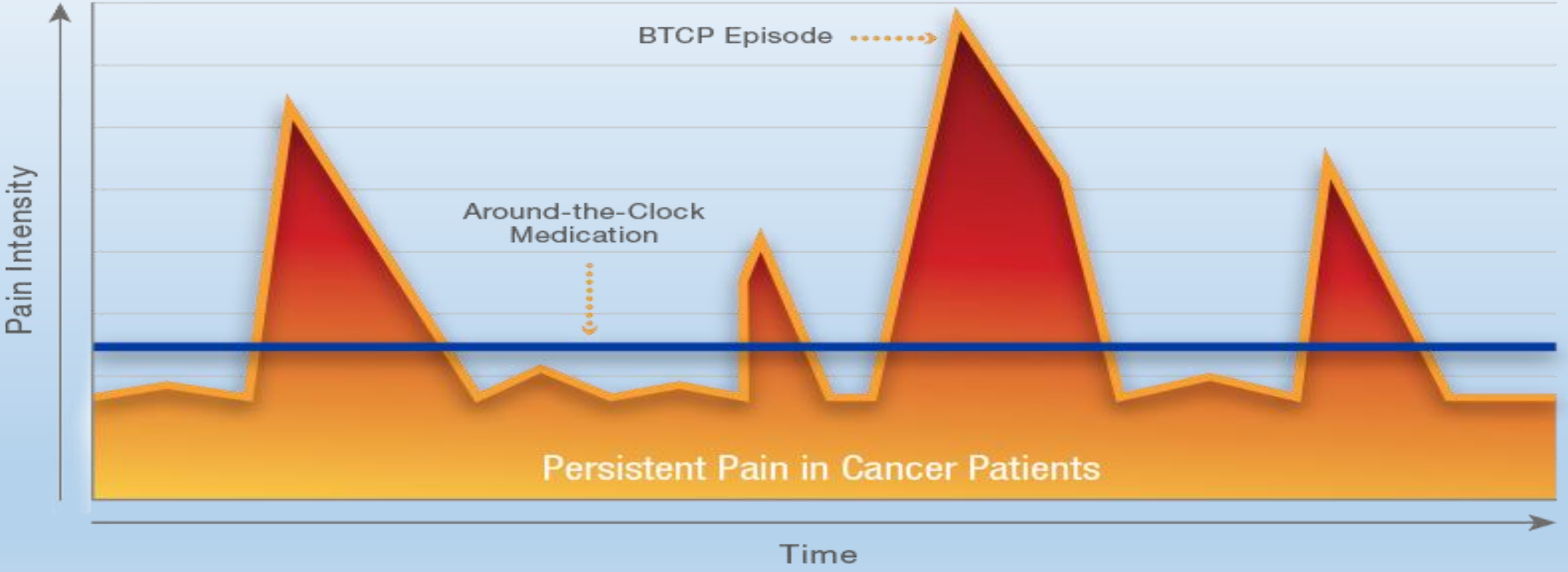
Principles for prescribing oral strong opioids

- Start with PRN low dose immediate release (i/r) preparations (eg Oramorph)
- Allow PRN (breakthrough) i/r preparations to be used up to 2 hourly
- Calculate start dose of modified release (m/r) preparation (eg MST) from i/r use
- Continue to allow PRN (breakthrough) i/r use on top of m/r use
- i/r PRN dose 1/6th of total 24 hour dose (ie total m/r + PRN doses)
- Dose titrate m/r drug according to continued PRN i/r use
- Don’t forget anti-emetics and laxatives
- **Goal is to control most of the pain with minimal side effects**

Principles for prescribing injectable strong opioids in palliative care

- Use subcutaneous route (one rare exception)
- Subcut route does NOT provide any benefits of itself in terms of pain relief!
- Syringe drivers do NOT provide any benefits of themselves in terms of pain relief!
- Subcut dose equivalent is half of oral dose (eg Oramorph 10mg Ξ 5mg morphine)
- Breakthrough dose/PRN dose = 1/6th total 24 hour dose
- If you are unsure about conversions ask community pal care CNS or “phone a friend” (= your local hospice)

Illustration of Persistent Pain and Breakthrough Cancer Pain[1]



Morphine

Papaver somniferum

- First line opioid for pain relief in palliative care
- Modified release oral preps eg MST, Morphgesic, Zomorph
- Immediate release oral preps eg Oramorph, Sevredol
- Avoid in moderate to severe renal failure
- Oral breakthrough dose up to 1/6th of total 24 hour dose

  eg MST 30mg bd, Oramorph 5-10mg
- Conversion from oral dose to morphine injection, divide by 2

  eg MST 80mg bd, CSCI 80mg/24 hours

The case of Mrs Brown

Diagnosis/problem

- Metastatic breast cancer with bone mets. Paracetamol – unhelpful. NSAIDs contraindicated. Pain = dull ache. No neuropathic features.

What do you prescribe?

- Started on Oramorph 2.5 – 5mg

What do you want to know after a week?

- Helpful. Using 6 - 8 doses x 5mg per day. Lasts 2 - 3 hours. Onset starts 30 minutes. Slight nausea. Somewhat constipated.

What do you do next?

- Start MST 20 mg bd. Continue Oramorph. Prescribe laxative and antiemetic.

Returns after 1 week having used 4 – 6 doses of Oramorph 5mg per day. Pain overall improved. Bowels and nausea improved. What do you do next?

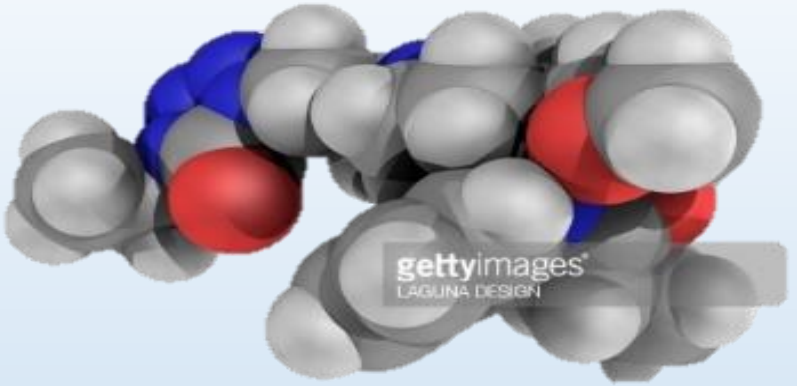
- Increase MST to 30 – 40mg. Increase Oramorph to 10mg bd.

Returns after 1 week. Pain pretty well controlled with MST and 1 – 2 doses of Oramorph per day.

Oxycodone

- Oxycodone modified release eg Longtec, OxyContin
- Oxycodone immediate release eg Shortec, OxyNorm
- Better tolerated than morphine by *some* individuals
- *No better* in terms of pain relief than morphine
- Used in mild to moderate renal impairment alone or with alfentanil in a CSCI as breakthrough medication
- To convert from oral morphine to oral oxycodone, divide by 2
- Breakthrough dose of i/r oxycodone = up to 1/6th of m/r dose
- Convert from oral to s/c oxycodone, divide by 2
- To convert from s/c morphine to s/c oxycodone, 1:1 conversion
- Breakthrough dose calculation as per morphine

Alfentanil



- Synthetic opioid in same class as fentanyl
- Used in renal failure
- In even mild hepatic impairment may accumulate
- Given as single dose, lasts for max 30 minutes
- To convert from CSCI morphine/oxycodone, divide by 15
- To convert from PR morphine, divide by 30

Fentanyl and buprenorphine patches - background

- Used as alternative to oral route – why/when?
- May be better tolerated than morphine/oxycodone
- Avoid when rapid titration needed
- Tolerated in renal impairment
- Buprenorphine can be used in opioid naïve but fentanyl should not be
- Increased skin blood flow increases absorption
- Can cause site irritation due to adhesive
- Depending on patch brand, need to avoid using same site for different time periods

Buprenorphine patches - doses

- Buprenorphine doses/durations:

  5, 10, 20 mcg/hr as 7 day patches (BuTrans)

  35, 52.5 and 70 mcg/hr up to 4 day patches (Transtec)
- Buprenorphine 5mcg/hr is equivalent to 12mg/24 hour of oral morphine
- Buprenorphine 35 mcg/hr patch is approx. equivalent to fentanyl 25 mcg/hr

Fentanyl patches - doses

- All duration of 3 days/72 hours.
- Large number of brands eg Fencino, Matrifen, Durogesic etc
- Doses include 12, 25, 50, 75 and 100 mcg/hr patches.
- Fentanyl 25 mcg/hr equivalent to oral morphine 90 mg/24 hour.

  eg for a 25 mcg/hr patch, the appropriate breakthough dose of oral morphine would be 10 – 15mg and the appropriate breakthrough dose of oral oxycodone would be 5 – 10mg.
- When start a CSCI what do we do with the patch?

Question time!

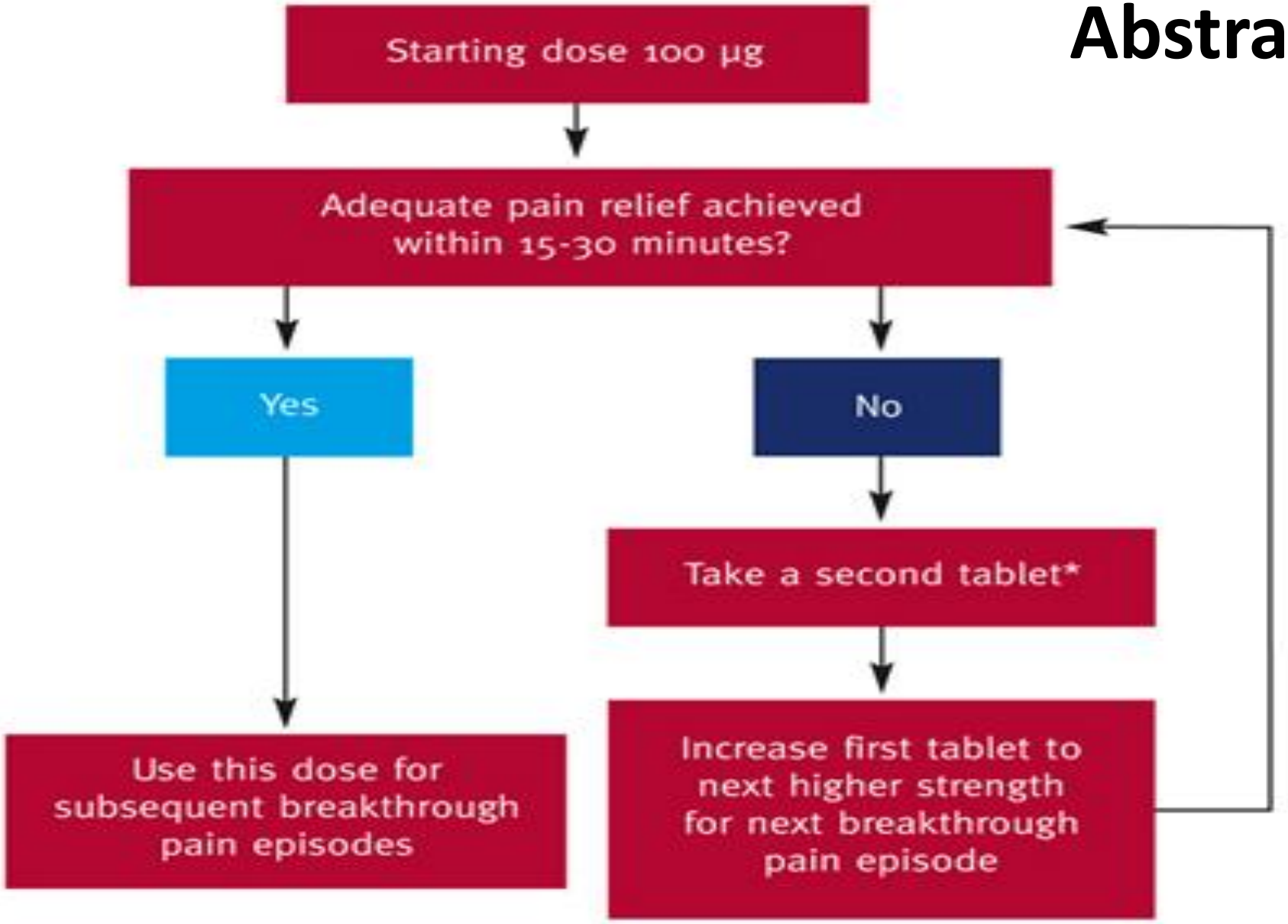
- Can a patient using MST 10mg bd be safely converted to a fentanyl patch?
- What breakthrough dose of Oramorph should a patient on a 50mcg/hr fentanyl patch be prescribed?
- A patient with unstable pain is being titrated on MST and Oramorph but wants to change to a non-oral route. Is a Fentanyl patch suitable?
- A patient on a Fentanyl patch 75mcg/hr is to be started on a CSCI. What do you do with the patch?
- If you have a patient on a fentanyl patch 100mcg/hr and a CSCI with 120 mg morphine, is 20 mg morphine an adequate breakthrough dose?

Fentanyl oral transmucosal/sublingual tabs

- Rapid onset of 5 – 10 minutes and short duration up to I hour.
- Ideal for incident pain
- Not for opiate naïve patients (at least 60mg morphine/24 hrs, 30mg oxycodone/24 hrs for ≥ 1 week or 25 mcg/hr fentanyl patch)
- No clear conversion ratio from background pain relief so usually titrate up from same starting dose of 100 mcg/hr.
- Other preparations for rapid onset fentanyl preparations exist.

Abstral®
(fentanyl) sublingual tablets

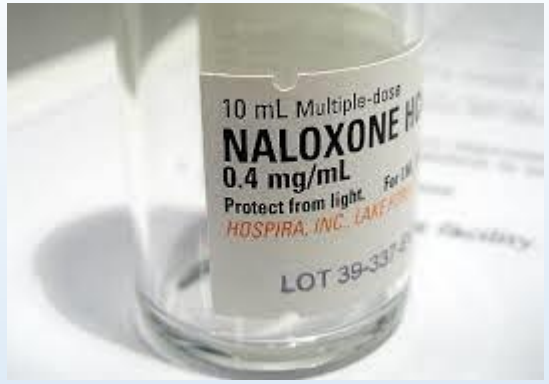
Abstral dosing regime



* Dose of second tablet if first tablet is unsuccessful

First tablet	Second tablet
100 µg	100 µg
200 µg	100 µg
300 µg	100 µg
400 µg	200 µg
600 µg	200 µg
800 µg	-

Severe opioid toxicity



- In palliative care patients on long term opioids, need to use **low** doses of naloxone if treating toxicity
- If respiratory rate ≥ 8 breaths/minute and the patient is easily rousable and not cyanosed → observe
- If respiratory rate ≤ 8 breaths/minute, the patient is comatose/unconscious and/or cyanosed:
  - Dilute 1ml ampule of naloxone 400mcg to 10mg with 0.9% saline
  - Give 0.5ml (20mcg) IV every 2 minutes until respiratory status satisfactory
  - Further doses may be needed as naloxone is shorter acting than many opioids
  - Wait until there has been a sustained improvement in consciousness before restarting a lower dose of opioid


PRESENTATION FINISHED
..ANY QUESTIONS?