The Royal College of Emergency Medicine

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The Quality Improvement Project - Guidance for Examination Candidates

Introduction

The College has reviewed the FRCEM examination structure and is working with the GMC to obtain their final approval of a number of changes, including the introduction of the requirement to complete a Quality Improvement Project. Further details on the introduction of the amended examination structure and updated transition arrangements will be published once final GMC approval is received.

As a number of examination candidates had already started preparing Quality Improvement Projects in anticipation of the new examination structure, the College has obtained the agreement of the GMC that trainees who started ST3 or ST4 in August 2014 are permitted to submit either a Clinical Topic Review or a Quality Improvement Project to meet the requirement for the CTR. Furthermore, these trainees (ST3 or ST4 in August 2014) will also be granted additional flexibility to submit their CTR/QIP after sitting the FRCEM OSCE and SAQ, if desired. Trainees who have been preparing material for a management portfolio will not be formally assessed on these portfolios but will be required to sit the existing management viva. All trainees are still required to pass all components of the FRCEM examination before the completion of training.

This document is written to provide additional advice and guidance to candidates as to how to approach the QIP.

Background

In essence, the QIP is exactly what is suggested by its name; a process whereby patients benefit from the service improvement implemented by the candidate.

The rationale for mandating a QIP may be considered self-evident; however it is important to remember the reason for QIP. It is more than a simple audit cycle or service evaluation. The function is to aim to improve patient experience and/or outcomes; to enhance the clinical care we deliver in a sustainable manner. The QIP is the evidence the candidate uses to demonstrate this, the assessment is not an end point of itself. The result of QIP should be tangible patient benefit of some form. However, failure to demonstrate an improvement does not, in itself, lead to an automatic fail of the QIP component.

The essence of quality improvement is the introduction of change (improvement) using an explicit method or project tool which can be reproduced. A quality improvement project usually consists of the following elements:

Identification of an area of clinical care where outcomes are not as good as expected
An analysis of the relevant patient care processes and pathways
Evaluation of evidence and literature to support the recommended change
Implementation of project management processes
Engagement of a team

Understanding and using validated tools for improvement
Collection and analysis of data
Making effective changes in the light of data and experience- and monitoring the impact of those changes
Planning for sustainability and further work

These elements, and the required standards for successful completion of the QIP are illustrated by the marking scheme, and described in detail below.

The QIP can be submitted any time from ST4 onwards. It is anticipated that the project should take around a year to complete from inception to completion. It should be the culmination of many months of hard work by the candidate, they should know their material intimately and be able to answer any question based on the project, or related to it.

The QIP requires a combination of skills. The aim of the QIP written summary and discussion/viva is to explore the candidate's understanding of the chosen project and the ability to evaluate the evidence and present a cogent narrative. This understanding should be more than a surface appreciation of the issues related to implementing change, the academic grounding and the leadership required to implement a QIP. It is also useful to remember that Consultants are expected to participate in quality improvement and this is reviewed at appraisal.

Examples of Quality Improvement Projects

- Candidate A noted a high level of unscheduled returns in their department for young women presenting with PV bleeding. At that time Early Pregnancy Unit appointments were taking 3-4 days wait for suspected miscarriages. Working with the lead Obstetrician for EPU, senior midwives and the ED Matron they introduced a raft of measures including a PV Bleed standardised assessment proforma, a patient information leaflet, an open access telephone advice line and increased EPU clinic capacity. Through these measures inappropriate EPU referrals were minimised, patient understanding of their condition improved and measured patient satisfaction increased. Unscheduled re-attendances in this group were reduced at 6 months.

- Candidate B felt from their observations and experience of working in other centres that at their current trust adequate analgesia for elderly patients presenting with fractured NOF was often delayed and in some cases not achieved before transfer to the ward. Liaising with colleagues in Orthopaedics and Anaesthetics they decided to introduce an ED fascia iliaca regional anaesthesia service. Candidate B visited a number of centres nationally who had published their experiences of implementing such a service before securing funding for a special trolley and equipment and designing an educational programme for ED senior nurses and middle grades to allow a service to be established in his new trust.

- Candidate C had read of centres in the UK and Australia using a risk stratification process to filter a proportion of suspected Upper GI Bleed presentations into an "ambulatory pathway" with outpatient endoscopy for low risk cases. Analysing admissions data for their trust they believed that significant bed use savings and cost efficiencies could be found in implementing a similar model. After debate with

the clinical leads for Gastroenterology and Emergency Medicine and the manager of Endoscopy Services a pilot study was implemented over a 3 month period. Candidate C presented the new policy to colleagues in the ED and General Medicine and produced a new e-guideline to support the new service. At 6 weeks it was noted that uptake was not at a level that they were expecting. Investigation showed that a number of Medical registrars were not using the service and were admitting suitable patients as previously. Resistance to change was addressed by a second round of educational presentations.

- Candidate D had read of improved privacy and dignity for patients by using a "red peg" system indicating the doctor or nurse was with the patient. After engaging with the nurses and agreeing the criteria and indications for using a red peg the candidate carried out a patient survey to evaluate current perceptions and then introduced the red peg idea. This was initially used only in the minors area and evaluated by a further patient survey showing an improvement. The first pilot was successful and the system was rolled out to the majors area and resuscitation room. Champions were appointed on each shift to remind specialty staff of the policy. An audit of utilisation 3 months after introduction demonstrated 95% uptake – enforced mainly by nursing staff.

Commencing the QIP

The appendices give some useful resources, and these should be reviewed prior to commencing the QIP.

It is suggested that the scope of the QIP should be such that it takes 3-6 months to design and implement change, and another 3 months to assess and write up. In terms of scale, the work should ideally be in one Emergency Department, and require liaison with at least 2-3 stakeholder groups.

Given the timeframes involved, it is anticipated that the QIP is started very early during a placement where the candidate will be working for at least a year. It is advisable that the candidate liaises with their supervising Consultant (possibly before commencing post) about possible QIP topics; however it may be that the candidate identifies the subject of the project after having been working in a post. The QIP should be the candidate's own, however it is appreciated that there may be a requirement for trainers to assist with identification of the topic, and to give some guidance during the project. However, the project should not be a simple management task that the Emergency Department requires action on but something that required reflection and research into the evidence.

Elements of the QIP

The QIP will be unique and individual; not only due to the 'personal stamp' the candidate places on it, but due to the fact that it is influenced by the needs of the patients and the local aspects of the service. It will require an academic review of the available evidence pertaining to the QIP, these should include published papers as well as local evidence, audit or other documents – which should

be appraised using critical appraisal methodology where relevant. Candidate are therefore expected to complete a literature search and review as part of the QIP (see below).

Useful resources for QIP implementation and reporting are included in the appendices.

The written component - structure

The written summaries will vary, however there will be some common themes as discussed below that are likely to appear in all QIPs in some form:

- A narrative that makes it clear how and why the topic was chosen/ identified and what the impact is in the local department.
- An analysis of the reasons for the problem including a description of any patient pathway/process currently in place
- A literature review – assessment of what is already known – with critique of the available evidence for change. This is not only about the scientific basis, but includes management literature, service reviews, other (local) experience and practices- together with an explanation of how the evidence was identified and chosen.
- A description of the change and/or quality management processes involved; and a project plan. The selection and use of tools for improvement e.g. PDCA cycle, pathway analysis etc.
- A description of how the team was chosen, why members were chosen, what the contribution of these members were (alternatively, an explanation of why, if a lone operator, no other members were required).
- Evidence of engagement with stakeholders; who resisted and cooperated and how these barriers/benefits were identified and managed (overcome or encouraged).
- Development and implementation of mechanisms to assess effect of QIP. Assessment of the effect of change including subsidiary effects. What data was chosen, and what did it reveal (including unwanted or unanticipated effects).
- Outcomes/effects of QIP, and possible next steps. Remedial actions following implementation.
- Reflection on the process, and the lessons learnt. This constitutes a major part of both the mark scheme, and the narrative of the QIP; it should also establish the 'unique identity' of the QIP.

The College is not didactic about the processes/ tools/ frameworks for these elements, provided the candidate has selected an accepted processes and tools and referenced them appropriately (e.g. when implementing change candidates may use action research methodology, force-field theory, Moss Kanter approach etc but there is no single 'correct' approach, as it will be determined by the local environment and culture).

The QIP is not simply a management project; however it will involve and assess some management skills. Candidate should be guided by the mark scheme to infer what is required, and how this can be demonstrated.

There is a 'house style' which includes:

Vancouver referencing
11 point, double spaced, Arial or Times New Roman font
Electronic submission in Word format via online application process
Headings- we suggest you use the headings in the written marksheet
Frontspiece with executive summary, signatures from candidate and trainer confirming sole work of candidate
Word limit: it is assumed that word count less than 2000 words will be inadequate, and over 6000 words probably excessive. The QIP will usually be about 3-4000 words in total (excluding tables, diagrams and references and appendices if used).

The viva

The QIP viva will be a structured review of the QIP, following a standardised format, based on the domains in the marking scheme provided. The function of the viva is to assess both the candidates' learning from the QIP, and their deeper understanding of the issues as listed above. Ideally, it should be a 'celebration' of the achievement of the candidate in making this quality improvement happen.

The outcomes of a QIP, while important from a perspective of service delivery and patient experience, are not the predominant domain in the marking of the QIP. This is because QIP may have outcomes determined or influenced by external forces beyond the candidate's control and a pragmatic appreciation that unexpected/unforeseen events affect outcomes. The narrative of the QIP should highlight these issues, and explore the probable causes of the lack of progress or success; the viva is an opportunity to explore these issues.

Useful material for QIP

A list of useful material (websites, programmes etc), is included below. This includes material on processes, leadership and managerial knowledge and skills. It is not envisaged that all of this material will be required by all trainees.

Useful introductory information/information on planning and implementing QIP

'How to lead a Quality Improvement Project' Fiona Tasker Available at:
http://careers.bmj.com/careers/advice/view-article.html?id=2001048

Institute for Healthcare Improvement (IHI) website, 'Resources' section

Quality Improvement Made simple, published by the Health Foundation. Available at:
www.health.org.uk/publications/quality-improvement-made-simple

NHS institute for Innovation and Improvement website (administered by NHS Improving Quality)

http://www.rightcare.nhs.uk/

HQIP Guide to Quality Improvement Methods:

http://www.hqip.org.uk/assets/Guidance/Guide-to-quality-improvement-methods-July-2015.pdf

NHS Improving Quality toolkits and educational materials, available at: http://www.changemodel.nhs.uk/pg/groups/12147/Improvement+methodology/?community=Improvement+methodology

Examples of QIPs

Royal College of Physicians. Learning to make a difference. 2012. www.rcplondon.ac.uk/projects/ltmd-trainees

NICE QIP examples and toolkits available on https://www.evidence.nhs.uk/qipp

BMJ Quality Improvement resource: http://qir.bmj.com/

Appendix 2a Written QIP mark sheet

	Unacceptable	**Acceptable**	**Comments**
Issue/topic	No description of issue or why important for department, no context given	Clear concise description of problem with impact on patient care – why important in this department	
Presentation, narrative, structure	Multiple spelling mistakes, incorrect underlining/ use of bold, tables poor , incoherent narrative and unable to determine the project progress	Grammar acceptable, good use of language, tables simple and demonstrates relevant points clearly, logical structure, easy to follow and could be replicated	
Identification/ analysis of the cause of the problem	Failure to analyse the problem sufficiently or identify root cause	Good clear analysis and identification of the cause of the problem	
Evidence found	No attempt to look for published solutions, no access to known resources for support, no critique of papers/evidence found	Good search and critical review of evidence to support change	
Structure and implementation of change	No description of mechanism /approach to change, no outline of the project plan	Clear implementation of changes; including description of tasks/ deadlines, monitoring and managing progress; all following logically from planning stage	

	Unacceptable	Acceptable	comments
Measuring outcomes	Limited measurement or assessment of impact of QIP	Develops/identifies tools to assess outcomes, implements the tool effectively	
Engagement and team working	Limited or unexplained engagement with team, no evidence of team working	Good evidence of engagement with team, minutes of meetings, discussion of options	
Iterative process	Limited evidence of iterative process, response to results or next steps implementation	Good evidence of monitoring response to change, further changes planned clearly or undertaken	
Reflection	Limited reflection on process	Reflection on both personal and institutional learning – suggestions for how this might be shared, or how might have done things differently	
Overall	**Written report – ring one outcome** Successful – only one unacceptable, or all acceptable Unsuccessful – more than one unacceptable		

Appendix 2b QIP – viva mark sheet

	Unacceptable	**Excellent**	
Overview of project	*Unable to concisely summarise and give salient points*	*Good description of project – full but concise*	
Discussion of change plans	*Unable to explain why the change was implemented, the analysis of the cause*	*Clear description of original problem, causes and why change was chosen*	
Implementation	*Chaotic description of implementation*	*Clear implementation overview, tasks, deadlines, rationale, including planning and milestones*	
Measuring and outcomes	*Limited identification of the outcomes to be measured and results – limited analysis of implications of results*	*Able to explain measures, results and implications – and link to what was originally required*	
Reflection	*Limited reflection – unable to describe benefits of QIP or limitations of the project as undertaken*	*Can describe further improvements, how could do better next time, how project has been sustained or further modified*	
Overall	Successful in the domain marked unsuccessful in the written AND only one unsuccessful in viva = **successful completion** More than one unsuccessful in viva or continued unsuccessful in the written domain = **unsuccessful**		