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The Quality Improvement Project - Guidance for FRCEM Examination Candidates

Updated June 2020

Introduction

The Final Examination for Fellowship of the Royal College of Emergency Medicine (RCEM) includes an assessment of a Quality Improvement Project (QIP). Advice to candidates and their supervisors is available on the RCEM website.

This document is written to provide additional advice and guidance to candidates as to how to approach the QIP, and how it will be assessed.

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 and adjustments have been made to the marking scheme to account for projects impacted by COVID-19.

The essence of quality improvement is the introduction of change (improvement) using an explicit method or project tool and with measurement to demonstrate improvement, which can be sustained or 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 submission is to assess 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 three 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 otr 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.

- An analysis of the issue using standard tools (e.g. PEST, SWOT, driver diagrams, internal and external analysis etc), to identify possible interventions, and then an appraisal of which interventions to implement.

- 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 contributions 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). If limited evidence is available due to COVID-19, candidates are required to include details of this within their written submission.

- Development and implementation of mechanisms to assess effect of QIP. Assessment of the effect of change including subsidiary effects. What data was chosen, and, if available, 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 and should include details of how the project has been affected by COVID-19 where outcomes or the iterative process has been impacted.

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 revised 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 PDF format via online application process
- Headings- we suggest you use the headings in the marking scheme
- Frontispiece with:
    - executive summary or abstract
    - candidate number
    - signatures from candidate and trainer confirming sole work of candidate
    - signed entrustment statement from trainer confirming:
      "Based on the material presented, the quality of the trainee's understanding of both QI methods and their strengths and weaknesses as someone who can implement change, I believe this trainee is ready for consultant level practice in QI."
- 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).

Candidates are advised that, as in other FRCEM examinations, their work will be identified by candidate number only. Candidate names will be redacted from their QIP prior to examiner marking.

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: https://www.bmj.com/content/346/bmj.f113

- 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)
- https://www.england.nhs.uk/rightcare/
- HQIP Guide to Quality Improvement Methods https://www.hqip.org.uk/resource/guide-to-quality-improvement-methods/#.W1h4EVBKjIU
- SQUIRE guidelines http://www.squire-statement.org/
- RCEM QI guide (updated July 2018)
- 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 Open Quality resource http://qir.bmj.com/
- FRCEM Final QIP marking scheme (June 2020)