

Quality Improvement Project (QIP) Guidance for GP trainees

Introduction

All doctors have a duty to make changes that will lead to better patient outcomes and better system performance. This is supported by the guidance given in GMC's Good Medical Practice, the RCGP's Guide to the Revalidation of General Practitioners (RCGP, 2014), and its 2022 vision document (RCGP, 2013). Quality improvement methodology is promoted by the NHS Leadership Academy, and the Academy of Medical Royal Colleges. This also applies to doctors in training- quality improvement activities are part of the revised "Gold Guide" (A Reference Guide for Postgraduate Specialty Training in the UK, DoH) which states:

- *'Trainees must engage with systems of quality management and quality improvement in their clinical work and training'* [7.32]
- *'Trainees must take part in regular and systematic clinical audit and/or quality improvement'* [7.32]

Quality improvement is the application of a systematic approach that uses specific techniques to improve quality. This should include.

- The concept of a cycle of improvement which involves data collection, problem definition and diagnosis, generation and selection of potential changes and the implementation and evaluation of those changes.
- A set of tools and techniques that support individuals to implement the cycle of improvement.
- A recognition of the importance of context and culture and the need for leadership
- A recognition of the central importance of engaging those who receive and deliver a service.

A quality improvement project (QIP) should be a continuous process of learning, development and assessment, and part of a wider QI programme. There are many quality improvement activities that take place in general practice, including audit, significant event analysis, analysing prescribing and referral data, and the Quality and Outcomes Framework. When we look at a clinical process and try to improve it, audit may well be the best approach, but there will be other instances where a less rigid quality improvement approach is more appropriate, changing the focus from two points of data collection being the endpoint, to using data as a resource to show that a change is needed and that an improvement has been made.

This guidance focuses on a QIP for trainees, and should not substitute for learning about other aspects of quality improvement in the surgery, but enhance it. By the end of your training you would still be expected to demonstrate that you understand the principles of audit and significant event analysis, and have engaged with these processes.

Getting involved in a QIP gives you an opportunity to learn more about quality improvement methodology and put your knowledge and skills into practice by undertaking a project with the support of your supervisor. At the end of it you should be in a better position as a GP to design and carry out a specific project, make changes in the practice, lead a team, and enhance patient care.

This guidance outlines how trainees might approach a QIP, how to structure your project to make the most effective use of time and avoid common pitfalls, and how to learn from a continuous process of reflection and formative feedback. It is not intended to be an exhaustive list of QI methodologies, contexts, or assessments. However, trainees may wish to access more information using suggestions given under resources at the end of the document, and more resource suggestions are also available on the RCGP website.

Trainees and supervisors are often concerned with getting bogged down with unnecessary paperwork. The RCGP has produced a series of guidance documents around the QIP, which are there to focus discussion in a series of four “touch-point” meetings between trainee and educational supervisor. It is not essential that these are completed as part of your QIP, but they are there to provide structure and make best use of teaching time. It is suggested that each of these meetings could take place within normal tutorial time.

Your learning should also be documented on the eportfolio. You can use learning log entries, PDP entries, and upload QIP documents under the heading of “audit”.

Support and Feedback

Undertaking a QIP may appear daunting at first, it is important to realize that you will not be unsupported in this endeavour. Before considering a QIP, it may be useful to think through the resources available to you.

1) Your educational supervisor

It is really important that you set aside protected time to meet with your educational supervisor about the QIP, as this is where you will receive guidance and formative feedback from your educational supervisor. In some practices, your educational supervisor may have delegated this to an appropriate person who may have particular expertise in QI. Nevertheless, you should also meet with your supervisor to discuss progress in the context of the rest of your workplace-based assessment.

It is suggested that this takes place within four formalised planned meetings between you and your educational supervisor. These are referred to as the QIP “touch-points”, and are supervised learning events (SLEs). These would normally fit into a weekly tutorial time and at least an hour should be allowed for each meeting. At each of the 4 formal meetings your educational supervisor will review what you have done and give you feedback. Although not mandatory, it is suggested that you fill in each section of the relevant QIP “touch-point” template and hand it to your educational supervisor *before* the meeting so that he/she has time to look at your progress, what you wish to get out of the meeting, and think about any feedback and further advice to be given.

Having four formalised meetings does not prevent you from getting advice from your supervisor as you go along, but it does allow protected time and provide a structured approach. After your meetings you may then wish to review the work you have done on that particular stage of the project using the feedback from your supervisor. It is up to you to decide whether to revise your work or change the direction of your project, and not up your supervisor to do this for you.

A formative feedback sheet is provided for your educational supervisor for each “touch-point” meeting. Feedback maybe simply verbal, but written feedback enables you to review and use this after the meeting. If you feel written feedback would be of value to you, you should ask your supervisor for this.

2) Others involved in the project

As the QIP project involves multidisciplinary teams, there will be a variety of people around you that you can use for advice and guidance. This may include other GPs, other members of the

primary healthcare team, or the extended team members. Depending on your choice of project, it might be appropriate to involve people from organisations outside the practice, and lay people or patient representatives.

3) Facilitated peer groups

Experience has shown the value of facilitated peer groups in taking on and completing a QIP. Peer group members can offer support and advice, and many of them may have tried out QI methods and tools that you and others will be able to learn from. The group facilitator and other peer group members will bring ideas from other practices-these are valuable comparisons, and much can be learned from looking at different approaches to the same problem.

4) Deanery support and feedback

The deanery may run QIP workshops and courses relating to leadership. Other potentially useful topic areas may be covered throughout the GPST educational release programme eg teamworking, managing change, reflective skills, looking at practice data etc.

There are often other people within the deanery who are there to support the QIP project, including administrative aspects, who you can contact where this is appropriate.

It may be that your completed project will be looked at/ assessed by someone other than your educational supervisor. This person will be involved in deanery GP education, but would not be a member of your training practice. This is why you may be asked to hand your completed semi-anonymised project in to the deanery. Your GMC number should be provided, but not your name. This may be to pilot assessment processes, improve training to educational supervisors, provide teaching material for future trainees, or for the purposes of submitting your project for an award.

5) Web resources

There are many resources on quality improvement and how to carry out projects that are available on the web.

The NHS Scotland Quality Improvement Hub <http://www.qihub.scot.nhs.uk/home.aspx> has detailed sections on all aspects of quality improvement including QI basics, the improvement journey, the knowledge centre and QI tools, education and learning (including e-learning QI modules & QI curriculum framework), QI networks etc.

For starters you may also wish to read the BMJ careers article: How to lead a quality improvement project, which gives a concise account of what to do. <http://careers.bmj.com/careers/advice/view-article.html?id=20010482>

or look at a page from the London Deanery on Quality improvement: Beyond audit. 2012. www.leadership.londondeanery.ac.uk/home/beyond-audit.

There is also a detailed resource sheet with a variety of websites that you are encouraged to look at to support your quality improvement project.

Getting started

Before you start

Before you think about embarking on a QIP, make sure that you have the time and capacity to do this-you do not want to jeopardise achievements in other aspects of MRCGP, or put additional stress upon yourself if you already have significant health or personal issues. Having said that, the QIP is not designed to be undertaken by only those at the upper end of the academic spectrum. It should be theoretically possible for any trainee to undertake a QIP, as long as the project is kept

simple and small scale. So far the majority of GP trainees have undertaken a QIP in their final year of training, but it should potentially also be possible to undertake a QIP before the final year of training, so long as the support is there and participation in it does not jeopardise other aspects of MRCGP. Less than full-time trainees should also find it possible to do a QIP. You will need to ensure that you have enough time for your intended project, and the support of your Educational Supervisor (and clinical supervisors, where relevant).

Choice of project

Choosing an appropriate and manageable topic is extremely important. You may struggle to complete a QIP satisfactorily if the project is over-ambitious. Choose your project topic in consultation with your educational supervisor and relevant personnel in the chosen area. Try to identify a specific aspect of practice that bothers you or others, where improvement would benefit patient care. This could be a clinical or a non-clinical area, within the practice, or between the practice and the community, the hospital, a particular patient group etc.

Your QIP:

- should be relevant to primary care, aligned to local priorities.
- should have the potential to make a difference to patient care
- should involve the multi-disciplinary practice team
- should be straightforward enough to be completed within the time period given
- may be done on your own, or with other trainees, so long as your own contribution can be clearly identified and that you write this up individually, highlighting your own learning

Getting ideas

You are encouraged to come up with your own idea but you could also work on an idea identified by a member of the practice team. The idea could also be aligned to the local NHS quality and safety agenda, be identified as a problem area in out-of-hours, be part of a collaborative project working with allied health professionals, or be linked to an area of academic general practice in a university.

Look around the practice-it shouldn't be too difficult to find areas where things could be done better!

For example:

- Could there be more efficient use of the appointments system?
- Are patients' results dealt with in the most efficient way?
- Are monitoring tests missed so the patient has to be re-called, or patient safety is compromised?
- Are patient's repeat prescriptions reviewed at the right frequency?
- How are recommendations such as a medication change actioned from a hospital letter?
- Are referrals dealt with in a timely way?
- Is the way that the practice works clearly signposted to all patient groups?
- Could IT be put to better use in the surgery?
- Are there areas of waste in the system that could be rectified?
- Could communication be improved between different members of the team?

Think SMART! Define clear and focused objectives

It is important to set clear aims and objectives for the QIP before embarking on your project and trying to collect data. Just as in qualitative research, a poorly defined research question can lead to inappropriate lines of enquiry and time-wasting collection of large quantities of irrelevant data. There needs to be a clear rationale for your QIP, based on evidence and aligned to local needs, so research your proposed topic carefully. You may wish to undertake a brief literature search, look at local activity data, or talk to "experts" in the field.

Think what the project objectives should be. Try to define what the goal is, and concisely describe what is to be achieved. Make sure these are SMART (a number of websites can help you with SMART objectives eg "Herriot Watt Handbook - How to write SMART objectives"
<http://www.hw.ac.uk/hr/htm/pdr/06b%20SMART%20Objectives.pdf>)

Here's a checklist for your QIP SMART objectives-try to write something down under each section:

S – Specific

Project: Specify the need for your Project. State specific criteria & objectives.

People: You as the trainee should have a 'driver' rather than just a 'contributor' role. State specific roles for each member of the project team. If a joint project is proposed can the contribution of each trainee be specifically identified?

M- Measurable

You must have a measurable chance of success with defined outcomes e.g. efficiency, patient experience, quality. Include how you will evaluate this.

A – Attainable

Your project should have a realistic chance of success. Keep it simple.

What will be the likely resources needed? People, expertise, time, affordability.

R – Relevant

Projects must be relevant to our work as GPs e.g. primary care, primary-care interface. Local population, but not necessarily limited to this.

T - Timeframed

Is your proposed timeframe realistic? What are the defined interim goals so that you will know you are on track (these can be linked to "touch-point" meetings).

After this, you should be able to write a goal statement. As an example, your goal statement could read something like this:

We will decrease (increase / decrease) the number of requests to the duty doctor for routine medication reviews (outcome) from 60% of all medication reviews carried out (baseline %, rate, number, etc) to 40% (future state %, rate, number, etc) by four months (date, timeframe) on our elderly patients in Bidawee Nursing Home (population impacted).

As a final check, ask others who are not part of the project team but who are associated or affected by the goal statement to give you feedback regarding its meaningfulness. If they report that it is vague or unrealistic, ask them to tell you how it could be made clearer or more feasible, and then revise your goal statement.

Making a plan; managing change

Having decided what your project will be, it is worth spending time developing a strategic action plan and discussing it with your supervisor. A good plan will align to the SMART objectives you have already drawn up, providing practical detail of the personnel and resources required and setting out timelines, targets, deadlines and review dates.

At this stage it is also worth thinking about change management - the processes, tools and techniques for managing the people-side of change. It is quite likely you will need a method for reducing and managing resistance to change, depending on the readiness to change of the practice and of the people involved. Factors affecting this include the scope of the change, whether the change is gradual or radical, how much change is already going on, and the culture of the practice and any impacted groups. Don't assume that if you communicate clearly with the rest of

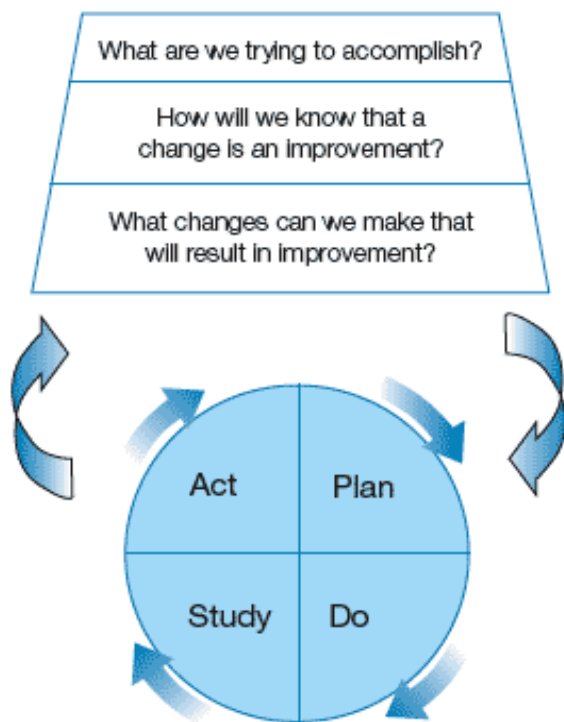
the team that everyone will now be on board with your idea. You need to think about who is your audience, what you wish to say, and when it is said. One of the first steps in managing change is building awareness around the need for change, and the risk of not changing. Your audience is likely to be diverse, and your communication plan should address the needs of all of them, if possible.

Consider what type of resistance can be expected, engage the multidisciplinary team and key stakeholders, and look for change agents and “motivators” as well as factors that might oppose change. Strategies should seek to maximize the drivers and minimize the opposing factors. Plan to review the situation regularly, checking back and obtaining feedback from stakeholders. Your plan may be rejected or modified, so long as you can justify this.

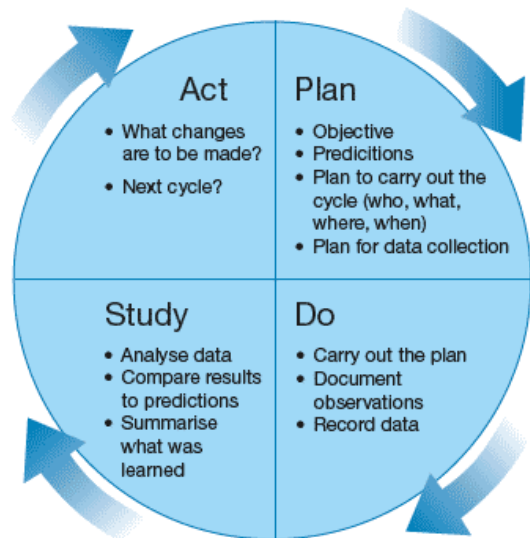
Decide on your methodology

You need to consider what improvement cycle and tools you are going to use. You will need a framework to plan the project and focus the aim. A simple improvement cycle is Plan Do Study Act (PDSA), but different improvement cycles and different QI tools may be more suitable for specific projects.

Model for Improvement
Langley et al, 1996



Plan Do Study Act cycle

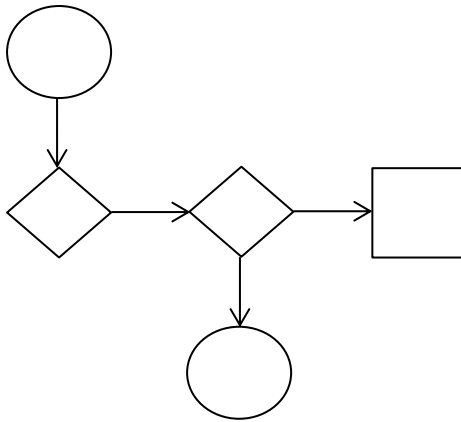


There are many different tools and methodologies associated with quality improvement, and you can find lists of these and details of how they used on many of the websites listed under the web resources. In your QIP it would be helpful for you to become more familiar with some of these and their practical implication.

Process mapping is used to develop a 'map' of a process within a system. Use it to map the whole patient journey or diagnostic pathway with a range of people who represent the different roles involved. The map is best kept simple (between 5 to 10 steps), and should show how things are and what actually happens, rather than the ideal of what should happen. Looking at the process map should help you to clarify people's roles, reduce delays and duplication of work, reduce or

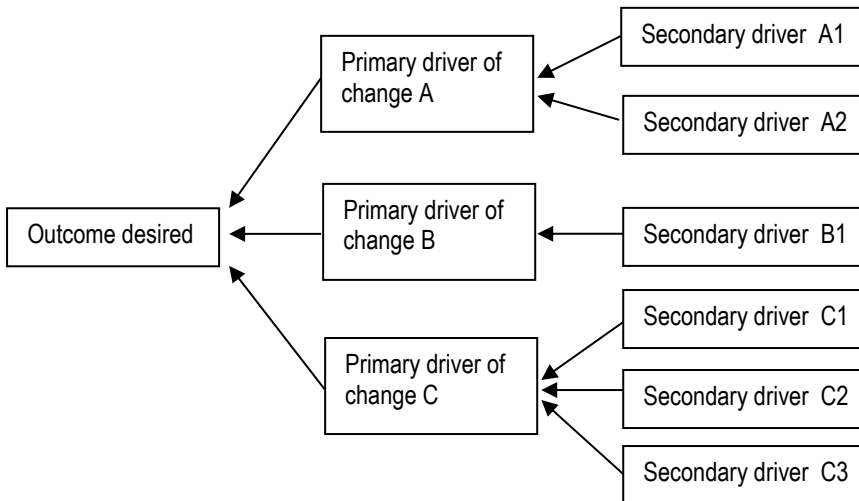
eliminate unnecessary tasks, and simplify the steps in a patient pathway. Different shapes are used to represent different things.

Process map



Driver diagrams can be used to plan QI project activities. They systematically lay out aspects of an improvement project so they can be discussed and agreed on. Information on proposed activities is organised so the relationships between the aim of the improvement project and the changes to be tested and implemented are made clear. A driver diagram has 3 components - Outcome, Primary Drivers and Secondary Drivers.

Basic driver diagram



Other tools include LEAN (a systematic approach to reducing waste through a process of continuous improvement), Fishbone (cause and effect analysis), and SBAR (Situation-Background-Assessment-Recommendation, a simple framework which enables staff to share clear and consistent information about a patient's condition).

Much of this information is available from the NES QI Hub <http://www.qihub.scot.nhs.uk> and you can also find a wide range of tools and their descriptions from the NHS Institute on the NHS Improving Quality website

http://www.institute.nhs.uk/option.com_quality_and_service_improvement_tools/Itemid,5015.html

It is worth thinking about how you are going to measure the impact of your project, otherwise you will not know whether the changes you have made have resulted in any difference or improvement.

There are 3 types of measures:

1) Outcome Measures

How does the system impact the values of patients, their health and wellbeing? What are impacts on other stakeholders such as staff, or the community?

eg for diabetes: Average haemoglobin A1c level for the specified in the population of patients with diabetes. eg for access: Number of days to the next available GP appointment

2) Process Measures

Are the parts/steps in the system performing as planned? Are we on track in our efforts to improve the system?

eg for diabetes: Percentage of patients whose haemoglobin A1c level was measured in the past year. eg for access: Average daily GP hours available for appointments

3) Balancing Measures (looking at a system from different dimensions, thinking about the risks)

Are changes designed to improve one part of the system causing new problems in other parts of the system? eg for access: increasing number of appointment times available for patients: Make sure appointment length is not reduced inappropriately.

You can read about these here

<http://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementEstablishingMeasures.aSPX>

Ensure you have appropriate support

If you haven't already done so, before you get started on the project itself it is essential to have a detailed discussion with your educational supervisor. Your educational supervisor has the overview of your progress towards CCT, and his/her support is essential before you go any further.

However, many trainees have found that another person in the practice may be a more appropriate person to directly supervise and guide your particular project. This could be someone who has particular expertise or interest in quality improvement or in your project topic area. This could be another GP and practice, or another member of the practice team such as the practice manager, practice nurse, midwife, receptionist etc.

To help structure this meeting, it is useful to use the RCGP template "Touchpoint 1: Project Plan". The importance of getting useful feedback on your project ideas and progress cannot be underestimated. This can either be from your educational supervisor, the supervisor you have chosen to help you with your QIP within the practice, or the members of your facilitated small group if you belong to one.

Getting going with your project

After all that planning, you need to start doing. From the evidence based on a variety of improvement strategies and projects, it is worth remembering the following:

- Strong leadership commitment and support is invaluable. As a project leader, you need to empower staff, be actively involved, and continuously drive quality improvement.
- The right stakeholders need to be involved – the quality improvement team is likely to be multidisciplinary, and may involve people outside of the practice. If you haven't involved all the right people from the start, try to do this as early into your project as possible.
- Good communication is vital, not only by email but through face-to-face meetings. It might also be feasible to present progress on your project at a practice meeting. Keep checking

that people understand the problem and agree on the desired outcome and the means by which this is to be accomplished.

- Use a methodologically sound approach. Many of the quality improvement tools are interrelated; using more than one tool may be needed to produce successful results.
- Continually collect and analyse data – this is where QI differs from audit in that there are more than two points of data collection.
- Be prepared to be flexible to adapt to needed changes as they arise. Your findings could define other areas needing improvement, and the original goal may justifiably change.
- Stay focused and persevere – it is easy to get distracted!

For feedback on your project and to check that you are on track, meet with your supervisor. Use the RCGP template “Touchpoint 2: Project Progress review”.

Collecting data and evaluating results

Focus data and information for collection around the clinical problem or service improvement to be addressed, referring back to the focused objectives. You should have already discussed with your supervisor how the necessary data will be collected- who will actually collect it, what are you going to collect, when does this need to be collected, where and how? What will be your baseline measurements, and how did you set a target? If a member of staff is to collect the data, make sure he/she has been kept fully in the loop as to what needs to be done and when. Asking a busy staff member to collect your data at short notice will not make you popular!

Many projects may be around service development, which may not lend themselves to numerical measurements as outcome evaluation data. However, sometimes surrogate quality markers may be used. This is the methodology applied for the quality and outcomes (QOF) framework.

Discuss the outcome evaluation with your supervisor - how will you measure the impact?

Ask yourself:

- What does "better" look like?
- How will we recognise better when we see it?
- How do we know if a change is an improvement?

Measurement for improvement more commonly involves tracking processes and outcomes for the same site over time.

<http://www.qihub.scot.nhs.uk/knowledge-centre/quality-improvement-topics/measurement-for-improvement.aspx>

Presenting your work and sharing information

Presenting your project

There is value in an interim review, which might be a short presentation to the stakeholders. This is a valuable source of feedback to ensure the project is “on track” and gives you the opportunity to respond to feedback if modifications to the plan are required. All too often projects bypass this stage and get to the stage of final reporting when it may be too late to make amendments.

Think through what you wish to present (which may be different according to the audience eg the practice team, your peer group, a deanery educator group). You may be invited to present your project on a specified QIP presentation day at the deanery. You might want to inform or remind the audience of the original goal of the project and whether this has changed, the quality improvement activities undertaken, the performance indicators used, and the findings. Results and outcome evaluations that are excessive, irrelevant or disorganised give the impression of muddled thinking. To avoid confusion the results should relate directly to your SMART objectives. As a result of the

findings, what are the suggested next steps? Have you any recommendations, based on your experience?

One of the key things to report here is your learning and the value of the experience. How has going through the process, planning and implementing the change helped you to understand how organisations and systems work? Your project does not have to have been a success or to have changed the world in order to derive useful learning from it. It is important to share the learning, both good and bad, with others to maximise the learning from the experience of completed projects. Describe what went well and highlight any achievements, but also look objectively at the things that did not go so well without ascribing individual blame.

You may also want to think about your presentation skills, and ask your supervisor for guidance. Brevity and clarity in presentation contributes significantly to the success of getting your message across. Rehearse and time any presentations. You may present your project orally, with or without a Powerpoint presentation. Keep slides simple and avoid clutter and special effects. You may also present your project as a poster. Please discuss how you will do this with your educational supervisor.

Writing up your project

It's important to write up your project so that

- Your educational supervisor can see what you have done, and what competencies you have achieved
- Others in the practice team can benefit from the work you have carried out and take forward any learning or actions that have arisen from it
- Your project can act as an exemplar for other trainees who may also wish to undertake a QIP
- Your finished project can be viewed and assessed by others where appropriate
- Your learning from the project can feed through into NHS appraisal and revalidation.

The report is an important piece of work that together with your presentation is used to showcase your work. It may be useful to look at reports from previous work, either carried out by trainees, or others working in a similar field. Try to cover the important areas succinctly.

Think about the following headings when you are about to write your project up.

1. Introduction. The issues, the practice, and the wider context
2. Evidence-based approach. Literature search and critical appraisal of local evidence
3. Reason for choice of quality improvement project – what problem or improvement does the QIP attempt to address?
4. Methodology – a SMART strategic action plan, and a clear and concise description of the quality improvement carried out and how the work was done.
5. Results – an understandable presentation of the results and methods used.
6. Evaluation of the impact of the change/quality improvement. Discussion of the outcome.
7. Conclusions, and suggestions for further development.
8. Critical reflection; your personal learning.
9. Appendices – supply raw data, examples of protocols as appropriate.
10. References

In the report, summarise the developments and reflect both on the personal learning points from undertaking the QIP, and the learning for the organisation. As for your presentation, this should

include reflection on the change management process, difficulties encountered, the impact of the quality and suggestions for further work. If there are documents and examples of best practice e.g. referral frameworks or clinical protocols, include these as appendices to the reports.

You will be provided with a template to use when writing up your final project report. This will help to structure your report in a way that is understandable and easier to assess. An assessment of an individual trainee's project does not depend on the success and impact of the QIP outcomes. What is more important is the rationale for the choice of project, the ability to apply quality improvement methodology, engagement with a range of other relevant colleagues, and personal reflection, learning and development from the project.

Your project should be submitted in time to meet any published deadlines. A project that has been submitted to the deanery should be uploaded onto your e-portfolio, and the information within it should be presented in a suitably anonymised form so that neither the practice or the individual doctor and patients can be identified.

In some circumstances, it may be that your project will be looked at by someone other than your educational supervisor, outside of your training practice. You may be asked to submit your completed semi-anonymised project in to the deanery by email, providing your GMC number on the project paperwork. This may be to assess your project if it has been submitted for a prize or an award, or for the purposes of training or research.

For feedback on your evaluated and completed project, you should once again meet with your supervisor. Use the *RCGP template "Touchpoint 3: Evaluating, writing up and presenting your project"*.

After completing your project

After you have written up and submitted your project, and presented it to others, you should now have a final formal QIP meeting with your supervisor. This is an opportunity to reflect on what you have learned whilst undertaking the project, what you have learned through presenting and disseminating it, and what might feed into your PDP and your first appraisal as a qualified GP.

You may also wish to reflect on what you have learned from your peer group or anyone else involved in your project, and what you have learned through listening to other trainees presenting or describing their own QIPs. What have you put on your e-portfolio? What ideas might you like to take forward into practice when you are GP?

Use the *RCGP template "Touchpoint 4: Planning future development"* for this meeting.

Summary

The concept of quality improvement has become more widely accepted in UK health care systems, although opportunities for GP trainees to become involved in quality improvement projects is relatively new. Having knowledge of, and experience with, quality and service improvement tools is essential to get to grips with the various challenges of improving the quality, efficiency and productivity of NHS healthcare services. Undertaking a QIP is a challenge, but one that previous trainees have found achievable, enjoyable, and a key way of achieving the skills needed to improve the quality of healthcare, demonstrate leadership, and motivate others to do so in the real-life world of general practice. Careful planning and organisation is required, but there are many resources available to help you. We hope that you will decide to carry out your own QIP, and wish you every success in doing so!

References

GMC Good Medical Practice Domain 2: Safety and quality, April 2013. http://www.gmc-uk.org/guidance/good_medical_practice/safety_quality.asp

The RCGP Guide To The Revalidation Of General Practitioners Version 9.0, September 2014
http://www.rcgp.org.uk/revalidation/~/_media/Files/Revalidation-and-CPD/Revalidation/Guidance-for-GPs/Guide-to-Revalidation-September-2014.ashx

RCGP. The 2022 GP- A Vision for General Practice in the future NHS. Royal College of General Practitioners, 2013.
http://www.rcgp.org.uk/campaign-home/~/_media/Files/Policy/A-Z-policy/The-2022-GP-A-Vision-for-General-Practice-in-the-Future-NHS.ashx

The "Gold Guide" (A Reference Guide for Postgraduate Specialty Training in the UK, DoH, 2014.
<http://www.copmed.org.uk/publications/the-gold-guide.html>

RCGP. Quality improvement for General Practice; A guide for GPs and the whole practice team, 2015.
http://www.rcgp.org.uk/~/_media/Files/CIRC/Quality-Improvement/RGCP-QI-Guide-260216.ashx