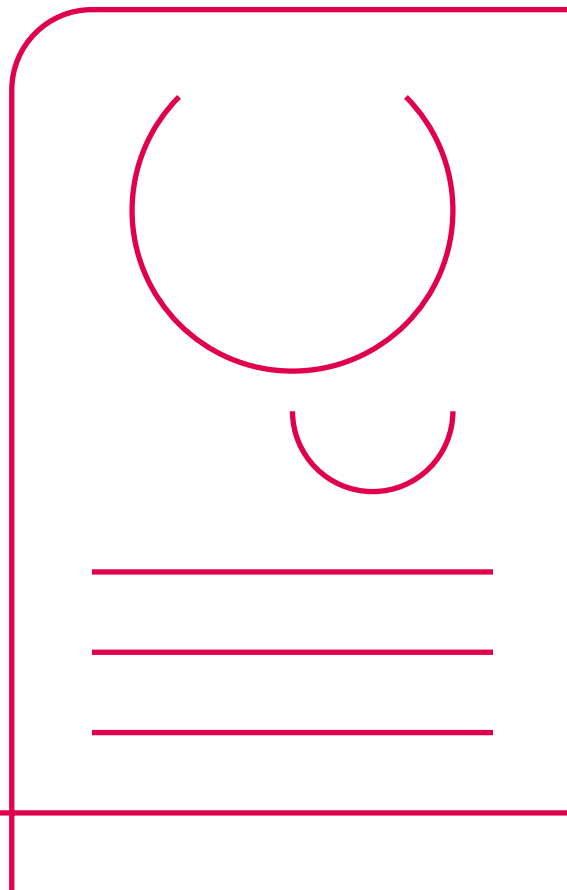


June 2019

# Training for better outcomes

## Developing quality improvement into practice



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## Executive summary

The 2016 Academy of Medical Royal Colleges (the Academy) report Quality Improvement: training for better outcomes brought stakeholders together from the four nations to set out recommendations on how quality improvement education and training for undergraduate and postgraduate trainees should be supported and facilitated. The recommendations outlined the fundamental strategic direction and key building blocks needed to make this happen at pace.

The recommendations were not exhaustive but a starting point. By continued partnership working and fostering collaboration with the relevant stakeholders and organisations, the Academy has maintained the momentum for these recommendations to be brought to life through their practical implementation.

A model quality improvement (QI) curriculum framework has been developed for colleges to use. It implements recommendations from the original Academy report, allows colleges to comply with the demands of the GPC framework, the new GMC requirements for shared curricula content within Excellence by design and the drive for greater flexibility of postgraduate medical education outlined in Adapting for the future.

Guidance on how to assess QI skills and behaviours has been developed alongside recommendations for the design and display of QI material on college and faculty websites for ease of access. Guidance and 'top tips' on how to get the best out of QI activities undertaken for revalidation and appraisal has also been outlined, as has the importance of leadership and connectedness in QI.

For the next steps,

Each college is asked to consider:

- **What action has been taken to adopt the QI curriculum framework into practice?**

Each organisation (for example, hospital trust or board) is asked to consider:

- **What action has been taken to embed QI as business as usual within the organisation for clinical and non-clinical staff?**

# Background

Quality improvement (QI) is recognised as a key element of professional practice for doctors as part of their work in multi-professional teams. In 2015-16 the Academy brought together a group of more than 35 stakeholders to explore how to embed quality improvement into medical education by incorporating this as part of training and lifelong learning.

The 2016 Quality improvement, training for better outcomes report made recommendations in eight areas:

**QI curriculum development** — A progressive curriculum in quality improvement activity should underpin all training stages of a doctor, building capability and leadership, and a foundation for on-going lifelong learning and implementation.

**Patient involvement in QI** — Patient involvement should be advocated and included at every level with recognition that this may be achieved in a variety of ways.

**Training in QI** — All trainees, and their trainers and multi-professional teams with which they work, should have access to quality improvement training.

**QI as business as usual in our work** — Quality improvement should be normalised into everyday practice. Quality improvement should be integral to all clinical and non-clinical job descriptions and appraisal, and career recognition given for quality improvement achievements.

**Supporting infrastructure for QI activities** — Quality improvement activity should be supported at all levels, locally, regionally and by royal colleges and specialist societies in the form of enabling 'core' quality improvement support aligned with existing educational structures to permit expert facilitation, coaching, mentoring and inter-professional learning, with protected time to undertake it.

**Repository of shared resources** — A repository of quality improvement activity should be established to empower learning and sharing.

**Board leadership** — Health and social care executives and non-executives should role-model best practice quality improvement approaches and create an open culture with the focus on learning, ownership and accountability rather than reprimand, as this facilitates a quality improvement culture.

**Stakeholder group** — A stakeholder group should be established under the auspices of a national body such as the Academy of Medical Royal Colleges to align planning in quality improvement activity by key stakeholders and topic experts for the long-term, that is applicable to everybody, and to contribute to improving patient outcomes through education, training, research and collaboration.

## Developing quality improvement into practice

A stakeholder group was convened to progress the recommendations outlined in the Quality Improvement report.

The focus of this group was on:

- Development of a QI curriculum to provide a structured framework for doctors, and the multiprofessional team, for their learning and development in QI
- Provision of guidance on how to assess QI skills and behaviours in practice
- Provision of guidance on how the design and display of material on College websites can, and currently does, support the Quality Improvement curriculum
- Give clarity of guidance and top tips on QI activities that may be undertaken for revalidation and appraisal
- Outline the importance of leadership and connectedness in support of QI activities.

# Quality improvement curriculum

The curriculum is made up of six capabilities which are phrased as high-level learning outcomes in order to meet the requirements of the GMC's **Excellence by design**. Each outcome is underpinned by capability descriptors and followed by illustrative professional activities that might be used to evidence the Outcome descriptors. Each outcome is mapped to the relevant domains of the GMC's **Generic Professional Capabilities**. The curriculum enables the drive for greater flexibility of postgraduate medical education as outlined in **Adapting for the future**.

The six high-level outcomes are used to demonstrate knowledge of:

1. Understanding the system
2. Human elements of change
3. Measurement of change
4. Implementing change
5. Sustainability and spread
6. Leadership and team-working.

**Outcome 1: Demonstrate an understanding of the system in which healthcare is delivered as it relates to quality improvement work**

Capability descriptors	<p>1A Knowledge of quality improvement theories and methodologies</p> <p>1B Knowledge of quantitative and qualitative analysis and diagnostic tools to understand the system</p> <p>1C Knowledge of complexity theory and how it applies to healthcare</p> <p>1D Identify and prioritise improvement needs</p> <p>1E Apply sustainable healthcare principles taking into account the financial, environmental and social impact of health services.</p>
	<p>2 Knowledge of when and how to apply quality improvement science to improve services and patient safety</p>



**Outcome 1: Demonstrate an understanding of the system in which healthcare is delivered as it relates to quality improvement work**

<p>Illustrative professional activities to evidence the capability descriptors</p>	<ul style="list-style-type: none"> <li>— Explore and diagnose the improvement need and set an improvement aim</li> <li>— Involvement in adverse incident and complaint reviews to identify potential system improvements</li> <li>— Use of process mapping to help understand the system e.g. A3 method, swim-lane diagrams</li> <li>— Keep in mind the whole system, inviting diverse opinions and perspectives</li> <li>— Involving patients service users and their families and carers in co-production</li> <li>— Be able to define the system under consideration, its boundaries and interfaces with other systems or pathways</li> <li>— Benchmarking current service performance with other comparable systems and against standards documents, to include evidence-based best practice guidance, such as NICE and SIGN.</li> <li>— Review current systems against sustainable healthcare principles</li> <li>— Knowledge of cause and effect analysis including root cause analysis, pareto charts, driver diagrams, statistical process control, and Kotter model of change</li> <li>— Perform risk assessments and risk management as applied to safety and services</li> <li>— Participation in structured national audits and QI programmes</li> </ul>
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**GPC domains 1, 2, 3, 4, 5, 6**

**Outcome 2: Demonstrate knowledge of the impact of the Human elements of change on quality improvement efforts**

<p>Capability descriptors</p>	<p>1A Knowledge of human factors theory, the interaction of people, technology, and environment</p> <p>1B Knowledge of factors that influence reliable care</p> <p>1C Analysis of stakeholders impacted by potential change</p> <p>1D Knowledge of the psychology of change</p>
	<p>2 Identify levers and drivers and the theory of change that can be used to develop a shared purpose and plan improvement project activities</p>



**Outcome 2: Demonstrate knowledge of the impact of the Human elements of change on quality improvement efforts**

Illustrative professional activities to evidence the capability descriptors

- Constructively question current practice, recognising opportunities for improvement and potential barriers and enablers to change
- Identify and consult with stakeholders; understand the emotions of change in a team and tools to manage this e.g. motivational interviewing
- Enable opportunities for wide-reaching patient involvement to facilitate patient-orientated outcomes and improved patient/carer experience and patient safety
- Engage with multi-disciplinary/multi-professional teams to plan improvement of services
- Develop a shared purpose, communication and engagement plan
- Form a team to take forward improvements
- Undertake formal human factors training including simulated high-risk scenario management
- Knowledge of crisis resource management

**GPC domains 1, 2, 3, 5, 6, 9**

**Outcome 3: Demonstrate knowledge of Measurement of change to evidence quality improvement work**

Capability descriptors

- 1A Knowledge of/describe different types of measurement for improvement including run charts, statistical process control and both quantitative and qualitative analysis, including an understanding of how to interpret whether a change has been a success
- 1B Knowledge of/describe variation: measurement, types of variation, and understanding expected and unwarranted variation
- 1C Choosing measures that matter to patients, service users and their families and carers

2 Understand the difference between 'data for assurance' and 'data for improvement'

- Promote the value of data collection and analysis for improving services
- Work with data analysts to develop understanding of data definition, data capture, data storage, analysis and presentation
- Work with patients, service users and their families and carers to capture data that matters to them
- Formulate, prioritise and test solutions to data management
- Undertake quantitative and qualitative assessment of services, improvement need and performance over time including during improvement projects
- Evaluate the success of a project using different measurements including sustainable value-based healthcare measurement/ measures that matter to patients

**GPC domains 1, 2, 3, 6, 9**



<b>Outcome 4: Demonstrate knowledge of the complexities involved with implementing change</b>	
Capability descriptors	1A Knowledge of the interplay between psychology, system, process and technical knowledge to implement change 1B Knowledge of management and governance of projects/ programmes 1C Coaching and engagement skills 1D Marketing and communication skills
	2 Promote and demonstrate a collaborative approach to delivering quality improvement by engaging with multi-disciplinary teams, patients and carers to deliver improvement of services
Illustrative professional activities to evidence the capability descriptors	<ul style="list-style-type: none"> <li>— Implement quality improvement projects using consistent methodology and appropriate governance</li> <li>— Use driver diagrams and/or other summary formats to structure thinking and projects in the context of change requirements</li> <li>— Perform process mapping and process redesign</li> <li>— Critically appraise merits and limitations of quality improvement methods in a healthcare context</li> <li>— Apply rapid cycle testing and adaptation (PDSA)</li> <li>— Influence strategy and policy development which champions and incorporates quality improvement in local, regional and national settings e.g. establish QI training, support and mentorship for junior doctors</li> <li>— Incorporate new technologies into change ideas</li> <li>— Tell the story of the change in a compelling way</li> <li>— Demonstrating learning from projects that 'fail'</li> </ul>

**GPC domains 1, 2, 3, 4, 5, 6**

**Outcome 5: Demonstrate knowledge of how to ensure Sustainability and spread of quality improvement work**

Capability descriptors	1A Knowledge of scale up, and spread mechanisms 1B Knowledge of how to sustain improvement including knowing potential barriers 1C Marketing and communication skills 1D Stakeholder management and Influencing skills 1E Dissemination
Illustrative professional activities to evidence the capability descriptors	<ul style="list-style-type: none"> <li>— Adapt a successful change from one environment to another system</li> <li>— Demonstrate scale up of a change in improvement projects</li> <li>— Demonstrate sustainability planning in change interventions</li> <li>— Integrate a successful change into policy, practice, and standard work</li> </ul>

**Outcome 5: Demonstrate knowledge of how to ensure Sustainability and spread of quality improvement work**

Illustrative professional activities to evidence the capability descriptors cont.

- Complete a business case resulting from an improvement project including supporting it through local governance systems
- Share good practice appropriately through presentations, publications/posters at conferences, regional and national networks, and collaboration through professional organisations

**GPC domains 1, 2, 4, 5, 6, 8**

**Outcome 6: Demonstrate knowledge of the importance of Leadership and team working within quality improvement work**

Capability descriptors

- 1A Recognise that the leadership styles adopted can lead to different attitudes and behaviours amongst others and can influence the outcomes of improvement work
- 1B Knowledge of team culture, behaviours and resilience and its impact on improvement work
- 1C Demonstrate personal flexibility when leading a team in improvement work
- 1D Demonstrate reflection to increase self-knowledge and to increase personal resilience

Items 2A and 2B:

- 2A Knowledge of human factors theory, reliability theory, as applied to teams
- 2B Features of effective teams and team management, including crisis resource management

Illustrative professional activities to evidence the capability descriptors

- Undergo training to facilitate working as part of a multi-professional improvement team with involvement in team activities e.g. chairing meetings or leading safety briefings
- Coordinate, lead or support organisational change for the improvement of services
- Design, manage and facilitate quality improvement projects
- Undertake formal personal leadership development programme
- Critically reflect on own attributes, behaviours, role, capabilities and development needs for leading quality improvement
- Coach and mentor colleagues in analysis of quality and in setting an improvement aim and quality improvement implementation
- Presentation of improvement project during development and after delivery to different groups
- Avail of situational leadership opportunities in QI
- Develop personal and professional networks for sharing QI work to drive forward change culture
- Engage in role modelling for and with other colleagues

**GPC domains 1, 2, 3, 4, 5, 6, 8**

# Assessing QI skills and behaviours

## Guidance

Assessment of successful progression through QI training will be made formatively as part of a trainees' appraisal with their educational supervisor and in a summative way as part of the Annual Review of Competency Progression (ARCP) process. This will rely on objective measurable information from a number of sources including workplace-based assessment of e-portfolio, supervisors' assessments and testing through national postgraduate examinations where appropriate.

### Principles of assessment

- Needs to be longitudinal and encourage continuous learning and reflection
- Needs to be tailored to individual learning needs
- Needs to incorporate a trainee's reflections on their own performance and feedback from others to identify strengths and areas for improvement
- Goals set should be a discussion between the trainee and assessor/supervisor and should be designed to meet both sets of perceived learning needs
- The process needs to be supportive with emphasis on personal development rather than judgement
- It is likely that a range of assessments may be usefully undertaken. Currently there are specific requirements outlined in the ARCP decision aid for some specialties.
- Assessment needs to specifically address the following aspects:
  - Personal qualities
    - Self-awareness
    - Seeking feedback
    - Managing yourself – workload and under pressure
    - Acting with integrity – speaking out when values are compromised
  - Working within teams
    - Developing networks
    - Creating and maintaining relationships
    - Encouraging contribution and managing conflict
    - Understanding and managing different priorities/ways of doing things within teams
  - Articulating the need for improvement
    - Putting forward ideas and encouraging debate
    - Articulating the need for change
    - Focusing the self and motivating others toward the change
  - Patient and carer involvement
    - Coproducing the improvement work with patients, service users and their families and carers
    - Considering the impact on patients and carers of all changes
    - Actively seek to engage and involve the patient and carer voice in change.

## Who should assess?

The assessor should be:

- Someone with a knowledge (not necessarily expert) of quality improvement methodology and theories of leadership
- Familiar with the standards expected of trainees in general and in quality improvement in particular
- Trained in mentoring and facilitating discussions around learning needs.

While it is anticipated that the majority of assessors will be senior clinicians and educational or clinical supervisors, there may be scope for those in other roles (such as quality improvement leads/advisors/AHPs/Heads of Patient Experience) to perform this role, provided that they meet the above three criteria.

## When should assessment take place?

Assessment of the trainee should take place on an annual basis prior to the date of their Annual Review of Competency Progression (ACRP) panel. It should leave sufficient time for the trainee to consider how they are going to meet the outcomes defined during the assessment.

## What evidence should be considered at assessment?

### Quality Improvement Reflective Project Report

The trainee should have completed a reflective log documenting their understanding of the quality improvement project(s) that they took part in and their reflection on the project(s) and their part in it. This information will be used to create their reflective report.

### 360 Degree Feedback

Feedback from a variety of members of the team can be used to allow the trainee to reflect on how their behaviours are perceived by others.

### Supervisor Reports

Supervisor's reports contain information on the supervisor's assessment of team working, drive, taking responsibility and leadership skills and should be considered when assessing quality improvement.

### Reflections

Reflections are a vital part of learning to lead. Should a trainee feel able to produce an individual reflection on a specific aspect of their improvement journey, this should be included.

### Materials from quality improvement work

Examples such as run charts, records of PDSA cycles, fishbone diagrams and any other instruments, posters or abstracts can be considered as evidence.

### Case-based discussions

These may include clinical encounters that are relevant to quality improvement.

### Direct Observation of a Non-Clinical Skill (DONCS):

Where a trainee has led a meeting around QI or worked collaboratively on a QI tool (for example a run chart) they should ask someone who has worked with or observed them doing this to complete a DONCS.

## Quality Improvement Assessment Tool (QIPAT)

The Royal College of Physicians has developed an assessment tool, called the **QIPAT** allowing individuals who have worked with the trainee to comment on their performance as part of a quality improvement project. Colleges should consider developing a similar feedback tool and develop it further to reflect team-based improvement.

## Progression through post graduate examinations

Colleges should be asked to consider elements of the QI curriculum for testing through their sequential post-graduate exams.

## The ARCP decision aid and ARCP panel

The QI curriculum and methodology is designed to enable a trainee to learn about, contribute to, lead and deliver QI within their workplace within a team. It is not expected that a trainee will demonstrate capabilities in all areas. It is recognised that trainees have different length training programmes and rotate through different environments with different opportunities to develop skills in quality improvement and this should be understood when assessing trainees and agreeing their personal development plans.

It is recommended that the use of milestones in the ARCP decision aid would guide both trainees and trainers in what should be expected of a trainee at a particular training stage. Some skills might be identified as fundamental to QI in practice and others as advanced. The ARCP decision aid would enable recognition of progressive experience and capability achievement of the trainee through the course of a training programme. The **internal medicine ARCP decision aid** provides a useful example of what this could look like.

The ARCP panel will have access to the above formative assessment information to support summative assessment as part of the overall annual sign off. This will inform the personal development and training plans for the next year/phase of training. It is recognised that the QI summative assessment process requires support to build understanding and expertise amongst the trainers and assessors.

The role of the ARCP panel should include confirming the development plan as agreed between the trainer and the trainee.

# Design and display of QI material on college and faculty websites

## Suggestions for supporting the QI curriculum on College websites

A dedicated QI page with:

- An explanation of QI
- Why QI is important
- Any relevant documents
- A college strategy to support QI
- A one-click link to QI from the Homepage via a banner or permanent menu item (side or top bar)
- Quality Improvement and QI are recognised in the search function.

Recommended website content for Colleges to include or signpost to by Curriculum outcome

Curriculum outcome	Topic Heading	Recommended website content to include or signpost
Outcome 1: Demonstrate an understanding of the system in which healthcare is delivered as it relates to quality improvement work	QI Methods	Several Quality Improvement Methodologies are described (for example, Model for Improvement, Microsystems, Lean, A3 etc.)
		A clear diagram of the steps of a QI project and an explanation of those steps
		Show the Model for Improvement (Three questions above a PDSA)
		Define, Measure, Analyse, Improve and Control (DMAIC) is explained?
	Understanding Systems	Show a pre-DMAIC/Model for Improvement 'System of Profound Knowledge' or equivalent
		Information on Appreciation of a System
		Information on Knowledge of Variation
		Information on Theory of Knowledge

Curriculum outcome	Topic Heading	Recommended website content to include or signpost
Outcome 2: Demonstrate knowledge of the impact of the Human elements of change on quality improvement efforts	Human elements of change	Information on the Science of Human Factors, Resilient Systems, Reliability and Safe Design
		Information on the Psychology of Change and ways to make progress when there is resistance to change
		Information on work and workplace design and its impact on well-being, resilience and engagement in change/improvement work
Outcome 3: Demonstrate knowledge of Measurement of change to evidence quality improvement work	Measurement theory	Information, guides and examples of the principles of measurement of change and the use of measurement in QI work (enumerative statistics and analytical statistics)
	Measurement for improvement in practice	Guides or examples of time ordered data, control charts, explanations of the differences in data for research/ accountability/ learning and improvement
Outcome 4: Demonstrate knowledge of the complexities involved with Implementing change	Understanding the operational, personal and strategic aspects of change	The interplay between psychology, system, process and technical knowledge to implement change
		Information on management and governance of projects/programmes
		Information on coaching and engagement skills
		Information on marketing and communication skills
		Information on collaborative approaches to delivering QI through engaging with multi-disciplinary teams, patients and carers to deliver improvement of services
Outcome 5: Demonstrate knowledge of how to ensure sustainability and spread of quality improvement work	Sustainability and Spread	Examples of local/national/College supported Collaborations to improve quality of care
		Information on approaches to sustain and spread improvement made in the quality of care as well as how to address the barriers to this
Outcome 6: Demonstrate knowledge of the importance of Leadership and team working within quality improvement work	Leadership (team/ system)	Examples of literature regarding the characteristics of leadership for improvement high performing team behaviours, cultures and high performing team meetings
		Resources covering topics such as, leadership skills, leadership behaviours, managing in complex systems, self-awareness, appreciative enquiry, personal management styles, situational leadership, networks and learning styles etc.

## Supporting documents and websites

Academy of Medical Royal Colleges. Quality Improvement Resources

Academy of Medical Royal Colleges (2016) *Quality Improvement — training for better outcomes*

British Medical Journal. BMJ Open Quality Journal

Royal College of Physicians London. Learning to make a difference

Royal College of Physicians London. Learning to make a difference — Beyond CMT trainee pack

Future Learn. Quality Improvement in Healthcare: the Case for Change

The Health Foundation (2015) *Building the foundations for improvement*

The Health Foundation (2018) *The Spread Challenge*

The Health Foundation. Publications

Healthcare Quality Improvement Partnership (2016) *Guide to involving junior doctors in clinical audit and quality improvement*

Institute for Healthcare Improvement

Vincent, C., Amalberti, R. (2016) *Safer Healthcare — Strategies for the real world*. Springer Link

Squire 2.0. Revised standards for Quality Improvement reporting excellence

West of England Academic Health Science Network. Quality Improvement tools



# Revalidation and appraisal

## Guidance and top tips

The following are recommendations to enable effective QI activity and the conditions for improvement to develop.

### Teams and trainees should consider:

- Activities that bring the team together around a shared purpose
- Activities that engage patients, families and communities in identifying the key quality priorities for a service
- Activities that support a multidisciplinary team to use a systematic quality improvement methodology to tackle a quality priority for the service
- Activities that support the multidisciplinary team to understand how their improvement work aligns to the organisation's mission/goals
- Personal learning and team learning from the above activities.

### Suggested questions to consider to enable effective QI in action and learning from QI activities

- **Approaches to Quality Improvement** — The impact of quality improvement efforts are often best seen when a recognised approach or methodology is used to structure your efforts. What approach was taken to structure your improvement efforts (did you use a specific methodology such as Lean/Model for Improvement)?
- **Collaboration** — The progression of quality improvement efforts are often best seen when representatives from all staff groups and patients are involved in any improvement efforts. How well evidenced is the engagement and collaboration with the wider multidisciplinary team and/or patients?
- **Measurement for Improvement** — All improvement is change but not all change is improvement. How do you ensure that you are able to evidence that any changes you make have actually made an improvement? Did you measure process and outcome measures before and after the change? Did you consider balance measures?
- **Sustainability** — Once an improvement is made it is not uncommon for healthcare professionals to revert to old practices. How do you ensure that the right support mechanisms are in place so that any improvements made can be continually monitored and sustained going forward?
- **Scaling Up & Spread** — One of the core principles of quality improvement is to test at small scale and then scale up as you gain confidence [based on evidence] that your change idea will have a positive impact on the system. How have you scaled up your improvement efforts?
- **Leadership for Improvement/creating conditions for improvement** — Most improvement efforts are sustained when leaders are proactively enabling in their support. How have you engaged the relevant people to ensure your improvement efforts are supported in the right way and staff are enabled (including protected time) to proactively participate in QI.

## The purpose of collecting and reflecting on QI activity is:

- Personal learning and team learning from the above activities. To allow you to review and evaluate the quality of your work
- To provide assurance that your performance in each part of your scope of practice meets appropriate standards and that you remain competent at what you do (Quality Assurance)
- To contribute to continuous quality improvement activities and innovations that aim to improve your practice, particularly patient care (QI activity)
- To identify examples of good practice to celebrate and share, ensuring improvements can be adopted more widely.

## Leadership and connectedness in QI

Quality improvement is all about change. Change is all about people. Fostering relationships and engaging others are critical skills to effective QI in action. Essential to improvement change is supportive leadership which focuses on valuing the viewpoint, skills and expertise of others, creating networks for connecting and collaboration, and building confidence and trust in each other.

Alignment of purpose, methodologies and connectedness across a group of people undertaking a QI activity is just as important as it is across a system.

These are not easy skills to develop. Some examples of articles which give further insight into this area and how you can learn more are given below. In addition to these examples, the cross-college network of QI and Safety Leads will continue to embed QI into practice, alongside new patient safety initiatives.

### Recommended reading

Bataldan, P. [2010] *The leader's work in the improvement of healthcare. BMJ Quality & Safety 2010; 19 490-492*

The Health Foundation [2011] *What's leadership got to do with it?*

Kings Fund [2017] *Making the case for Quality Improvement: lessons for NHS Boards and leaders*

NHS Education for Scotland. *Leadership qualities and behaviours*

NHS Improvement [2018] *Developing people, Improving care: one year on*

Gamble, J., Vaux, E. [2014] *Learning leadership skills in practice through quality improvement ClinMed February 1, 2014 vol. 14 no. 1 12-15*

Royal College of Surgeons of England. *Leading QI teams* [online resources]

## Next steps

Each college is now asked to consider:

**What action has been or will be taken to adopt the QI curriculum framework into practice?**

Each organisation is asked to consider:

**What action has been or will be taken to embed QI as business as usual within the organisation for clinical and non-clinical staff?**

### Future developments

This approach has been designed for post-foundation specialty training of doctors to Certificate of Completion of Training level (CCT). There is a drive to work further with both foundation and undergraduate training and inter-professional ways of working to ensure that lifelong learning approaches are aligned.

It is intended that this curriculum will complement the Academy's patient safety syllabus. Applying a QI approach enables the continuous improvement of patient safety.

A cross-college network of QI and Safety Leads exists to consider how to ensure resources and best practice are shared.

# Appendix 1

## Development of QI Curriculum

The following considerations have informed development of this curriculum:

- The first phase of curriculum development was described in the 2016 Academy [Quality improvement: Training for Better Outcomes report](#)
- Specialties have had different perspectives on quality improvement training requirements. The medical Royal Colleges have developed guidance to differing degrees of detail and these continue to evolve. Through this work the vast majority have signed up to the principle of consistency where possible
- The QI curriculum describes a portfolio of activities designed to enable experiential learning in QI methodology and for a trainee to contribute to, lead and deliver QI within their workplace working with teams. It is not expected that a trainee will demonstrate capabilities in all areas.
- Different lengths of training programmes mean that the level of QI practice possible during a CCT programme will vary significantly by specialty. This requires cross-specialty consideration about which elements of the QI curriculum would be core and which would be for 'advanced' training. [This would be for individual Colleges to decide and indicate their approach through the specialty ARCP decision aid](#)
- The competence and experience of trainees in QI at graduation and the end of the Foundation Programme is variable and changing rapidly. [This work is ongoing with the Foundation Programme Committee and in relation to Med Schools/'Outcomes for Graduates'](#)
- It is recognised that there is major regional variation across the UK in terms of QI expertise and training capacity. The resource repository enables signposting to cross regional/national expertise
- Support for training and delivery requires cross-specialty and cross-professional cooperation to maximise benefit. The resource repository enables signposting and the cross-college alliance should support delivery
- Quality improvement practice, as with clinical practice, is now predominantly team-based, and experience and assessment will need to reflect that. Some current tools are more focused on the individual and the project than the team-based experiential learning. Our recommendations for appropriate delivery mechanisms include Improvement Teams
- Guidance/recommendations on assessment have been provided
- This generic QI curriculum aligns with the new generic patient safety curriculum
- The intention is for the curriculum to be adopted as part of specialty curricula to provide a structured framework for postgraduate trainees to understand, learn and develop skills in QI.

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The AoMRC QI curriculum was developed in consultation with the RCP Flexible Portfolio Careers team and has been modified in response to wider Academy membership and the Academy Assessment Committee.

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