

## Supplementary online appendix 6, QI MOOC

**QI Knowledge questions and answers**

Purpose	Question	Options	Correct answer
1. Summary context of need for QI	Gaining a deeper and wider understanding of Quality Improvement is increasingly important because...	<ul style="list-style-type: none"> <li>a. Delivery systems are complex.</li> <li>b. Clinical knowledge is advancing rapidly.</li> <li>c. Patients and families expect better care.</li> <li>d. However rich a country there is a finite limit on resources that can be allocated to healthcare</li> <li>e. All of these</li> </ul>	e
2. To know the Institute of Medicine (IOM) definition of quality	Quality of healthcare is a wide ranging concept that should always include the consideration of...	<ul style="list-style-type: none"> <li>a. Safety alone</li> <li>b. The cost</li> <li>c. Only effectiveness and efficiency</li> <li>d. Safety, timeliness, effectiveness, efficiency, equity and person centred aspects of care</li> <li>e. Just the speed of treatment according to best medical practice</li> </ul>	d
3. To know the Plan, Do, Study, Act (PDSA) cycle underpins all methods	Quality improvement methods have various components the one seen in all is...	<ul style="list-style-type: none"> <li>a. The Plan Do Study Act cycle</li> <li>b. Co-production with patients</li> <li>c. 30_60_90 day routine</li> <li>d. pattern recognition</li> <li>e. all of these</li> </ul>	a
4. To know a combination of measures is needed	The following measurement system will ensure that the team know that change is improving the system or not...	<ul style="list-style-type: none"> <li>a. A previous years baseline</li> <li>b. Time ordered run charts</li> <li>c. Staff experience of doing work differently</li> <li>d. Patient experience feedback</li> <li>e. All of these</li> </ul>	e
5. To refresh their minds of what is needed to understand formal system are a small part of success	The patient voice is vital when we are redesigning approaches to care. The following prevent us hearing what they say...	<ul style="list-style-type: none"> <li>a. Ensuring patients stories are part of our work</li> <li>b. Should be undertaken by a small sub set of the team</li> <li>c. Using formal reporting systems</li> <li>d. Developing an inclusive approach</li> <li>e. Building in regular feedback to everyone</li> </ul>	c
6. To know that leadership is local and distributed	Which of the following statements are correct?	<ul style="list-style-type: none"> <li>a. A senior leader must give permission</li> <li>b. There is always a financial cost to improvement</li> <li>c. Leadership is focused in senior team members</li> <li>d. Patients can be effective leaders of improvement</li> <li>e. Learning comes from report writing and publication</li> </ul>	d

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7. To know the place and character of this approach to systems understanding	The lens of profound knowledge...	<ul style="list-style-type: none"> <li>a. is used at the end of an improvement project</li> <li>b. rarely enables an immediate single solution to be clear</li> <li>c. should be undertaken by a small sub set of the team</li> <li>d. is a swift task after some changes have been tested</li> <li>e. is only useful in technical process change</li> </ul>	b
8. To know the principles of a good measurement strategy	Measurement for improvement strategies always include...	<ul style="list-style-type: none"> <li>a. examples of process, outcome and balancing measures</li> <li>b. outcome measures are all that is needed</li> <li>c. data that enables you to calculate p values and other evaluative statistics</li> <li>d. process measures alone will be sufficient</li> <li>e. a focus on reporting any data you have to leaders only and not to the team</li> </ul>	a
9. To know the role of systems modelling in a QI project	We build mathematical and computer simulation models to...	<ul style="list-style-type: none"> <li>a. to imitate the operation of a care system very precisely</li> <li>b. to predict with great accuracy what the changes will do in real life</li> <li>c. as part of every QI project</li> <li>d. to evaluate the likely impact of change on patients, staff and systems</li> <li>e. all of these</li> </ul>	d
10. To be able to tell the difference between analytical and computer simulation models	Analytical (mathematical) models...	<ul style="list-style-type: none"> <li>a. typically contain a lot of more detail than computer simulation models</li> <li>b. typically require fewer simplifying assumptions than computer simulation models</li> <li>c. in general better suited in projects where we have good reasons not to include a lot of organisational detail</li> <li>d. are worse the computer simulation models</li> <li>e. all of these</li> </ul>	c
11. To know the components of good leadership	Sustaining an improvement developed through testing and learning will not be supported if...	<ul style="list-style-type: none"> <li>a. it is incompatible with the values of the organisation</li> <li>b. the impact of the change on patients and staff is not well known</li> <li>c. the new way is more difficult than the old way</li> <li>d. leaders don't promote and recognise the effort taken</li> <li>e. all of these</li> </ul>	e
12. To know the necessary approaches to spread	Spreading your improvement idea is more likely...	<ul style="list-style-type: none"> <li>a. with a large pilot project</li> <li>b. when teams are involved early and can adapt if necessary</li> <li>c. with hard work you will make sure it spreads</li> <li>d. if you don't worry about local context, it is not relevant</li> <li>e. if the learning is put in a policy and implemented</li> </ul>	b