10 QI techniques for healthcare

Clinical Audit
SUPPORT CENTRE

Clinical Audit

Clinical Audit is an established quality improvement and assurance technique that allows us to measure current care against agreed best practice (known as standards). High quality audit is an on-going cyclical process where sub-standard care is rectified by implementing small changes over time.

Plan-Do-Study-Act

PDSA is a simple technique that allows us to introduce and test the impact of changes. As the name implies there are 4 stages: Plan (the change), Do (implement the change), Study (assess the impact), Act (introduce if beneficial) and/or continue to refine.

Model for Improvement

MfI is very similar to PDSA and incorporates key PDSA methods. MfI starts with 3 key questions: what are we aiming to accomplish, how will we know a change is an improvement and what changes can we make that will lead to an improvement? We use PDSA to assess our changes to see if our desired improvement is achieved.

Process mapping

An effective technique that can be used in a number of ways, but is probably most oftenused to map out the patient journey. Mapping can help us identify and resolve bottlenecks, inefficient practices, delays, waste, etc. A great QI tool to help streamline care.

Run charts / Statistical Process Control

In their most basic format, run charts allow us to measure performance over time. Run charts and SPC charts allow us to distinguish common cause variation from special cause variation. Run charts help us identify an existing problem/s and help us assess the immediate impact of introducing changes for improvement.

Lean / Six sigma

These techniques are taken from industry and focus on eliminating waste and inefficiency. Further reading on both is advisable as the approaches are detailed and in some cases complex. DMAIC (Define-Measure-Analyse-Improve-Control) is a good place to start.

Theory of constraints

Theory of constraints is based on the principle that there is likely to be a weak link within any process. It hypothesises that movement along a process will only progress at the rate of the task that has the least capacity. This approach aims to identify the constraint (or limiting factor) and systematically improve this.

Pareto principle

The Pareto Principle is also known as the 80-20 rule and is a statistical technique that helps us focus on the problems that offer the greatest potential for improvement. Three key stages: identify the problem, interpret the data and illustrate using a Pareto chart. We then focus attentions on the 20% then impact on 80% of results.

Healthcare failure modes and effects analysis

HFMEA is a systematic quality improvement methodology that we adopt to understand and identify where a process might fail. The approach enables one to understand the likely impact of various failures and thus the part in the process in most need of change.

Root cause analysis / significant event audit

RCA and SEA are two well known techniques used in healthcare primarily to improve patient safety by learning from adverse incidents. RCA and SEA employ a number of techniques such as the 'five whys' and 'fishbone diagrams' that help us to better understand what happened and make improvements. These approaches can be useful if employed in wider QI projects.