The Quality Improvement Toolkit for Diabetes Care



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iabetes is a complex condition to manage for both the individual with the condition and their clinicians. Working towards optimum symptom control while also reducing the risk, or further development of long-term, complications requires excellent co-ordination of care, which can be made more difficult by frequent co-morbidity. A toolkit was developed by the Royal College of General Practitioners (RCGP) containing guidance on quality improvement (QI) methodology specifically for diabetes care. The RCGP recognises that practices are under immense time pressures, but that diabetes care can be optimised to be effective and efficient for both patients and practices. The *Quality Improvement*

Toolkit for Diabetes Care (RCGP, 2016) includes tools that are drawn from the Quality Improvement for General Practice framework (RCGP, 2015), which includes additional QI materials that are relevant to general practice. The RCGP QI approach for diabetes care was piloted in a group of practices, allowing the areas for improvement to be identified and appropriate interventions planned and tested. The diabetes toolkit is designed to be used both at practice level by managers and clinicians, and by clinical leads who are leading diabetes care in their locality. The toolkit is free to access, web based and comprises eight sections containing downloadable material that is easy to understand and use (Table 1).

Table 1. A summary of the Royal College of General Practitioners' Quality Improvement (QI) Toolkit for Diabetes Care (2016).

Section	Description	Content	
Useful QI tools	Available tools to improve diabetes care.	 Context checklist Process mapping Fishbone diagrams Model for improvement Plan-Do-Study-Act (PDSA) cycles 	
Data sources	Guidance on available data sources to assess performance and guidance on how to use them.	National Diabetes AuditQuality and Outcomes Framework dataHealthier LivesPractice level data	
Displaying data	How to measure, interpret and display data and change.	Line graphsCumulative chartsRun chartsVisual displays	
QI guides	Guides for all QI activity.	• QI for general practice	Mini-guides
QI and diabetes training materials	Materials for teaching QI to those involved in diabetes care.	 Presentation Group work Context checklist Process mapping	Model for improvementPDSA cyclesRun charts
Project management tools	Tools to be used by a lead if several practices are involved in improving diabetes care.	ChecklistMulti-practice plan	
Project report	Report of the pilot project.	• Full report	
Evaluation tools	To allow others to use the same tools if there is a need to evaluate the effectiveness of their work in diabetes care over several practices.	Reflection templateInterview templateBaseline questionnaireFollow-up questionnaire	

All content from the diabetes toolkit is available to download at http://bit.ly/2dyn3Rs.

Central components of the diabetes toolkit Useful QI tools

The first section contains QI tools that have been found to be useful in diabetes care following pilot testing. A *context checklist* provides practice members an approach to planning. It should be completed before any change is introduced, and will identify aspects such as who will lead on making the change, technologies required and the capacity and the capability of the practice.

Process mapping is a tool that creates a visual representation of all the steps in a process (Figure 1). It can be used for any practice process that consists of multiple steps (e.g. the repeat prescribing systems, dealing with results, making a referral or registering a new patient). Using a visual tool, such as process mapping (in this case using different coloured sticky notes and pens), can result in a more efficient review system that saves time for patients and the practice as it can quickly identify bottlenecks and unnecessary steps.

The *model for improvement* tool ensures that a team is specific about what they want to improve and provides a way to measure if their intervention has been successful. It is used in conjunction with a Plan-Do-Study-Act (PDSA) cycle, which allows rapid assessment of any change introduced (*Figure 2*). The model for improvement and the PDSA cycle is illustrated with the following example.

A practice team decides that the percentage of patients who have an HbA_{1c} above target is too high. They decide to review individuals with an HbA_{1c} above 58 mmol/mol (7.5%) and offer them an appointment within 6 weeks to discuss whether the patient's control could be improved. Monthly ongoing checks of the time between the out-of-target HbA_{1c} and the review appointment showed that there was an increasing number of patients who were reviewed within the target 6 weeks.

In this example, *planning* involved deciding who would send out the appointments, who would measure the time between the out-of-target HbA_{1c} received and the review appointment, and when they would introduce the change. In the *do* section, the practice commenced the change and also monitored whether the nurse was experiencing any increased workload. They *studied* their measurements and, as there had been an increase in patient reviews, they continued to *act* with their change.

Data sources

Data on a practice's performance in diabetes care is available from a range of sources. The next section of the toolkit provides links and descriptions of a number of sources, such as the National Diabetes Audit for England and Wales (NHS Digital, 2016), and the Quality and Outcomes Framework (e.g. *QOF database* [Jamie, 2016]). These national data sets can highlight where there may be room for improvement in a practice. Real-time data created by a practice

All content from the RCGP QI toolkit for diabetes care is available to download at http://www.rcgp. org.uk/clinical-andresearch/toolkits/ quality-improvementtoolkit-for-diabetescare.aspx

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Figure 1. Process mapping.

"The toolkit has the potential to improve diabetes care beyond solely providing practices with their performance data."

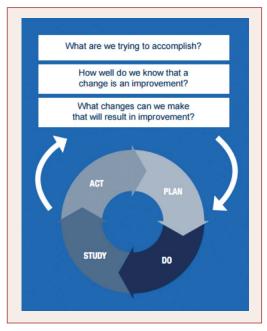


Figure 2. A Plan-Do-Study-Act (PDSA) cycle.

is also useful in measuring the success of any intervention that has been introduced. All GP electronic medical record systems provide a range of tools to give practices real-time data about performance against QOF targets, including diabetes care. There are a range of data extraction tools available for data analysis (e.g. the PRIMIS Diabetes care audit tool and Eclipse).

Measuring, interpreting and displaying data

Measuring is an important task in all QI work, and the toolkit provides guidance on displaying data in the most appropriate way (e.g. a line graph to monitor the number of patients with an optimum HbA_{1c}; a run chart to monitor the attendance at a review clinic). Displaying data correctly and clearly not only tracks progress but also motivates the team to continue their improvement efforts.

Guides, training and management

The toolkit also offers training materials and project management tools for diabetes clinical leads introducing a QI approach across several practices. There is a presentation and group work materials online to run a session for practice members, and there are checklists and a *multi-practice plan* for monitoring progress using the management tools.

Evaluation tools

A Clinical Commissioning Group (CCG) or Health Board clinical lead involved in improving the care of people with diabetes, may be asked to provide an evaluation of their work. During 2015/16 the RCGP QI clinical leads worked with local clinical leads in England and Wales to carry out similar improvement work. Reflection and interview templates, and baseline and follow-up questionnaires are available to download and complete. Some of the questions in the baseline questionnaire are repeated to assess any change, and there are specific questions about the intervention and QI tools they have used.

Toolkit development

The material for this toolkit was derived from a pilot project commissioned by NHS Digital (formerly the Health and Social Care Information Centre) and conducted by the Clinical Innovation and Research Centre (CIRC) of the RCGP between June 2015 and September 2016. The report (Taylor et al, 2016) and evaluation tools used are included in the diabetes toolkit. The results of the pilot project concluded that the areas that practices felt there was room for improvement varied; however, the most frequently cited area for improvement was to increase the number of completed albumin to creatinine ratio (ACRs) tests. The majority of interventions focused on improvement in systems and processes as practices reported that systems needed to be improved before improving treatment targets. A few practices analysed their treatment targets and, although it was too early to report a change in most, those that had started the project earlier did show improvement in cholesterol levels. The main barriers to participation in the pilot project included high workload, understaffing or staff changes. The main driving forces cited were good teamwork within the practice and support from the CCG or Health Board.

The diabetes toolkit is being used in an ongoing project by practices in Wales but is available to practices throughout the UK at http://bit.ly/2dyn3Rs. The toolkit has the potential to improve diabetes care beyond solely providing practices with their performance data.

References

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