**CQI Steps**

**Continuous Quality Improvement (CQI) activities** have the following “steps”, which are somewhat overlapping:

***a. Do your homework: read recommended resources in A, B and C (above)***

***b. Collaborate with your preceptor in all stages***

***c. Choose a domain of practice that you want to improve***

***d. Choose an evidence-based practice standard and critically appraise it***

***e. Perform an ethical practice-based evaluation***

***f. Develop Objectives***

***g. PLAN your first PDSA cycle***

***h. DO - launch your first PDSA cycle***

***i. STUDY - analyze what happened***

***j. ACT - plan what you’ll do next***

***k. PDSA again***

***l. When you’re done, start a new Improvement activity (go back to a.)***

***m. “Engage with” your practice colleagues at least once during your rotation.***

***n. Share all documentation with your Site Research Faculty***

***o. Encourage your preceptor to apply for Mainpro-C and Mainpro-M 1 credits***

**Detailed instructions:**

***a. Do your homework: read recommended resources in A, B and C (above)***

Visit those resources and explore them. Need we say more?

***b. Collaborate with your preceptor in all stages***

Since you are working in your family practice preceptor’s practice, collaboration with your preceptor(s) is not only ethical - it may be the key to real success in practice improvement. If you want to achieve meaningful and sustained practice improvement, at some stage you will probably also need to collaborate with other people in the practice (see m, below). Collaboration should be integral to all stages in the CQI process.

Q & A:

*Need I consult with my preceptor if I plan to work solely on my own practice behaviours?*

* Yes. Only occasionally will practice improvement activities may be limited in scope to solely your own behaviours; and this is more likely the case with first PDSA cycle(s) tried. Serving patients is ultimately the focus of most practice improvement, but at this stage in your career those are your preceptor’s patients.

*Why/when would I need to consult and collaborate with other practice members?*

* This is about practice improvement. So, if you have evidence that change may be an improvement, eventually you will want to engage the entire practice in your improvement activities. In other words, if the improvement is worthy of dissemination, others may benefit from your efforts at scaling-up. Some of the resources under D, above, may help you to improve the effectiveness of your collaborative efforts.

*My preceptor is busy. Won’t this take up a lot of their time?*

* This should be no different than the daily collaborative and collegial conversations and interactions that already take place while you participate in patient care in your preceptor’s practice. Your CQI activities are about providing the best possible care for patients. Consultation and collaboration on your CQI activities need not take much time - for you or for your preceptor - if done in small steps and on a regular basis.

*What if my preceptor and I disagree?*

* Disagreement is real and to be expected in all collaborations. Listen carefully to opposing views, because it is from these that we often learn the most. If you feel strongly, sometimes doing a little homework is required in order to effectively present your perspective (also see d, below).
* Residents and preceptors should not hesitate to contact the Site Research Faculty, Brian Ng, with *any* questions or concerns about resident CQI Activities.

***c. Choose a domain of practice that you want to improve***

Here is where [www.qualitybookoftools.ca](http://www.qualitybookoftools.ca) will save you time. The *Quality* Book of Tools is a comprehensive book of practice management and clinical care indicators for improving quality in family practice. Levitt & Hilts present 8 Categories that incorporate the common elements of family practice activities. Within these are 34 Sub-Categories, which in turn have 70 Indicators, and these have been separated into 43 practice management and 27 clinical indicators.

Indicators are designed to identify the common elements of family practice performance that **can be assessed to improve the quality of care**. Each indicator has Criteria that can be counted or measured in order to assess quality of performance on an indicator. That is to say, Criteria are discrete, definable, measurable and explicit.

Finally, there are three types of criteria: **Legal and Safety** – required by law; **Essential** – required to demonstrate best practice; and **Desirable** – required to demonstrate additional quality.

Q & A

*How do I choose?*

* The *Quality* Book of Tools online <http://qualitybookoftools.ca> helps you to rapidly drill down through Categories, Sub-Categories, to Indicators, and then to Criteria that can be **counted or measured.** If you prefer a book format,there is a downladable .pdf[[1]](#footnote-1) on the website. (Logon is required, but is free). (If teaching sites suggest that a bound version of the text would be helpful, these can be purchased).
* Choose a quality indicator that is relevant to your practice situation; and one in which you think you may have some success in improving - starting with some relatively simple interventions.
* It helps to choose something that you are really interested in, & an area of practice that may have real impact for your patients - as that makes your efforts more meaningful. That said, the *Quality* Book of Tools [www.qualitybookoftools.ca](http://www.qualitybookoftools.ca) recommends that family practices first strive to meet requirements for **legal** and **essential** criteria, and then work toward meeting the **desirable** criteria.
* Choose a question that you can answer by observation or audit in your practice - e.g. via inspection of facilities, survey of patients, survey or interview of practitioners &/or staff, direct observation, chart audit.

*Can I choose something that isn’t listed in Quality Book of Tools?*

* Yes. Discuss your interests and ideas with your preceptor and your Site Research Faculty.
* *Quality* Book of Tools Indicators are intended as a guide only, and, in the spirit of continuous quality improvement (CQI) and rapid cycle change, to assist practices to make choices. The list of indicators is not exhaustive, and may not include all of the elements that are important and relevant for individual practices.
* That said, learning CQI in residency may be best achieved by spending more time “doing”, and less time “choosing” (i.e. going through the systematic process of identifying new Indicators and validating Criteria. CQI is all about improvement though. If you feel comfortable with the process, and had real impact in your practice with your first CQI efforts - then innovate.Some CQI may be appropriate to expand into an R2 Scholar Project. Consult with your Site Research Faculty.
* And, remember that some indicators may take priority over others; and Legal, Safety and Essential realms of practice are probably most important to address first (for your first CQI activity at least).

*What if the nature of the indicator requires reassessment in a few weeks or a couple months, and I have nothing more I can do on that CQI Activity for a while?*

* Start another CQI while you allow time to exert its affect on your previous CQI improvement interventions. By participating in CQI activities weekly are more likely to develop the habit and “culture” of Continuous Quality Improvement.

*What if the nature of the indicator requires study when I will* ***not*** *still be on FP rotation?*

* Endeavour to choose an area that is reasonably straightforward to assess *current state* of care; **and** also suitable for PDSA cycles of short enough duration to be able to implement small changes; **and** to be able to *measure the* *impact of your change(s)* while you are still on your family practice rotation.
* For example, some Effective Clinical Practice indicators in the *Quality* Book of Tools may rely on data for less common conditions in your practice. These may therefore be an unrealistic CQI Activity choices during your brief tenure in residency. E.g. A chart audit that would require a year or two before sufficient cases have emerged on which to evaluate the impact of your practice improvement would not necessarily be a suitable choice to work on in residency. But you can and should do that kind of CQI when you are out in your own practice.

*What if there is no more to do after 1-2 PDSA cycles? (e.g. assessing whether sharps are disposed of appropriately)*

* Bravo! Sometimes you will discover that there is no need for improvement, or that improvements are very straightforward to implement. DO please flag your report with suggestion for *when* you think your implemented changes may need be to re-assessed e.g. to see if your practice improvements are holding (e.g. 4 months? 1 year?). Better yet, recruit a resident colleague to take on that reassessment when they are on their Family Practice rotation. Now start another CQI activity!

*What if my preceptor and I have had great success in implementing change in our own practices?*

* Bravo. Now the hard, but potentially most rewarding work comes. Share your learning with practice colleagues, and see if you can implement improvements on a larger scale. See D., above, for resources. CQI can also be turned into an R2 Scholar project.

***d. Choose an evidence-based practice standard and critically appraise it***

All quality measures need a standard for comparison. You may find many, often differing standards or guidelines on a topic; and sometimes you will find none. You should normally use the most recent and geographically appropriate guideline, and one that is evidence-based. In other words, a provincial guideline should take precedence over a national guideline, which should take precedence over an international guideline - but exceptions will occur if a guideline is more recent or relevant, or if a guideline is more evidence-based. If a guideline isn’t available, you may need to use a different type of standard - e.g. systematic review. Only occasionally will you need to rely on an original study of e.g. a diagnostic test or therapeutic intervention.

Whatever your chosen standard, its applicability to the practice should be established and its validity appraised - i.e. you should ***review and appraise*** the evidence supporting the practice standard that you have chosen. Also, just because a certain group of experts or governing body recommends one practice standard, there could be many reasons why that standard may not be realistically achievable in real-life (or your) family practice. For this reason, it would be helpful to find comparative data from other Canadian practices where this standard has been applied. You should search the health literature to find such data, if available.

Q & A

*Many practice standards linked from* [*www.qualitybookoftools.ca*](http://www.qualitybookoftools.ca) *are Ontario-centric. Are these appropriate to use?*

* Most of the Ontario standards will have BC equivalents that are more appropriate. Regional differences can be quite significant for practice. E.g. the BC Centre for Disease Control supplies primary care practices with “free” Cefixime for treatment of Gonorrhea, but this is a different treatment regimen than is listed in the Canadian STI Guidelines (largely due to differences in epidemiology and resistance patterns among different provinces).

*Quality Book of Tools doesn’t have a link to appropriate guidelines, or, I want to compare to other standards. Where else should I look?*

* There is support available if you need help doing an effective literature search, or simply wish to hone those skills: Contact your Research and EBM/Informatics site faculty; or one of the many skilled Medical Librarians in our community.
* Self assess your skills by answering - Can I, *and* do I…?
  + … perform quick and efficient literature searches? (that do not rely on Google, or equivalent)
  + … access UBC library with VPN?
* TRIP Database <http://www.tripdatabase.com/> is a clinical search tool designed for health professionals to rapidly identify the highest quality clinical evidence for clinical practice. It’s GREAT!!! Try it.
* Clinical Practice Guidelines are linked from these sources:

College of Family Physicians of Canada, including the Canadian Medical Association Infobase, US & UK guidelines - <http://www.cfpc.ca/ClinicalPracticeGuidelines/>

Guidelines and Protocols Advisory Committee (GPAC), a joint committee of the BCMA and the Ministry of Health - <http://www.bcguidelines.ca/gpac/>

This UK site may also be useful <http://www.openclinical.org/guidelines.html>

*What critical appraisal template can use?*

* AGREE Instrument for reviewing guidelines <http://www.agreecollaboration.org/>

- instructions for use, and the instrument itself, are found on the site. The AGREE Collaboration is the highest standard for Guidelines development, and therefore has highest standards for critique. NB: Past residents found the AGREE directed critique exercise to be the *most* valuable part of the Clinical Practice Audit project that the PIP project (CQI Activities at VFS) now replaces!

* The Centre for Evidence Based Medicine at Oxford  <http://www.cebm.net/index.aspx?o=1913>

- critical appraisal templates here for Systematic Review and Diagnostic RCT

* The GATE method of critical appraisal (developed in NZLD) <http://www.fmhs.auckland.ac.nz/soph/depts/epi/epiq/ebp.aspx>
* [Appendix A](http://ubcfamilymed-postgrad-intranet.ca/residency_program_basics___educational/r1_scholarly_work__pip_/appendix_a/) on the UBC Family Practice Residency Program *Intranet* (requires logon) lists and links additional reading and resources.
* Speak with your site faculty if you are not confident in your critical appraisal skills.

***e. Perform an ethical practice-based evaluation***

CQI activities within family practice offices fall under the umbrella of Quality Assurance and Improvement Studies and at UBC do not require institutional research ethics board review *"when used exclusively for assessment, management or improvement purposes”.* But they still must be ethical!

To perform an ethical CQI:

* collaborate with your preceptor to assess only your preceptor’s practice
* collaborate with additional practitioners in your clinic to assess their practices
* remove identifying information from any patient and physician data that you collect
* conscientiously attend to the security of patient information if it leaves the practice site
* only use this information to improve the practice in a way that current evidence indicates will benefit all eligible patients in the practice
* apply for UBC research ethics board review if your activities become research; or if you decide to do CQI as your R2 project .

***f. Develop Objectives***

* work through The Improvement Model’s three fundamental questions as a framework for developing your objectives (see attached .pdf, B & C above).

***g. PLAN your first PDSA cycle***

1. use the Model for Improvement planning sheet (see B & C, above);
2. plan small steps toward practice change;the first PDSA cycle may realistically becompleted within 2 weeks of starting your rotation;
3. consider what additional tools you might need to achieve lasting change (resources in E, above).

Q&A

*What does a typical practice improvement activity look like?*

* There is no cookie-cutter approach to CQI. Each practice improvement activity needs be tailored to the chosen area of practice that you identify as potentially benefitting from practice change, and to the practice itself. The PDSA framework is not the only methodology, but it is the one we will utilize.

*How will I know that I’m doing it right?*

* Planning your measurement is critically important. The following are possible methods for measurement, but the best method will largely depend on the question being asked:

i. Inspection or testing of facilities, workflow, and/or equipment

ii. Survey or interview of patients and/or physicians and/or staff

iii. Direct observation of the physician-patient encounter

iv. Chart audit: *Contact your Site Research Faculty if you will perform a chart audit*, and you will be provided with detailed instructions.

***h. DO - launch your first PDSA cycle***

* keep notes on what happens

***i. STUDY - analyze what happened***

* include expected and unexpected results

***j. ACT - plan what you’ll do next***

1. record and plan what you’ll take forward, what you’ll do next, what other tests or cycles may be required to achieve lasting improvement
2. You guessed it: consider what additional tools you might need to achieve change.

***k. PDSA again***

1. ***and again, and maybe again*** - as described in The Model for Improvement
2. use a new PDSA cycle progress sheet (last page in The Model for Improvement resource/handout) for each and every cycle.

***l. When you’re done, start a new Improvement activity (go back to a.)***

* if/when you are done, or if you are waiting for effects of the last PDSA to take effect before they can be re-measured, then start another CQI Activity
* see Q&A, under c.

***m. “Engage with” your practice colleagues***

* *at least once*during your rotatione.g. your Improvement activities, experiences, findings, recommendations
* **Attention Preceptors:** this is not intended to be a formal, summative presentation, as was the case for previous CPA presentations. In fact, it should ideally take place *during* CQI activities!! And, once may not be enough.
* This should be seen as an opportunity (and a nudge) to disseminate learning, expand your innovations, scale-up, involve others in the practice, brainstorm further developments, seek input on a problem or hurdle.
* Format for this discussion forum may be a brainstorming exercise, a “discovery” exercise to gain input on “current state” of a process (for process mapping), a means for seeking buy-in from other practice members. Remember also, that colleagues include

***n. Share all documentation with your Site Research Faculty***

* There is no “formal” report to write! Send your Model for Improvement worksheets to your site faculty for research **about midway** (in progress worksheets are fine; send whatever you’ve done up until now); **and also in the last week of your family practice rotation.**
* ***NB:*** Use of the Model for Improvement worksheets should be happening **in an ongoing fashion** - NOT be saved up for the end. The Model for Improvement worksheets are part of the process, intended to guide you through & to help you succeed in practice improvement. Handing it all in merely completes your CQI R1 requirements from a curricular accountability perspective.
* For *each* CQI you should send completed worksheets as follows:

1. The Improvement Model - one for *each CQI Activity* undertaken (e.g. it is expected that you may complete *at least* 2 CQI Activities per 4 month rotation, depending on their complexity & number of PDSA cycles per Activity)
2. PSDA cycle planning sheet - one for each cycle within an Activity (e.g. at least one, but probably 3 *or more* per CQI Activity) (remember include your name and the date you began each cycle)
3. PDSA cycle progress sheet - also one for each cycle within an activity (e.g. at least one, but probably 3 *or more* per CQI Activity)

***o. Encourage your preceptor to apply for Mainpro-C and Mainpro-M 1 credits***

* Your preceptor can download the form at <http://www.cfpc.ca/uploadedFiles/CPD/submission_audit.pdf> and submit to receive 3 Mainpro C credits for a practice audit and 3 Mainpro M1credits

**Afterwords:**

* Not all changes will work; and not all change - even if it works - will lead to improvement.
* From the perspective of fulfillment of curricular intent and requirements though, success is pretty much guaranteed if you:
* carefully review this guide
* use the resources listed at the start of this guide
* collaborate with your preceptor
* consult with your Site Research Faculty (brian.ng@ubc.ca)
* comply with reporting requirements
* and put a little time into CQI *each week.* It’s not called *Continuous* Quality Improvement for nothing.

**Bottom line (Deliverable)**

* You are expected to hand in the completed worksheets found at the end of the “The\_Model\_for\_Improvement.pdf” document. This is due at the end of your family practice rotation in your R1 year but may be extended under some circumstances. Let your site faculty for scholarship know beforehand.
* Please type out your final report in electronic format.
* You will not graduate to your R2 year if you do not finish this project. This is a requirement of the CFPC for accreditation.
* You are expected to spend no more than 10 hours TOTAL on this project. It should not be onerous.
* You can do ONE problem with TWO PDSA cycles or TWO problems with ONE PDSA cycle each. Your choice. But make it clear to me beforehand.
* PLEASE let your site faculty for scholarship know if you have problems

1. Levitt C, Hilts L. Quality Book of Tools. Hamilton: McMaster Innovation Press; 2010. [↑](#footnote-ref-1)