



THERAPEUTICS INITIATIVE

Independent
Healthcare Evidence

Audit and Feedback Personal Prescribing Portrait

Primarily care prescribers who treat a wide variety of conditions in community-dwelling patients require broad prescribing knowledge.^{1,2} The number of existing drug options and new drugs available each year has created a challenging work environment. There is a corresponding need to find innovative methods to help community-based physicians monitor and evaluate the appropriateness of their prescribing practices.

Audit and feedback is one such method that is often used on its own or together with other educational or quality improvement initiatives. Audit and feedback interventions typically involve measuring a physician's practice and comparing it to a target or standard.³ This approach is becoming more common, but what impact does it have on physician behaviour and patient health?

Systematic review evidence about audit and feedback

A large 2012 Cochrane systematic review on audit and feedback included 140 studies and found that audit and feedback “generally leads to small but potentially important improvements in professional practice.” Its effectiveness depends on baseline performance and how the feedback is provided.³ Other international research has demonstrated that prescribing portraits can be useful tools to modify prescribing behaviour and move it more in line with the evidence.⁴⁻¹⁰

The impact of audit and feedback varied widely across the included studies (ranging from little or no effect to substantial). The Cochrane review authors rated the certainty of the evidence as “moderate”.³ They suggested audit and feedback is most effective when:

1. health professionals are not performing well to start with (an evidence-practice gap);
2. the person responsible for the audit and feedback is a supervisor or colleague (social factors important);
3. provided more than once (repetition important);
4. given both in writing and verbally (same message from multiple sources important);
5. it includes clear targets and an action plan (meaningfulness important).



A 2005 Cochrane review identified 39 interventions to reduce antibiotic prescribing for inappropriate indications, combining physician, patient and public education in a variety of settings and formats.¹¹ The review found that the effectiveness of an antibiotic prescribing intervention depends to a large degree on the prescribing behaviour and the barriers to change in the particular community.

BC efforts to improve prescribing using audit and feedback

When primary care prescribers are asked about methods to improve their prescribing, they often respond: “Yes, but how am I doing now?” BC physicians currently receive an annual snapshot of their practice from the Mini Practice Profile, which provides practice statistics based on MSP payments for clinical services. This profile does not examine prescribing patterns.¹² Over the years, other publicly-funded initiatives have provided physicians with information about their own prescribing.

Better Prescribing Project (BPP) [1999-2000]

Designed as a randomized controlled trial, the Better Prescribing Project examined case-based educational modules and personal prescribing feedback for hypertension. Significant absolute increases in prescribing preference for thiazides were documented and led to modest but meaningful changes in physician prescribing. Clear messages, proper trial design and sensitive outcomes were necessary to achieve these changes.¹³



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Education for Quality Improvement in Patient Care (EQIP) [2006-2012]

A perceived urgency to improve personal prescribing competency helped shape this program that ran for six years. EQIP provided primary care prescribers with individualized prescribing portraits on a variety of topics and was able to demonstrate a positive impact on prescribing behaviour.¹⁴ Materials were sent to BC physicians randomized to immediate or delayed receipt. This allowed for rigorous evaluation that identified a small but significant and sustained favourable impact on prescribing. A prescribing portrait on hypertension led to increased use of thiazide diuretics as first-line antihypertensive drug therapy, saving an estimated \$157,075 in unnecessary drug costs over an initial 1-year period. A portrait on statins significantly reduced the number of patients started on a statin for primary prevention, saving an estimated \$465,000 in the first two years of treatment.

Personal Prescribing Portrait [2020]

Feedback from clinicians confirmed that receiving their own data accompanied by key learning points empowered them to make changes in their practice. They considered this superior to a quality assurance model. In 2020 the Therapeutics Initiative embarked on a new quality improvement program to deliver evidence-based educational content with

confidential, personalized prescribing portraits to BC prescribers. Physicians are randomized into early and delayed groups, allowing for a rigorous evaluation of the program's impact on prescribing. Evaluating an optimally-designed intervention is critical to developing a prescriber feedback program that is logistically and economically feasible over the long term.

Medications prescribed and dispensed in BC at higher or lower rates than anticipated, given evidence about their benefits and harms, are appropriate for consideration for this program. Some examples of drugs we consider suitable for prescribing portraits include:

- Long-term use of proton pump inhibitors in community-based populations;
- Opioids in non-palliative, opioid-naïve patients;
- Statins for primary prevention, particularly in seniors;
- Antipsychotics and antidepressants in frail elders with dementia living in residential care.

Conclusions

- Personalized prescribing portraits have the potential to improve prescribing and health outcomes.
- Much remains to be learned about how to provide the most constructive audit and feedback to prescribers.
- In 2020, the Therapeutics Initiative started providing **Personalized Prescribing Portraits** to BC family physicians. We welcome feedback from BC prescribers, and suggestions for drug education and feedback topics.

Do you have any suggestions for the Therapeutics Initiative's new **Personalized Prescribing Portrait** program? What topics would be most relevant for your own practice? Please email us at: portrait@ti.ubc.ca

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