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55 – Evidence-based Primary Care Through Guidelines

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Sound knowledge about effectiveness and safety of diagnostic and treatment methods should form the basis of decisions in all health care. Finding such knowledge is particularly challenging for doctors in primary care, because they treat people of all age groups and with any illness. Guidelines can answer their information needs if they are appropriate to their working environment, easy to access and use, and up to date. Modern guidelines can also provide reminders and active decision support. Here, we describe the national guideline structure and their use in Finland as an example.

Guideline quality

High-quality guidelines are produced in a systematic and transparent manner. This means that best available evidence is searched for, evaluated and synthesized. Guidelines should be produced by content experts and presented clearly in a user-friendly format (1). With the AGREE instrument, guideline developers and users can assess the methodological quality of guidelines (2).

Not all well-produced guidelines, however, are useful in primary care. Those written by subspecialists may focus on patients in secondary care – a selected group – and may be irrelevant or misleading if applied to patients in primary health care. Not only are our patients different from those referred to hospitals; we also have different diagnostic and treatment resources.

Recommendations in quality guidelines are often based on systematic reviews of trials, most of which study patients with a single disease. FDs see patients who often have several diseases and key decisions may affect more than one of these. We apply the evidence while discussing with each patient what their own preferences are. General practitioners may need to check several guidelines in one consultation. The necessary information must be found quickly and in a clear format: How helpful is this treatment for these patients in achieving better health outcomes?

Best guidelines also offer links to supporting material, such as pictures, flow charts, references, evidence summaries, and materials for patients. The level of evidence and strength of recommendations is presented clearly and in a methodical fashion: Is this information likely to change with new research or not?

Using guidelines

Bringing guidelines to practice is a challenge. Doctors' habits change slowly and only to a small extent. Grimshaw and colleagues have reviewed the effects of guideline implementation strategies (3) and found improvements in performance from 6 % when using multifaceted interventions to 14 % for reminders.

Likewise, the MIKSTRA project in Finland produced evidence-based guidelines for six common infections and implemented these in a randomized trial (4). Patient versions

of guidelines were edited and distributed. Primary care units received training and other support to change their care pathways toward more evidence-based practices. The use of diagnostic tools became somewhat more systematic, and antibacterial prescriptions were 2 – 16 % better targeted. The study demonstrated that not only doctors but also patients need to change their attitudes regarding drug prescriptions.

For the busy general practitioner, the threshold for looking up information during a consultation is quite high. If guidelines are available in a compact source, covering many diseases, the task becomes easier. Guideline collections are preferable to single guidelines. Searching medical databases or googling for an answer to a patient problem during consultation is seldom feasible.

When a guideline collection for general practitioners was introduced in Finland, we studied how our colleagues consulted these guidelines (5). They made at best up to ten searches and on average three searches each working day, and found sufficient information in 71% of the searches. Another study found that general practitioners' compliance with guidelines was high: over 80% for use of laboratory, radiology, physical examinations, and referrals (6).

Any guideline starts getting outdated the minute it's published. Users should know how well guideline producers are able to keep the guidelines up-to-date. Medical Society Duodecim houses the national guideline organization in Finland, providing a stable framework for guideline production. This includes regular updates every two or three years: new searches are made on key questions in the guidelines and authors evaluate new publications, updating the information. If important new information (e.g. on new side effects of treatments) appear between regular updates, a partial rapid addition can be included in the guidelines.

Next step: Decision support

Good guideline collections are useful, but even better support is on its way. Linking guideline information to actual patient data can be used to create clever systems that provide guidance without request. Electronic decision support brings evidence into practice by means of context-sensitive guidance at the point of care. The national guidelines in Finland were used as the basis for creating a set of evidence-based, patient-specific reminders for 59 different health conditions embedded into the Electronic Patient Record (EPR) system (7). These reminders were shown to healthcare professionals when they opened and used the EPR during consultation. Typically, a reminder suggested timely action (e.g. "Long-term glucocorticoids—add calcium and vitamin D?") or gave a warning (e.g. "Serum potassium is dangerously out of range"). In addition, links to guidelines were shown in accordance with the patient's diagnosis list, and drug alerts were triggered on prescribing a medication that for example created a risk for interaction with existing medication.

The trial in primary care included more than 13000 patients randomized to trigger or not to trigger reminders during consultations (7). We had expected the number of reminders to decrease over one year, however, both in the intervention and control group, numbers of reminders increased. One possible explanation is that recording of disease codes improved during the trial. Implementing computer-based decision support is still problematic, but it is possible to build such systems based on sound guidelines. In this way, guidelines can fulfil their aim of improving quality of care and, ultimately, improving health (8).

Take-home messages

- Evidence based guidelines are essential for high quality primary care.
- Guideline collections are preferable to single guidelines.
- Patient versions of guidelines should be produced alongside full professional versions.
- Guidelines do not make decisions; patients and doctors decide together.
- Linking guideline recommendations to individual patient data can make GPs' work easier in the future.

Original abstract

<http://www.woncaeurope.org/content/37-evidence-based-primary-care-through-guidelines>

References

1. The AGREE Collaboration. Development and validation of an international appraisal instrument for assessing the quality of clinical practice guidelines: the AGREE project. *Qual Saf Health Care* 2003;12:18–23.

