Evidence-based medicine: the benefits of point-of-care tools

With clinical knowledge constantly changing, point-of-care tools can help GPs keep up-to-date on best practice, write Trish Patton and Aoife Lawton

"Half of what you'll learn in medical school will be shown to be either dead wrong or out of date within five years of your graduation; the trouble is that nobody can tell you which half – so the most important thing to learn is how to learn on your own."
David Sackett, founder of the Centre for Evidence-Based Medicine (CEBM)

TODAY'S GPs NEED TO KNOW how to find, use and evaluate information to practise evidence-based medicine (EBM), in order to ensure that their patients are receiving the best possible care with the most current treatment available. EBM, as explained in 1996[1] by Dr Sackett and redefined in 2000,[2] is defined as the integration of best available evidence, clinical expertise and patient preferences and values. It is now a key part of daily clinical life.

GPs need to keep up with an ever-increasing stream of information – new guidelines, new medications and practice updates in medical literature. This is especially relevant due to the experience of Covid-19 and the influx of new evidence and information available.

The complexity of modern practice requires that GPs become active information-seekers. The principles of EBM are more important now than at any other time.[3] EBM is essentially using reputable sources that summarise the evidence and make it accessible at the point-of-care. A good introduction to EBM can be found in a 2018 article in *Forum*,[4] by completing the eLearning module on *'Information Skills for GPs'*[5] or the EBM Toolkit [6] available on *BMJ Best Practice*.

This article provides an overview of point-of-care (POC) tools and introduces and compares the three most popular ones – UpToDate, Dynamed, and *BMJ Best Practice*.

What are point-of-care tools?

POC tools, also called clinical decision support databases, are reliable research/reference resources of unbiased information that clinicians use to efficiently answer clinical questions at the point of care. They are designed to be used to look up information quickly during a patient consultation. They are rapidly becoming vitally important tools in the integration of EBM with direct patient care as they summarise the best available evidence using selected literature works and expert knowledge to provide recommendations for clinical practice.

Why use these tools?

Research has shown that GPs lack the time needed to answer clinical questions and keep up-to-date.[7,8] Other barriers to EBM found by research studies include lack of personal skills, lack of awareness regarding EBM sources, accessibility issues, as well as the attitude of GPs.[9,10,11]

Table 1: Benefits of using POC tools

- **Easy to use:** GPs can quickly and easily find the answers to their clinical questions
- **Regularly updated** – updates occur on a daily basis
- **Evidence-based, filtered information:** they contain filtered information which is at the top of the hierarchy of the evidence pyramid representing the strongest evidence. Most include levels of evidence, rating scales or grade recommendations
- **Written by experts:** they are curated and updated by health professionals
- **Well referenced:** They include citations back to the original research studies, systematic reviews or guidelines
- **Earn CPD/continuing medical education (CME) points**
- **Contain useful resources** such as clinical practice guidelines, patient information leaflets, clinical calculators and images
- **Easy to access:** many tools can be accessed online and also via mobile apps for smartphones and tablets
- **Improved patient care**

Table 2: Comparison of point-of-care tools		
NAME	**KEY FEATURES**	**LEVELS OF EVIDENCE**
BMJ Best Practice https://bestpractice.bmj.com/	• Includes 1,000+ evidence-based condition and symptom topics across 32 clinical specialties written by over 1,600 international expert contributors and over 2,500 peer reviewers • Endorsed by the RCGP since 2016 with their accreditation quality mark • A research study from China found that BMJ Best Practice is associated with more accurate diagnoses and shorter hospital stays[14]	Evidence tables with *BMJ Best Practice* effectiveness level and GRADE rating
UpToDate (Wolters Kluwer) www.uptodate.com	• Includes 10,500+ clinical topics and 5,800 unique drug entries across 25 medical specialities written by more than 7,300 world-renowned experts with extensive clinical experience • More than 100 studies concur that UpToDate is associated with improved outcomes and hospital performance	Recommendations are categorised based on the GRADE system
Dynamed (EBSCO) www.dynamed.com	• Includes 3,200+ clinical summaries across 28 specialties written by a team of experts • Link to Micromedex Standard Drug Information, including DRUGDEX • Named the top performing POC clinical reference tool in the 2022 and 2021 Best in KLAS: Software and Services report	A unique three-level rating GRADE scale is used to assess the quality of available evidence

POC tools are associated with increased ability to answer clinical questions and improved patient care.[12] They help overcome these barriers by being easy to use, well researched, well referenced, and frequently updated, allowing the GP to comfortably rely on the information for clinical decision-making. They are usually offered on a subscription basis, which is most likely a major barrier to the use of these tools, as access is restricted. A completed list of benefits is listed in *Table 1*.

Which POC tools to use?

From a review of more than 20 systems developed worldwide, BMJ Best Practice, Dynamed and UpToDate are in the top three according to their breadth of disease coverage, editorial quality and evidence-based methodology.[13] *Table 2* provides a comparison of the key features and levels of evidence of these top three POC tools.

A research study in general practice evaluated Dynamed, MDConsult and UpToDate and found no clear winner, with all performing similarly in terms of time to answer and satisfaction with answer.[15] To date, no POC tool has been shown to be superior in all categories, and selection is highly dependent on individual preference based on ease of use and cost.[16,17,18]

In 2020, HSE Health Library Ireland, as part of its vision to create a National eHealth Library, procured a national licence to BMJ Best Practice. The licence makes BMJ Best Practice available to everyone resident in the Republic of Ireland. This was a breakthrough change.

In NHS England it is available to NHS staff and learners since 2019, but in Ireland it is available to everyone with access to an Internet-enabled device, including for example, patients. No log-in is required. This national licence was renewed for the last three years, thus removing one of the key barriers of cost and access.

Conclusion

With clinical knowledge constantly changing, it is hard for GPs to keep up to date with the overwhelming amount of information available. Comprehensive POC tools can play a significant role in helping busy GPs provide best evidence-based care to their patients. BMJ Best Practice is now freely available to all GPs and the general public in the Republic of Ireland. GPs can be confident that BMJ Best Practice ensures a consistent and high quality resource, reducing their risk, as well as saving time and cost. ℹ️

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