NICE Evidence Search: an answer to information overload?

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In the second article in our series on NICE guidance, we discuss NICE’s online Evidence Search service: how the evidence is sourced, what it includes and how to use it.

Evidence from evidence sources is not included if:
- Accessing the evidence on the source website involves the user incurring a cost or registering and submitting personal information.
- The evidence source is sponsored by an entity with a ‘financial interest’, where the sponsorship is deemed likely to have affected the objectivity of the evidence.

Certain types of evidence are routinely excluded from Evidence Search.


<table>
<thead>
<tr>
<th>Evidence</th>
<th>Details</th>
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<tr>
<td>Predominantly written in a language other than English (although relevant English language ‘systematic reviews’ that consider non-English studies would be included).</td>
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<td>A stand-alone set of raw statistics where no analysis or interpretation is provided, such as datasets or toolkits.</td>
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<td>A professional code of ethics.</td>
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<td>A statute.</td>
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<td>An exclusively personal opinion or experience (for example, blog posts).</td>
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<tr>
<td>Patient information from organisations that have not been awarded the Department of Health ‘Information Standard’. Local information with the Information Standard is also excluded.</td>
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<tr>
<td>Temporary and therefore of short-term interest only, such as news stories or event information.</td>
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<tr>
<td>Evidence that has been archived by the evidence source, apart from exceptional circumstances with the approval of the ‘Evidence Services Strategy Group’.</td>
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Does your heart sink at the prospect of searching multiple websites for evidence-based information on health-related questions? Does it plummet at the thought of having to analyse and critically appraise primary research? If the answer to either of those questions is ‘yes’ or even ‘maybe’, then NICE might have a solution to your problem in the shape of its Evidence Search service.

Evidence Search is one of five NICE Evidence Services that cover health, social care and public health evidence, and facilitate internet access to an extensive range of journals and databases, clinical knowledge summaries, the BNF, BNF for Children and evidence awareness services. Prescribing information from the BNF, provided by NICE Evidence Services, is also available through Evidence Search.

Evidence Search covers five areas of interest: clinical; drugs and technologies; commissioning and management; public health; and social care. As a one-stop free resource, it makes it easier and more straightforward for health and social care professionals everywhere to access a comprehensive range of authoritative evidence-based information from more than 800 trustworthy sources, as well as selected journals. It is mainly aimed at health and social care professionals, including doctors, nurses, pharmacists, allied health professionals, researchers and commissioners, and also acts as an educational and research tool to support them in broadening their knowledge and...
skills, to help them keep up to date and manage the information overload.

**Advantages of Evidence Search**

Marion Spring, NICE associate director, Evidence Information Services, outlines the advantages for health professionals of using Evidence Search: “I think the key benefit of Evidence Search is that the sources have been preselected, so rather than health professionals going to Google, then having to evaluate the information themselves, NICE has chosen which sources should go in there. The BNF is also in there, as is medicine management. I have an information specialist in my team, whose role is to select and add content that is relevant to medicine management from key medical journals.”

The focus of Evidence Search is on the best available evidence, including guidance and randomised controlled trials (RCTs), which helps its users to deliver high-quality, evidence-based services. However, ‘best available’ differs between Evidence Search’s five areas of interest as there is a paucity of RCTs in the public health and social care areas. Much of the evidence is high-quality secondary evidence, such as systematic reviews and meta-analyses, which have synthesised or consolidated information from primary evidence, and as such is a boon to time-strapped professionals who do not want to analyse the primary research for themselves. The service has the major advantage of integrating access to evidence in the five areas of interest in one place, thus supporting the integrated care agenda. This makes it easier for users to find a wide-ranging scope of evidence where, for instance, diagnosis and treatment are available alongside information on preventing or managing a condition.

Ms Spring has a background as an information specialist in the NHS before starting to use her expertise at NICE, where her team includes programme managers, content and information specialists and search architects. There is a huge amount of health and social care information that is constantly changing and she says: “That is the benefit of our services – our role is to help the clinician, the pharmacist, to manage information overload and make it easy for them to find good-quality evidence.” She adds: “I would say that the most memorable comment I’ve had was: ‘Evidence Search lets me search all my favourite websites from one place’.”

Although most of the evidence is freely available to service users and the general public, the full text of some is only available via an OpenAthens password to authorised users (such as NHS employees) who meet certain eligibility criteria. NICE refers to the process by which pieces of evidence are added to Evidence Search as ‘ingestion’ (see Figure 1). The potential new evidence source is assessed against exclusion criteria and the inclusion and exclusion criteria are outlined in Table 1.

**What about new sources of evidence?**

Suggestions for potential new evidence sources come from a number of routes, for instance from internal information and content specialists, from users who call for more evidence about a particular topic, the evidence sources themselves and from examining users’ search logs for indications that they have tried but have been unable to find suitable evidence.

NICE in-house teams provide information, technical and research support to Evidence Search in a range of ways, for instance by identifying and selecting evidence and developing processes and methods for its examination. Evidence is taken from a broad range of sources, such as the Cochrane Collaboration, the Royal Colleges, the Department of Health, specific journals and aggregators of content such as the Social Care Online (SCO) service of the Social Care Institute for Excellence (SCIE). Certain evidence sources are routinely excluded from Evidence Search.1 The exclusion criteria are outlined in Table 1.

**Who selects the evidence and where does it come from?**

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for the technical feasibility of automatically ingesting it from the source’s website through a ‘web crawl’ or ‘web feed’. This is less resource intensive and therefore the preferred option but not possible where there are difficulties relating to issues such as website technology or if there are risks of including too much evidence that is out of scope. Where this is the case, the evidence can be added manually by an information specialist, who regularly searches the evidence sources’ websites and manually creates records for this evidence.

The five areas of interest

The ‘five areas of interest’ are not mutually exclusive and the overlap between them is shown in Figure 2. For example, a clinical condition can appear in both public health and clinical lists, with an emphasis on a population-wide perspective in one and the standpoint of an individual patient in the other. NICE attaches metadata tags to ensure that a search will retrieve the appropriate area.

Examples of evidence:
- Guidance
- Patient, user and carer information
- Ongoing trials
- Systematic reviews
- Economic evaluations
- Care pathways
- Drug prescribing and safety

Figure 2. Evidence included in the five areas of interest of Evidence Search. From: NICE. Evidence Search: Process and methods manual. November 2015

Clinical
This area of interest covers the provision of clinical care – prevention, screening, assessment, care and treatment of individuals with potential or actual physical or mental ill health in any setting. Evidence Search aims to provide full coverage of areas included in NICE guidance and quality standards, and also for topics that service users commonly search for but are not included in these. Although the major branches of clinical medicine are included, some rarer ones are not, and those who cannot find what they are looking for in Evidence Search are directed to the Journals and Databases section of NICE Evidence Services, which provides a more comprehensive coverage that encompasses rarer conditions.

Public health
NICE adopts the definition used by the UK Faculty of Public Health, which is: “The science of promoting and protecting health and wellbeing, preventing ill health and prolonging life through the organised efforts of society.”

Social care
NICE defines this as: “All forms of personal care and other practical assistance for children, young people and adults who need extra support.” Much of the evidence for this area is provided through a web feed from the SCO service of the SCIE.

Drugs and technologies
This area of interest covers drugs and technologies information relevant to clinical medicine and to the commissioning, managing, prescribing, dispensing and administering of drugs. It also includes evidence selected for the Medicines Awareness Service. This is a separate email service, which allows users to opt for either a daily or weekly email alert to suit their information needs. It provides links to the latest evidence-based information relating to medicines and prescribing, handpicked every day by experts from the UK Medicines Information (UKMi) network. Content can be personalised to highlight specific topics and new information, to help busy health professionals stay up to date and is organised into information type for easy navigation. Information types include guidance, prescribing information and advice, evidence summaries, research and current awareness.

The Medicines Awareness Service highlights information relating to medicines and prescribing in the following forms:
- New guidance publications from key sources such as NICE and other accredited UK guidance providers
- New and updated prescribing information to inform clinical practice, including drug appraisals, evidence summaries and reviews
- Selected evidence published in major journals
- News aggregated from press releases, news stories and safety alerts from agreed sources.

Medicines and prescribing alerts help to keep health professionals up to date with a range of medicines and prescribing-related topics, including evidence summaries on new medicines and on unlicensed/off-label medicines.
Subscription to the Medicines Awareness Service is free on the NICE website at: www.medicinesresources.nhs.uk/en/NICE-Profile/User-Registration-Details/

Commissioning and management
This area of interest includes subjects relevant to commissioners and managers in health and social care organisations.

How do I manage search results?
Evidence Search uses filters and advanced search functionality to help users find what they want and manage their search results. These include:

- Area of interest filters
- Type of information filters
- Source filters
- Accredited guidance
- Download function
- Advanced searching.

The filters allow you to limit your search results to your preferred area of interest (such as drugs and technologies), specific sources (such as the European Medicines Agency (EMA) or the Medicines and Healthcare products Regulatory Agency (MHRA)) or specific types of information (such as limiting your search results to RCTs or ongoing trials). More details are available at: https://www.nice.org.uk/about/what-we-do/evidence-services/evidence-search/how-to-search

A guide for advanced searchers is also available, which explains, for example, how the search results are ranked by relevance, how phrases are treated, and what lemmatisation is (an advanced form of word stemming to ensure that documents that contain different forms of the search term are included in the results) so that you do not have to search for different variations of the same word.²

To use the NICE Evidence Search service, go to: http://www.evidence.nhs.uk/

References
1. National Institute for Health and Care Excellence. Evidence Search: process and methods manual. November 2015. Available from: https://www.nice.org.uk/Media/Default/About/what-we-do/Evidence%20Services/Evidence%20Search/Evidence-Resources-process-manual-Nov15.pdf NICE guidance is prepared for the NHS in England, and is subject to regular review and may be updated or withdrawn. NICE has not checked the use of its content in this article to confirm that it accurately reflects the NICE publication from which it is taken.

Declaration of interests
None to declare

Joy Ogden is a freelance journalist