

The National Searching Guidance

February 2023



healthcare inequalities



Sustainability

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ICBs

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Table of Contents

<i>Introduction</i>	3
<i>Preferred Terms</i>	5
<i>Glossary</i>	6
<i>For All Evidence Searches</i>	9
<i>Evidence Searching for Audit</i>	16
<i>Evidence Searching for a Business Case</i>	18
<i>Evidence Searching for Care of a Specific Patient</i>	20
<i>Evidence Searching for Commissioning</i>	22
<i>Evidence Searching for Coursework/Study</i>	24
<i>Evidence Searching for General Interest/Continuing Professional Development (CPD)</i>	26
<i>Evidence Searching for Patient Information: Creating Information Resources for Patients</i>	28
<i>Evidence Searching for Patient Information: Question(s) from a Patient</i>	31
<i>Evidence Searching for a Quality Improvement (QI) Project</i>	34
<i>Evidence Searching for Service Change, Guidelines, or Policy</i>	36
<i>Evidence Searching to Support Research/Writing for Publication:</i>	38
<i>Evidence Searching to Support Systematic Reviews</i>	40
<i>Evidence Searching for Teaching/Presentation</i>	50
<i>Appendices</i>	52
<i>Appendix 1 - Resources</i>	52
<i>Appendix 2 – Reference Management Software</i>	68
<i>Appendix 3 - Troubleshooting / FAQs / Tips and Tricks</i>	70
How many results are enough?	70
What if my search is retrieving too little, or nothing at all?	70
What if my search is retrieving too much?	71
Checking the rigour of your search.	72
Local groups of colleagues that you can contact for help.	73
Other help available.	74
Mailing list enquiries.	74
When requesters don't respond to your query emails!	75
Dealing with technical difficulties	76
<i>Version History</i>	76

Introduction

This guidance is intended for Knowledge and Library Services (KLS) staff tasked with searching the evidence on behalf of NHS staff.

The authors acknowledge that searching is a professional skill and this guidance does not replace an expert searcher: it is meant for professionals to refer to in an advisory capacity when performing a search, to supplement their institutional/local practice.

The **suggested time to allocate to this search** figures offered at the top of each entry are intended as rough suggestions to help plan time only, and encompass all the stages of the search including the compiling of a search report, with any summarising and synthesising that might be undertaken. The lower figure will apply more to simpler search topics and/or to searchers experienced with that type of search, while the upper figures will apply more to trickier search topics and/or to searchers less experienced with that type of search. Every individual search will vary greatly depending on its complexity and yield though.

Since [The London Kent Surrey Sussex \[LKSS\] Regional Searching Guidance \(2nd Edition\)](#) was published in April 2021, a lot has changed in the NHS KLS landscape. NICE's Evidence Services, including 2 essential tools for KLS staff, NICE Evidence Search and Healthcare Databases Advanced Search (HDAS), were decommissioned in March 2022. Though not a replacement for these losses, the NHS Knowledge and Library Hub rose to prominence, opening-up e-resources for end-users, but shifting in-depth searching further towards KLS staff; and a new national quality assurance framework (QIOF), replaced the old framework (LQAF). Across the NHS more broadly, mergers and reorganisations continued with Integrated Care Systems forming, and Integrated Care Boards (ICBs) replacing Clinical Commissioning Groups (CCGs). The NHS has become the first health service to commit to going “net zero”, COVID recovery continues, and 13 years of austerity and underfunding have exacerbated health inequalities and social injustice, prompting KLS staff everywhere to [consider new roles beyond our job descriptions](#).

Against this backdrop of adaptation and belt-tightening, the National Searching Guidance Working Group expanded from the LKSS Regional Searching Guidance Working Group in the summer of 2022 to help services deliver [HEE's Knowledge for Healthcare 2021-26](#) aim of “supporting the work of expert searchers” (p42) by sharing best practice in evidence-searching in the collaborative spirit of “do once and share” (see [Knowledge for Healthcare: a developmental framework](#), p17).

As the predecessor to this guidance was used far beyond the LKSS region it was intended for, going national seemed the next logical step. While this national guidance has kept the same presentation and organisation as its forebear, rather than a quick “ctrl + f” “find and replace” of its contents, in the composition of this document the Working Group has reviewed and improved upon every aspect of the previous guidance, with expert colleagues' and reviewers' opinions sought to strengthen the recommendations and coverage within.

To keep this guidance relevant and current, it will be reviewed and updated by the Working Group quarterly. The next review date is: May 2023.

With your assistance, we aim to improve and update this guidance continuously. To provide feedback or to submit an example search report for inclusion in the supplement, please contact adam.tocock@nhs.net or use this anonymous form: <https://forms.gle/wSNMGjBgauPiSABP8>

Any broken links identified will be addressed immediately, please email the details using this link: <mailto:adam.tocock@nhs.net?subject=Reporting%20a%20broken%20link%20in%20National%20Searching%20guidance>.

Thank you to our reviewers and extra contributors for their help and expertise:

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February 2023

Preferred Terms

Throughout this document the following preferred terms are used, following consensus from the working group, and feedback from colleagues:

- “Bibliographic databases” is used instead of “primary research databases” to refer to the databases available via Ovid, EBSCOhost, and ProQuest: AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, and PsycINFO etc. PubMed and subject-specific databases are included under this umbrella term.
- “Clinical decision support tool” is used instead of “point-of-care tool” (used in the first and second editions of the LKSS Regional Searching Guidance) or “clinical reference tool”. See **Clinical Decision Support (CDS) tool** in Glossary below.
- “Deduplicate” and “deduplication” are used instead of “remove duplicates” and “the removal of duplicates” respectively.
- “Evidence search” is used instead of “literature search”.
- “Filter” is used instead of “hedge”. See **Filter** in Glossary below.
- “High tier evidence” is used instead of “secondary evidence”. See **High tier evidence** in Glossary below.
- “The KLHub” is used after every first instance of “The NHS Knowledge and Library Hub” within entries, for brevity, replacing “National Discovery Tool/Service” used in the second edition of the LKSS Regional Searching Guidance.
- “Provider interface” is used instead of “native interface” to refer to EBSCOhost, Ovid, ProQuest and ProQuest Dialog.
- “Scoping search” is used instead of “pilot search”, or “quick and dirty search”. See **Scoping Search** in Glossary below.
- “Subject heading” is used in favour of “descriptor” or “thesaurus term” or “controlled language term” or “controlled vocabulary term”. See **Subject heading** in Glossary below.

Glossary

(££) – When this appears after a resource in this guidance it means that it requires a paid subscription, and is neither included within the national core content collection nor freely available.

Audit – “An audit is an official internal or external examination of an organisation... Clinical audit is a tool for improving practice, patient care or services provided. It is used to measure current practice and care against a set of explicit standards or criteria, identify areas for improvement, make changes to practice and re-audit to ensure that improvement has been achieved. The findings of the clinical audit provide evidence of the quality of practice and care.”

Source: <https://digital.nhs.uk/data-and-information/looking-after-information/data-security-and-information-governance/codes-of-practice-for-handling-information-in-health-and-care/a-guide-to-confidentiality-in-health-and-social-care/hscic-guide-to-confidentiality-references/glossary#g>

See also: [HQIP’s “Clinical Audit: A Manual for Lay Members of the Clinical Audit Team” by Margaret Hughes BSc \(Hons\)\(2012\)](#)

Business case – “A proposal for a strategy or course of action. It can be considered a pitch that gives stakeholders the information they need to make a decision to invest in a project.” Usually involves a bid for funding and/or additional staffing.

Source: <https://simplicable.com/new/business-case>

Citation Index – A database, such as Web of Science, that allows you to perform citation searches to see what research a paper has cited, and what research it has subsequently been cited by.

Clinical Decision Support (CDS) tool – App and/or website designed for referral by clinicians at the point-of-care. Organised encyclopaedically, it contains high-tier evidence that summarises the best available evidence on conditions/interventions. Examples are BMJ Best Practice (freely available to all NHS staff); DynaMed (££), UpToDate (££), and Visual Dx (££).

Clinical trial registers/clinical trials registry – These databases contain records of clinical trials that are in-progress, the results of which may not be published for a long time - <http://www.clinicaltrials.gov> is an example.

Commissioning – “The continual process of planning, agreeing and monitoring services. Commissioning is not one action but many, ranging from the health-needs assessment for a population, through the clinically based design of patient pathways, to service specification and contract negotiation or procurement, with continuous quality assessment”.

Source: <https://www.england.nhs.uk/commissioning/what-is-commissioning/>

Evidence search tracking system – an online or local platform that a library service uses to log evidence search requests from users, build evidence search reports, and store complete evidence search reports for future reference. KnowledgeShare and CISS are two examples.

Filter – “Search filters or hedges are search strategies that include a series of pre-elaborated free text terms/text words/phrases and subject headings for a given concept, idea, or study design.”

Source: <https://guides.library.ucla.edu/c.php?g=224129&p=8171251>

Grey literature – “Literature that is not formally published or that has a limited distribution, such as institutional reports. Grey literature may not be easily identified through standard bibliographic retrieval

systems.” Looking beyond bibliographic databases for grey literature is important when searching for evidence around health inequalities, owing to the under-representation of some populations in the literature.

Source: <https://www.nice.org.uk/process/pmg20/chapter/glossary>

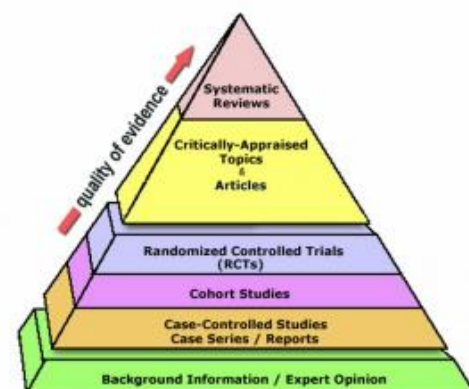
Health inequalities – “Avoidable, unfair and systematic differences in health between different groups of people... In England, health inequalities are often analysed and addressed by policy across four types of factors: socio-economic factors, for example, income; geography, for example, region or whether urban or rural; specific characteristics including those protected in law, such as sex, ethnicity or disability; socially excluded groups, for example, people experiencing homelessness. People experience different combinations of these factors, which has implications for the health inequalities that they are likely to experience...”

Source: <https://www.kingsfund.org.uk/publications/what-are-health-inequalities>

High tier evidence – Evidence such as national/international guidance, systematic reviews and meta-analyses from the top tiers of the “pyramid of evidence” (see right) that collates and reports on the findings of primary research. See also

<https://ebm.bmj.com/content/21/4/125>. This also covers sources that index and appraise this evidence, like the Cochrane Library, the Campbell Collaboration website, and the Joanna Briggs Institute’s website.

["File:Evidence-based Medicine (EBM).png" by [Tingjoh](#) is licensed under [CC BY-SA 4.0](#)]



Lower tier evidence / primary research – Individual studies of various methodologies from the bottom tier(s) of the “pyramid of evidence”, that investigate a specific healthcare question. See above.

PICO – A model or framework for structuring a research question or search strategy. P = Population/Patient, I = Intervention, C = Comparison/Control, O = Outcome. Other models can be used and may be more useful for specific types of questions (see [“PICO” section of “Searching to Support Systematic Reviews”](#)).

Preprint server / pre-publication database – Platforms such as [medRxiv](#) that provide free access to the full text of manuscripts (author drafts) of research that have been submitted for publication in a journal. These typically contain the papers before they are peer-reviewed, and may differ significantly from the final published version, so advise a requester of this if you include them in your results.

Quality Improvement (QI) - “The use of methods and tools to continuously improve quality of care and outcomes for patients”. A huge recent trend in NHS organisations.

Source: <https://www.kingsfund.org.uk/publications/making-case-quality-improvement>

Scoping search – An initial quick search to get an idea of what is available on your search topic. Typically very specific, not comprehensive, a first step in a more exhaustive systematic search for evidence.

Search strategy / search history - “Series of command expressions intended to satisfy a request for information. A search strategy may include a variety of database selection commands, term identification commands and search and display commands.”

Source: International Standards Organization Information and Documentation, commands for Interactive text searching; ISO 8777:1993, 3.22. Available from <https://www.iso.org/obp/ui/>, quoted in <https://standardsworkinggroup.blogspot.com/2017/09/glossary-additions.html>

Subject heading – “The most specific word or phrase that describes the subject, or one of the subjects, of a work, selected from a list of preferred terms (controlled vocabulary) and assigned as an added entry in the bibliographic record to serve as an access point [in a database or library catalogue]. A subject heading may be subdivided by the addition of subheadings...”

Floating subject headings can also be searched, and these retrieve anything that uses that subheading, irrespective of which subject heading it is assigned to.

Source: Reitz JM; Online Dictionary for Library and Information Science (ODLIS). Santa Barbara, CA: ABC-CLIO, LLC; 2017. Available from: http://www.abc-clio.com/ODLIS/odlis_a.aspx, quoted in <https://standardsworkinggroup.blogspot.com/2017/09/glossary-additions.html>

Summarising – Briefly outlining the contents and important points of a document/report etc.

Synthesising – Combining the conclusions or findings of several sources into a single report, contextualising them. Source: <https://standardsworkinggroup.blogspot.com/2017/09/glossary-additions.html>

Further Glossaries:

“Developing NICE guidelines: the manual” Glossary:

<https://www.nice.org.uk/process/pmg20/chapter/glossary>

The Canadian Search Standards Working Group’s (CSSWG) Glossary:

<http://standardsworkinggroup.blogspot.com/2017/09/glossary-additions.html>

NHS Digital’s Glossary:

<https://digital.nhs.uk/data-and-information/looking-after-information/data-security-and-information-governance/codes-of-practice-for-handling-information-in-health-and-care/a-guide-to-confidentiality-in-health-and-social-care/hscic-guide-to-confidentiality-references/glossary>

For All Evidence Searches

Please go through this entry before categorising your search by its purpose and referring to the relevant entry.

Where there is a discrepancy between the advice given in this general section and the specific entry's advice, please follow the specific entry.

These instructions represent best practice, but time pressures and competing priorities may prevent you from following every step to-the-letter, and your search topic may not require you to search every resource outlined in specific entries.

Planning

- However you receive the request for a search - in-person, over the phone or via email – check you have enough information before you begin:
 - Do you understand the question enough, or what is being sought?
 - Are the parameters and limits of the search clear? Do you have a date-range or specific patient population to search within? Does your requester want human and animal results? Does your requester want results from all languages, or just English? Would your requester like to see conference abstracts amongst the results, or not? What does your requester NOT want?
 - What is your requester's deadline?
 - Elicit key terms and synonyms from the requester. Can they give you 1 or 2 clear sentences that describe what they are looking for, or even a [PICO](#) breakdown?
 - Establish if there are any key papers your requester already knows about, to guide and inform your search. If your requester provides useful papers they have already found, have a look at the way they are indexed and check what synonyms etc. they use that you could introduce to your search strategy. Such papers may also serve as a test set against which to check the strategy, and may also be used in a prospective [citation search](#) in Google Scholar or similar.
 - Does your requester have an idea of how many results they would expect you to find? How many would they like to receive?
- Do you know what format(s) the requester would like to receive results in? Some library services will use local report templates to present results, or will provide search reports using an [evidence search tracking system](#) like [KnowledgeShare](#) or [CISS](#), in which case some of these questions may be superfluous.
 - Would they like a list of titles/abstracts with hyperlinks to the full text in an email?
 - Would they prefer results as a report in a Word document (that they can then edit)?
 - As a pdf (that they will not be able to edit)?
 - In .ris file format so that results can be loaded into reference management software?
 - They may want their results in several formats.

- If you think you will need further clarification on any aspect, contact the requester before you start. It can be good to establish a dialogue.
- Record within your local evidence search tracking system (KnowledgeShare, or CISS, or whatever method you use), that YOU are undertaking the search.
- Check your evidence search tracking system or your local repository of evidence searches, to see if there has been an identical or similar search for your topic previously. If an identical search was conducted recently, can you send the results straight to the requester, or rerun the search? If a similar search was conducted a while ago, can you utilise the strategy for your current task?
- Try to identify the sources you will use before you start searching; agree these with the requester if you can.

Execution

- Do not be afraid to contact the requester with any queries that may arise when you are searching.
- Be sure to keep a record of the search strategies you use. Record any assumptions you have made about the search topic also.
- Whatever kind of search you are undertaking, broadly following the steps of validated guidance like the [PRISMA Statement](#), [PRESS checklist](#) or the [Cochrane Handbook](#) can help ensure you are searching thoroughly. Even though these examples are intended for full-blown systematic review searches, they can still provide useful guidance for more casual searches.
- If you are unfamiliar with the topic, a broad background search using sources such as Google and Wikipedia to familiarise yourself with it may be a good grounding, though you will of course need to be mindful of the quality and provenance of the information you see, (check references in Wikipedia entries, for instance).
- Try a quick [scoping search](#) to get a sense of what is out there, to help find keywords and potentially useful evidence:
 - This could be a quick Google search perhaps entering your requester's question or topic almost verbatim (copying and pasting it word-for-word)
 - or quickly entering a few key terms into the Trip Database or Pubmed.
 - If you are searching using one of the [provider interfaces](#), try searching all databases simultaneously without specifying any field to search. Alternatively, try searching all available databases simultaneously by title field only, entering your key search terms – this should retrieve only relevant articles that will be indexed with useful terms you can use in your search strategy, as well as variant terms, synonyms etc.
- Take a top-down approach to searching the evidence, unless advised otherwise within this document, looking for secondary/high tier evidence (like reviews in The Cochrane Library or entries in BMJ Best

Practice/ UpToDate/DynaMed/Visual Dx) before seeking primary research (in Medline and other bibliographic databases via the provider interfaces). If you can find recent high tier evidence this may preclude searching for primary research yourself – though in most cases you will need to continue searching to retrieve the most current research. See [“high tier evidence sources” in the Glossary](#) and [“Appendix 1: Resources... High tier evidence sources”](#) for more information.

- Formulate a search strategy, using [PICO](#) or another framework if appropriate, to identify the key concepts in the search:
 - Find natural language terms for each key concept, including rough/exact synonyms. Consider...
 - variant terms: what we commonly call *cancer* could also be known as *carcinoma*, *tumour/tumor*, *neoplasm* etc.
 - differences in US and UK English terminology and spellings, i.e. *physiotherapy* (UK) vs *“physical therapy”* (US); or *hemorrhage* (US) vs *haemorrhage* (UK).
 - using wildcard truncation to retrieve results where different permutations of a word’s root are used, i.e. *cancer** retrieves results featuring the terms *cancers*, *cancerous*, etc.
 - adjacency operators: these vary depending on the interface, but allow you to specify if you want to retrieve results where terms appear NEXT to each other or NEAR to each other. In the Cochrane Library, for instance, searching for *air NEXT pollution* retrieves any results where those 2 words appear next to each other, while *air NEAR/3 pollution* retrieves results where those two words appear within 3 words of each other (in any order)
 - phrase-searching: some interfaces perform phrase searching automatically, but most require you enter terms in inverted commas/speech marks to retrieve only the results where your terms appear in the exact order you have specified. Searching the Cochrane library for *“testicular cancer”* will only return results where that exact two-word phrase is used, while searching for those terms without the inverted commas retrieves any and all results where those two words appear, but not necessarily together.
 - For each key concept, find relevant [subject headings](#) (including floating subheadings) using your scoping search findings and the “map to thesaurus” function in database interfaces. How you do this will vary slightly depending on the interface you are using, so check the local help available within the interface.
 - Check the “scope notes” by subject headings where available, to ensure that the term means what you think it means. These explanations may provide you with more synonyms to introduce to your search strategy too.
 - Explode subject heading searches wherever possible, to include potentially relevant articles indexed with narrower subject headings.
 - Include all subheadings within your subject heading searches unless your topic clearly indicates using specific ones.

- Use Boolean operators (AND/OR) in your strategy:
 - Use OR operator to combine synonymous searches to ensure the sensitivity of your search, increase your yield and ensure you are not missing any relevant results.
 - Use the AND operator to combine the separate concepts in your search, to decrease your yield, increase the specificity of your search and ensure you are returning only results relevant to you.
- Adopt a sensitive/broad/inclusive approach to the search, at least initially; you do not want to miss anything important. You can adjust the specificity/sensitivity as you go. Be wary of using the “major” focus when using subject headings as this may exclude relevant results. Try and avoid using the NOT operator as this may exclude potentially relevant results from your search's yield.
- Screen results for relevance, “sense checking” as you go to see if what you are retrieving is in the right area. Iterate your search strategy if necessary.
- Adapt your strategy for other databases and sources. Note that subject headings used in a database will be specific to that database. Keywords and natural language search elements can be copied and pasted, but subject headings should be searched for afresh.
- Add limits to your search as agreed with the requester – but consider if limits by date, language, document type and other parameters etc. are justifiable.
- Try a prospective [citation search](#) of key articles that you have found or that your requester has provided by searching for them by title in a citation index like Web of Knowledge, if you have access. You can also search for them by title in PubMed and Google Scholar, checking their “cited by” or “citations” entries, though none of these is 100% comprehensive.
- Citation searching can help you uncover papers that you may otherwise have missed. It is also a test of the rigour of your search: if your search strategy is robust you should retrieve all the papers that the key articles have been cited by. If you have not, consider why not and go back to the drawing board if required.

Most searches will require, or are improved with, an **advanced Google search**, which can retrieve guidance and policies from NHS Trusts and Integrated Care Boards (ICBs, formerly Clinical Commissioning Groups, CCGs) and other sources, as well as grey literature. Looking beyond bibliographic databases for grey literature is especially important when searching for evidence around health inequalities, owing to under-representation of some groups in the literature.

- It can be difficult to judge the quality of Google results, so an advanced Google search using limits will allow you to search within trusted organisations only:
 - To find content from NHS Trusts and related websites, specify the website(s) that you want Google to look within using the “site” limit. For example, typing `site:.nhs.uk “health literacy”` into Google’s search bar will retrieve just results where the phrase “health literacy” is used within NHS Trusts’ and NHS-related websites, whose URLs end with “.nhs.uk”. You could also try searching with

site:.org.uk for charities and non-profit organisations in the UK.

- Another way to find content including guidance from NHS Trusts, ICB's or Integrated Care Systems (ICSs) and other organisations is using the "inurl" limit. For example, typing *inurl:icb "health inequalities"* into Google's search bar will retrieve only results where the phrase "health inequalities" is used within websites that feature "ICB" in their URLs (so ICBs' websites, amongst other things).
- Requesters and their diverse patients may benefit from guidance and policies produced in other countries that touch upon ethnic and cultural topics unique to those groups. Both the "site" and "inurl" limits let you specify which country you want to retrieve results from, by including that country's domain suffix in a URL. For example, typing *site:.gov.pk* or *inurl:.gov.pk* with your search terms into Google's search bar will retrieve only results from Pakistan's (pk) government website. For a list of different national URL suffixes please see https://en.wikipedia.org/wiki/Country_code_top-level_domain
- To find documents from or about the NHS, you could try using the "intitle" limit. Typing *intitle:NHS "health literacy"* into Google's search bar will retrieve only results with "NHS" in their title that also contain the phrase "health literacy", for example.
- Typing *doctype:doc* or *doctype:pdf* into Google's search bar along with your search terms will limit your results to only Word documents or PDF documents respectively.
- Use these limits in combination to home in your topic. Typing *site:.gov.uk intitle:NHS "health literacy"* into Google's search bar will retrieve government policies or other governmental documents with "NHS" in their titles and that also include the phrase "health literacy".

For more help with formulating search strategies and using searching techniques, please see:

- ["Appendix 1: Resources – General Help"](#).
- ["Appendix 3: Troubleshooting / FAQs / Tips and Tricks"](#).
- Thames Valley, Wessex and South West healthcare librarians' guidance *The Literature Search Process: Guidance for NHS Researchers. Version 7.0 January 2019:* https://library.medschl.cam.ac.uk/files/2019/02/Guide-NHS-Lit_search_protocols_protocols_2019.pdf
- E-Learning for Healthcare's *How to Search the Literature Effectively*: <https://www.e-lfh.org.uk/programmes/literature-searching/>

If you are struggling to create a search strategy or have other searching related queries you can always send an email to one of the mailing lists, where colleagues will be able to help: see ["Appendix 3... mailing list enquiries"](#).

Results

- If you are uncertain whether your search is along the right lines or not, send the search strategy and a sample of the results to your requester and ask them if they have any suggestions/comments. To prompt a quick response you can state that you will do no more on the search until you hear back.
- Collate your results. For help collating your results in provider interfaces, and exporting them to reference management software for deduplication, please see [“Appendix 2 - Reference management software”](#).
- Deduplicate your results. For guidance on deduplicating results in the specific reference management software you are using, see [“Appendix 2 - Reference management software”](#).
- Evaluate your results: Screen them by title/abstract and delete any obviously irrelevant ones. Err on the side of caution and if you are unsure of the relevance of a result, do not delete.
- Present your search results to the requester in the agreed format(s) and within the agreed deadline. Do not be afraid to negotiate an extension if one is required.
- Use, or create, templates for your reports and communications with the requester, to save yourself time and ensure consistency. KnowledgeShare does this automatically.
- **Use your service’s branding and signpost other library services wherever possible in all your communications with the requester.**
- If you are producing a report and not just sending a file of deduplicated results to your requester, compile your results with abstracts and full text links wherever possible (instructing the requester how to access the full text via NHS OpenAthens). Consider categorising the results, you could group review articles together before primary research, for instance. KnowledgeShare reports automatically produce a table of contents (titles only list) at the start of the document, include full text links, and allow you to categorise and reorder results. Alternatively, if you are using Refworks, the “HEE’s KLS Evidence Search” institutional output style mimics the presentation of HDAS reports, minus their table of contents, see [“Appendix 2 - Reference management software... Refworks”](#).
- If time allows, can you create a summary and/or synthesis of findings and present this at the front of your report? Check with your requester if this is required and note this is NOT appropriate for systematic review searches. Aim to identify key results (or passages within results) you have retrieved, highlight review articles or guidelines, and/or point out historically significant papers. Can you provide an evidence level to each result, if possible? Consider sending the full text of key results, if you can do this within copyright restrictions.
 - In your report, arrange the results according to your requester’s stated preference. Where none is stated, consider presenting synopses from [Clinical Decision Support tools](#) or other sources and international/national guidelines after your summary/synthesis, followed by other high tier evidence, with lower-tier/primary research evidence following, arranged in reverse-date order (a typical KnowledgeShare report format). If there is recent locally produced primary research on your topic available, however, consider presenting this first and foremost as it may be more valuable to your requester than older high tier evidence from elsewhere. Alternatively, arrange results by

themes/categories based on the results of your search – consider what would be most helpful to your requester.

- Describe your searching methodology in your report, or along with your results, and include your search strategies in full. Report any assumptions you have made when interpreting the research question and compiling the results.
- Include a disclaimer with your results. KnowledgeShare automatically includes the following in its reports:

“We hope that you find the evidence search service useful. Whilst care has been taken in the selection of the materials included in this evidence search, the Library and Knowledge Service is not responsible for the content or the accuracy of the enclosed research information. Accordingly, whilst every endeavour has been undertaken to execute a comprehensive search of the evidence, the Library and Knowledge Service is not and will not be held responsible or liable for any omissions to pertinent research information not included as part of the results of the enclosed evidence search. Requesters are welcome to discuss the evidence search findings with the librarian responsible for executing the search. We welcome suggestions on additional search strategies / use of other information resources for further exploration. You must not use the results of this search for commercial purposes. Any usage or reproduction of the search output should acknowledge the Library and Knowledge Service that produced it.”

- Include a copyright/acknowledgement notice. KnowledgeShare automatically includes the following in its reports:

“Please acknowledge this work in any resulting paper or presentation as: Evidence search: “[evidence search title]”. [Your name]. [Date of search]. [Your city, your country]: [Your library’s name].”

- Record on KnowledgeShare, or CISS, or whatever local evidence search tracking system you use, that you have completed the search.
- Add the report you produced, or the results you sent to the user, to your local system, so other users can retrieve them if needed.
- **Systematically request, and record, feedback or evaluation from the requester, especially on the impact your search report has.**

Evidence Searching for Audit

Suggested time to allocate to this search: 4 - 7 hours.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- Establish what service is being audited from your requester; are there specific setting(s) and population(s), any (non-arbitrary) date range to search within, any geographic or language limits etc.? Would they like to know what other NHS and non-NHS organisations are doing?

Execution

- Search for specific audits and audit tools from Healthcare Quality Improvement Partnership’s (HQIP) A-Z of Clinical Audits.
- Search high tier evidence sources: the Cochrane Library, the Trip Database, Royal Colleges and other professional bodies (via a Google search). Keep an eye out for standards and guidance from these sources but do not limit your search to JUST these things.
- Search Clinical Decision Support tools (BMJ Best Practice/DynaMed/UpToDate/Visual Dx) for entries on the requester’s topic, if accessible.
- Consider searching for information on conducting audits more generally if you feel that the requester might appreciate this “added value content”.
- Perform a thorough search of all appropriate bibliographic databases, and consider a search of preprint servers for the very latest research. EBSCOhost features “costs” and “economics” limits that can be applied to Medline and CINAHL searches if cost-effectiveness is being considered by your requester. There are also a range of search filters available from the Economic Evaluations section of The InterTASC Information Specialists' Sub-Group Search Filter Resource (ISSG) or the McMaster University Health Information Resource Unit (HIRU) filters for cost or economics. The different filters mention what they are specific to, e.g., costs, economic evaluations or economic models. It is worth having a look to see which search filter would be most suitable for your search or you may want to adapt a search filter by removing or adding terms.
- To retrieve reports on other Trusts’ advances/activities, perform an advanced Google search for the topic with “NHS” in your terms, and/or your country specified as UK, and/or limiting the search to sites ending with “...nhs.uk” URLs using the limits site:nhs.uk or inurl:nhs, and doctype:doc or doctype:pdf limits to pick up policy documents and guidelines from around the country. See the [Google section within “For All Evidence Searches”](#) for more information. Search within the NHS England website too – it includes NHS Improvement’s content since their merger. Consider also searching NHS Digital, UK Data Service, GOV.UK and the Office for National Statistics (ONS), as well as local sources.

Results

- Present the deduplicated results according to your requester's stated preference, or where none is stated, in an easy-to-digest and easy-to-share report, with a summary/synopsis first of all (if possible), high tier evidence after that, then lower-tier/primary research evidence arranged in reverse-chronological order afterwards (a typical KnowledgeShare report format). Alternatively, arrange results by themes/categories – consider what would be most helpful to the requester.

Suggested Resources

- [High tier evidence sources](#): the Cochrane Library, the University of York's Centre for Reviews and Dissemination (CRD – note that the DARE, NHSEED and HTA databases are no longer updated), the Trip Database, the Campbell Collaboration, Royal Colleges and other professional bodies.
- [Clinical Decision Support tools](#): BMJ Best Practice, DynaMed (££), UpToDate (££), Visual Dx (££).
- [Bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed, HBE (££).
- [Preprint servers](#): Europe PMC, bioRxiv, medRxiv, SSRN.
- Healthcare Quality Improvement Partnership (HQIP).
- NHS England (Includes the contents of NHS Improvement since their merger).
- [Sources for data and statistics](#): NHS Digital, UK Data Service, GOV.UK, ONS, local sources.
- Google.

Evidence Searching for a Business Case

Suggested time to allocate to this search: 4-8 hours.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- Confirm the aims of the business case with the requester and ask if they know of any existing information that can set precedent. Have any similar business cases been made elsewhere? Is this connected with any government initiative or guidance?
- Get a clear understanding of the topic from the requester and know exactly what they want the business case to focus on. For instance, examples of cost saving, number needed to treat, time saved, etc.
- Ask the requester to give you more information on the background of the search, e.g. what are the current practices in place? Evidence for these practices could be compared and contrasted.
- Familiarise yourself with any standards your organisation may have for presenting business cases, e.g. is there a specific template to follow or information that must be included? Can you make your evidence search report fit-in with these?
- Consider the date of the information you find so that it is applicable to the current NHS.

Execution

- Choose the resources that will give the best returns for your search, e.g.:
 - For general guidance and commentary, check NHS England, NHS Providers, The Health Foundation, NICE Guidance, The King’s Fund, The Nuffield Trust.
 - For standards and statistics, try NHS Digital, GOV.UK, Getting It Right First Time (GIRFT), FutureNHS.
 - For case studies, look at NHS England, NHS Providers, The Health Foundation, The Academy of Fabulous NHS Stuff.
 - For innovation, try the Academic Health Science Networks (AHSN), The Academy of Fabulous NHS Stuff, Digital Health.
 - For specific technologies, search the product or manufacturer website, NICE Technology Appraisal Guidance, the AHSN, FutureNHS, Digital Health.
- For clinical rigour, you may need to focus on the highest levels of evidence, e.g. the Cochrane Library, National Institute for Health Research’s (NIHR) Health Technology Assessments (HTAs), International HTA database (INAHTA).
- Search healthcare management and business databases, depending on availability: Health Management Information Consortium (HMIC) is available for free via NHS OpenAthens from Ovid; Health Business Elite (HBE) and Business Source Corporate are available from EBSCOhost with a paid subscription.

- Search subject appropriate bibliographic databases (Medline, Embase, CINAHL, PsycINFO, Emcare, BNI etc.) and preprint servers (Europe PMC etc.). If cost-effectiveness is important, you can refine your search. Try using the search limits “costs” and “economics”, which are available on the EBSCOhost platform for Medline and CINAHL. There are also a range of search filters available from the Economic Evaluations section of The InterTASC Information Specialists' Sub-Group Search Filter Resource (ISSG) or the McMaster University Health Information Resource Unit (HIRU) filters for cost or economics. The different filters mention what they are specific to, e.g., costs, economic evaluations or economic models. It is worth having a look to see which search filter would be most suitable for your search or you may want to adapt a search filter by removing or adding terms.
- You may want to search through other NHS organisation policies and publications via an advanced Google search: include “NHS” in your terms, and/or specify your country as UK, and/or limit the search to sites ending with “...nhs.uk” URLs using the limits site:nhs.uk or inurl:nhs, and doctype:doc or doctype:pdf limits to pick up policy documents and guidelines from around the country. See the [advanced Google section within “For All Evidence Searches”](#) for more information. A mailing list enquiry may also elicit documents from librarians at Trusts across the UK. See [“Appendix 3... Mailing list enquiries”](#) for more information on this.
- Search using Google or other search engines for key terms or a product or manufacturer name, or include terms such as “service models”, “service standards”, “service specifications”, “business case” or “case study”.

Results

- In your report, group your results into categories and highlight the most useful ones to make it more user-friendly.
- If time allows, synthesise results into an executive summary for the head of your report that highlights the key points and any recommendations. Reference the information from within your report that you have used for this.

Suggested Resources

- [Health business and technology sources](#): NHS England, NHS Digital, FutureNHS, GIRFT, NHS Employers, NHS Providers, The Health Foundation, The King's Fund, The Nuffield Trust, The Academy of Fabulous NHS Stuff, Digital Health, The NIHR (including their HTA website), etc.
- [High tier evidence sources](#): the Cochrane Library, the University of York's Centre for Reviews and Dissemination (CRD – note that the DARE, NHSEED and HTA databases are no longer updated), INAHTA, NICE Guidance, The Trip Database, and The Campbell Collaboration.
- Healthcare management and business databases: HMIC is freely available via NHS OpenAthens from Ovid; HBE and Business Source Corporate are available from EBSCOhost with a paid subscription.
- [Bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, Medline, PsycINFO, and PubMed.
- [Search filters](#): The InterTASC ISSG Search Filter Resource or McMaster University HIRU.
- [Preprint servers](#): Europe PMC, bioRxiv, medRxiv, SSRN.
- Google (to unearth NHS Trust/government sites where similar business cases have been made and recorded in reports/minutes etc.).
- Manufacturer or product websites.

Evidence Searching for Care of a Specific Patient

Suggested time to allocate to this search: 1.5 – 5 hours.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- **These searches should be prioritised.**
- **If you receive the request during a clinical meeting where an immediate answer is required**, you will not be able to plan your search. Check Clinical Decision Support tools: BMJ Best Practice (now freely available to all NHS staff), DynaMed, UpToDate, or Visual DX, depending on your organisation’s provision, and NICE Guidance for on-the-spot answers.

If a specific/focused search of Clinical Decision Support Tools retrieves nothing, try searching within the text of broader entries or scanning a broader entry’s headings and sub-headings. In addition, search high-tier evidence sources such as the Cochrane Library (and specifically Cochrane Clinical Answers), the Trip Database, etc.

If you cannot find an answer to the question immediately then advise the requester, offer to continue the search after the meeting, and follow the steps in “Execution” below.

- **If you receive the request outside of a clinical meeting, what is your deadline?** If the search is to inform clinical decision-making, when does the decision need to be made and when is the search report required, by whom, and in what format? If the requester needs to make a clinical decision in the next hour, that is your deadline! In other contexts, it makes much more sense to negotiate your deadline with the requester based on when they are next seeing the patient: If they are next seeing them at an outpatient clinic in a month’s time, then a fortnight’s deadline should be fine, for example.
- Check with the requester how recent the evidence should be. Does the requester want high tier evidence only, or would they like case studies/case series? Would they like results from this country only? Do they want to know how other Trusts would treat this patient? This will necessitate an advanced Google search if so (see below, and the [advanced Google search section within “For All Evidence Searches”](#)) or an email to mailing lists where KLS colleagues at other Trusts may be able to help (see [“Appendix 3... mailing list enquiries”](#)).

Execution

- Try searching guidance sources such as NICE Guidance, NICE Clinical Knowledge Summaries (CKS), and the Trip Database. Search high-tier evidence sources such as Cochrane Clinical Answers and PubMed Clinical Queries, etc.
- Search bibliographic databases and preprint servers, limiting your search results to the specific age range etc. of the patient in question. For clinical questions, depending on the topic, a search of at least one of Medline, Embase, CINAHL, Emcare, BNI etc. is essential. Searching several of those is preferable.

- Limit your databases search to reviews, guidelines, meta-analyses etc. using limits/filters (unless your requester would like case reports etc.), at least initially. If your search retrieves nothing then relax these limits to include all kinds of results, and all kinds of patients if you are still retrieving nothing. Be aware that these limits exclude the most recent results that have not had indexing terms added yet and consider searching within the past year without those limits.
- If the requester wants to know how other Trusts would treat this patient, perform an advanced Google search for the condition/intervention limited to the UK: include “NHS” in your terms, and/or specify your country as UK, and/or limit the search to sites ending with “...nhs.uk” URLs using the limits site:nhs.uk or inurl:nhs, and doctype:doc or doctype:pdf limits to pick up policy documents and guidelines from around the country. See the [advanced Google section within “For All Evidence Searches”](#) for more information. Consider an email to mailing lists where KLS colleagues at other Trusts may be able to help: see [“Appendix 3... mailing list enquiries”](#).

Results

- Include links to relevant entries from Clinical Decision Support tools, copy and paste the most important parts that answer your requester’s question into your report, or send entire entries to the user (where copyright restrictions allow). Include instructions of how to access the full entries - to save the requester time, you can check if they have an NHS OpenAthens name/password, and create one for them if required, notifying them in your report.
- If you have found no high tier evidence then state so, as this may be an answer to your requester’s question itself.
- Be sure to emphasise in your report or communications with the requester that time limitations may preclude a comprehensive search, and so the results returned cannot be considered comprehensive.
- As proving your service’s clinical utility is very impactful, be extra sure to ask for-, and record, feedback from the requester on how your search helped.

Suggested Resources

- [Clinical Decision Support tools](#): BMJ Best Practice, DynaMed (££), UpToDate (££), Visual DX (££).
- [High tier evidence sources](#): NICE Guidance, Clinical Knowledge Summaries (CKS), the Trip Database, the Cochrane Library including Cochrane Clinical Answers, the University of York’s Centre for Reviews and Dissemination (including CRDWeb - but note that the DARE, NHSEED and HTA databases are no longer updated), PubMed Clinical Queries, and the Campbell Collaboration.
- [Bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed.
- Google.

Evidence Searching for Commissioning

Suggested time to allocate to this search: 4-8 hours.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- Establish the precise purpose of the search: is your requester commissioning a new service? Are they decommissioning an old one? Or redesigning an existing one? If changes to a service are being made, or a new service is being commissioned, what are they being based on? Is it related to a government initiative? Is the aim to copy best practice from elsewhere (‘do once and share’)?
- Establish how sensitive information regarding this search is. For example, if it is about decommissioning, the requester may not wish for the information to be shared or discussed publicly.

Execution

- Generally, focus on resources that have economic evaluations or healthcare economics or social return-on-investment (ROI) figures in them, or that report on system-wide impacts.
- For economic evaluations, search the National Institute for Health Research’s (NIHR’s) Health Technology Assessment (HTA) site, NICE’s technology appraisal guidance, the International HTA database (INAHTA), and The University of York’s Centre for Reviews and Dissemination (CRD – note that the DARE, NHSEED and HTA databases are no longer updated).
- For social policy related queries, search the Social Care Institute for Excellence’s (SCIE’s) Social Care Online for social care queries, Social Policy & Practice (now available via NHS OpenAthens from Ovid), and Applied Social Sciences Index and Abstracts (ASSIA) (££) if you have a local subscription.
- Search health business and technology sources and subject-specific sites appropriate to what is being commissioned: independent charities, governmental and non-governmental organisations (NGOs) and think tanks like The Health Foundation, The King’s Fund, Nuffield Trust, etc. They often produce or archive economic evaluations of complex interventions. See [“Appendix 1: Resources... Health Business and Technology”](#) and [“Evidence Searching for a Business Case”](#) for more on these.
- If these searches retrieve nothing, search appropriate bibliographic databases, limiting results to the last 5 years and/or preprint servers.
- Search Google or other search engines for key terms, or a product’s or manufacturer’s name, or include terms such as “service models”, “service standards” or “service specifications”. This can unearth NHS Trust/government sites reporting where similar services have been de/commissioned. You may want to search through other NHS organisation policies and publications via an advanced Google search: include “NHS” in your terms, and/or specify your country as UK, and/or limit the search to sites ending with “...nhs.uk” URLs using the limits site:nhs.uk or inurl:nhs. See the [advanced Google section within “For All Evidence Searches”](#) for more information.

A mailing list enquiry may elicit documents from librarians at Trusts across the UK: See [“Appendix 3... mailing list enquiries”](#) for more information.

Results

- Make sure the full text of the results you return are open access, as far as possible, as the requester will likely be sharing the results with a multi-disciplinary (even multi-organisational) team.
- For each of your results, provide a top-line summary of what the service cost, what it improved, and what money it saved/brought-in.

Suggested Resources

- [High tier evidence sources](#): The University of York’s Centre for Reviews and Dissemination (CRD – note that the DARE, NHSEED and HTA databases are no longer updated), International HTA Database, National Institute for Health Research’s (NIHR’s) HTA, NICE, the Trip Database, the Cochrane Library and for social care queries search the Campbell Collaboration, SCIE’s Social Care Online, Applied Social Sciences Index and Abstracts (ASSIA) (££).
- [Health business and technology sources](#): subject-specific independent charities, NGOs, etc.: The Health Foundation, The King’s Fund, Nuffield Trust, NHS Digital, NHS Employers, etc.
- [Bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed, etc.
- [Preprint servers](#): Europe PMC, bioRxiv, medRxiv, SSRN.
- Google, for Manufacturers’ and products’ websites, and other NHS Trusts’ reports.

Evidence Searching for Coursework/Study

Suggested time to allocate to this search: Do not spend more than half an hour responding to a request that will be going solely towards coursework if you are not going to do a training session with the requester.

See the [Supplement](#) for examples of this type of search.

Planning

- Respond to the requester promptly if you are not going to perform the search on their behalf, so that they are not waiting and relying on you to do their coursework for them while their deadline approaches!
- If the requester is looking for a handful of recent peer reviewed papers on a topic for an assignment, direct them to the NHS Knowledge and Library Hub (KLHub) or your local discovery tool if you have one, with instructions, or offer to go through this with them (coaching them, discretely training them). If the requester cannot/will not go through the process in person, and cannot/will not be signposted, and if time allows, consider sending them the results of a very quick cursory search (see “execution” below) and offer them further training.
- **DO NOT perform a database search that is going solely towards coursework/study (like a dissertation) if the evidence search is part of the requester’s learning objectives or will be assessed as their work.** Ask questions to ascertain if this is the case. Explain your policy to the requester, as not every student is aware that they cannot ask you to do uncredited coursework searches. If their search is going solely towards coursework you can refer them to their university library services, or if time allows, offer training to the requester, suggesting that in a training session you can coach them through their search while they learn the principles of searching, and will come away with useful results.
- If the requester stresses that the search results will also be used in their day-to-day clinical work to improve service etc. and so it is permissible for you to do this search for them, again offer them a training session where you can coach them through their search as they learn the principles of searching, so they can continue on their own if needed. Instruct the requester to declare that they have had assistance if you do this – using your help without acknowledgement is plagiarism.
 - An exception to this rule are searches that are contributing towards a PhD as well as day-to-day clinical work etc.: If you are asked to help be sure to emphasise that supervisors should be aware of your involvement, and included in correspondence where possible to ensure transparency and the rigour of the search. Allow more time for such searches.

Execution

- Go through a training session with the requester, getting them hands-on with the relevant database(s) and coaching them through the process, ensuring they come away with enough results to use for their coursework/study, plus the confidence and skills to find more on their own.

- If the requester has asked for a handful of recent articles for an assignment and you are NOT going to train them, do not spend very long on this: signpost them to the appropriate resources (the KLHub etc.) with instructions on how to use them.
- If time allows and you perform a very quick cursory search of one of these sources for them, send the results to the requester along with your offer of training. Depending on their topic (and which of the resources below your service is currently promoting or which you happen to have open when you receive the request) do one of the following:
 - Quickly search the KLHub (or your local library discovery tool) with the date range set to the last few years and the “full text” filter turned on, and send a link to that results page to the requester OR
 - Quickly search a secondary source like the Trip Database, if appropriate to the subject and send a link to the results page for the requester, or copy/paste a few select recent relevant results into an email OR
 - Quickly search a Clinical Decision Support tool (BMJ Best Practice/DynaMed/UpToDate/Visual Dx) if accessible and appropriate to the subject, and copy links to suitable entries/topics for the requester OR
 - Quickly search the library catalogue for books and ebooks on the subject and copy links for the requester OR
 - Perform a scoping search for the requester, searching by title within an appropriate bibliographic database (such as Pubmed) and copying a link to results page or quickly exporting results.

Results

- If you train the requester, offer to look over their search strategy if they work on it after your session together – to provide some support and ideas to improve it (without doing it all for them).
- If, rather than train or signpost the user, you do a very quick search for them, supply them with freely available full text access results, if possible. Explain that these are not comprehensive, but that they can discover more at a training session...

Suggested Resources

- [The KLHub](#) or local discovery tool.
- [High tier evidence sources](#): the Campbell Collaboration, the Cochrane Library, the Trip Database, etc.
- [Clinical Decision Support tools](#): BMJ Best Practice, DynaMed (££), UpToDate (££), Visual DX (££).
- Library catalogue.
- [Bibliographic databases](#): PubMed etc.

Evidence Searching for General Interest/Continuing Professional Development (CPD)

Suggested time to allocate to this search: 1 - 3 hours.

Please read [“For All Evidence Searches”](#) before proceeding.

See the [Supplement](#) for examples of this type of search.

Planning

- Do not prioritise this search or allow too much time to it, especially if “general interest” is stressed by the requester; this can go on the backburner until more important searches have been taken care of. Deadlines for “general interest” searches will typically be quite relaxed.
- Searches for CPD purposes may be going towards course assignments (see [“Evidence Searching for Coursework/Study”](#)) and so there may be a stricter deadline.
- If possible, offer training to a requester that has stressed CPD as the purpose for the search, as learning the skill of searching is further evidence of CPD itself.

Execution

- Searches for general interest in particular need not be completely comprehensive, and can be approached like a less intensive search for research/publication (see [“Evidence Searching to Support Research/Writing for Publication”](#)).
- A search of your library catalogue for general or introductory texts may be appropriate, especially if the topic is outside of your requester’s area of expertise or professional speciality.
- A search of the NHS Knowledge and Library Hub (KLHub) can retrieve “Research Starter” topics presented at the start of your results page. “Research Starters” can also be selected from the “Databases” limits tab.
- Clinical Decision Support tools are useful sources for overviews and can serve as a good entry point on a subject. Direct requesters towards these or share entries with them. For CPD searches, Clinical Decision Support tools can log the time that requesters spend looking through them, producing certificates and reflective learning forms as evidence of their learning – send your requester instructions for using these features (they will need personal accounts).
- High tier evidence sources like the Cochrane Library (especially their Special Collections and Cochrane Clinical Answers pages) and the Trip Database (using the secondary evidence filter) may also prove to be useful starting points or gateways for your requester.
- For CPD searches specifically, try actually including “CPD” and “continuing professional development” (and variations) amongst your search terms, and using CPD or broader educational subject headings within databases. Consider doing the following:

- Look within professional associations' or Royal Colleges' websites for materials. Many associations offer their members CPD resources that you will not be able to access, but you can point them towards.
- Search eLearning for Healthcare in case there are useful courses/modules on your requester's topic.
- Search Future Learn in case there are useful courses on your requester's topic.
- Google searches may return useful learning resources produced by and for fellow professionals. You could try limiting Google searches to a specific domain using the site search feature e.g. site:org.uk
- YouTube and other social media may contain useful video and other multimedia learning aids (Facebook groups, Twitter feeds or Twitter lists, etc.)
- Search for any local help that your Trust offers staff, especially if the topic is related to "soft skills" (management, leadership) via your intranet, or make enquires with your education and/or learning and development department directly.

Results

- Include instructions for using the CPD features of Clinical Decision Support tools, or instructions for accessing resources (specifying any that you cannot yourself access but the requester can).
- Include notice of any conferences or courses that you think could be of-interest that you spot when searching.
- For general interest searches, offer further help or a subsequent search once the requester has delved into the subject, if they decide to delve deeper.
- Offer your current awareness services to the requester, set up an alert based on your search strategy (or via Knowledgeshare).

Suggested Resources

- [High tier evidence sources](#): the Cochrane Library, the Trip Database, etc.
- [Clinical Decision Support tools](#): BMJ Best Practice, DynaMed (££), UpToDate (££), Visual DX (££).
- Library Catalogue.
- [The KLHub](#) or local Discovery tool.
- CPD sources: Professional associations, Royal Colleges, eLearning for Healthcare, FutureLearn etc.
- [Bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed, Social Policy and Practice.
- [Social Media](#): YouTube, Facebook, Twitter, etc.
- Trust Intranet.
- Google.

Evidence Searching for Patient Information: Creating Information Resources for Patients

Suggested time to allocate to this search: 3 - 5 hours - add an extra 4-5 hours to draft a leaflet or other materials.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- Ask the requester exactly what is needed: is it a description of a procedure/treatment? Who for? (e.g., children/carers?) Do they have any information already available (e.g., a first draft, a previous edition, existing information leaflet from elsewhere, a leaflet from a medicine packet)? How much detail is needed?
- Check if your Trust has guidelines for writing for patients, including an approval process for patient information.
- If the request is about providing information on medication, check with your Trust procedure on handling medicines information queries, if you have one, as some Trusts will direct these straight to Medicines Management (or they will carry out a search too).

Execution

- Are there similar leaflets produced by other Trusts? Look for other Trust websites that contain information about the given procedure/treatment/condition. An advanced Google search can retrieve these: include “NHS Trust” in your search terms and/or use geographic limits and/or limit to sites with “...nhs.uk” URLs using the limits site:nhs.uk or inurl:nhs. See the [Google section within “For All Evidence Searches”](#) for more information. A Bing search can bring useful videos to light. Bear in mind copyright/permissions restrictions if copying or adapting others’ work.
- Look at the NHS public website (www.nhs.uk), NICE Guidance (and in particular [NICE Guideline \[NG197\] “Shared decision making”](#) if the requester to communicate risks/benefits of treatment), and the UK Health Security Agency website.
- Search websites that provide patient information, e.g. Patient (formerly known as patient.info, and still at that same URL).
- Search Clinical Decision Support tools: BMJ Best Practice has a “Patient Leaflet” library, UpToDate has patient information tabs (“basics” and “beyond the basics”) that are pitched at the right level. ClinicalKey also features useful “patient education” sections.
- Look at charities related to specific conditions (like the British Heart Foundation) and voluntary sector organisations: they are a good source of reliable information but are sometimes slightly too detailed for a basic patient information leaflet.

- Consider the use of patient experience, e.g. The Patient Experience Library, Healthtalk.
- Are there any websites **from good quality, evidence-based sources** that you can add as a useful link for the patient? Any films they can watch? Are there any useful apps they could download to help manage their health condition? Think also about signposting the patient to relevant, verified, social media accounts.

Results

- Plan your first draft: if the leaflet is in a question/answer format (recommended), can you list the questions? This will help order the information that you need to include in a logical manner.
- Write the first draft of the leaflet. Use language very carefully, <http://www.plainenglish.co.uk/how-to-write-in-plain-english.html> has good tips about how to write in plain English. For the layout, leave plenty of white space, use bullet points, avoid repetition, logically order information. Do not forget to include risks and benefits.
 - A [Patient Information Forum \(PIF\) survey](#) revealed strong support for target reading age of 9-11 years old for health information. They provide [guidance](#) on how to use plain language to produce health literacy friendly information, as well as a [guide for translating health](#) information in order to provide practical support to non-English speakers' patients.
 - HEE's [Health literacy 'how to' guide](#) includes information on how to design and layout written information for patients.
 - The [NHS website](#) offers health information in other languages. [Sheffield Teaching Hospitals](#) have also compiled a list of patient leaflets in foreign languages arranged by alphabetical order.
 - [Easy Health](#) offers accessible health information with simple words, clear pictures and films.
- Test if your leaflet is easy to read using a tool such as the [Hemingway Editor](#).
- Send your draft to your requester. Add a list of resources that the information came from (if applicable).
- Be prepared for re-drafts and updates!

Suggested Resources

- Your Trust or organisation's intranet and website.
- Other Trusts' websites/documents, including Sheffield Teaching Hospitals NHS Foundation Trust's foreign language patient leaflets.
- The NHS public website www.nhs.uk
- FutureNHS for patient information communities of practice.
- NICE Guidance (including [NICE Guideline \[NG197\] "Shared decision making"](#)), UK Health Security Agency website.
- [Guidance for writing patient information](#): PIF, HEE's Health literacy webpages.
- [Patient information creators](#): Patient, EIDO Healthcare, Easy Health, etc.
- [Patient experience](#) and personal testimony: Patient Experience Library, Healthtalk, etc.
- Condition-specific charities, and voluntary sector organisations.
- [Royal Colleges, societies and academies](#): RCOG, RCPsych, etc.
- [Clinical Decision Support tools](#): BMJ Best Practice, DynaMed (££), UpToDate (££), Visual DX (££).
- ClinicalKey (££), using the "patient education" filter.
- [Bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed.
- [Social Media](#): YouTube, Twitter, Facebook, etc.
- Hewingway Editor App, to check that your copy is easy to read.

Evidence Searching for Patient Information: Question(s) from a Patient

Suggested time to allocate to this search: 3 - 6 hours.

Please read "[For All Evidence Searches](#)" before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- Ask the requester exactly what is needed and what level is needed (e.g., high end evidence or basic information). The requester may need to manage their patient's expectations. If it is appropriate for your role as a patient information specialist, and/or with their clinician's consent, speak to the patient to discuss what they would like.
- Make sure that the patient understands that you are not a medical professional: information that you give them is not medical advice. Questions and clarification must come from their clinician, your requester.
- Use a disclaimer. Sarah Mathieson (sarah.matheison5@nhs.net), Specialist Patient Outreach Librarian at Royal Papworth Hospital NHS Foundation Trust, uses the following:

"Disclaimer:

***Please note:** Royal Papworth Hospital's library staff are trained information professionals who conduct high quality, professional searches for health-related information. The information given to patients by library staff is based on these searches and intended for informational purposes only, and does not substitute professional medical advice or consultations with healthcare professionals.*

If patients have any questions relating to information provided by the Library and Knowledge Services, they should ask a healthcare professional.

Always seek the advice of your doctor when making any healthcare choice."

- Identify any specific needs the patient has: do they need EasyRead text? Would they prefer audio/film? Do they need it translated into a different language? Is the information for them, or for someone they are looking after?

Execution

- Gather basic information: what is available from your organisation already? Is there a patient leaflet/guideline that you can share? Has your organisation produced any films that are useful? Are there any external leaflets that your organisation has bought (e.g. the Royal College of Anaesthetists' or EIDO Healthcare's patient information materials) that you can share?
- Look for other basic information available on the internet via Google. For good general descriptions of a condition or procedure try www.nhs.uk, www.patient.info. Search NHS Trusts' websites with an advanced Google search: include "NHS Trust" in your search terms and/or use geographic limits and/or limit to sites with "...nhs.uk" URLs. A Bing search can bring useful videos to light.

- Look at reputable charity and voluntary organisations: these are excellent sources of well-written information, and often include first-hand experiences/advice/support for the patient community. This includes www.healthtalk.org.uk
- Look at Royal Colleges and academies – like the Royal College of Obstetricians and Gynaecologists (RCOG) or Royal College of Psychiatrists (RCPsych) - and professional societies etc. for their detailed, evidence-based patient information. They often include links to other sources of information and support too.
- Check Clinical Decision Support tools - for example, many of UpToDate’s entries contain “Basics” and “Beyond the Basics” patient information, and many BMJ Best Practice entries contain patient leaflets under the “Resources” tab. ClinicalKey (££) also contains “patient education” sections for sharing.
- Search bibliographic databases: do any of the results provide evidence or information that is pitched at the right level and is useful?
- Check via Google and local public library catalogues, if there are any recently published books or ebooks on the topic you are searching that patients could borrow or buy. The Reading Agency has a reading list of health-related titles that may be useful as a starting point <https://reading-well.org.uk/books>. Look at social media: is there a YouTube channel associated with a particular charity or organisation with videos of treatments, procedures, other patients? Do these organisations have a Facebook page/Twitter feed with regular updates about developments, stories in the news, opportunities to meet other people? Are there online forums that offer the opportunity to talk to others, share experiences, offer advice and comfort? For example, <https://healthunlocked.com/>. **Make sure to only include trustworthy sources. GOV.UK’s checklist can help you assess the validity of the information sourced on social media: <https://sharechecklist.gov.uk>**

Results

- Do not share results with the patient without first sharing with the requesting clinician (usually by email), with a brief explanation of why they have been chosen. This can be forwarded onto the patient.
- Make sure that results are all open access and easy for patient to find. Do not assume they are proficient at internet searching. Offer to help the patient with this if needed and if appropriate to your role – this could be an opportunity to improve their digital and health literacy skills.
- If appropriate, signpost the patient to information that will help them find health information online for themselves once they leave hospital, e.g. <https://www.patients-association.org.uk/finding-trustworthy-information-online>, and <https://www.learnmyway.com/subjects/improving-your-health-online/>.

Suggested Resources

- Your Trust or organisation's intranet and website.
- Other Trusts' websites/documents/videos, via an advanced Google search.
- www.NHS.uk website.
- ClinicalKey (££), using the "patient education" filter.
- Patient information creators: www.patient.info, <http://www.healthtalk.org>, Patient Information Forum (PIF), EIDO Healthcare (££).
- Charity and voluntary sector organisations.
- [Royal Colleges, societies and academies](#): RCOG, RCPsych, etc.
- [Clinical Decision Support tools](#): BMJ Best Practice (for its [patient leaflets](#)), DynaMed (££), UpToDate (££), Visual DX (££).
- The [Electronic Medicines Compendium](#) (EMC) contains up to date, easily accessible information about medicines licensed for use in the UK, including Patient Information Leaflets (PILs, Package Leaflets or PLs).
- [Bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed.
- [Social media](#): YouTube, Twitter, Facebook, etc.
- Google, local public library catalogues, and The Reading Agency for books and ebooks.

Evidence Searching for a Quality Improvement (QI) Project

Suggested time to allocate to this search: 3 – 6 hours.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- If possible, arrange a meeting with the requester to understand the aims and background of the project. If there is a project group, join it, or at least attend a meeting to get full brief of project.

Execution

- Search for existing QI projects that are similar, as well as for regular (non-QI specific) evidence for the project. If you have access to a network of QI projects such as *Life QI*, check this to see if any similar QI projects are listed.
- Search for relevant guidelines from international, national and local sources as appropriate via the Trip Database, NICE and Clinical Decision Support tools (e.g. DynaMed Plus contains links to various international guidelines).
- Search bibliographic databases (AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed etc.) and Preprint servers (Europe PMC etc.).
- Search Google Scholar for books or other published information.
- Try an advanced Google search for examples of what other NHS organisations have done: include “NHS” in your terms, and/or specify your country as UK, and/or limit the search to sites ending with “...nhs.uk” URLs using the limits site:nhs.uk or inurl:nhs, and use the doctype:doc or doctype:pdf limits to pick up policy documents and guidelines from around the country. See the [Google section within “For All Evidence Searches”](#) for more information. A search using the Carrot² search engine may present you with new evidence also.
- Search grey literature sources and subject-specific sites: independent charities, governmental and non-governmental organisations and think tanks like The Health Foundation, The King's Fund, Nuffield Trust and Health Quality Improvement Partnership (HQIP), etc.
- Search BMJ Open Quality and BMJ Quality and Safety via their websites, for articles and commentary.
- Search locally within your book and ebook catalogue for anything additional that could be useful, including general texts on the area of interest, and guidance on conducting a QI project if needed. If your service keeps a core list of QI resources that could be useful for the requester to read then search within this and/or direct the requesters to this.

Results

- Categorise your deduplicated results, including links to the full text wherever possible, and highlight key ones to make your report user-friendly.

Suggested Resources

- Local QI network.
- [International, national, and local sources of relevant guidelines](#): The Trip Database, NICE Guidance, Scottish Intercollegiate Guidelines Network (SIGN), etc.
- [Clinical Decision Support tools](#): BMJ Best Practice, DynaMed (££), UpToDate (££), Visual DX (££).
- [Grey literature sources as appropriate](#): government and non-government organisation publications, The Health Foundation, The King's Fund, NHS England, NHS Employers, The Academy of Fabulous NHS Stuff, HQIP, etc.
- [Bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed.
- [Preprint servers](#): Europe PMC, bioRxiv, medRxiv, SSRN.
- Google, Google Scholar, and Carrot² search engines.
- [QI resources](#): BMJ Open Quality and BMJ Quality & Safety.
- Library catalogue.

Evidence Searching for Service Change, Guidelines, or Policy

Suggested time to allocate to this search: From 4 hours – no maximum time as searches informing guidance and policy especially need to be comprehensive.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- Establish the specific circumstances of the service change/policy/guideline and why it is needed/wanted.
- Consult your Trust intranet’s policies section for existing documents, and search within these for references. (Your full search strategy should retrieve the documents referenced, if it does not, consider why not. If they are outside of the remit of the search or the date range specified by the requester then that is fine).

Execution

- Perform an advanced Google search for policies/guidelines from other Trusts, if appropriate: include “NHS Trust” in your search terms and/or narrow the search to sites with URLs ending “...nhs.uk” using the limits site:nhs.uk or inurl:nhs, and/or limit the search to UK sites, with the doctype:doc or doctype:pdf limits to pick up policy documents and guidelines from around the country in the advanced search options. See the [Google section within “For All Evidence Searches”](#) for more information.
- Search NICE Guidance, the Trip Database (using the “Guidelines” filter), the Scottish Intercollegiate Guidelines Network’s (SIGN)’s website, and FutureNHS for any workspaces (replete with useful documents and knowledgeable colleagues) relevant to your search topic and/or your requester.
- Focus on high-level evidence from The Cochrane Library, The University of York’s Centre for Reviews and Dissemination (CRD) for systematic reviews and synopses, The National Institute for Health and Research (NIHR), etc.
- If these searches retrieve nothing, search appropriate bibliographic databases (Medline, Embase etc.), limiting your results to the last 5 years (or the year of the existing guideline’s/policy’s publication), and consider searching preprint servers.

Results

- Your report may be getting shared amongst a multi-disciplinary team, so try and make it easily digestible.
- For the same reason, try to ensure your report includes some open access papers, but do not limit your search to open-access research only.

Suggested Resources

- Local sources of relevant guidelines: Trust intranet, Trust website.
- Other Trusts' websites via an advanced Google search.
- [National and international sources of relevant guidelines](#): NICE Guidance, SIGN, the Trip Database, etc.
- [Appropriate high tier evidence sources](#): the Cochrane Library, The University of York's CRD (note that the DARE, NHSEED, and HTA databases are no longer updated), NIHR, SCIE's Social Care Online, The Campbell Collaboration, Royal Colleges, etc.
- FutureNHS.
- [Bibliographic databases](#) (if nothing found elsewhere): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed.
- Preprint servers (if nothing found elsewhere): Europe PMC, bioRxiv, medRxiv, SSRN.

Evidence Searching to Support Research/Writing for Publication:

Suggested time to allocate to this search: 4 - 7 hours.

Please read "[For All Evidence Searches](#)" before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- Medline and Embase need to be searched as a minimum, select other databases as appropriate to the subject of the search – consider CINAHL for allied health professions, for example.
- **Establish the scope of the topic and ensure that any search parameters are justified.** A search underpinning a research topic may be more similar in scope and style to that carried out for a systematic review whereas a search underpinning writing for publication may possibly permit a more focused search, but you need to check with the requester what is appropriate.
- **Establish if the requester is interested in a specific publication/study type. If they are, discuss the use of appropriate search filters, and requirements for that type of study or publication.** If you are searching using provider interfaces, you can limit the results by publication type but the limits are different in each database. You can also use common filters, including:
 - The Cochrane filters: https://handbook-5-1.cochrane.org/chapter_6/6_4_11_search_filters.htm
 - The InterTASC Information Specialists' Sub-Group Search (ISSG) Filters Resource: <https://sites.google.com/a/york.ac.uk/issg-search-filters-resource/home>
 - The Scottish Intercollegiate Network (SIGN) filters: <https://www.sign.ac.uk/what-we-do/methodology/search-filters/>
 - McMaster University Health Information Research Unit (HIRU) filters: https://hiru.mcmaster.ca/hiru/HIRU_Hedges_home.aspx
- If the requester's research is for a **dissertation topic or academic assignment** it is more appropriate to offer an assisted search or training session: See "[Evidence Searching for Coursework/Study](#)".
- If the requester is aiming to publish in a specific journal or with a specific publisher, look at that journal's or publisher's instructions for authors.

Execution

- **Searches will be comprehensive** but depending on the agreed scope of the search it may be permissible to use focusing techniques (using *majored* subject headings/title-only text searching) to improve relevancy over recall, particularly if the topic is very broad.
- **Searches need to be reproducible** so keep the strategy clearly structured and easy to follow. Details of the strategy will be outlined in the research paper or article so keep this in mind.
- **It is permissible to apply language limits and publication year limits** but this must be justifiable in relation to the topic. If search filters have been used, these must be documented and referenced in the report/article.

- **It is fine to remove comments, letters and editorials, either by screening your search results manually or by adding publication type limits/filters to your search.** Check with requester if they would like conference abstracts to be included in the search.

Results

- Be prepared to provide **supporting details, including a narrative description**, explaining the search strategy so the requester can include this in their write-up.
- **For research reports**, ensure your strategy is detailed in full in the appendices.
- **For journal articles**, even though shorter, most journals require authors to supply at least some brief explanation of the search, including the databases covered and search terms used/concepts searched-for. They will likely want to see the search parameters and any exclusion criteria justified, if applicable.
 - Advise the requester to check the instructions for authors for the specific journal they are intending to submit to.
 - Many journals endorse [PRISMA](http://www.prisma-statement.org/Endorsement/PRISMAEndorsers): Preferred Reporting Items for Systematic Reviews and Meta-Analyses, “an evidence-based minimum set of items for reporting in systematic reviews and meta-analyses”. A list of those that do can be found here: <http://www.prisma-statement.org/Endorsement/PRISMAEndorsers>. If the journal for intended article submission is listed, it may be relevant for the requester to check in the instructions for authors whether they need to present their research in line with some of the PRISMA guidance.
- If possible, can you get agreement from the author that they will acknowledge you in the published article or list you as a co-author, if you have made what you would consider to be a substantial contribution? It is safe to assume they will not automatically acknowledge you.
- It is also safe to assume that they will overlook any standard statement(s) about citing your search that you include in your evidence search report, so include a reminder in your correspondence about to cite your work, if possible.

Suggested Resources

- [High tier evidence sources](#): The Cochrane Library, The University of York’s CRD (note that the DARE, NHSEED, and HTA databases are no longer updated), NICE Guidance, The Trip Database, The Campbell Collaboration, etc.
- Medline and Embase, other [bibliographic databases](#), [specialist databases](#), and [grey literature sources](#) as required by the subject of the search: AMED, BNI, CINAHL, Emcare, HMIC, PsycINFO, PubMed, SCIE’s Social Care Online, National Institute for Health Research (NIHR), etc.
- [Preprint servers](#): Europe PMC, bioRxiv, medRxiv, SSRN.
- PRISMA
- [Common filters for database searches](#): Cochrane filters, The InterTASC ISSG Filter Resource, SIGN filters, and McMaster University HIRU filters.

Evidence Searching to Support Systematic Reviews

Suggested time to allocate to this search: No maximum time, systematic reviews are large scale projects, and it is advisable to put-aside adequate time for searching, meetings and correspondence with the requester and their team.

Communication is vital. Ask the requester their timescales and when they would like the results by. If the suggested time scale is too short advise them of an appropriate date.

It is reasonable to explain to the requester that as systematic review searches are complex, carried out across multiple databases, registries and websites, and require extensive testing, longer delivery time scales are usual.

As a rough guide delivery time scales are commonly at least 10 days to complete the initial searches with revisions possible as the review progresses.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

General points to consider:

- **Systematic review or literature review?** Carrying out a systematic review is a highly structured activity governed by internationally recognised guidance. Requesters can mistakenly use the blanket terminology “systematic review” when they really wish to carry out a *systematic search* of the evidence.

If required, refer your requester to the following for definitions and descriptions on types of review:

- Sutton et al (2019) [Meeting the review family: exploring review types and associated information retrieval requirements - Sutton - 2019 - Health Information & Libraries Journal - Wiley Online Library](#) identifies 48 distinct review types, rapid reviews, systematic reviews, realist reviews, etc., and highlights the expansion of methodological approaches.
- WNHS Library’s guide [What is a Systematic Review and how does it differ from a Literature Review?](#)

For a **systematic search** of the evidence/literature review please follow the section in this guide on [“Evidence Searching to Support Research/Writing for Publication”](#).

- For a **‘true’** systematic review, this requires the gathering, collation and analysis of all the available evidence for a given research topic and is governed by the afore-mentioned internationally recognised guidance which we will come to shortly. The topic normally will be looking at some type of intervention and its effectiveness.
- Due to the scale of the work a systematic review often takes a number of months, and your help and advice may be sought at different stages of the review over this period.

- **A review protocol** is written prior to beginning work on the review proper. Protocols are registered on the [PROSPERO](#) database, unless the requester is writing a review for Cochrane in which case it is submitted to Cochrane and from there automatically launched onto Prospero. You should advise the requester to submit their protocol to Prospero, if they are unaware.
- **Internationally recognised guidance governing systematic reviews** - Be familiar with the following lead sources of guidance. A systematic review must follow this guidance.
 - **Cochrane Handbook:** <https://training.cochrane.org/handbook/current> (from now on, the Cochrane Handbook and its Technical Supplement will be updated around August of each year).
 - **MECIR Handbook:** [Methodological Expectations for Cochrane Intervention Reviews](#) (MECIR). Supplementing the *Handbook*, key aspects of *Handbook* guidance are collated in MECIR and this provides the core standards that are generally expected of Cochrane reviews. Each MECIR item includes a link to a relevant *Handbook* chapter.
 - **PRISMA:** The 3 key elements below govern the reporting of the complete review:
 - <http://www.prisma-statement.org/> (Checklist for each section of the review)
 - <http://www.prisma-statement.org/Protocols/> (PRISMA-P guidance for writing the review protocol)
 - <https://prisma-statement.org/PRISMAStatement/FlowDiagram> (Flow diagrams chart the flow of information through the course of the review. Different templates are available depending on the type of review (new or updated) and sources used to identify studies)
- The Cochrane Handbook and PRISMA essentially give the same instructions but complement and overlap each other. PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) provides a concise [checklist](#) and is a good place to start for those new to the process.
- There is also [PRISMA-S](#) which governs how the 'searches supporting the review' are recorded. This is of key relevance to the information professional when recording search activity.
- This additional guidance and resources may prove to useful:
 - **CRD guidance:** https://www.york.ac.uk/media/crd/Systematic_Reviews.pdf
 - **Campbell Collaboration:** Kugley SWA, et al. [Searching for studies: a guide to information retrieval for Campbell systematic reviews. Oslo: Campbell Collaboration. 2017](#)
 - **JBICollaboration:** Aromataris E, Munn Z (Editors). [JBICollaboration Manual for Evidence Synthesis. JBICollaboration, 2020.](#)
 - **Institute for Quality and Efficiency in Health Care (IQWiG).** [IQWiG Methods Resources. 7 Information retrieval 2014](#)
 - Petticrew M, Roberts H. [Systematic reviews in the social sciences: a practical guide.](#) Oxford: Blackwell Publishing Ltd; 2006

- Check with the requester regarding the following:
 - **Have they performed a scoping search and is the research question fully formulated?** If not, they may want you to undertake some scoping searches to help finalise the question, see what research has already been carried out and if a recently published review already exists on this topic. This will give them a sense of how much research is ‘out there’, how many results they can expect to screen and will help to set timescales to manage their project.

If they have carried out some preliminary searches it is useful to see the strategies to help you understand the search topic and its scope. If they are aware of relevant published studies on the topic, ask them to send these to you to inform your search.
 - **Is guidance needed to finalise the review question?** If yes, refer requester to Chapter 2 of the Cochrane Handbook for useful help: [Determining the scope of the review and the questions it will address](#)
 - **If they have finalised the review question and a scoping search has been undertaken, have they written their protocol?**
 - If yes, you need to see this as it details the inclusion and exclusion criteria for the search in addition to giving you a clearly defined research question.
 - **If no**, check they are aware of the following 4 areas of guidance which will help them write their protocol:
 - The PRISMA protocols guidance <http://www.prisma-statement.org/Protocols/>
 - The PROSPERO website guidance <https://www.crd.york.ac.uk/prospero/#aboutregpage>
 - The Cochrane Handbook:
 - ‘Cochrane protocols’: <https://training.cochrane.org/handbook/current/chapter-ii#section-ii-1-4>
 - ‘Protocol development’: <https://training.cochrane.org/handbook/current/chapter-01#section-1-5>
 - The MECIR Handbook:
 - Developing the protocol for the review: <https://community.cochrane.org/mecir-manual/standards-conduct-new-cochrane-intervention-reviews-c1-c75/developing-protocol-review-c1-c23>
- Is this the requester’s **first** systematic review?
 - If yes, regarding the methodology and the reporting of review findings, the PRISMA guidance is very easy to follow and is endorsed by the Cochrane Collaboration. Refer new systematic reviewers to the PRISMA [checklist](#) if a quick overview of the whole process would be helpful.

- **Databases, resources and filters:** what should I include?
 - This will depend on the question and subject area. A question that is clinical in nature will require biomedical databases such as Medline, Embase and CINAHL. A topic relating to mental health will need to include databases with a mental health focus such as PsycINFO and PsycArticles. See the Cochrane Handbook [Chapter 4, section 4.3.1.1](#) for further guidance:
 - [Chapter 4](#) of the Cochrane Handbook also states that Medline, Embase, and the Cochrane Library's CENTRAL, are the recommended minimum for database coverage. CENTRAL ([Noel-Storr et al 2020](#)), Medline ([Halladay et al 2015](#), [Sampson et al 2016](#)) and Embase ([Woods and Trewheellar 1998](#), [Sampson et al 2003](#), [Bai et al 2007](#)).
 - The **Cochrane Technical supplement** to chapter 4 provides concise guidance on [searching and selecting studies](#).
 - To avoid publication bias it is also important to search clinical trial registries. This will help to identify trials that may have been stopped, withdrawn or the results were not published. Search clinical trials registers for in-progress trials, including (but not limited-to):
 - ClinicalTrials.gov: <https://www.clinicaltrials.gov/>
 - World Health Organisation's International Clinical Trials Registry Platform (ICTRP): <http://apps.who.int/trialsearch/Default.aspx>
 - A List of clinical trials registers which may be relevant to the search topic can be found at: [Finding clinical trials, research registers and research results](#). This resource which was developed by Julie Glanville and Carol Lefebvre in 2009 is regularly updated and lists trials and research registers. It also provides a quick reference guide to the search basics for each resource.
 - University of Leeds [Search the web for clinical trials](#) also provides a useful list of key trial registers to target.
 - It is usual to also perform a citation search to identify additional relevant studies. This involves searching for those studies that have been cited by relevant articles. The relevant articles can be those which have been selected from the search results already obtained or could be from the articles identified as relevant by the researcher at the very beginning of the review.
 - Citation searches can be carried out using citation indexes such as Web of Knowledge (££), if available: www.webofknowledge.com.
 - Google Scholar and PubMed also permit limited citation searching via their "cited by" or "citations" links (Please note: These may refer to online publication only).
 - Also search preprint servers including Europe PMC: <https://europepmc.org/>

- For **further resources** to search the following sites may also be useful:
 - Thames Valley, Wessex and South-West healthcare librarians' guidance. See page 6 for an extensive table listing databases and resources for searching. [The Literature Search Process: Guidance for NHS Researchers. Version 7.0 January 2019](#)
 - University of Toronto [Searching the Literature: A Guide to Comprehensive Searching in the Health Sciences](#) (Last updated October 2022)
- Consider appropriate **search filters** if your search is looking for a particular study design or population. The [ISSG Search Filters Resource](#) is a vast resource of published search filters designed to retrieve research by study design or focus. If you include a search filter, you must report your decision to do so in your search methods.
- Develop a search strategy as part of your planning:
 - It may be useful to draft a search strategy on Medline initially and send this to the reviewer along with a sample of the results, such as the first 50 references.
 - Ask them to review the results. Are they as expected? Are further search terms to be added or removed from the strategy? Include with your draft the definitions used in the scope notes of indexing terms for information, this can help the requester.
 - Remember to stress that for the search to be truly comprehensive they will see a significant number of references that are not on target. These will need to be identified and discarded as part of their sift.

Execution

General points:

- The database searches must be **broad in scope**:
- It is important that search strategies are very sensitive/broad and contain a combination of the databases' indexing terms (subject headings) along with free text search terms, with the aim of not missing any relevant research.
- Indexing terms are often exploded. Look in the MeSH hierarchy to see which terms fall below your chosen term as this will determine whether it is appropriate to explode your chosen term to include these.
- For free text search terms, take into consideration synonyms and plurals by truncating terms and include spelling variations such as American and British English spellings.
- Relevant floating subheadings and adjacency operators can also extend your coverage.
- For a list of Medline subheadings see <https://wkhealth.force.com/ovidsupport/s/article/Is-there-a-list-of-MEDLINE-Subheadings-and-their-codes-1489081398885>

- For a list of Embase subheadings <https://ospguides.ovid.com/OSPguides/embase.htm#fs>
- Selecting **search terms**:
 - Select a test database to test your search terms, this would normally be Medline as it has broad coverage and as the guidance mentioned above indicates it is one of the 3 minimum databases to be covered.
 - If your topic is very specialised and there is a key database for this, you may also wish to run a test search on this as well. Run searches for specific terms related to your topic and make a note of relevant search terms that arise.
 - Check the indexing term's relevancy by clicking on the term to see the Scope note.
 - You may also find the "Used for" list within the scope note handy for identifying other text words to include in your strategy.
 - Useful text mining software can also help to identify relevant search terms. These include PubMed PubReMiner, Vos Viewer, Mesh on Demand, Yale MeSH Analyzer, Medline Transpose, Litsearchr, Swift-Review, Polyglot Search Trnslator, SnowGlobe, Citationchaser, RCT Tagger, Connected Papers.
- **Comprehensiveness**:
 - The aim is not to miss any potentially relevant studies that are appropriate to the review question as this could weaken or invalidate any findings, so the search should maximize the retrieval or "recall" of articles over the "relevancy" of articles retrieved.
 - It is usual therefore when scanning through the results of the search that you will see quite a high number of references that are not so on target. From this broad set of data, the researcher will make their selection of studies to be included in the review, discarding during this process the studies that are not relevant.
 - This approach helps to reduce the chance of important articles being missed. See [6.4.4 Sensitivity versus precision](#) within the Cochrane Handbook.
- Avoid language and publication **bias**:
 - Language and publication bias can creep in when limiting the parameters of the search. **To avoid language bias**, results should **not** be limited to English.
 - To **avoid publication bias** conference abstracts should **not be excluded** from the database results. Conference abstracts give information on the latest work which is yet to be formally published and helps to identify authors or research establishments worth contacting. This extends the search beyond what is available electronically.
 - In addition to following-up on conference abstracts **grey literature** should also be searched. Helpful guidance can be found at the following links:
 - University of Exeter (Alison Bethel et al.) [Searching for Grey Literature](#)

- Imperial College: [Finding grey literature](#)
- University of Cambridge: [Sources of Grey Literature](#)
- University of Leeds: [What is grey literature?](#)
- **PICO** (Population/Problem, Intervention, Comparison, Outcomes).
 - **Search strategies should ideally follow a structured framework such as the PICO structure**, however if **PICO** is not a natural fit for the topic there are other structures available such as SPIDER, ECLIPS(E), etc. For more on these, see Andrew Booth “Alternative Question Structures for Different types of systematic review”: <https://docplayer.net/160814951-Alternative-question-structures-for-different-types-of-systematic-review.html>
- Parts of the guidance covering designing the search strategy:
 - Cochrane Handbook for Systematic Reviews of Interventions (the Cochrane Handbook and its Technical Supplement are updated around August of each year):
 - Chapter 4: “Searching for Studies” <https://training.cochrane.org/handbook/current/chapter-04>
 - Section 4.4 specifically covers “Designing search strategies” <https://training.cochrane.org/handbook/current/chapter-04#section-4-4>
 - Section 4.4.7 advice on using search filters to retrieve specific types of study: <https://training.cochrane.org/handbook/current/chapter-04#section-4-4-7>
 - Section 4.S1 Technical Supplement to Chapter 4: Searching for and selecting studies: <https://training.cochrane.org/handbook/current/chapter-04-technical-supplement-searching-and-selecting-studies>
 - MECIR manual:
 - Section 1.5 Searching for studies: <https://community.cochrane.org/mecir-manual/standards-conduct-new-cochrane-intervention-reviews-c1-c75/performing-review-c24-c75/searching-studies-c24-c38>
 - The **PRESS** Checklist (Peer Review of Electronic Search Strategies) can be useful as it provides a list of what elements the search strategy should have to be robust. See table 1 at the following link: <https://www.sciencedirect.com/science/article/pii/S0895435616000585>
- **Documentation, recording the searches**
 - The key guidance to be followed for reporting the searches is [PRISMA-S](#) An Extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews. View this first. To be compliant with PRISMA-S you will need to do the following:
 - Document all strategies; the requester needs to provide details of these both in the review write-up and in the protocol submission.

- The requester also needs details of the number of records retrieved for each database search prior to the removal of duplicates to comply with the PRISMA guidance on the reporting of the results so retain these figures.
- Save all strategies on the database servers. The requester will need re-runs of these prior to completing the review and writing it up, as several months will have normally passed during this process.
- For grey literature searches keep a record of the search statements used if not possible to save online. The following article covers issues relating to searching and recording search activity on resources outside academic bibliographical databases. [Exploring issues in the conduct of website searching and other online sources for systematic reviews: how can we be systematic? | Systematic Reviews | Full Text \(biomedcentral.com\)](#)
- Keep a back-up Word file of all the search strategies used for easy reference:
 - Write up the search methods for publication as the paper will need to include a paragraph on the methods uses to conduct the search strategy.
 - It is vital that accurate records are kept to inform this paragraph. The paragraph should include where you searched; how you derived the search terms (did you identify relevant terms from relevant studies); did you use [text mining software](#) such as PubMed PubReMiner or Vos Viewer; did you get a colleague to peer review your search for you?
 - It is worth including a sentence that the search was developed and carried out by a librarian/information professional. Co-authorship may be appropriate where you have made a substantial contribution to the research paper.

Results

- Save the results in the .ris file format, which is compatible with most reference management software.
- If you have organisational or site-wide access to reference management software you may have 'organisation specific' arrangements for supplying the results such as loading the results directly into the software, removing duplicates and giving the requester the file details to access the results directly. HEE provides access to Refworks for NHS knowledge and library services (KLS) staff, and can grant access to non-KLS research-active staff like your requester. See "[Appendix 2 – Reference Management Software... Refworks](#)" for more information.
- If the requester is based offsite or no site package nor organisational access is available to them, they will still be able to remove the duplicates in whichever reference management software they have chosen.
- Many reference management software applications allow you to upload .ris files into online libraries that you can share with users – discuss your options.

- Some users may wish to use Systematic review software packages to aid the process of screening and data extraction. Two popular packages are Rayyan <https://rayyan-prod.qcri.org/welcome>, which is freely available to all, and Covidence <https://www.covidence.org/home>, which is freely available to those writing a Cochrane review. Useful further information and a comparison of the two products can be found at the following online article: <https://journals.library.ualberta.ca/jchla/index.php/jchla/article/view/28214/20998>
- For the reporting of results in systematic reviews the requester will need to follow the [PRISMA flow diagram](#). Many tools to assist with the PRISMA flow diagram are available from the “Report” section of the [Systematic Review Toolbox](#).
- **Important reminder:** The requester needs to know **the total number of records retrieved prior to the removal of duplicates** as this is required information for the PRISMA flow diagram. Please provide this to the requester if you have already removed the duplicate references.

Suggested Resources

- Guidance for conducting the review:
 - Campbell Collaboration: Kugley SWA, et al. [Searching for studies: a guide to information retrieval for Campbell systematic reviews. Oslo: Campbell Collaboration. 2017](#)
 - [Cochrane Handbook](#) (the Cochrane Handbook and its Technical Supplement are now updated around August each year, please see [Appendix 1... Systematic Reviews](#) for how to cite these chapters):
 - Chapter 4: Searching for and selecting studies: <https://training.cochrane.org/handbook/current/chapter-04>
 - 4.S1 Technical Supplement to Chapter 4: Searching for and selecting studies: <https://training.cochrane.org/handbook/current/chapter-04-technical-supplement-searching-and-selecting-studies>
 - 4.S2 Supplementary material: Appendix of resources: <https://training.cochrane.org/handbook/current/chapter-04-appendix-resources>
 - [CRD Guidance](#).
 - JBI Collaboration: Aromataris E, Munn Z (Editors). [JBI Manual for Evidence Synthesis. JBI, 2020.](#)
 - Institute for Quality and Efficiency in Health Care (IQWiG). [IQWiG Methods Resources. 7 Information retrieval 2014.](#)
 - [MECIR manual](#).
 - [PRESS Checklist](#).
 - [PRISMA](#):
 - [PRISMA Statement](#) (Checklist for each section of the review).
 - [PRISMA-P guidance for writing the review protocol](#).
 - [PRISMA flow diagram for charting the flow of information through the course of the review](#)).
 - [PRISMA-S](#), An Extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews.
 - [PROSPERO](#).
 - Systematic review software packages [Rayyan](#) and [Covidence](#) are compared in McMaster University Research Coordinator Rachael Couban’s online product review: ["Covidence and Rayyan"](#).
 - Dr Andrew Booth’s ["Alternative Question Structures for Different types of systematic review"](#).

- Claire Stansfield, Kelly Dickson, and Mukdarut Bangpan's "[Exploring issues in the conduct of website searching and other online sources for systematic reviews: how can we be systematic?](#)".
 - Petticrew M, Roberts H. [Systematic reviews in the social sciences: a practical guide](#). Oxford: Blackwell Publishing Ltd; 2006.
 - [Systematic Review Toolbox](#) - tools to assist with the PRISMA flow diagram.
 - "[What is a Systematic Review and how does it differ from a Literature Review?](#)" from WHSN Library.
- Sources to search for the review:
- [High tier evidence sources](#): the Cochrane Library, the University of York's Centre for Reviews and Dissemination (CRD) database – (Please note that the DARE, NHSEED and HTA databases are no longer updated), NICE Knowledge resources, the Trip Database, and the Campbell Collaboration.
 - [Clinical Decision Support tools](#): BMJ Best Practice, DynaMed (££), UpToDate (££), Visual Dx (££).
 - [Bibliographic databases](#): Medline, Embase and Cochrane are deemed essential and can be augmented by searches of BNI, CINAHL, Emcare, HMIC, PsycINFO, and PubMed as appropriate for the search subject.
 - [Prospective clinical trials registers](#): ClinicalTrials.gov, and the World Health Organisation's International Clinical Trials Registry Platform (ICTRP).
 - Further relevant trial registers as listed on [Finding clinical trials, research registers and research results](#).
 - [Preprint servers](#): Europe PMC, bioRxiv, medRxiv, SSRN.
 - [Grey literature sources](#) as identified by...
 - University of Exeter's (Alison Bethel et al.) [Searching for Grey Literature](#);
 - Imperial College's [Finding grey literature](#)
 - University of Cambridge's [Sources of Grey Literature](#)
 - University of Leeds' [What is grey literature?](#)
 - Thames Valley, Wessex and South West healthcare librarians' [The Literature Search Process: Guidance for NHS Researchers. Version 7.0 January 2019](#).
 - [Government](#) and non-governmental organisations' (NGOs') publications, including the Health foundation, the King's Fund, Nuffield Trust, charities' websites etc.
 - [Google](#), and [Google Scholar](#).
 - [Citation indexes](#) including Web of Knowledge.
 - [Text mining software](#): PubMed PubReMiner, Vos Viewer, Mesh on Demand, Yale MeSH Analyzer, Medline Transpose, Litsearchr, SWIFT-Review, Polyglot Search Translator, SnowGlobe, Citationchaser, RCT Tagger, Connected Papers.
- Community of Practice:
- The **Systematic Searchers Community of Practice** is a forum of information professionals actively involved in supporting systematic reviews. Join the community at [LIS-SRSEARCHERSCOP](#) to benefit from expert advice and friendly support.

Evidence Searching for Teaching/Presentation

Suggested time to allocate to this search: 2 - 5 hours.

Please read [“For All Evidence Searches”](#) before proceeding.
See the [Supplement](#) for examples of this type of search.

Planning

- This search need not be exhaustive if the purpose is to provide an update and/or overview of a topic for the requester.
- Results can be limited to those published in the last 5-10 years unless a historical focus is required, or if there is a lack of recent evidence.

Execution

- Try searching Clinical Decision Support tools and emailing relevant entries to the requester, or copying and pasting relevant text from entries - along with hyperlinks to the full entries - into a report.
- Search the Trip Database using the “Latest and Greatest” filter, or using the “all secondary evidence” filter plus a last-5-years date limit, to identify recent high quality evidence. Consider searching other high tier evidence sources such as the Cochrane Library and the Campbell Collaboration.
- Consider a search of your local discovery tool or the NHS Knowledge and Library Hub (KLHub), using the following limits from the menu on the left column of the results screen to narrow your results down: peer-reviewed evidence, with full text availability, from the last 5 years, with the “search within the full text” option removed, with the “apply relevant subjects” option removed, in the English language.
- Search the Education Resource Information Center (ERIC) if the subject of the search involves teaching.
- Limit database results to review papers/important trials/consensus statements/guidelines.
- If the steps above do not yield anything useful, search appropriate bibliographic databases (and preprint servers) according to your topic.

Results

- Aim to provide up to 25 results as a word or PDF report with the search strategy included (but be reassured that if your topic is very narrow there may not be 25 results!)
- Include the full text of papers wherever possible, and/or highlight the open access papers amongst your results, so the requester can easily share them with students or colleagues if needed.

Suggested Resources

- [High tier evidence sources](#): The Cochrane Library, The University of York's Centre for Reviews and Dissemination (CRD – note that the DARE, NHSEED and HTA databases are no longer updated), The Trip Database, The Campbell Collaboration, etc.
- [Clinical Decision Support tools](#): BMJ Best Practice/DynaMed/UpToDate/Visual Dx.
- The KLHub or local discovery tool.
- Appropriate [bibliographic databases](#): AMED, BNI, CINAHL, Embase, Emcare, HMIC, Medline, PsycINFO, PubMed, Social Policy and Practice, etc.
- [Preprint servers](#): Europe PMC, bioRxiv, medRxiv, SSRN.
- Education Resource Information Center (ERIC).

Appendices

Appendix 1 - Resources

Contents:

[General Help](#)

[The NHS Knowledge and Library Hub \(KLHub\)](#)

[Standards and Guidance:](#)

[National Institute for Health and Care Excellence \(NICE\)](#)

[Pharmacology/drugs](#)

[Royal Colleges, Societies and Academies](#)

[Clinical Decision Support \(CDS\) Tools](#)

[High Tier Evidence Sources](#)

[Bibliographic Databases:](#)

Table showing which provider interfaces give access to which databases via NHS OpenAthens:

[EBSCOhost](#) – for searching CINAHL and Medline

[Ovid](#) – for AMED, HMIC, Embase, Emcare, Medline, and Social Policy & Practice

[ProQuest](#) – for BNI, Medline, and PsycINFO

[ProQuest Dialog](#) - for BNI, Medline, and PsycINFO

[Pubmed](#)

[Citation Indexes](#)

[Clinical Trial Registers](#)

[Preprint Servers](#)

[Specialist or Subject-Specific Databases](#)

[Grey Literature Sources:](#)

[Explanatory grey literature portals](#)

[Grey literature search engines](#)

[Government organisations' publications and websites](#)

[Health Business and Technology](#)

[National Institute of Health Research \(NIHR\)](#)

[Health Equity and Healthcare Inequalities](#)

[Patient Information and Experience:](#)

[Guidance and tools for creating patient information](#)

[Health literacy](#)

[Patient experience](#)

[Patient information sources](#)

[Public Health and Wellbeing](#)

[UK Health Security Agency](#)

[Quality Improvement \(QI\)](#)

[Social Care](#)

[Statistics](#)

[Sustainability in Healthcare](#)

[NHS Workforce \(Including Staff Wellbeing\)
Equality, Diversity, and Inclusion \(EDI\)](#)

[Local Resources](#)

[Evidence search tracking systems](#)

[General Sources:](#)

[Google](#)

[Social media](#)

[Resources for Conducting Systematic Review Searches:](#)

[Cochrane Handbook](#)

[PRISMA Statement](#)

[Systematic review software packages](#)

[Text mining software](#)

[Further help structuring a systematic review search strategy](#)

[Common filters to use when searching databases using provider interfaces](#)

General Help:

The following list represents all the resources cited within this guidance, grouped by category and within those alphabetically. All are freely available or accessible via NHS OpenAthens accounts unless otherwise stated with “(££)” or a note.

If you require access to a resource for which your Trust does not have a subscription, an email request to colleagues via the HEALTHILL list may help. If you would like advice from colleagues on your search strategy etc., consider an email to the JISCMail lists (see [“Appendix 3... Mailing list enquiries”](#)).

For further resources and help formulating a search strategy, please see eLearning for Healthcare’s *How to Search the Literature Effectively* at <https://www.e-lfh.org.uk/programmes/literature-searching/> and Thames Valley, Wessex and South West healthcare librarians’ guidance *The Literature Search Process: Guidance for NHS Researchers. Version 7.0 January 2019* at https://library.medschl.cam.ac.uk/files/2019/02/Guide-NHS-Lit_search_protocols_protocols_2019.pdf

For alternative tools to help you searching, there is [Tony Russel-Rose’s 2Dsearch](#) at <https://www.2dsearch.com/>, which can help you visualise your search concepts and construct a strategy graphically; and [David Newman’s Frame Searcher](#) tool, downloadable at <https://exeterhealth.libguides.com/searching/Resources> and providing a customisable grid of resources in an Excel sheet.

The Kent Surrey and Sussex Searching and Training Forum’s wiki is also a good source for general searching help at <https://sites.google.com/site/healthliteraturesearchers/Home>, as is HEE’s *Knowledge for Healthcare* blog at <https://kfh.libraryservices.nhs.uk/>

The *Peer Review of Electronic Search Strategies (PRESS) 2015 Guideline Evidence-Based Checklist* at [table 1 here](#) is intended to guide peer review, but is a useful aide-memoire for when you are searching.

The University of Cambridge Medical Library website features help guides for many of the databases and platforms collected below: <https://library.medschl.cam.ac.uk/research-support/teach-guides-videos/>

See the [Supplement](#) for examples of each type of search covered in this guidance.

The NHS Knowledge and Library Hub (KLHub): <https://library.nhs.uk/knowledgehub/>

The KLHub is designed to connect staff and learners seamlessly to a range of high-quality knowledge and evidence resources all in one place. It brings together national core content and locally procured resources including, for many users, local print holdings via an integrated library management system. The semantic search and ranking algorithm mean that the portal provides an excellent starting point for quick searches. The best starting point for a KLHub search is [your local instance](#). However, all users can log on from library.nhs.uk/knowledgehub by selecting “start your search” and logging in with their NHS OpenAthens account via the yellow bar at the top of the next screen.

- Help and support via is available via the KLHub Service Desk upon creation of a free account: <https://support.library.hee.nhs.uk/support/home>
- HEE’s “Your Knowledge and Library Hub is here – guidance and user support resources” help page: <https://library.nhs.uk/knowledgehub/your-knowledge-and-library-hub-is-here-resources-and-promotional-support-materials/>
 - Features their “Navigating the new NHS Knowledge and Library Services Hub” help video: https://www.youtube.com/watch?v=P_Z9pAWLgbU
 - And “introducing the NHS Knowledge and Library Hub” help guide: <https://library.nhs.uk/wp-content/uploads/sites/4/2021/11/Knowledge-Hub-basic-user-guide.pdf>
- “Research Starter” topics: will be presented at the start of your results page when applicable, or can also be selected from the “Databases” limits tab.

Standards and Guidance:

- British Medical Association (BMA): <https://www.bma.org.uk/>
- ClinicalKey (££): <https://www.clinicalkey.com> - use “Guidelines” filter.
- Guideline Central (££): <https://www.guidelinecentral.com/>
- International Guideline Library: <https://guidelines.ebmportal.com/>
- Medscape Clinical Practice Guidelines (requires free registration): <https://reference.medscape.com/features/guidelines>
- The National Institute for Health and Care Excellence (NICE): <https://www.nice.org.uk/>
 - NICE Clinical Knowledge Summaries (CKS): <https://cks.nice.org.uk/#?char=A>
 - NICE Guidance: <https://www.nice.org.uk/guidance>
 - NICE Audit Tools: <https://www.nice.org.uk/about/what-we-do/into-practice/audit-and-service-improvement/audit-tools>
 - NICE Knowledge Resources: <https://www.nice.org.uk/about/what-we-do/evidence-services/journals-and-databases>
- Pharmacology/drugs (for primary research see the Embase database):
 - British National Formulary (BNF): <https://bnf.nice.org.uk/>
 - British National Formulary for Children (BNFC): <https://bnfc.nice.org.uk/>
 - Electronic Medicines Compendium (EMC): <https://www.medicines.org.uk/emc/>
 - Lexicomp: <https://online.lexi.com>
 - The Maudsley Prescribing Guidelines in Psychiatry (14th ed): <https://www.wiley.com/learn/NHShub/>

- Norfolk and Waveney Formulary: <https://nww.knowledgeanglia.nhs.uk/KMS/Norwich/Home/Prescribing,PharmacyandMedicinesOptimisation/OtherNWFormularies/ContinenceincludingFullGuidance.aspx>
- Specialist Pharmacy Service: <https://www.sps.nhs.uk/>
- Toxbase Online (toxicology database freely available to all clinical NHS staff treating acutely poisoned patients, on application): <https://www.toxbase.org/>
- Royal Colleges, Societies and Academies:
 - Academy of Medical Royal Colleges: <https://www.aomrc.org.uk/about-us/academy-members/> - a list of all Medical Royal Colleges.
 - Royal College of General Practitioners (RCGP): <https://www.rcgp.org.uk/>
 - Royal College of Obstetricians and Gynaecologists (RCOG): <https://www.rcog.org.uk/>
 - Royal College of Nursing (RCN) <https://www.rcn.org.uk/>
 - Royal College of Psychiatrists (RCPsych): <https://www.rcpsych.ac.uk/>
 - The Royal College of Paediatrics and Child Health (RCPCH): <https://www.rcpch.ac.uk/>
 - Royal College of Surgeons of England (RCSEng): <https://www.rcseng.ac.uk/>
 - Royal College of Surgeons of Edinburgh (RCSEd): <https://www.rcsed.ac.uk/>
 - The Queen’s Nursing Institute <https://www.qni.org.uk/>
- Scottish Intercollegiate Guidelines Network (SIGN): <https://www.sign.ac.uk/>
- The Trip Database: <https://www.tripdatabase.com/> - use “Guidelines” filter.

Clinical Decision Support (CDS) Tools:

- BMJ Best Practice: <https://bestpractice.bmj.com/info/>
- DynaMed (££): <https://www.DynaMed.com/>
- UpToDate (££): <https://www.uptodate.com/home>
- Visual Dx (££): <https://www.visualdx.com/>

High Tier Evidence Sources:

- The Campbell Collaboration: <https://campbellcollaboration.org/>
- The University of York’s Centre for Reviews and Dissemination (CRD – note that the DARE, NHSEED and HTA databases are no longer updated): <https://www.york.ac.uk/crd>
- The Cochrane Library: <https://www.cochranelibrary.com>
 - Cochrane Clinical Answers: <https://www.cochranelibrary.com/cca>
- Epistemonikos: <https://www.epistemonikos.org/en/>
- Joanna Briggs Institute (££): <https://jbi.global/>
- PROSPERO: <https://www.crd.york.ac.uk/prospéro/#aboutregpage>
- PubMed Clinical Queries: <https://www.ncbi.nlm.nih.gov/PubMed/clinical>
- The Trip Database: <https://www.Tripdatabase.com> (the enhanced content in Trip Pro (££) is now freely available to all NHS staff. Access is granted via IP address for all users on NHS networks, and via NHS OpenAthens username/password when accessed via the KLHub).

Bibliographic Databases:

Which provider interfaces give access to which databases via NHS OpenAthens:

Database:	Subject areas:	EBSCOhost	National Library of Medicine (NLM)	Ovid	ProQuest	ProQuest Dialog
Allied and Complementary Medicine Database (AMED)	Complementary medicine and allied health professions.					
British Nursing Index (BNI)	UK nursing.					
Cumulative Index of Nursing and Allied Health Literature (CINAHL)	Nursing and allied health professions.					
Embase	General healthcare and medicine (more European and pharmacological focus than Medline).					
Emcare	Nursing and allied health literature.					
Health Management information Consortium (HMIC)	Health management, business, and administration.					
Medline	General healthcare and medicine.					
PsycINFO	Psychology, psychiatry.					
Pubmed**	Freely available online version of Medline**					

**What is the difference between Pubmed and Medline? Please see:

<https://www.nlm.nih.gov/bsd/pmresources.html> and <https://www.nlm.nih.gov/bsd/difference.html>

- EBSCOhost: Business Source Corporate (££), CINAHL, Dentistry & Oral Sciences Source (££), Health Business Elite (HBE) (££), Psychology and Behavioral Sciences Collection, Medline, plus other ebook and journal collections: <http://search.ebscohost.com/athens.asp>
 - Official EBSCOhost help site: <http://support.ebsco.com/help/>
 - Official EBSCO NHS Training Resources portal: <https://nhsresources.stacksdiscovery.com/>
 - Helpsheets and tutorials: <https://nhsresources.stacksdiscovery.com/research-guide>
 - Official “Advanced Searching on EBSCOhost” – Tutorial video/PowerPoint: https://connect.ebsco.com/s/article/Advanced-Searching-on-EBSCOhost-Tutorial?language=en_US
 - Official EBSCOhost YouTube channel: <https://www.youtube.com/channel/UCVloL7HRyTSVJpx73j9ztWA>
 - “EBSCO native interface training” video from University of Cambridge Medical Library: https://drive.google.com/file/d/1-MNdEGMngExu4JEeNLQRjxP_7VTUgPSV/view
 - “Transitioning to EBSCOhost helpsheets” display and compare the EBSCOhost interface’s syntax with Ovid’s: https://connect.ebsco.com/s/article/Transitioning-to-EBSCOhost-Help-Sheets?language=en_US
 - “Searching CINAHL and Medline on EBSCOhost for beginners” YouTube tutorial from Medway Library and Knowledge Services: <https://www.youtube.com/watch?v=VQain1Kpc30&list=PLJBNL9-XnEZsu1XFGiFv9wuilbQeKVeXH&index=8>
- For further help please contact Richard Crookes, MA, MCLIP, Senior Manager Training Services – UK and Ireland: rcrookes@ebsco.com, or for case support use the “EBSCO Connect” portal at <https://connect.ebsco.com/> (requires free registration).
- Ovid: Covers AMED, Embase, Emcare, HMIC, Medline, Social Policy & Practice, and other ebook and journal collections. Psycinfo is also available from Ovid with a paid subscription: <https://ovidsp.ovid.com/>
 - Ovid official help portal: <https://tools.ovid.com/ovidtools/>

- Ovid official NHS help portal, featuring videos and documents for NHS staff: <https://tools.ovid.com/nhs/resourcecenter/>
 - Ovid-run training sessions for NHS “early adopters” pilot and accompanying Q&A sheets:
 - Course One: <https://www.brainshark.com/wkovid/vu?pi=zFkz52ivVz34XBz0>
 - Course One Q&A Sheet: <https://kfh.libraryservices.nhs.uk/wp-content/uploads/2020/11/Ovid-Course-1-Chat-questions.odt>
 - Course Two: <https://www.brainshark.com/wkovid/vu?pi=zF9zsd330z34XLz0>
 - Course Two Q&A sheet: <https://kfh.libraryservices.nhs.uk/wp-content/uploads/2020/11/Ovid-Course-2-Questions-and-Answers-Follow-Up.odt>
 - Converting an HDAS search into an Ovid search: <https://kfh.libraryservices.nhs.uk/wp-content/uploads/2020/11/Converting-and-HDAS-search-strategy-to-OVID.odt>
 - Official “Ovid Help Videos” YouTube playlist: <https://www.youtube.com/watch?v=3AMj8mKM9e0&list=PLLqnuoMZZJdfvD7zrcmlmr9fH-sdp1M0>
 - Ovid’s Search History Launcher tutorial: <https://www.brainshark.com/1/player/wkovid?pi=zGRz13uJr1z34XBz0&r3f1=&fb=0>
 - “Ovid native interface training” video from University of Cambridge Medical Library: <https://drive.google.com/file/d/1oLM09Rq6aM-ztRBAEwip4U8knRi33jwa/view>
- For further help using Ovid, please contact Mauro Castillo García-Mauriño; Director, Customer Engagement EMEA & Ovid Discovery: mauro.castillo@wolterskluwer.com, or support@ovid.com, or call their 24/7 helpline on 020 3197 6660.
- ProQuest: BNI, Medline, PsycINFO, PsycArticles, and other ebook and journal databases/collections: <https://search.proquest.com>
 - Official ProQuest help site: <https://proquest.libguides.com/nhs>
 - “ProQuest Platform training for NHS Early Adopters-2020” training webinar recording from ProQuest: <https://proquestmeetings.webex.com/recordingsservice/sites/proquestmeetings/recording/726981dcc8154be9a5c70a11498b1546/playback>
 - “ProQuest Platform Training” YouTube playlist: <https://www.youtube.com/playlist?list=PL-aFAdxOSTDdUyiF07Zu5t2XwpGjh-DID>
 - “ProQuest native interface training” video from University of Cambridge Medical Library: https://drive.google.com/file/d/19WUJU23PB6XdHGv7iMqwTXBwN5_eMIPa/view?usp=sharing
- For further help using ProQuest Dialog, contact Daniela Cason, Senior Customer Education Trainer: daniela.cason@clarivate.com, or nhs@proquest.com, or call 01227 931 727 during office hours.
- ProQuest Dialog: An older alternative to the mainly academia-focused ProQuest platform above, ProQuest Dialog is more similar to NICE’s defunct HDAS interface. Covers BNI, Medline, and PsycINFO: <https://dialog.proquest.com/professional/login>
 - Official ProQuest help site: <https://proquest.libguides.com/nhs>
 - “Dialog Webinar x NHS in England-20221201-Teams Meeting Recording”: <https://share.vidyard.com/watch/T1p5SukL8RVWexAykyAyg7?>
 - Dialog LibGuide: <https://proquest.libguides.com/proquestdialog/education>
 - Dialog YouTube channel: <https://www.youtube.com/channel/UCH20Kuw-NWCQNJR0YEcmcyA>
- For further help using ProQuest Dialog, contact Daniela Cason, Senior Customer Education Trainer: daniela.cason@clarivate.com, or nhs@proquest.com, or call 01227 931 727 during office hours.

- PubMed: <https://www.ncbi.nlm.nih.gov/PubMed/>
 - PubMed Central (PMC), freely available full-text contents of PubMed: <https://www.ncbi.nlm.nih.gov/pmc/>
 - Official PubMed help guides: <https://learn.nlm.nih.gov/documentation/training-packets/T0042010P/>
 - “PubMed native interface training” video from University of Cambridge Medical Library: https://drive.google.com/file/d/1S7pVL3j7PmzU6bPO_TMv7tbVQHiObg3_/view
 - MeSH Browser: <https://meshb.nlm.nih.gov/>
- **Citation Indexes:**
 - Google Scholar: <https://scholar.google.co.uk/> (see “Cited by” link under results).
 - Pubmed: see “Cited by” links at the right hand side of results pages, though note that where present these may not be comprehensive. Likewise, the “similar articles” links can prove useful when “pearl growing”, or feeling-out a subject.
 - Pubmed Central: see “Cited by other articles +” link on right-hand side of results pages. See also “[Find articles that cite a given article, or that a given article cites](#)” instructions.
 - Scopus (££): <https://www.scopus.com>
 - Web of Knowledge (££): www.webofknowledge.com
- **Clinical Trial Registers:**
 - Australia & New Zealand Clinical Trials Registry: <https://www.anzctr.org.au/>
 - ClinicalTrials.gov: <https://www.clinicaltrials.gov/>
 - Cochrane Central Register of Controlled Trials (CENTRAL): <https://www.cochranelibrary.com/central/about-central>
 - European Union Clinical Trials Register: <https://www.clinicaltrialsregister.eu/ctr-search/search>
 - Global Clinical Trials Data: <https://www.globalclinicaltrialsdata.com/>
 - World Health Organisation’s (WHO’s) International Clinical Trials Registry Platform (ICTRP): <http://apps.who.int/trialsearch/Default.aspx>
 - The University of Leeds’ “Clinical trials and systematic reviews” page lists registers: https://library.leeds.ac.uk/info/1110/resource_guides/128/clinical_trials_and_systematic_reviews
 - The University of York’s “Finding clinical trials, research registers and research results” page also lists registers: <https://sites.google.com/a/york.ac.uk/yhctrialsregisters/>
- **Preprint Servers:**
 - bioRxiv: Covers all kinds of biology and natural science: <https://www.biorxiv.org/>
 - Europe PMC: Indexes all the preprint servers below, and others: <https://europepmc.org/> [See a list of its coverage here: <https://europepmc.org/Preprints#preprint-servers>]
 - medRxiv: Covers all kinds of healthcare and medicine: <https://www.medRxiv.org/>
 - SSRN (formerly known as Social Science Research Network): Indexes manuscripts submitted to Elsevier publications only: <https://papers.ssrn.com/sol3/DisplayAbstractSearch.cfm>
- **Specialist or Subject-Specific Databases:**
 - Applied Social Sciences Index and Abstracts (ASSIA) (££): <https://www.proquest.com/products-services/ASSIA-Applied-Social-Sciences-Index-and-Abstracts.html>
 - Core: <https://core.ac.uk/> - “the world’s largest collection of open access research papers”.
 - Education Resources Information Center (ERIC): <https://www.eric.ed.gov/>
 - LitCovid: <https://www.ncbi.nlm.nih.gov/research/coronavirus/>
 - PEDro (Physiotherapy Evidence Database): <https://www.pedro.org.au/>

Grey Literature Sources:

- Explanatory grey literature portals:
 - Alison Bethel et al.'s "Searching for Grey Literature": https://medicine.exeter.ac.uk/media/universityofexeter/medicalschoollresearch/pentag/documents/Grey_Lit.pdf
 - Imperial College's "Finding grey literature": <https://www.imperial.ac.uk/admin-services/library/learning-support/information-and-research-skills/searching-for-information/grey-literature/>
 - Simon Fraser University's "Grey literature: What it is & how to find it": <https://www.lib.sfu.ca/help/research-assistance/format-type/grey-literature>
 - UK Health Security Agency's "Grey Literature: index and alternative sources and resources": <https://ukhsalibrary.koha-ptfs.co.uk/greylit/>
 - University of Cambridge's "Sources of Grey Literature": <https://libguides.cam.ac.uk/c.php?g=679598&p=4844596>
 - University of Leeds' "What is grey literature?": https://library.leeds.ac.uk/info/1110/resource_guides/7/grey_literature
- Grey literature search engines:
 - Canada's Drug and Health Technology Agency (CADTH) Grey Matters: <https://greymatters.cadth.ca/>
 - The National Grey Literature Collection: <http://allcatsrgrey.org.uk/wp/>
 - OpenGrey: <https://opengrey.eu/>
- Government organisations' publications and websites:
 - Department of Health and Social Care (DHSC) publications: [https://www.gov.uk/search/all?organisations\[\]=department-of-health-and-social-care&order=updated-newest&parent=department-of-health-and-social-care](https://www.gov.uk/search/all?organisations[]=department-of-health-and-social-care&order=updated-newest&parent=department-of-health-and-social-care)
 - Health Education England's (HEE's) eLearning for Healthcare (elfh): <https://portal.e-elfh.org.uk/>
 - HM Government public website: <https://www.gov.uk/>
 - National Archives: <https://www.nationalarchives.gov.uk/>
 - Includes UK Government Web Archive: <https://www.nationalarchives.gov.uk/webarchive/>
 - NHS Digital: <https://digital.nhs.uk/>
 - NHS England (has merged with NHS Improvement): <https://www.england.nhs.uk/>
 - Contains NHS Applications platform, integrating former NHS Improvement content: <https://www.england.nhs.uk/applications/> (Requires registration)
 - Other Trusts' public websites.
- Health Business and Technology:
 - Academic Health Science Networks (AHSN) Atlas: <https://www.ahsnnetwork.com/category/atlas>
 - The Academy of Fabulous NHS Stuff: <https://fabnhsstuff.net/>
 - Business Source Corporate database (££): <https://www.ebsco.com/products/research-databases/business-source-corporate>
 - Care Quality Commission (CQC): <https://www.cqc.org.uk/>
 - Digital Health (formerly Digital Health Intelligence): <https://www.digitalhealth.net/>

- FutureNHS: <https://future.nhs.uk/> This is an online collaboration platform for all NHS staff. When you register for a free account, you can search for health technology and business-related communities of practice to join, using the “Find a Workspace” option from the dashboard.
 - Getting it Right First Time (GIRFT): <https://gettingitrightfirsttime.co.uk/>
 - Health Business Elite database (HBE) (££): <https://health.ebsco.com/products/health-business-elite>
 - Health Management Information Consortium (HMIC) database available via NHS OpenAthens from Ovid: <https://go.openathens.net/redirector/nhs?url=https%3A%2F%2Fovidsp.ovid.com%2Fovidweb.cgi%3FT%3DJS%26NEWS%3Dn%26CSC%3DY%26PAGE%3Dmain%26D%3Dhmiz%0A>
 - Health Service Journal (HSJ – paid subscription required for full content): <https://www.hsj.co.uk/>
 - The International Network of Agencies for Health Technology Assessment (INAHTA): <https://www.inahta.org/hta-database/>
 - The King's Fund: <https://www.kingsfund.org.uk/>
 - National Health Executive: <https://www.nationalhealthexecutive.com/>
 - National Institute of Health Research (NIHR): <https://www.nihr.ac.uk/>
 - NIHR Health Technology Assessment (HTA): <https://www.journalslibrary.nihr.ac.uk/programmes/hta/>
 - NHS England’s “Digital transformation”: <https://www.england.nhs.uk/digitaltechnology/>
 - See also: NHS England’s Transformation Directorate (formerly NHSX): <https://transform.england.nhs.uk/blogs/nhsx-moves-on/>
 - NHS England’s Health Buildings guidance Health Building Notes (HTN): <https://www.england.nhs.uk/estates/health-building-notes/>
 - NHS England’s Health Technical Memoranda (HTM): <https://www.england.nhs.uk/estates/health-technical-memoranda/>
 - NHS England’s “National tariff payment system documents, annexes and supporting documents”: <https://www.england.nhs.uk/publication/national-tariff-payment-system-documents-annexes-and-supporting-documents/>
 - NHS Providers: <https://nhsproviders.org/>
 - NICE Technology Appraisal Guidance: <https://www.nice.org.uk/guidance/published?ndt=Guidance&ndt=Quality+standard&ngt=Technology+appraisal+guidance>
 - The Nuffield Trust: <https://www.nuffieldtrust.org.uk/>
 - Office of Health Economics: <https://www.ohe.org/research>
 - Specific device manufacturer and product websites.
- Health Equity and Healthcare Inequalities:
 - The British Library’s Social Welfare portal: <https://www.bl.uk/social-welfare>
 - British Medical Association’s “Reducing health inequalities in your local area: a toolkit for clinicians”: <https://www.bma.org.uk/what-we-do/population-health/addressing-social-determinants-that-influence-health/reducing-health-inequalities-in-your-local-area-a-toolkit-for-clinicians>
 - The Cochrane Collaboration’s “Low- and Middle-Income Countries” (LMIC) Resources: <https://epoc.cochrane.org/lmic-resources> - includes databases, search filters and priority topics for reviews.
 - See also: The Trip Database’s LMIC filters: <https://blog.tripdatabase.com/2022/06/18/lmic-filter/>
 - FutureNHS’ “Equality and Health Inequalities Network” workspace: <https://future.nhs.uk/connect.ti/EHIME/groupHome> - available to all NHS staff after free

registration on the FutureNHS platform, and searching for the workspace by title. Other relevant workspaces can be found by searching for “inequalities”.

- The King’s Fund’s “Health inequalities” topic: <https://www.kingsfund.org.uk/topics/health-inequalities>
 - See also their “What are health inequalities?” explainer: <https://www.kingsfund.org.uk/publications/what-are-health-inequalities>
 - The National Grey Literature Collection’s “Health Inequalities” tagged results: <https://allcatsrgrey.org.uk/wp/category/public-health/health-inequalities/>
 - NHS England’s Equality Hub: <https://www.england.nhs.uk/about/equality/equality-hub/>
 - NHS England’s Healthcare Inequalities Improvement Dashboard: <https://www.england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improvement-programme/data-and-insight/hi-improvement-dashboard/>
 - NHS England Transformation Directorate’s specialty-specific “Digital playbooks”: <https://www.nhsx.nhs.uk/key-tools-and-info/digital-playbooks/>
 - NHS Race and Health Observatory: <https://www.nhsrho.org/>
 - NHS Scotland’s “Primary Care Health Inequalities Short-Life Working Group Report”: <https://www.gov.scot/publications/report-primary-care-health-inequalities-short-life-working-group/>
 - The Nuffield Trust: <https://www.nuffieldtrust.org.uk/>
 - Office for Health Inequalities and Disparities: <https://www.gov.uk/government/organisations/office-for-health-improvement-and-disparities>
 - Contains “Fingertips - public health profiles”: <https://fingertips.phe.org.uk/>
 - The Patient Experience Library: <https://www.patientlibrary.net> – see the “ethnic minorities” and “LGBTQ” topics filters, and HealthWatch reports filter.
 - See also their “Patient experience: mapping the Evidence” report: <https://pexlib.net/?235329>
 - The Royal College of General Practitioners’ Health Inequalities policy area: <https://www.rcgp.org.uk/policy/rcgp-policy-areas/health-inequalities.aspx>
 - The Runnymede Trust: <https://www.runnymedetrust.org/>
- Patient Information and Experience:
- Guidance and tools for creating patient information:
 - GOV.UK’s “Content design: planning, writing and managing content”: <https://www.gov.uk/guidance/content-design/writing-for-gov-uk>
 - GOV.UK’s Share Checklist: <https://sharechecklist.gov.uk/privacy-policy/>
 - HEE’s Health literacy ‘how to’ guide: <https://library.nhs.uk/wp-content/uploads/sites/4/2020/08/Health-literacy-how-to-guide.pdf>
 - Hemingway Editor app: <https://hemingwayapp.com/>
 - NHS Digital service manual Content style guide: <https://service-manual.nhs.uk/content>
 - NHS Inform’s “Other languages and formats” page: <https://www.nhsinform.scot/translations> - “Health information in different languages and formats - including BSL, Easy Read and translations”.
 - Patient Information Forum’s “Translated health information – a quick guide”: <https://pifonline.org.uk/resources/how-to-guides/translated-health-information-a-quick-guide/>
 - Patient Information Forum Trusted Information Creator PIF TICK: <https://pifonline.org.uk/pif-tick/>
 - Patient Information Forum’s “Using plain language in health information – a quick guide”: <https://pifonline.org.uk/resources/how-to-guides/using-plain-language-in-health-information/>
 - Plain English Campaign’s “How to write in plain English”: <http://www.plainenglish.co.uk/how-to-write-in-plain-english.html>

- Health literacy:
 - eLearning for Healthcare’s “Health Literacy programme”: <https://www.e-lfh.org.uk/programmes/healthliteracy/> - free online learning course for all NHS staff on creation of an account.
 - Health Education England’s “Health literacy ‘how to’ guide”: <https://library.nhs.uk/wp-content/uploads/sites/4/2020/08/Health-literacy-how-to-guide.pdf>
 - Learn My Way’s “Improving your health online” free online course: <https://www.learnmyway.com/subjects/improving-your-health-online/>
 - The Patients Association’s “Finding trustworthy information online”: <https://www.patients-association.org.uk/finding-trustworthy-information-online>
 - The Reading Agency’s health-related reading list: <https://reading-well.org.uk/books>
 - The University of Southampton’s “Health Literacy” tool: <http://healthliteracy.geodata.uk/>
- Patient experience:
 - The Health Foundation: <https://www.health.org.uk/>
 - Healthtalk.org: www.healthtalk.org.uk
 - Health Unlocked: <https://healthunlocked.com/>
 - The Patient Experience Library: <https://www.patientlibrary.net/cgi-bin/library.cgi>
- Patient information sources:
 - ClinicalKey (££): <https://www.clinicalkey.com/> - see “patient education” filter.
 - Easy Health: <https://www.easyhealth.org.uk/> - “online library of accessible health information with simple words, clear pictures and films”.
 - EIDO Healthcare (££): <https://www.eidohealthcare.com/>
 - The NHS public website: www.nhs.uk
 - Patient: <https://patient.info/>
 - Reputable registered UK-based charities for specific conditions, for example:
 - British Heart Foundation (BHF): <https://www.bhf.org.uk/>
 - Cancer Research UK: <http://www.cancerresearchuk.org>
 - Mind: <https://www.mind.org.uk/>
 - Royal National Institute of Blind People (RNIB): <https://www.rnib.org.uk/>
 - Royal Papworth NHS Hospital NHS Foundation Trust Library Services’ Patient and Public Health Information page: <https://royalpapworth.nhs.uk/research-and-development/library-services/patient-and-public-health-information>
- Public Health and Wellbeing:
 - Anne Gray’s “Useful resources” page (no longer maintained): <http://annegraylksworkshop.pbworks.com/w/page/114376834/Useful%20resources>
 - eLearning for Healthcare’s Population Wellbeing Portal: <https://www.e-lfh.org.uk/programmes/population-wellbeing-portal/> - free online learning courses for all NHS staff on creation of an account.
 - HEE’s COVID Wellbeing portal: <https://www.hee.nhs.uk/coronavirus-covid-19/wellbeing>
 - Local Government Association, covers a variety of topics relevant to Local Authorities, with keyword searches of Case Studies and Reports: <https://www.local.gov.uk/>
 - NHS England’s “General practice case studies”: <https://www.england.nhs.uk/gp/case-studies/>
 - Northern Ireland’s Public Health Agency (PHA): <https://www.publichealth.hscni.net/>
 - Public Health Scotland: <https://publichealthscotland.scot/>
 - Public Health Wales: <https://phw.nhs.wales/>

- UK Health Security Agency (UKHSA, formerly Public Health England): <https://www.gov.uk/government/organisations/public-health-england>
 - UKHSA’s Knowledge and Library Services: <https://ukhsalibrary.koha-ptfs.co.uk/laph/>
 - Current Awareness bulletins: <https://ukhsalibrary.koha-ptfs.co.uk/currentawareness/>
 - Evidence Briefings: <https://ukhsalibrary.koha-ptfs.co.uk/briefings/>
 - Evidence Syntheses: <https://ukhsalibrary.koha-ptfs.co.uk/syntheses/>
 - Impact Stories, a collection of examples of the ways that their literature searches have been used by PHE staff, to showcase PHE research and policy: <https://ukhsalibrary.koha-ptfs.co.uk/stories/>
 - Practice Examples (Case Studies, also lists relevant collections from other organisations): <https://ukhsalibrary.koha-ptfs.co.uk/practice-examples/>
 - Searchable Research register of studies led by UKHSA (and formerly PHE) researchers: <https://researchportal.ukhsa.gov.uk>
- UK National Screening Committee (UK NSC) Recommendations: <https://view-health-screening-recommendations.service.gov.uk/> - “summarises whether population screening is currently recommended for a condition or not, and if it is open to public comments at this time”.
- Quality Improvement:
 - The Academy of Fabulous NHS Stuff: <https://fabnhsstuff.net/>
 - BMJ Open Quality: <https://bmjopenquality.bmj.com/>
 - BMJ Quality and Safety: <https://qualitysafety.bmj.com/>
 - The Centre for Sustainable Healthcare's (CSH) Sustainability in Quality Improvement (SusQI): <https://www.susqi.org/>
 - The Healthcare Improvement Studies (THIS) Institute: <https://www.thisinstitute.cam.ac.uk/>
 - Healthcare Quality Improvement Partnership (HQIP): <https://www.hqip.org.uk>
 - QI updates from NHS KLS colleagues:
 - Andrea Gibbons’ and Jess Pawley’s (Somerset NHS Foundation Trust) “QI Evidence updates”: contact andrea.Gibbons@somersetft.nhs.uk or Jessica.Pawley@somersetft.nhs.uk to subscribe and for back-issues.
- Social Care:
 - Department of Health and Social Care (DHSS): <https://www.gov.uk/government/organisations/department-of-health-and-social-care>
 - Social Care Institute for Excellence’s (SCIE) Social Care Online: <https://www.scie-socialcareonline.org.uk/>
- Statistics:
 - Cancer Research UK’s Data and Statistics: <http://www.cancerresearchuk.org/health-professional/data-and-statistics>
 - Centers for Disease Control and Prevention (CDC) Data and Statistics: <http://www.cdc.gov/DataStatistics/>
 - Dryad: <https://datadryad.org/stash> (curated online platform for freely sharing data from all kinds of research).
 - Global Health Facts: <http://kff.org/global-health-policy/>
 - GOV.UK’s Research and Statistics: <https://www.gov.uk/government/statistics?departments%5B%5D=public-health-england>

- NHS Digital’s Data Access Request Service (DARS) contacts: <https://digital.nhs.uk/services/data-access-request-service-dars#contact-us>
 - NHS Digital’s Hospital Episode Statistics: <https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/hospital-episode-statistics>
 - NHS England’s Statistics: <http://www.england.nhs.uk/statistics/>
 - Office for National Statistics (ONS): www.ons.gov.uk
 - Organisation for Economic Co-operation and Development (OECD): <http://www.oecd.org/statistics/>
 - “The Missing Numbers: About obtaining data sets to support researchers” by Susan Smith: <https://library.hee.nhs.uk/about/blogs/the-missing-numbers>
 - Trauma Audit and Research Network (TARN): <https://www.tarn.ac.uk/>
 - UK Data Service: <https://ukdataservice.ac.uk/>
 - United Nations (UN) Statistics Division: <http://unstats.un.org/unsd/>
 - World Health Organisation (WHO) Global Health Observatory: <http://www.who.int/gho/en/>
- Sustainability in Healthcare:
- The Centre for Sustainable Healthcare (CSH): <https://sustainablehealthcare.org.uk/>
 - eLearning for Healthcare’s “environmentally sustainable healthcare”: <https://www.e-lfh.org.uk/programmes/environmentally-sustainable-healthcare/> - free online learning course for all NHS staff on creation of an account.
 - FutureNHS’ “Sustainability in NHS Knowledge and Library Services” workspace at <https://future.nhs.uk/SustainabilityinNHSKnowledge> and “Greener NHS Knowledge Hub” workspace at <https://future.nhs.uk/sustainabilitynetwork> - both available to all NHS staff after free registration on the FutureNHS platform, and searching for the workspace by title. Other relevant workspaces can be found by searching for “sustainability”.
 - The Greener Anaesthesia and Sustainability Project (GASP): <https://www.gaspanaesthesia.com/>
 - The Greener NHS Programme: <https://www.england.nhs.uk/greenernhs/>
 - Greener Practice: <https://www.greenerpractice.co.uk/> - “The UK’s primary care sustainability network”.
 - Healthcare without Harm: <https://noharm-europe.org/> - “a network of thousands of hospitals, healthcare leaders and healthcare professionals, with members across Europe and partners across the globe”.
 - Pharmacy Declares: <https://www.pharmacydeclares.co.uk/> - “Climate conscious pharmacy professionals based in the United Kingdom”.
 - Planetary Health Alliance: <https://www.planetaryhealthalliance.org/planetary-health> - “a solutions-oriented, transdisciplinary field and social movement focused on analyzing and addressing the impacts of human disruptions to Earth’s natural systems on human health and all life on Earth”.
 - Royal College of Paediatrics and Child Health’s “Climate change - resources for child health professionals”: <https://www.rcpch.ac.uk/resources/climate-change-resources-child-health-professionals>
 - Sustainability updates from NHS KLS colleagues:
 - Lucy Gilham’s (Hampshire Healthcare Library Services) “Sustainability in Healthcare” updates: contact lucy.gilham@hhft.nhs.uk to subscribe and for back-issues.
- NHS Workforce (Including Staff Wellbeing):
- Equality, Diversity, and Inclusion (EDI):
 - EDI updates from NHS KLS colleagues:

- Barts Health KLS's Inclusion and Diversity evidence updates: subscribe at <https://bartshealth-nhs.libguides.com/c.php?g=678171&p=4832932#s-lg-box-15109398> and contact bartshealth.library@nhs.net for back issues.
- NHS England's "NHS Workforce race quality standard": <https://www.england.nhs.uk/about/equality/equality-hub/workforce-equality-data-standards/equality-standard/>
- NHS England's Workforce equality and inclusion: <https://www.england.nhs.uk/about/equality/workforce-eq-inc/>
- NHS Confederation: <https://www.nhsconfed.org/>
- NHS Elect (requires organisational membership): <https://www.nhselect.nhs.uk/>
- NHS Employers: <https://www.nhsemployers.org/>
- NHS Leadership Academy: <https://www.leadershipacademy.nhs.uk/>
- NHS Providers: <https://nhsproviders.org/>
- Wellbeing updates from NHS KLS colleagues:
 - John Gale's (Mid Cheshire Hospitals NHS Foundation Trust) "Making People Count" updates: contact john.gale@mcht.nhs.uk to subscribe and for back-issues.
 - Barts Health KLS's Staff Wellbeing evidence updates: subscribe at <https://bartshealth-nhs.libguides.com/c.php?g=678171&p=4832932#s-lg-box-15109398> and contact bartshealth.library@nhs.net for back issues.

Local Resources:

- Evidence search tracking systems:
 - Clinical Information Search System (CISS) (££): <https://www.cissweb.com> - contact Pip Dival at pip.divall@uhl-tr.nhs.uk for more information.
 - KnowledgeShare (££): <https://www.knowledgeshare.nhs.uk> - contact Ben Skinner at ben.skinner@nhs.net for more information.
- Library catalogue
- Local library discovery tool
- Local QI network
- Local wellbeing hub or resources
- Trust intranet
- Trust website

General Sources:

- 2Dsearch: <https://www.2dsearch.com/>
- Bielefeld Academic Search Engine (BASE): <https://www.base-search.net/>
- Bing (for video searches): <https://www.bing.com/>
- Frame Searcher: <https://exeterhealth.libguides.com/searching/Resources> (see 3rd item in central column).
- Carrot² search engine: <https://search.carrot2.org/#/search/web>
- FutureNHS: <https://future.nhs.uk/> This online collaboration platform is available to all NHS staff. When you register for a free account you can search for communities of practice to join using the "Find a Workspace" option from the dashboard.
- Future Learn: <https://www.futurelearn.com/> (free online courses, with further courses and certification available with paid subscription).

- Google: <https://www.google.com>
 - Boolean Strings by Irina Shamaeva: The Full List of Google Advanced Search Options: <https://booleanstrings.com/2018/03/08/the-full-list-of-google-advanced-search-operators/>
 - Google Search Help: <https://support.google.com/websearch/answer/2466433?hl=en>
 - Joshua Hardwick's Google Search Operators: The Complete List (42 Advanced Operators): <https://ahrefs.com/blog/google-advanced-search-operators/>
- Google Scholar: <https://scholar.google.com/>
 - Google Scholar Search Tips: <https://scholar.google.co.uk/intl/en/scholar/help.html>
- Medscape: <https://www.medscape.com/>
- Social Media:
 - YouTube: <https://www.youtube.com/>
 - Twitter: <https://twitter.com/home>
 - Facebook: <https://www.facebook.com/>
- WayBack Machine: <https://archive.org/web/> (an alternative to the National Archives' UK Government Web Archive, listed above. See also <https://www.guru99.com/best-internet-archive-wayback-machine-alternatives.html> for further alternatives).
- What Do They Know (for Freedom of Information requests): <https://www.whatdotheyknow.com/>
- Wikipedia: <https://www.wikipedia.org/>

Resources for Conducting Systematic Review Searches:

- Cochrane Handbook: <https://training.cochrane.org/handbook/current> (the Cochrane Handbook and its Technical Supplement are now updated around August each year).
 - **“Searching for and selecting studies” chapter” (main text):** Lefebvre C, Glanville J, Briscoe S, Featherstone R, Littlewood A, Marshall C, Metzendorf M-I, Noel-Storr A, Paynter R, Rader T, Thomas J, Wieland LS. Chapter 4: Searching for and selecting studies. In: Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.3 (updated February 2022). Cochrane, 2022. Available from <https://training.cochrane.org/handbook/current/chapter-04>
 - **“Searching for and selecting studies” chapter Technical Supplement:** Lefebvre C, Glanville J, Briscoe S, Featherstone R, Littlewood A, Marshall C, Metzendorf M-I, Noel-Storr A, Paynter R, Rader T, Thomas J, Wieland LS. Technical Supplement to Chapter 4: Searching for and selecting studies. In: Higgins JPT, Thomas J, Chandler J, Cumpston MS, Li T, Page MJ, Welch VA (eds). *Cochrane Handbook for Systematic Reviews of Interventions* Version 6.3 (updated February 2022). Cochrane, 2022. Available from <https://training.cochrane.org/technical-supplement-chapter-4-searching-and-selecting-studies-v63>
 - **“Searching for and selecting studies chapter” Appendix of Resources:** Lefebvre C, Glanville J, Briscoe S, Featherstone R, Littlewood A, Marshall C, Metzendorf M-I, Noel-Storr A, Paynter R, Rader T, Thomas J, Wieland LS. Chapter 4: Searching for and selecting studies: Appendix of Resources. In: Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.0 (updated July 2019). Cochrane, 2019. Available from <https://training.cochrane.org/handbook/current/chapter-04-appendix-resources>
- The Methodological Expectations of Cochrane Intervention Reviews (known as MECIR Standards): <https://community.cochrane.org/mecir-manual>
- PRISMA Statement: <http://www.prisma-statement.org/>
 - PRISMA-P guidance for writing review protocols: <http://www.prisma-statement.org/Protocols/>
 - PRISMA Flow diagram: <http://www.prisma-statement.org/documents/PRISMA%202009%20flow%20diagram.pdf>

- PRISMA-endorsing journals list: <http://www.prisma-statement.org/Endorsement/PRISMAEndorsers>
- PRISMA-S extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews: <https://osf.io/sfgvg>
- PROSPERO: <https://www.crd.york.ac.uk/prospero/>
- Systematic review software packages are discussed in McMaster University Research Coordinator Rachael Couban's online article at <https://journals.library.ualberta.ca/jchla/index.php/jchla/article/view/28214/20998>:
 - Covidence (for Cochrane reviews): <https://www.covidence.org/home>
 - Rayyan: <https://rayyan-prod.gcricri.org/welcome>
- Text mining software:
 - PubMed PubReMiner: <https://hgserver2.amc.nl/cgi-bin/miner/miner2.cgi>
 - Vos Viewer: <https://www.vosviewer.com/>
 - Mesh on Demand: <https://www.nlm.nih.gov/oet/ed/mesh/meshondemand.html>
 - Yale MeSH Analyzer: <https://mesh.med.yale.edu/>
 - Medline Transpose: <https://medlinetranspose.github.io/>
 - Litsearchr: <https://elizagrames.github.io/litsearchr/>
 - SWIFT-Review: <https://www.sciome.com/swift-review/>
 - Polyglot Search Translator: <https://sr-accelerator.com/#/polyglot>
 - SnowGlobe: <https://snowglobe.soc.northwestern.edu/>
 - Citationchaser: <https://www.eshackathon.org/software/citationchaser.html>
 - RCT Tagger: http://arrowsmith.psych.uic.edu/cgi-bin/arrowsmith_uic/RCT_Tagger.cgi
 - Connected Papers: <https://www.connectedpapers.com/>
- The University of Lancaster's "Systematic Reviews - Introduction and Pathway for researchers starting a Systematic Review": <https://lancaster.libguides.com/SystematicReviews/pathway>
- University of York's Centre for Reviews and Dissemination (CRD) Guidance: https://www.york.ac.uk/media/crd/Systematic_Reviews.pdf
- Women and Newborn Health Service Library's "What is a Systematic Review and how does it differ from a Literature Review?": https://kemh.libguides.com/library/search_tips/faqs/what_is_systematic_review

For further help structuring a systematic review search strategy, see:

- City University's LibGuide featuring a "Using a framework to structure your question" table: <file://localhost/%E2%99%A3%09https://libguides.city.ac.uk:c.php%3Fg=663952&p=4696473>
- Dr Andrew Booth's "Alternative Question Structures for Different types of systematic review": <https://docplayer.net/160814951-Alternative-question-structures-for-different-types-of-systematic-review.html>
- PRESS Checklist: <https://www.sciencedirect.com/science/article/pii/S0895435616000585>

For common filters to use when searching databases using provider interfaces, see:

- Cochrane filters: <https://training.cochrane.org/handbook/current/chapter-04-technical-supplement-searching-and-selecting-studies>
- The InterTASC Information Specialists' Sub-Group (ISSG) Search Filters Resource: <https://sites.google.com/a/york.ac.uk/issg-search-filters-resource/home>
- McMaster University Health Information Research Unit (HIRU) filters: https://hiru.mcmaster.ca/hiru/HIRU_Hedges_home.aspx
- Scottish Intercollegiate Guidelines Network (SIGN) filters: <https://www.sign.ac.uk/search-filters.html>

Appendix 2 – Reference Management Software

Contents:

- [Refworks](#)
- [Endnote](#)
- [Mendeley](#)
- [Zotero](#)

For a comparison of the different platforms please see this table from Bodleian Libraries:

<https://libguides.bodleian.ox.ac.uk/c.php?g=423116&p=3851803>

- RefWorks: Now freely provided to all NHS knowledge and library services (KLS) staff through NHS OpenAthens authentication:
 - <https://knowledgehub.freshservice.com/support/solutions/articles/27000039248>.
 - Research active non-KLS members of staff can be nominated for an account by KLS staff on completion of a request form on the KLHub Service Desk:
 - <https://knowledgehub.freshservice.com/support/solutions/27000024938>
 - Once an account is created, access is via <https://refworks.proquest.com>.
 - For guidance on using “HEE’s KLS Evidence Search” institutional output style (which mimics the presentation of HDAS reports, minus their table of contents) see:
 - <https://knowledgehub.freshservice.com/support/solutions/27000024938>
 - Official RefWorks help site: <https://knowledge.exlibrisgroup.com/RefWorks>
 - Official RefWorks YouTube channel: https://www.youtube.com/channel/UCzmTj_AGeY59VoNv-0SvcCg
 - “Change your citation output style” from University of Guelph Library: <https://uofgrefworks.wordpress.com/creating-a-bibliography/change-your-citation-output-style/>
 - Official “Finding Duplicate References in Your Account” help:
 - https://www.refworks.com/refworks2/Finding_Duplicate_References_In_Your_Account.htm
- Endnote: a free web-based version, Endnote Online, can be used on its own or synced-up to the paid-for desktop version: <https://access.clarivate.com/login?app=endnote>
 - Official Endnote help site: <https://clarivate.com/webofsciencigroup/support/endnote/>
 - Official Endnote Training YouTube channel:
 - <https://www.youtube.com/channel/UCdTdZ4RUT9Jl81oRhpEIIxA>
 - “Editing reference styles” from UCL Library Services: <https://library-guides.ucl.ac.uk/endnote/editing-a-style>
 - “Endnote for NHS Librarians” video from University of Cambridge Medical Library: <https://drive.google.com/file/d/15HT0v1bcxqhXJARarX2HAAHFHxD9WRad/view>
 - “Endnote – How to” YouTube tutorial playlist from Medway Library and Knowledge Services: <https://www.youtube.com/playlist?list=PLJBNL9-XnEZvFBImRXLFnfyVBRDXPWPZW>
 - Help deduplicating results in Endnote:
 - Official deduplication YouTube tutorials:
 - <https://www.youtube.com/user/EndNoteTraining/search?query=duplicate>
 - Advanced deduplication YouTube tutorial from Wichor Bramen:
 - <https://www.youtube.com/watch?v=2RMR7qsr588>
 - Advanced deduplication guide from Jane Falconer:
 - <https://blogs.lshrm.ac.uk/library/2018/12/07/removing-duplicates-from-an-endnote-library/>

- Mendeley: freely available web-based platform accessible at <https://www.mendeley.com>. Its desktop component is no longer available to download but, existing desktop component can still sync with online accounts:
 - Official Mendeley help site: <https://www.mendeley.com/guides/>
 - “Choosing and changing citation styles”: <https://www.mendeley.com/guides/mendeley-cite/05-choosing-and-changing-citation-styles>
 - Official Mendeley “How to check for duplicate entries and merging” blog entry: <https://blog.mendeley.com/2012/03/26/how-to-series-how-to-check-for-duplicate-entries-and-merging-part-4-of-12/>

- Zotero: freely available web-based platform that can be synced-up to its desktop component: <https://www.zotero.org/>
 - Official Zotero help site: https://www.zotero.org/support/?_ga=2.23422456.392638735.1615393882-1667795604.1615393882
 - “Learn how to use Zotero in 30 minutes” YouTube tutorial from Paul V Galvin Library: https://www.youtube.com/watch?v=BQL_7C-YqBk
 - “Mastering Zotero... Output Mode” from Sebastian Karcher and Rintze M. Zelle [for help changing output styles]: <https://zotero-manual.github.io/citations/#output-mode>
 - Official Zotero deduplication help guide: https://www.zotero.org/support/duplicate_detection

Appendix 3 - Troubleshooting / FAQs / Tips and Tricks

How many results are enough?

This of course depends on the search subject, and the requester. There is no perfect number.

Can you glean from your requester how many results they would like to receive? KnowledgeShare's online search request forms have a field for requesters to state an amount (but it is not a mandatory/required field). If you meet their number by adding limits or any contrived means, make sure you tell them what you have done and make it clear your results are not comprehensive. Offer to rerun the search without the contrivances.

You may not be able to meet your requester's expectations if they have unrealistic ideas of what is out there on a topic, but they can help you know whether to expect a high yield or not.

Some requesters will be happy to sift through hundreds of results, others will not. If you can establish a dialogue with the requester, and establish that the searching process is iterative, this can help manage their expectations.

If you are confident that your search strategy is robust, then your yield just reflects the body of evidence, whether you have "too much" or "too little", but you can adjust your returns using the methods below.

What if my search is retrieving too little, or nothing at all?

- Do a quick sense check. Have you...
 - Asked the requester if they have had a look themselves already? What did they find? Would they expect there to be so little out there?
 - Spelled your text terms correctly?
 - Used text searches as well as subject heading searches?
 - Used appropriate subject headings? Check the scope notes for the headings you have used.
 - Exploded all your subject heading searches?
 - Combined searches in the correct way?
 - Checked that there are no limits on your search that you did not mean to impose (i.e., full text only)?
 - Imposed limits on your search? If so, can you relax/remove them within your requester's criteria?
 - Looked *everywhere*? Are there more sources you can search?
- Can you remove phrase-searches or remove/widen adjacency operators to make your search more sensitive?
- Have you included regional variations in terminology amongst your terms, e.g. *physiotherapy* (UK) as well as *physical therapy* (US)?
- Have you included UK and US spellings of text terms, e.g. *haemorrhag** as well as *hemorrhag**? Most databases allow the use of special characters to skip letters and cover both spellings, e.g. *h?emorrhag**, but the special character used for this varies between databases.

- Have you truncated text searches wherever possible? i.e., could you go from using “*testicular cancer*” to using *testic* adj3 cancer** to using *testic* cancer**?
- Can you introduce more synonyms? i.e., (*teste* or testic* or scrot**) and (*cancer* or neoplasm* or oncolog* or tumor* or tumour**)
- Can you search within all fields of records, rather than just the title and abstract fields?
- Can you search a level above your current subject heading level, thus searching more broadly, without retrieving too much irrelevant material?
- If you have searched using a broad subject heading combined with another subject heading, could you try using a subheading with that subject heading, or vice-versa? i.e., if you have searched using the subject headings exp "TESTICULAR NEOPLASMS"/ AND exp DIAGNOSIS/, have you also tried exp "TESTICULAR NEOPLASMS"/di?
- Does a prospective or retrospective citation search retrieve anything?
- Can you (with your requester’s input) broaden the focus of the search and retrieve more general results? Or can you search within the text of more general results? Are there chapters or sections within books/ebooks with a broader focus?
- Could it be that you are searching within an area where there has just not been very much research published? If so, can you encourage your requester to conduct some (using library services in the process...)
- Consult colleagues locally, or with a mailing list enquiry (see below).

Whichever of the methods you use, be sure to inform your requester what you have done and why.

What if my search is retrieving too much?

- Do a quick sense check. Have you...
 - Used appropriate subject headings?
 - Combined searches in the correct way?
 - Used appropriate text terms?
 - Truncated text terms in the right places, or has a term truncated at the wrong point opened the floodgates? For example, if you were looking for testicular evidence, *testic** would be appropriate truncation, while *test** would retrieve a huge number of irrelevant results.
- It could be that you are just searching within an area where there is a large body of research evidence published. If your search topic is broad, or you are searching within an area that is rich in research, can you (with your requester) narrow the subject down?
- Can you increase the specificity of your search using limits, justifiably? i.e., can you add date limits, and/or population limits, and/or language limits to the search? If you have already applied some, can you limit these further? i.e., changing your date limit from the last 10 years to the last 5 years?

- Are any of your text terms too “noisy” and retrieving irrelevant results? i.e. common terms like *exam** or *clinical** etc., or terms with synonyms unrelated to your subject. You can test your truncated terms with a crossword solving website like <https://www.wordhippo.com/>: select “Words Starting With” and enter your truncated term to see what words your truncation is returning.
- Could you use adjacency operators or phrase-searching to make your text searches more specific without being too specific? i.e., could you go from using *testic* cancer** to using *testic* adj3 cancer** or “*testicular cancer*”?
- Can you justify searching for your terms within just the title fields of records, rather than the title and abstract fields?
- Could you search without exploding subject headings? Could you search using only major subject headings? Could you search using subheadings with your subject headings, to home in on certain aspects of your topic?
- Could you limit your search to just high tier evidence, and retrieve only reviews/meta-analysis and other high tier evidence for your requester?
- Consult colleagues locally or with a mailing list enquiry (see below).

Whichever of the methods you use, be sure to inform your requester what you have done and why.

Checking the rigour of your search.

If you have conducted a search of Medline, try a search of PubMed. If your strategy is robust, in theory you should not then retrieve anything relevant from PubMed that your Medline search did not retrieve.

Have a look at the Peer Review of Electronic Search Strategies (PRESS) 2015 Guideline Evidence-Based Checklist at [table 1 here](#). Though it is intended to guide peer review, it is a useful aide-memoire for searching. Have you followed all the appropriate steps it outlines?

Test your search strategy: identify key papers (by asking your requester to nominate some if they did not already, or by searching Google Scholar and choosing the top few papers). See if your search has returned these key papers by searching for their titles using ctrl+f within your evidence search report, or within the references you’ve compiled in Refworks or other software. It should appear amongst your results if your strategy is comprehensive.

Alternatively, once you’ve identified a key paper try entering its full title as a title field only search within one of the databases you searched. Combine this search line with the final line of your search strategy in that same database using the AND operator: if your strategy picked-up this key paper you will retrieve only one result, if your strategy did not pick-up that key paper you will retrieve no results.

Local groups of colleagues that you can contact for help.

- The East of England’s Searching and Training Special Interest Group meets quarterly online, contact chair Sophie Easey at sophie.easey@nhs.net
- The Kent Surrey Sussex Searching and Training Forum (KSS STF) meets twice a year online, usually in February and September. For more information, contact chair Tom Kelly at tom.kelly@nhs.net or see <https://sites.google.com/site/healthliteraturesearchers/Home>. They share a FutureNHS Workspace with LSTF and SWIMS STF, see [Other help available](#), below.
- The London Searching and Training Forum (LSTF) meets quarterly online. For more information contact chair Adam Toccock at adam.toccock@nhs.net. They share a FutureNHS Workspace with KSS STF and SWIMS STF, see [Other help available](#), below.
 - Also in London, the [North East London Area \(NELA\) Searchers group](#) meets infrequently online to informally discuss searches and share best practice, with a rotating chair/host. Contact chair James Hurst at james.hurst@nelft.nhs.uk
- The Midlands Regional Trainers Forum is chaired by Kate Jones, contact kate.jones31@nhs.net or committee member Derick Yates at Derick.Yates@nhs.net
- In the North West, The Library and Information Health Northwest Network (LIHNN) meet regularly, there is a charge for memberships (organisational or individual). Please see <https://www.lksnorth.nhs.uk/lihnn/> for more information, or contact chair Susan Smith at susan.smith2@mcht.nhs.uk
 - Also in the North West, a sub group of LIHNN, The Clinical Librarians, Trainers and Searchers Group is chaired by Olivia Schaff. Contact her at olivia.schaff@mft.nhs.uk or see <https://www.lksnorth.nhs.uk/lihnn/lihnn-groups/clinical-librarians-trainers-and-searchers-group/> for more information.
- In the South West, the SWIMS Searchers and Trainers Forum (SWIMS STF) meets quarterly online. For more information, contact co-chairs Sarah Rudd (sarah.rudd@nbt.nhs.uk) and Kirsten Buckley (Kirsten.buckley@nbt.nhs.uk) They share a FutureNHS Workspace with LSTF and KSS STF, see [Other help available](#), below.
- The Yorkshire and Humber Health Libraries & Knowledge Network (YOHHLNet) is chaired by Heather Steele, contact yohhlnet@knowledgeforhealthcare.nhs.uk or h.steele@nhs.net, or see <https://www.lksnorth.nhs.uk/yohhlnet/> or <https://twitter.com/YOHHLNet> for more information.

The Health Library & Information Services Directory (HLISD, often pronounced as “health Lizard”) allows you to look up libraries and staff by area, Trust/organisation, or county: <https://www.hlisd.org/>

Other help available.

- A *literature searching peer review buddy* scheme is run in the London, Kent Surrey Sussex, and South West regions, pairing searchers so they can informally discuss a search they each submit. It is open to colleagues from all regions. For more information or to join the scheme, please contact the organiser Caroline Green, outreach librarian at Royal Devon University Hospital: caroline.green23@nhs.net
- A very informal *Small NHS KLS Support Group* exists to help library staff who work as part of small teams within (or adjacent to) the NHS. For more information contact adam.tocock@nhs.net
- A Systematic Review Searchers Community of Practice exists for those performing searches for systematic reviews. Search for the email address lis-srsearcherscop@jiscmail.ac.uk, at www.jiscmail.ac.uk (see below) and request access. Please contact member Sarah Rudd if you experience difficulties joining the community: sarah.rudd@nbt.nhs.uk.
- FutureNHS at <https://future.nhs.uk/> is an online collaboration platform available to all NHS staff. When you register for a free account you can search for communities of practice to join using the “Find a Workspace” option from the dashboard. There are many of these workspaces/groups for knowledge and library services staff, including:
 - a combined workspace for the Searching and Training Forums of London (LSTF), the South East and (KSS STF), and the South West (SWIMS STF), cited above. Search for the workspace titled “KLS Search and Training Forums (London, South East and South West)” or go to https://future.nhs.uk/LON_SEL_SWL_KLSSearchTraining/groupHome
 - a workspace for Primary Care Knowledge Specialists. Search for the workspace titled “Primary Care Knowledge Specialists CoP” or go to <https://future.nhs.uk/PrimaryCareTrainingHub/groupHome>
 - a Sustainability in libraries-focused group. Search for the workspace titled “Sustainability in NHS Knowledge and Library Services” or go to <https://future.nhs.uk/SustainabilityinNHSKnowledge>

Mailing list enquiries.

- If you are struggling to get to grips with a search, if you cannot find any results or retrieve too many, you can consult national mailing lists of librarians who will give you suggestions.
- Visit www.jiscmail.ac.uk and create an account at this page <https://www.jiscmail.ac.uk/cgi-bin/webadmin?GETPW1=&X=&Y=> using your nhs.net or work email address.
- Subscribe to the [LIS-MEDICAL](#) and [CLIN-LIB](#) distribution lists, the [LIS-PUBLICHEALTH](#) for public health searching queries, and any others relevant to you, by searching for them by title on the advanced search page: <https://www.jiscmail.ac.uk/advancedsearch.html>
- Once you are subscribed you can send requests for help with tricky searches to hundreds of colleagues by emailing your queries to [\[title of distribution list\]@JISMAIL.com](mailto:[title of distribution list]@JISMAIL.com) etc. (You will need to set up rules/filters routing other members’ emails to these to lists into a folder your email client, or your inbox will get too crowded).

- If you would like to access a paper or resource that your institution does not have access to, you can try emailing the HEALTHILL list with the details. For more information and to subscribe to the list, visit <https://lists.knowledgeforhealthcare.nhs.uk/cgi-bin/mailman/listinfo/healthill>
 - If HEALTHILL cannot provide you with the paper you require, consider emailing the corresponding author directly to request a manuscript copy. You can also consider directing your requester to the author or the paper on ResearchGate, an online community of researchers sharing their work: <https://www.researchgate.net/> (do not share material from this site directly as this is against copyright legislation).
- Contact Health Education England (HEE) to subscribe to other regional and national mailing lists and be able to send/receive emails to 100s of librarians in your region. Visit <https://lists.knowledgeforhealthcare.nhs.uk/cgi-bin/mailman/listinfo> to see the full list of mailing lists, or visit <https://www.hee.nhs.uk/our-work/library-knowledge-services#> and see the “Senior leadership team National NHS Knowledge and Library Services” drop-down for details of your regional lead, contactable at kfh.england@hee.nhs.uk. They can give you access to the appropriate knowledge for healthcare regional mailing list:
 - East of England: hln@knowledgeforhealthcare.nhs.uk
 - London, Kent Surrey Sussex, and South West: lonsouthkls@knowledgeforhealthcare.nhs.uk
 - Midlands: midlandskls@knowledgeforhealthcare.nhs.uk
 - Yorkshire & Humberside: yhlks@knowledgeforhealthcare.nhs.uk
 - The North: northkls@knowledgeforhealthcare.nhs.uk

When requesters don't respond to your query emails!

If queries arise when you are searching that require your requester's input, but your requester does not respond to your emails or calls, you are well within your rights to pause the search until you hear back, as long as you have made every effort to get in touch and progress is prevented by their silence.

You could send the requester a small sample set of initial results and state that you will not search further until you hear from them.

If you perceive there is an urgency to the search request, you could make an educated guess about how to develop the search. Document the assumptions you have made when sending the results, and offer to re-run the search to focus it differently if needed.

Remember that clinicians have limited access to computers, and while some make regular use of their personal mobile phone, not all can or do, so they may not be able to reply to your messages.

Dealing with technical difficulties

If you experience performance issues when using bibliographic databases, check if there is a local network issue within your Trust via colleagues, your Trust intranet, or alert emails from your Trust IT department.

If there are no local network issues, check to see if there is a wider issue at the providers' end via any notices on the database's homepage, or on the homepage of the KLHub Service Desk at <https://support.library.hee.nhs.uk/support/home> or on the content@knowledgeforhealthcare.nhs.uk mailing list. If there is a wider problem, that group will let you know.

If there are no wider issues, check the device you are using: are other programs or websites working? Can you change browser, or change PC/device? "Have you tried turning it off and on again?"

If you do not see your issue reported, report it to the KLHub Service Desk and to the content@knowledgeforhealthcare.nhs.uk discussion list.

If technical difficulties are preventing you from completing a search then let the requester know; anyone and everyone who has to contend with NHS IT provision will likely sympathise.

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