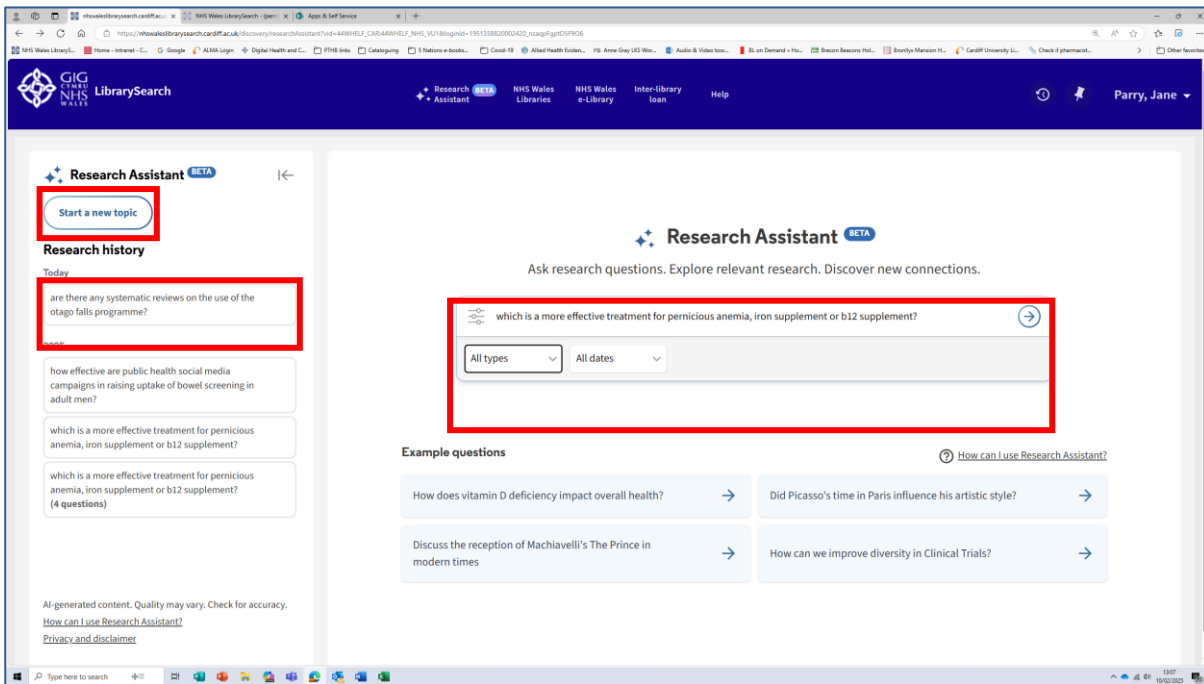


Primo Research Assistant Generative AI tool – User Guide

What is the Primo Research Assistant?

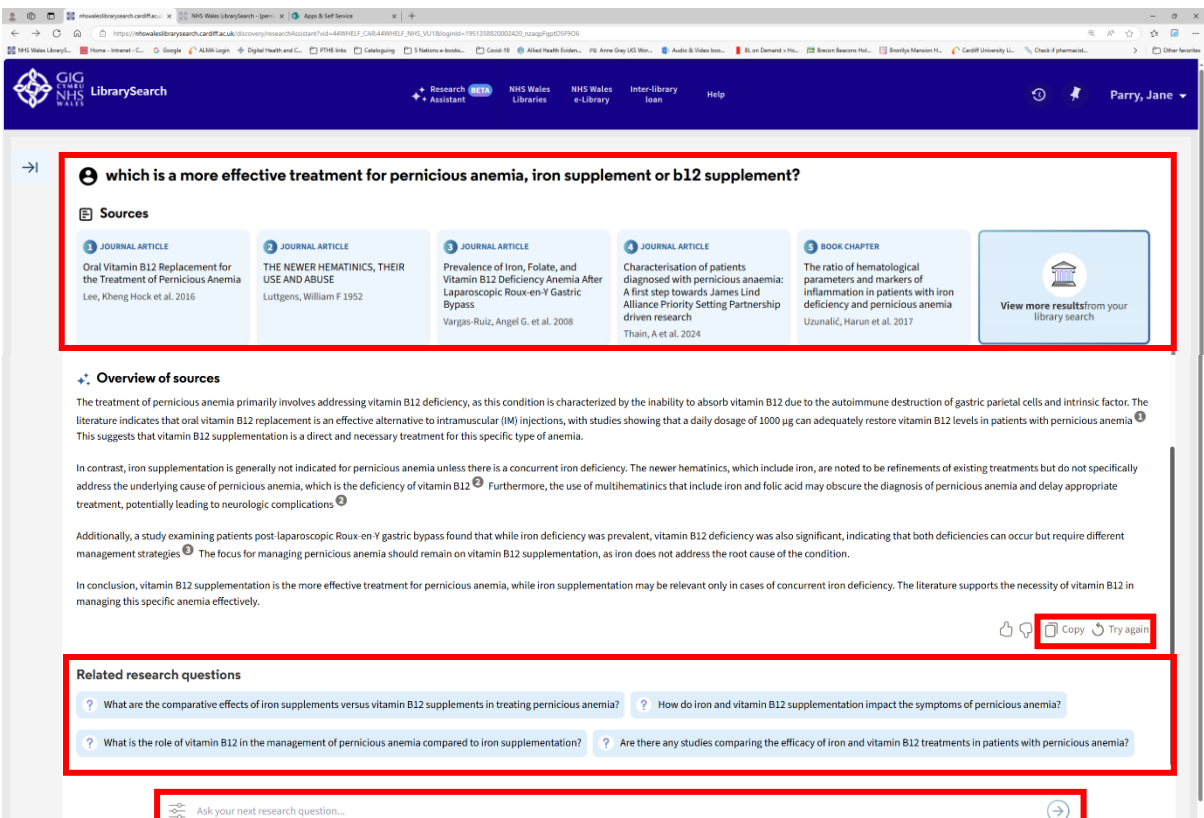
The Primo Research Assistant is a generative AI tool which helps you quickly locate answers to academic/scientific questions, utilising the NHS Wales LibrarySearch collections and open access collections.

Ask a question:



The screenshot shows the Primo Research Assistant interface. On the left, there is a sidebar with a "Start a new topic" button and a "Research history" section. The main area contains a search input field with the question "which is a more effective treatment for pernicious anemia, iron supplement or b12 supplement?". Below the input field, there are "All types" and "All dates" dropdown menus. Underneath, there is a section for "Example questions" with several buttons for related queries.

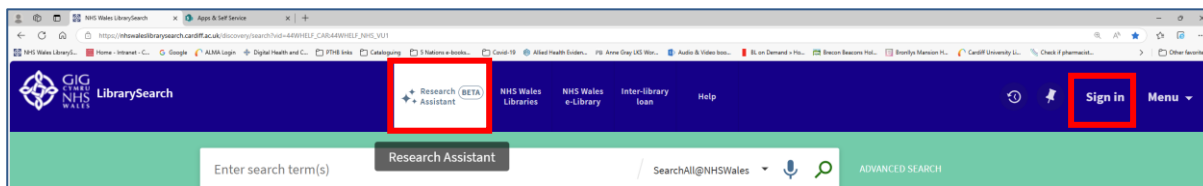
Get an answer:



The screenshot shows the Primo Research Assistant interface displaying search results for the question "which is a more effective treatment for pernicious anemia, iron supplement or b12 supplement?". The results are organized into a "Sources" section with five items, each with a title and author. Below this is an "Overview of sources" section with a detailed summary of the literature. At the bottom, there is a "Related research questions" section with three questions. A "Copy" button and a "Try again" button are visible in the bottom right corner.

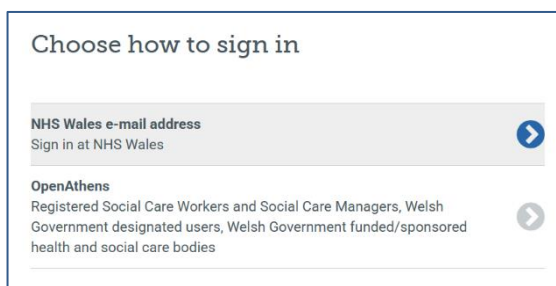
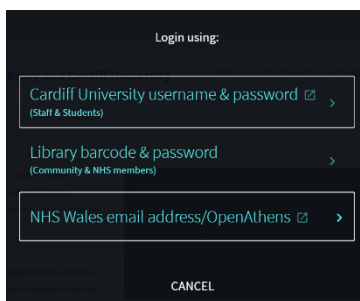
How do I access the Primo Research Assistant?

Click on the link in the LibrarySearch toolbar:



Do I have to sign in with my NHS Wales Library Search account to use the Primo Research Assistant?

Yes. Sign in using your NHS Wales email address and network password, OpenAthens username and password, or your library barcode:



If you don't have any of these accounts and are [eligible to access](#) NHS Wales e-Library resources, you can [self-register for an NHS Wales OpenAthens account](#). Or contact your organisation's library and information service for further support (see contact details below)

Which e-resources will the Primo Research Assistant search?

The Primo Research Assistant will search both NHS Wales Library Search electronic collections and open access, freely available resources, such as open access e-journals and e-books.

Are any e-resource collections excluded by the Primo Research Assistant when it searches for an answer?

The Primo Research Assistant will not search all titles in the national e-journal or e-book collections subscribed to by NHS Wales e-Library. Collections from the publishers APA, DataCite, Elsevier, JSTOR, Kogan Page, and Conde Nast are currently excluded. For example, search results **do not currently include** articles from the following journals: the Annals of Oncology, BJA Education, the British Journal of Anaesthesia, the Journal of Vascular Surgery, or the Lancet. E-collections subscribed to by individual organisations (e.g. local health boards) are also excluded. News collections are excluded too as the content does not contain academic material.

Will the Primo Research Assistant find me the “best” answer for my question?

The Primo Research Assistant does not search “everything” available on a topic. It can only search the resources NHS Wales Library Search has access to: the NHS Wales e-Library collections (excluding publications from publishers listed in the previous section) or freely available open access resources.

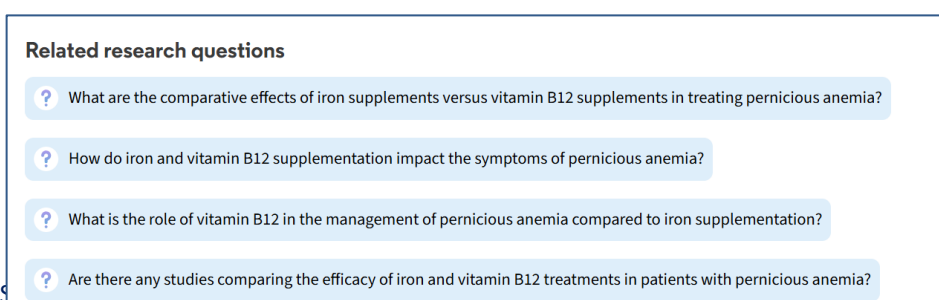
If you’re looking to find more detailed and up-to-date answers, or the “best” answer you will need to use other search tools including [research databases](#) such as Medline/PubMed, ASSIA, CINAHL, Scopus, ERIC, PEDRO, Trip, and/or Google Scholar as well. Details of other recommended search tools are available at <https://elh.nhs.wales/resources>, or contact your organisation’s library and information service for further guidance. For more general information on utilising generative AI tools for research, please see the [NHS Wales e-Library AI guide](#).

How do I ask a “good” question?

Ask a clear and detailed question about your topic. Be specific and phrase your query in the form of a question, for example: “which is a more effective treatment for pernicious anaemia, iron supplement or b12 supplement?”

Will the Primo Research Assistant help me refine my question and suggest related questions?

Yes. The Primo Research Assistant will suggest related research questions when it displays the answer to your original question:



The screenshot shows a box titled "Related research questions" containing four questions, each preceded by a question mark icon in a light blue circle. The questions are:

- What are the comparative effects of iron supplements versus vitamin B12 supplements in treating pernicious anemia?
- How do iron and vitamin B12 supplementation impact the symptoms of pernicious anemia?
- What is the role of vitamin B12 in the management of pernicious anemia compared to iron supplementation?
- Are there any studies comparing the efficacy of iron and vitamin B12 treatments in patients with pernicious anemia?

Does the Primo Research Assistant look for both English and American spellings of the same word, for example: paediatrics or pediatrics, anaemia or anemia?

Yes. The Primo Research Assistant will search both the English and American spelling variations.

Can I ask my question in languages other than English?

Yes. You can ask your question in your preferred language such as Welsh, and the answer will be written in your preferred language. Please note that language availability is dependent on the languages available in the current version of Chat GPT, which is the AI tool used by the Primo Research Assistant to answer questions.

If I'm not happy with the answer to my question, can I search again?

Yes. Use the **Try Again** button:

Overview of sources

The treatment of pernicious anemia primarily involves addressing vitamin B12 deficiency, as this condition is characterized by the inability to absorb vitamin B12 due to the autoimmune destruction of gastric parietal cells and intrinsic factor. The literature indicates that oral vitamin B12 replacement is an effective alternative to intramuscular (IM) injections, with studies showing that a daily dosage of 1000 µg can adequately restore vitamin B12 levels in patients with pernicious anemia. This suggests that vitamin B12 supplementation is a direct and necessary treatment for this specific type of anemia.

In contrast, iron supplementation is generally not indicated for pernicious anemia unless there is a concurrent iron deficiency. The newer hematinics, which include iron, are noted to be refinements of existing treatments but do not specifically address the underlying cause of pernicious anemia, which is the deficiency of vitamin B12. Furthermore, the use of multihematinics that include iron and folic acid may obscure the diagnosis of pernicious anemia and delay appropriate treatment, potentially leading to neurologic complications.

Additionally, a study examining patients post-laparoscopic Roux-en-Y gastric bypass found that while iron deficiency was prevalent, vitamin B12 deficiency was also significant, indicating that both deficiencies can occur but require different management strategies. The focus for managing pernicious anemia should remain on vitamin B12 supplementation, as iron does not address the root cause of the condition.

In conclusion, vitamin B12 supplementation is the more effective treatment for pernicious anemia, while iron supplementation may be relevant only in cases of concurrent iron deficiency. The literature supports the necessity of vitamin B12 in managing this specific anemia effectively.

Try again

Can I see my previous questions from this current session or previous sessions?

Yes. Questions asked in both current and previous sessions can be viewed on the left-hand side of the screen:

Research Assistant BETA

Start a new topic

Research history

2025

- how effective are public health social media campaigns in raising uptake of bowel screening in adult men?
- which is a more effective treatment for pernicious anemia, iron supplement or b12 supplement?
- which is a more effective treatment for pernicious anemia, iron supplement or b12 supplement? (4 questions)

which is a more effective treatment for pernicious anemia, iron supplement or b12 supplement?

Sources

- JOURNAL ARTICLE**
Oral Vitamin B12 Replacement for the Treatment of Pernicious Anemia
Lee, Kihng Hock et al. 2016
- JOURNAL ARTICLE**
THE NEWER HEMATINICS, THEIR USE AND ABUSE
Luttgens, William F 1952
- JOURNAL ARTICLE**
Prevalence of Iron, Folate, and Vitamin B12 Deficiency Anemia After Laparoscopic Roux-en-Y Gastric Bypass
Vargas-Ruiz, Angel G. et al. 2008
- JOURNAL ARTICLE**
Characterisation of patients diagnosed with pernicious anaemia: A first step towards James Lind Alliance Priority Setting...
Thain, A et al. 2024
- BOOK CHAPTER**
The ratio of hematological parameters and markers of inflammation in patients with iron deficiency and pernicio...
Uzunalić, Harun et al. 2017

Overview of sources

The treatment of pernicious anemia primarily involves addressing vitamin B12 deficiency, as this condition is characterized by the inability to absorb vitamin B12 due to the autoimmune destruction of gastric parietal cells and intrinsic factor. The literature indicates that oral vitamin B12 replacement is an effective alternative to intramuscular (IM) injections, with studies showing that a daily dosage of 1000 µg can adequately restore vitamin B12 levels in patients with pernicious anemia. This suggests that vitamin B12 supplementation is a direct and necessary treatment for this specific type of anemia.

View more results from your library search

How long is my research history available for?

The Primo Research Assistant retains the questions and answers for the last 200 questions you've asked.

If I ask the Primo Research Assistant the same question again later, will I get the same answer?

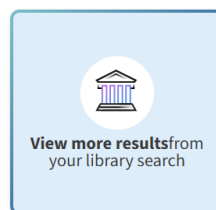
The answer may not be the same. A wide variety of resources are used to find the answer and there may be more than one possible answer to your question. New, relevant material may also have been added to the e-collections the Primo Research Assistant uses to find the answer, which may affect the answer provided.

Can I ask follow-up questions based on the answer the Primo Research Assistant gives?

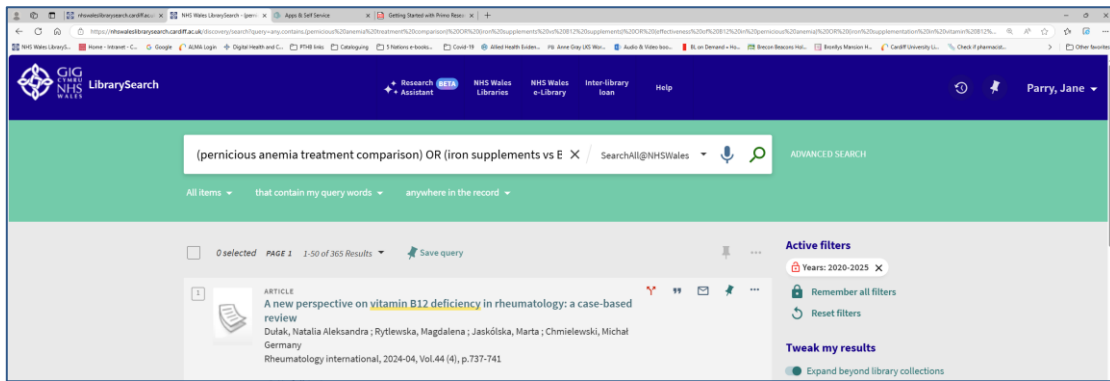
No. Each answer provided relates to the specific question asked. For example, if you want to know “are oral b12 supplements a more effective treatment for pernicious anaemia than intramuscular b12 injections” you will need to ask this specific question.

Can I search for more documents relating to my question based on the initial answer provided by the Primo Research Assistant?

Yes. Use the **View More Results** option to find additional documents available via NHS Wales Library Search collections:

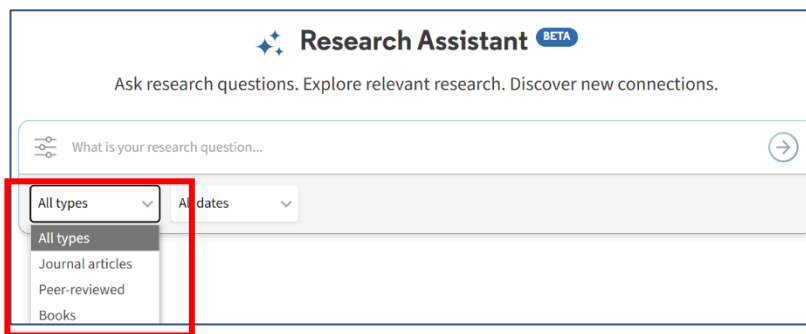


Your question will be automatically run using NHS Wales LibrarySearch. From NHS Wales LibrarySearch you can then apply filters to the results by year, subject, publication type etc:



Can I ask for specific types of publications in my question, such as “peer-reviewed”?

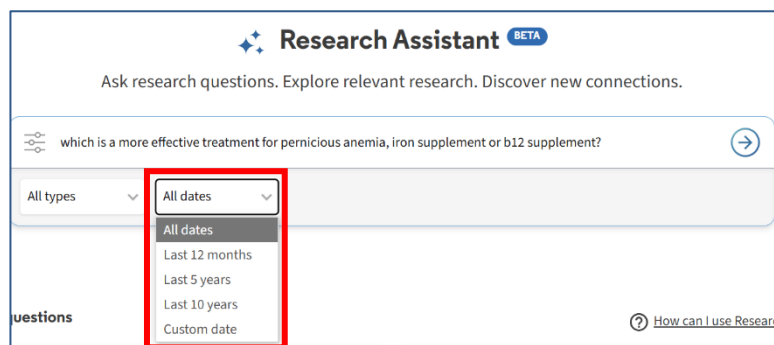
You can filter your answer by books, journal articles or peer reviewed material:



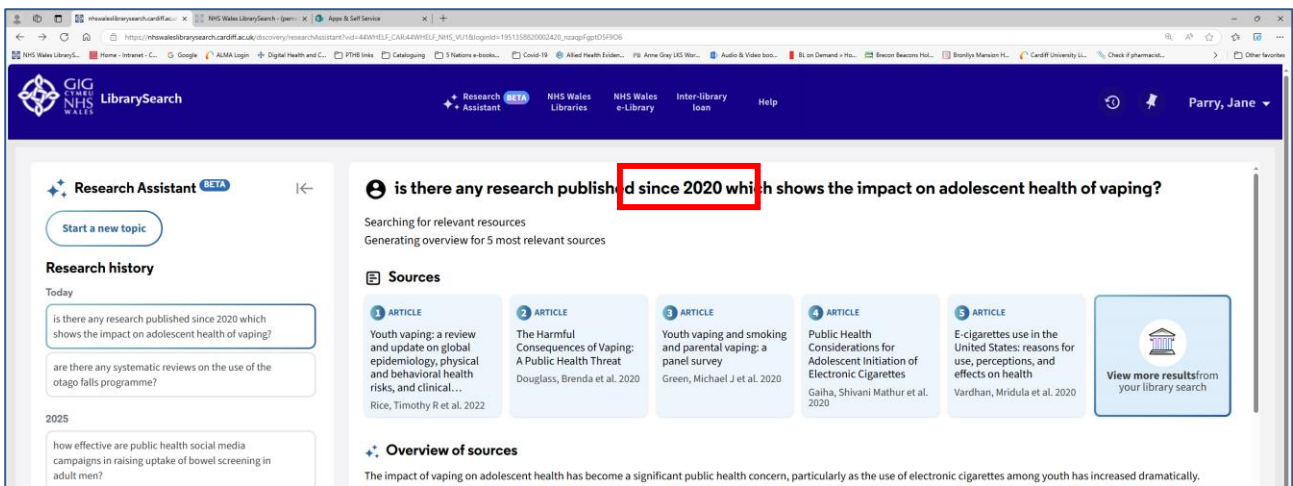
If you are looking for additional publication types, you should include this as a keyword in your search, for example “systematic reviews” or “randomised controlled trials”.

Can I ask for publications published in a specific time frame?

Yes. You can enter the specified dates using the date filter:

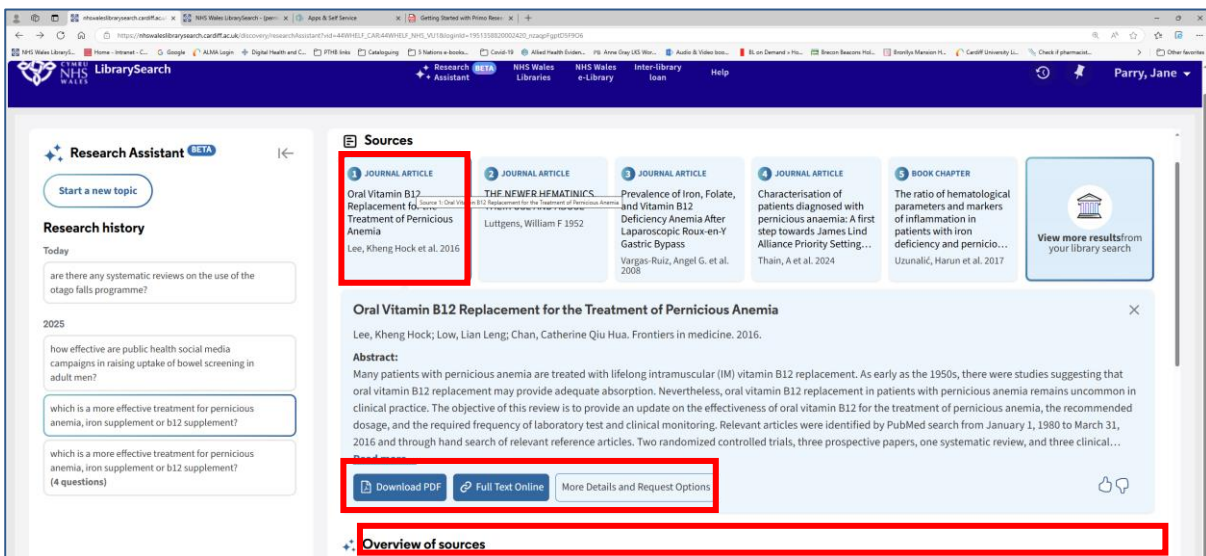


You can also enter a date range as part of your question, for example:



Can I view the full-text of the 5 documents retrieved by the Primo Research Assistant?

Yes, where NHS Wales LibrarySearch has access to the full-text of the documents through the NHS Wales e-Library collections or open access titles. Click on the **Download PDF**, **Full Text Online** or **More Details and Request Options** buttons to access download or view online options:



Where no full-text is available for a retrieved document via the NHS Wales LibrarySearch collections or open access publications, contact your organisation's library and information service for assistance.

Can I download and keep any of the documents retrieved by the Primo Research Assistant?

Yes. You can store the downloaded material on your work devices and share with other colleagues working in your organisation, or with partner organisations, in

accordance with the terms of the [NHS Wales Copyright Licence](#) or your employing organisations' Copyright Licence (for example, local authorities, Welsh Government).

Can I copy the summary answer to my question?

Yes. Click on the **Copy icon**:



Overview of sources

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Additionally, a study examining patients post-laparoscopic Roux-en-Y gastric bypass found that while iron deficiency was prevalent, vitamin B12 deficiency was also significant, indicating that both deficiencies can occur but require different management strategies. The focus for managing pernicious anemia should remain on vitamin B12 supplementation, as iron does not address the root cause of the condition.

In conclusion, vitamin B12 supplementation is the more effective treatment for pernicious anemia, while iron supplementation may be relevant only in cases of concurrent iron deficiency. The literature supports the necessity of vitamin B12 in managing this specific anemia effectively.

 Copy  Try again

How do I reference summary content created by the Primo Research Assistant?

You will need to state that the summary has been created by a generative AI tool. Refer to the [NHS Wales e-Library's guidance](#) on how to reference material created via generative AI tools.

If I need more support to find information, who can I contact?

NHS Wales users, including staff and students in Primary Care, community health providers and WAST, please contact your local [NHS Wales Library Service](#). Each health board has a library service to support staff and students in their organisation to access evidence for their work or studies.

Public Health Wales staff, please email: evidence.service@wales.nhs.uk

Staff in other NHS Wales organisations which do not have a library service or staff who are not employed by or contracted to NHS Wales, please email: elibrary@wales.nhs.uk.

Welsh Government staff, please email: library-enquiries@gov.wales.

Registered social workers and social care managers, please email: elibraryaccess@socialcare.wales.