

The Introduction of Clinical Epidemiology 臨床疫学入門

文献検索とCritical Reading

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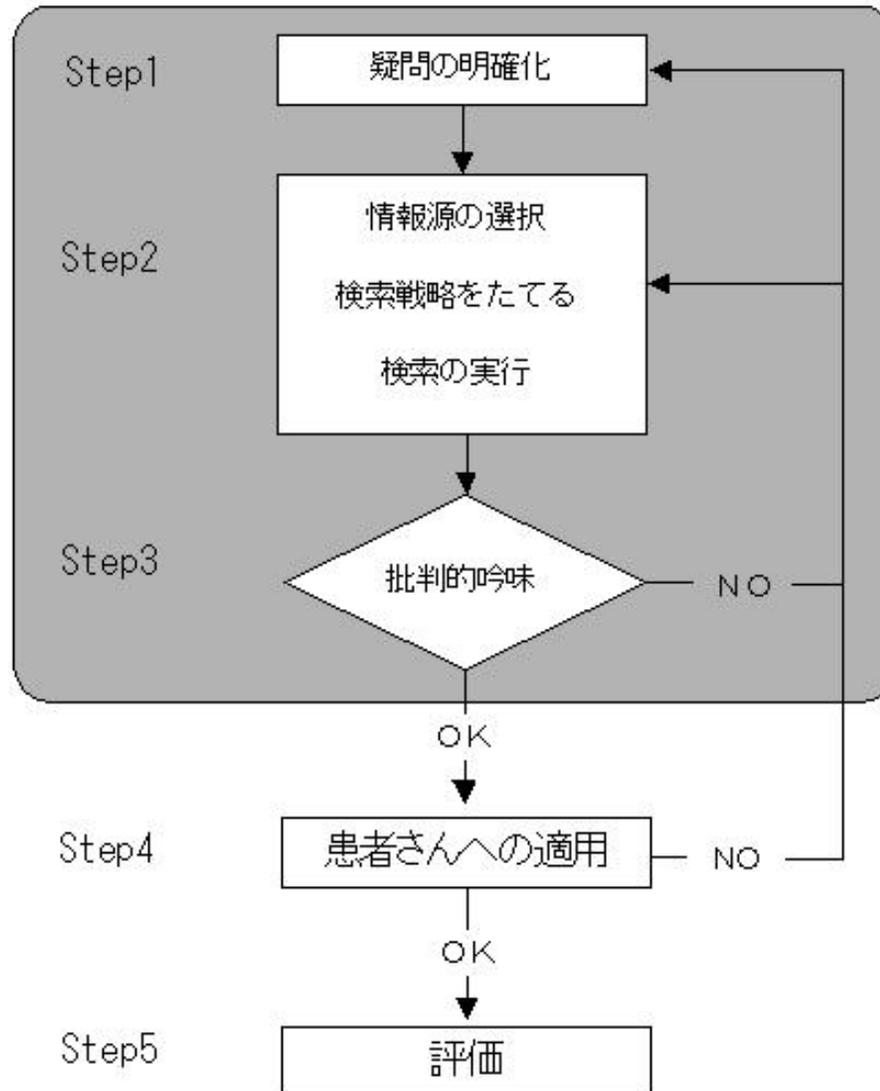


内容

1. 検索編(Searching the Medical Literature)
 - a. 疑問の明確化
 - b. 情報源の選択
 - c. 検索戦略
 - d. シソーラスの理解
 - e. 主な文献DBの使い方を理解
2. 吟味編(Critical Reading/Critical Appraisal)
 - a. エビデンスレベルについて
 - b. エビデンスの信頼性について合理的に説明できるようになる



EBMのフローチャート



臨床の疑問(Clinical Question)

<シナリオ1>

ヒトアルブミン製剤は「1アルブミンの喪失（熱傷，ネフローゼ症候群等）及びアルブミン合成低下（肝硬変症等）による低アルブミン血症，2出血性ショック」を適応症としており、重篤な患者に使用されるケースが多い薬剤である。しかし厚生労働省からどうもこの薬剤は逆に死亡率を上げているらしいので、気をつけたほうが良いとの通知があった。この薬剤についてあなたは不安になったので、調べてみることにした。



疑問の明確化(Framing the Question)

0. カテゴリは何か(category):
治療(therapy), 診断(diagnosis), 病因(etiology),
予後(prognosis)
1. 対象者(population):
どんな対象者か？
2. 介入or曝露(interventions or exposures)
比較しようと思っている治療法、または危険かもしれない
曝露は何か？
3. アウトカム (outcome):
生じる結果のうち重要なものは何か？



疑問の明確化 (シナリオ1)

	カテゴリ	対象者	介入 or 曝露	アウトカム
シナリオ1	治療	循環器血流量減少, 熱傷, あるいは低アルブミン血症の危篤患者	ヒトアルブミン投与	死亡率



例題2: 臨床の疑問(Clinical Question)

<シナリオ2>

55歳の女性で、II型糖尿病と高血圧がある。メトホルミンによって血糖は非常によく管理されていて、合併症の病歴はない。高血圧を治療するために彼女は毎日少量のサイアザイド系利尿剤を服用している。ここ6ヶ月間の血圧は155/88mmHgあたりにある。



疑問の明確化 (シナリオ2)

	カテゴリー	対象者	介入 or 曝露	アウトカム
シナリオ2				



情報源の選択

【2次資料の利用】オリジナルの論文，例えば学術論文や学位論文が1次資料であり，これら膨大な1次資料の内容を要約したり，目次のみ載せるなどして検索しやすくした資料集が2次資料であり，キーワード，著者名などから検索できる。

情報源	媒体	解説
MEDLINE http://www.ncbi.nlm.nih.gov/PubMed (PubMed)無料	Online (CD)	1966年から医学、看護、歯学、保健医療分野から前臨床領域までカバーした NLM が制作した文献DB。約70カ国の4,000誌以上から年間40万件を超える文献の情報および抄録等が収載されている。
中央医学雑誌 http://www.jamas.gr.jp/index.htm 紀伊国屋、丸善、ユサコ、サンメディア	冊子 Online CD	起源は1903年。収載はCD1987年～、Onlineは1983年～。約2400誌から年間28万件を超える文献が収載される。



情報源の選択

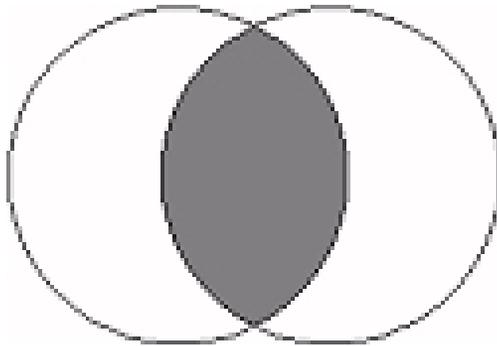
【2次的峻別文献集】各分野のエキスパートにより、予め質の高い論文を選びすぐって集め、解説した文献集

情報源	媒体	解説
Cochrane Library www.update-software.com/ 国内では南江堂、ベルブック等	CD Online	コクラン共同計画によって1996年から提供されている。詳細は後述。
Clinical Evidence www.clinicalevidence.org 国内では南江堂	冊子 (CD) Online	1999年よりBMJから発行 印刷版は半年ごと、オンラインは毎月更新。内科、外科、看護など網羅
UpToDate www.uptodate.com 国内では南江堂	CD Online	内科系19領域。診療・治療・予防。 現在5000トピック収載。年3回更新



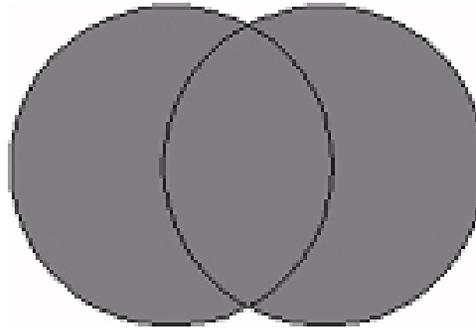
検索戦略 (boolean法)

検索A **AND** 検索B



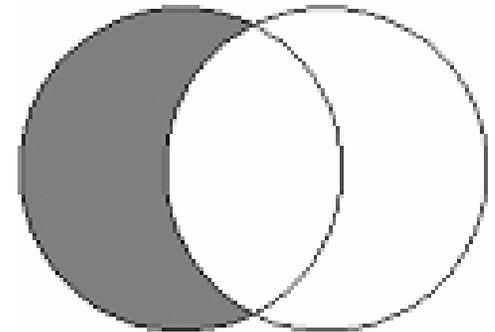
2つ以上の検索結果の共通する文献に絞る.

検索A **OR** 検索B



2つ以上の検索結果のいずれかに存在する文献にまとめられる.

検索A **NOT** 検索B



Not以下の検索結果に存在する文献を除外する. A NOT Bでは検索Aから検索Bとの重複部分が除かれる.



検索戦略(WordとThesaurus)

Word検索

論文にふられたキーワードやタイトル, アブストラクトで使われた単語を検索する方法

「Cancer(がん)」で検索

しかし人によっては「Tumor(腫瘍)」と書くかも？

よく統計では「Neoplasm (新生物)」と書くし...

複数形sも考えると大変だ...



Neoplasmsを代表としよう！



検索戦略(TextとThesaurus)

新生物でも乳がんは？
ポリープは？

Diseases Category

Neoplasms

....

Neoplasms by Site

...

Breast Neoplasms

...

Polyps

...

Thesaurus(シソーラス):

同義語, 類義語, 関連語, 概念上広義または狭義の用語を体系的に辞書化したもの

MeSH(メッシュ):

(Medical Subject Headings)

NLMが医学用語目的に作成したシソーラス



検索戦略(TextとThesaurus)

新生物の論文でも治療の論文もあれば、病因の論文もあるだろうし・・・

<Subhedings>

analysis blood ... diagnosis ... etiology ...
therapy ...

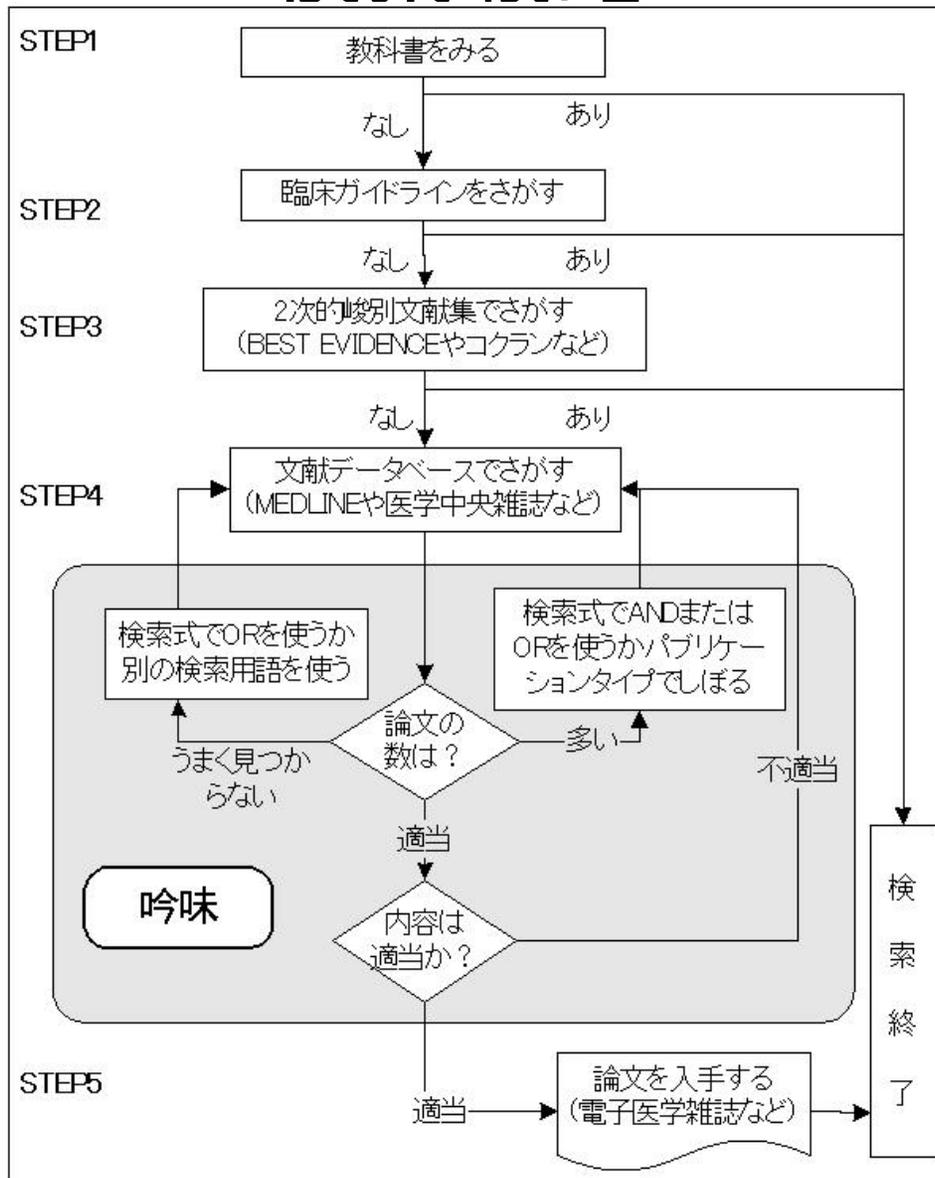
NLMの司書はなるべく下位の用語をつける

<Explode機能>

MeSHの下位概念も含めた一括検索をする.



検索戦略



The Cochrane Libraryで検索してみる

The screenshot displays the Cochrane Library website interface. At the top, there is a navigation bar with icons for CLEAR, TOPICS, RECORDS, MeSH, HISTORY, HELP, BACK, FORWARD, OUTLINE, FEEDBACK, PRINT, FIND, ABOUT, and EXIT. Below this, a search bar contains the text "albumin AND mortality" with a "GO" button and a "Refine your search" link. A sidebar on the left lists various databases with their respective record counts:

- ▶ **The Cochrane Database of Systematic Reviews (2796)**
- ▶ **Database of Abstracts of Reviews of Effectiveness (3875)**
- ▶ **The Cochrane Central Register of Controlled Trials (CENTRAL) (353809)**
- ▶ **The Cochrane Database of Methodology Reviews (15)**
- ▶ **The Cochrane Methodology Register (CMR) (4388)**
- ▶ **About the Cochrane Collaboration (85)**
- ▶ **Health technology assessment database (HTA) (2870)**
- ▶ **NHS Economic evaluation database (NHS EED) (10956)**

The main content area features the Cochrane Library logo and the text "2003 Issue 1" and "ISSN 1464-780X". Below the logo, it states "the best single source of reliable evidence about the effects of health care" and "The Cochrane Library presents the work of the Cochrane Collaboration and others interested in assembling reliable information to guide health-care decisions." A list of links is provided: "About the Cochrane Library", "Using The Cochrane Library", "Comments and feedback", "Technical support", "Reviewers' Handbook", "Reviewers' Handbook Glossary", and "Release notes". The "UPDATE SOFTWARE" logo is also visible, along with the copyright notice "Copyright: Update Software Limited 2003".



検索編: The Cochrane Library

1. **The Cochrane Database of Systematic Reviews (CDSR)**
Collaborative Review Groupによってなされたレビューの結果が meta-analysisのグラフとともにある。[complete reviews]はreviewが終了したもの, [protocols]はreviewのためのprotocolはあって進行中だが, reviewはまだ終わっていないもの。
2. **Database of Abstracts of Reviews of Effectiveness (DARE)**
英国York大学のCenterで篩にかけられたレビューを中心とする。構造化抄録の形式をとる。ACP Journal Clubのレビュー論文の構造化抄録なども含む。
3. **The Cochrane Central Register of Controlled Trials (CENTRAL)**
コクラン共同計画によって登録されたRCT (Randomized Controlled Trial) またはControlled Clinical Trial (CCT)の書誌情報。
4. **The Cochrane Database of Methodology Reviews (CDMR)**
システマティックなレビューをするための方法論についてのデータベース。



検索編: The Cochrane Library

The screenshot displays the Cochrane Library interface. At the top, there is a navigation bar with icons for CLEAR, TOPICS, RECORDS, MeSH, HISTORY, HELP, BACK, FORWARD, OUTLINE, FEEDBACK, PRINT, FIND, ABOUT, and EXIT. Below this, a search bar is visible with the text "Search phrase:" and a "GO" button. To the right of the search bar, there is a link: "Send a comment about this review".

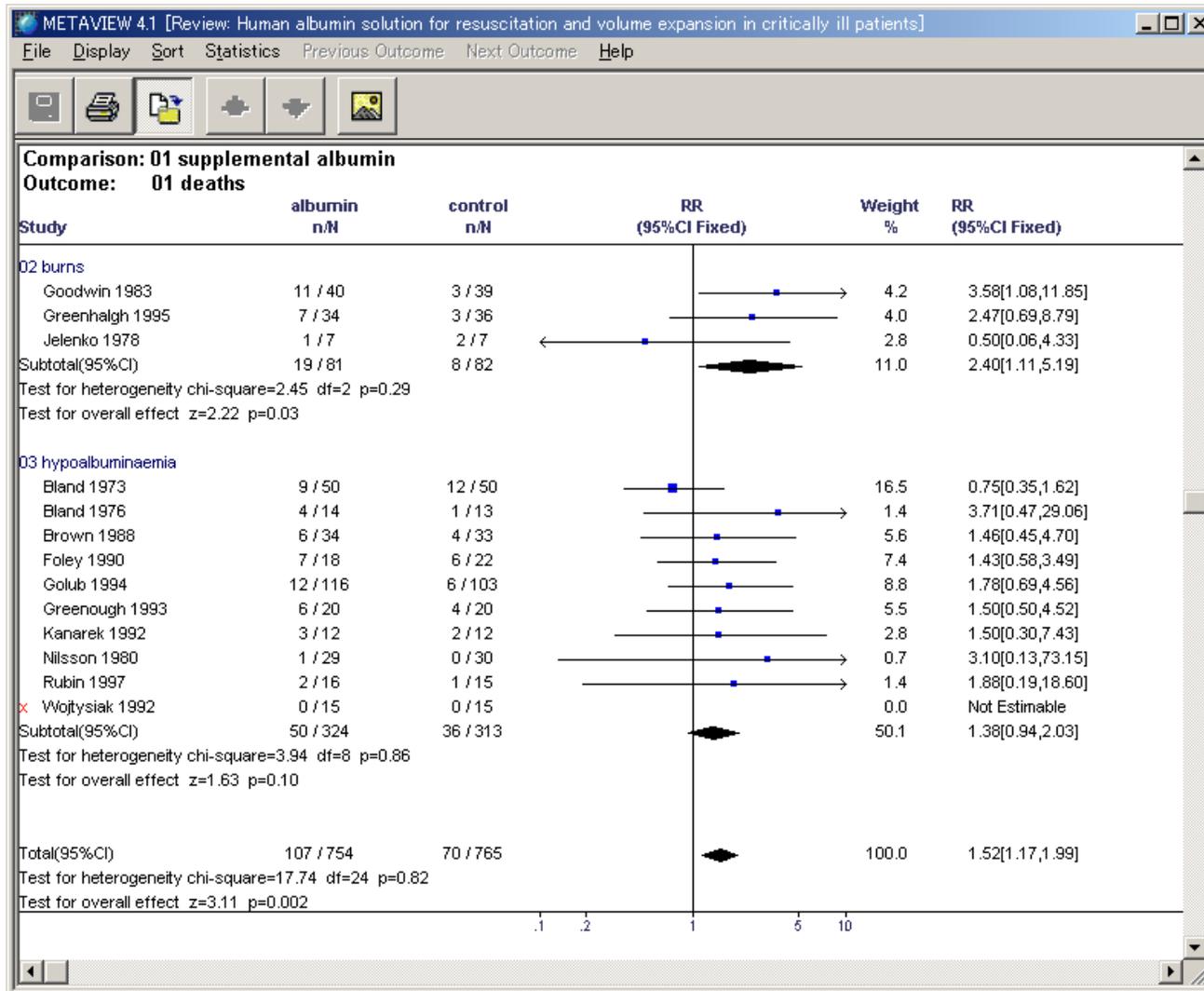
The main content area is divided into two columns. The left column shows search results for "Systematic Reviews (76 out of 2796)". Underneath, there is a sub-section for "Complete reviews (61 out of 1596)". A list of search results is shown, each with a checkbox and a brief description. The selected result is highlighted in green and reads: "Comment Human albumin solution for resuscitation and volume expansion in critically ill patients." Other results include "Early volume expansion versus inotrope for prevention of morbidity and mortality in very preterm infants", "Fish oil in people with type 2 diabetes mellitus", "Haemodilution for acute ischaemic stroke", "High protein supplementation in pregnancy", "Hypertonic versus isotonic crystalloid for fluid resuscitation in critically ill patients", "Immunoglobulin for preventing respiratory syncytial virus infection", and "Influenza vaccine for patients with chronic obstructive pulmonary disease".

The right column displays the details of the selected review. The title is "HUMAN ALBUMIN SOLUTION FOR RESUSCITATION AND VOLUME EXPANSION IN CRITICALLY ILL PATIENTS". Below the title, the authors are listed: "The Albumin Reviewers (Alderson P, Bunn F, Lefebvre C, Li Wan Po A, Li L, Roberts I, Schierhout G)". There are three red stars below the authors. The date of most recent amendment is "17 December 1999" and the date of most recent substantive amendment is "26 November 2001". A citation is provided: "This review should be cited as: The Albumin Reviewers (Alderson P, Bunn F, Lefebvre C, Li Wan Po A, Li L, Roberts I, Schierhout G). Human albumin solution for resuscitation and volume expansion in critically ill patients (Cochrane Review). In: *The Cochrane Library*, Issue 1, 2003. Oxford: Update Software."

Below the citation, there is a section titled "ABSTRACT". Under "Background", it states: "Human albumin solutions are used in a range of medical and surgical problems. Licensed indications are the emergency treatment of shock and other conditions where restoration of blood volume is urgent, burns, and hypoproteinaemia. Human albumin solutions are more expensive than other colloids and crystalloids." Under "Objectives", it states: "To quantify the effect on mortality of human albumin and plasma protein fraction (PPF) administration in the management of critically ill patients." At the bottom of the abstract section, there is a link for "Search Strategy".



検索編: The Cochrane Library



Query Box
 検索用語を入れて検索
 雑誌名はフルでも略でも可
 著者名はラストネームをフル、ファーストネームおよびミドルネームはイニシャルで入力
 前方一致は*を後ろにつける

PubMedで検索してみる

http://www.ncbi.nlm.nih.gov/PubMed

The screenshot shows the PubMed homepage with a search bar containing 'albumin'. The search results are displayed in a list format. The interface includes a top navigation bar with links to various databases (Entrez, PubMed, Nucleotide, Protein, Genome, Structure, OMIM, PMC, Journals, Books) and a 'Go' button. A 'Features Bar' is visible below the search bar, containing links for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. A 'Side Bar' is located on the left side of the page, providing links to 'About Entrez', 'Text Version', 'Entrez PubMed', 'PubMed Services', and 'Related Resources'. The main content area displays search results for 'albumin', including a list of articles with their titles and authors.

Goで検索

Features Bar
 フィーチャーズ
 バー

Side Bar
 サイドバー

PubMed, a service of the National Library of Medicine, includes over 15 million citations for biomedical articles back to the 1950's. These citations are from MEDLINE and additional life science journals. PubMed includes links to many sites providing full text articles and other related resources.

Bookshelf Additions

Molecular Biology of the Cell, 4th Ed. and *The Genetic Landscape of Diabetes* are now available for interactive searching on the [Bookshelf](#).

MeSH Database Updated

Over 140,000 Supplementary Concept Records (substance names) have been added to the [MeSH database](#) so the database now contains the full MeSH vocabulary. MeSH terms can be used in PubMed searches.

New Global NCBI Search Engine

NCBI's growing number of Entrez databases can now be searched at once! [Go](#)



検索編: PubMed

The screenshot shows the PubMed search results page for the query 'albumin'. The page is part of the NCBI (National Center for Biotechnology Information) and NLM (National Library of Medicine) interface. The search results are displayed in a list format, showing the first five items. The 'Details' button is highlighted with a red box. The search results are as follows:

Search PubMed for albumin

Display Summary Show: 20 Sort Send to Text

Items 1 - 20 of 127601 Page 1 of 6381 Next

- 1: [Costa DB, Shin B, Cooper DL](#) [Related Articles, Links](#)
Pneumococccemia as the presenting feature of multiple myeloma.
Am J Hematol. 2004 Oct 19;77(3):277-281 [Epub ahead of print]
PMD: 15495248 [PubMed - as supplied by publisher]
- 2: [The Albumin Reviewers \(Alderson P, Bunn F, Lefebvre C, Li Wan Po A, Li L, Roberts I, Schierhout G\)](#) [Related Articles, Links](#)
Human albumin solution for resuscitation and volume expansion in critically ill patients.
Cochrane Database Syst Rev. 2004 Oct 18;4:CD001208.
PMD: 15495011 [PubMed - as supplied by publisher]
- 3: [Zhou BR, Liang Y, Du F, Zhou Z, Chen J](#) [Related Articles, Links](#)
Mixed macromolecular crowding accelerates the oxidative refolding of reduced, denatured lysozyme: Implications for protein folding in intracellular environments.
J Biol Chem. 2004 Oct 19 [Epub ahead of print]
PMD: 15494409 [PubMed - as supplied by publisher]
- 4: [Kurita R, Tabei H, Iwasaki Y, Hayashi K, Sunagawa K, Niwa O](#) [Related Articles, Links](#)
Biocompatible glucose sensor prepared by modifying protein and vinylferrocene monomer composite membrane.
Biosens Bioelectron. 2004 Oct 15;20(3):518-523.
PMD: 15494234 [PubMed - as supplied by publisher]
- 5: [Zhao GC, Zhang P, Wei XW, Yang ZS](#) [Related Articles, Links](#)
Determination of proteins with fullerol by a resonance light scattering technique.



検索編: PubMed

The screenshot displays the PubMed search interface. At the top, the NCBI logo is on the left, and the PubMed logo and National Library of Medicine (NLM) logo are on the right. Below the logos is a navigation bar with links to Entrez, PubMed, Nucleotide, Protein, Genome, Structure, OMIM, PMC, Journals, and Books. The search bar contains the text "albumin" and has "Go" and "Clear" buttons. Below the search bar are tabs for Limits, Preview/Index, History, Clipboard, and Details. The main content area shows the "Query Translation:" section with a text box containing the translated query: "albumins" [MeSH Terms] OR albumin [Text Word]. Below this is a "Result:" section showing the count "127601". The "Translations:" section shows the original query: albumin "albumins" [MeSH Terms] OR albumin [Text Word]. The "Database:" section shows "PubMed". The "User query:" section shows "albumin". On the left side, there is a vertical menu with links to "About Entrez", "Text Version", "Entrez PubMed", "Overview", "Help | FAQ", "Tutorial", "New/Noteworthy", "E-Utilities", "PubMed Services", "Journals Database", "MeSH Database", "Single Citation Matcher", "Batch Citation Matcher", "Clinical Queries", "LinkOut", "Cubby", "Related Resources", "Order Documents", "NLM Catalog", "NLM Gateway", "TOXNET", "Consumer Health", "Clinical Alerts", "ClinicalTrials.gov", and "PubMed Central".



検索のヒント

介入 : Albumin

研究デザインや
カテゴリ

Text
Word
albumin

MeSH
Terms
albumins

アウトカム
mortal*



PubMedで検索してみる



The screenshot shows the PubMed website interface. At the top, there are logos for NCBI, PubMed, and the National Library of Medicine (NLM). Below the logos is a navigation bar with links to various databases: Entrez, PubMed, Nucleotide, Protein, Genome, Structure, OMM, PMC, Journals, and Books. The search bar contains the text "Search PubMed" and a dropdown menu set to "PubMed". The search term "mortal*" is entered in the search box, and there are buttons for "Preview", "Go", and "Clear". Below the search bar are tabs for "Limits", "Preview/Index", "History", "Clipboard", and "Details". The "History" tab is active, displaying a list of search queries. The first query is "#1 Search albumin" with a time of 21:48:08 and a result count of 127601. A "Clear History" button is located below the history table.

Search for

[Limits](#) [Preview/Index](#) **History** [Clipboard](#) [Details](#)

- Search History will be lost after eight hours of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.
- Click on query # to add to strategy

Search	Most Recent Queries	Time	Result
#1	Search albumin	21:48:08	127601

Entrez PubMed
Overview
Help | FAQ
Tutorial
New/Noteworthy
E-Utilities

PubMed Services
Journals Database
MeSH Database
Single Citation
Matcher
Batch Citation
Matcher
Clinical Queries
LinkOut
Cubby

Related Resources
Order Documents
NLM Catalog
NLM Gateway
TOXNET
Consumer Health
Clinical Alerts
ClinicalTrials.gov
PubMed Central



検索編: PubMed

The screenshot displays the PubMed interface. At the top, there are logos for NCBI, PubMed, and the National Library of Medicine (NLM). Below the logos is a navigation bar with tabs for PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, OMIM, and Books. The search bar contains the text "#1 AND #2" and has buttons for "Preview", "Go", and "Clear". Below the search bar are tabs for "Limits", "Preview/Index", "History", "Clipboard", and "Details". The "History" tab is active, showing a list of search queries. The table below shows the search history:

Search	Most Recent Queries	Time	Result
#2	Search mortal*	04:27:44	354944
#1	Search albumin	04:27:32	116686

Below the table is a "Clear History" button. On the left side of the page, there is a sidebar with various links and sections, including "About Entrez", "Text Version", "Entrez PubMed", "PubMed Services", "Related Resources", and "Privacy Policy".



検索編: PubMed

Search for

[Limits](#) [Preview/Index](#) **History** [Clipboard](#) [Details](#)

- Search History will be lost after one hour of inactivity.
- To combine searches use # before search number, e.g, #2 AND #6.
- Search numbers may not be continuous; all searches are represented.

Search	Most Recent Queries	Time	Result
#3	Search #1 AND #2	04:47:59	3436
#2	Search mortal*	04:47:35	354944
#1	Search albumin	04:47:22	116686



検索編: PubMed

The screenshot shows the PubMed search interface. At the top, there are logos for NCBI, PubMed, and the National Library of Medicine (NLM). Below the logos, there are navigation tabs for PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, OMIM, and Books. The search bar contains the text "albumin AND mortal*" and has buttons for "Preview", "Go", and "Clear". Below the search bar, there are tabs for "Limits", "Preview/Index", "History", "Clipboard", and "Details".

On the left side, there is a navigation menu with the following items:

- About Entrez
- Text Version
- Entrez PubMed
 - Overview
 - Help | FAQ
 - Tutorial
 - New/Noteworthy
 - E-Utilities
- PubMed Services
 - Journals Database
 - MeSH Database
 - Single Citation Matcher
 - Batch Citation Matcher
 - Clinical Queries
 - LinkOut
 - Cubby
- Related Resources
 - Order Documents
 - NLM Gateway
 - TOXNET
 - Consumer Health
 - Clinical Alerts
 - ClinicalTrials.gov
 - PubMed Central
- Privacy Policy

The main content area contains the following text:

- Enter terms and click Preview to see only the number of search results.
- To combine searches use # before search number, e.g, (#2 OR #3) AND asthma.

Search	Most Recent Queries	Time	Result
#2	Search albumin AND mortal*	07:26:06	3436
#1	Search albumin	07:24:59	116686

Below the table, there is a section titled "Add Term(s) to Query or View Index:"

- Enter a term in the text box; use the pull-down menu to specify a search field.
- Click Preview to add terms to the query box and see the number of search results, or click Index to view terms within a field.
- Multiple terms selected from Index will be ORed; click AND to add to search.

At the bottom, there is a search box with "mortal" entered and buttons for "Preview" and "Index". Below the search box, there is a list of terms selected from the Index:

- mortal(548)
- mortal amputation(6)
- mortal bleeding(3)
- mortal cardiovascular events(5)
- mortal clones(5)
- mortal coil(4)
- mortal complication(6)
- mortal consequences(6)
- mortal danger(8)
- mortal events(14)

There are "Up" and "Down" buttons next to the list.



検索編: PubMed

The screenshot shows the PubMed search page with the following elements:

- Search Bar:** Search PubMed for #1 AND #2
- Navigation:** PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, OMIM, Books
- Left Sidebar:** About Entrez, Entrez PubMed, Related Resources, Privacy Policy
- Main Content:** Limited to: All Fields, Publication Types, Ages, Entrez Date, Publication Date, Languages, Human or Animal, Gender, Subsets, Gender
- Annotations:** 検索フィールド, 使用言語, 年齢, 出版日/登録日, 人間か動物か, 性別

論文の種類
Publication Type

Clinical Trial(臨床試験), Letter(投書)
Meta-Analysis(メタアナリシス), Practice Guideline(臨床ガイドライン),
Randomized Controlled Trial(無作為化比較試験)
Review

検索フィールド

使用言語

年齢

出版日/登録日

人間か動物か

性別



検索編: PubMed

The screenshot displays the PubMed search page. At the top, there are logos for NCBI, PubMed, and the National Library of Medicine (NLM). Below the logos is a navigation bar with tabs for PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, OMIM, and Books. The search bar contains the text "Search PubMed for #1 AND #2" with "Go" and "Clear" buttons. Below the search bar are tabs for "Limits", "Preview/Index", "History", "Clipboard", and "Details".

On the left side, there is a blue sidebar with the following links:

- About Entrez
- Text Version
- Entrez PubMed
 - Overview
 - Help | FAQ
 - Tutorial
 - New/Noteworthy
 - E-Utilities
- PubMed Services
 - Journals Database
 - MeSH Database
 - Single Citation Matcher
 - Batch Citation Matcher
 - Clinical Queries
 - LinkOut
 - Cubby
- Related Resources
 - Order Documents
 - NLM Gateway
 - TOXNET
 - Consumer Health
 - Clinical Alerts
 - ClinicalTrials.gov
 - PubMed Central
- Privacy Policy

The main content area shows the search results and filters. The search query is "#1 AND #2". Below the search bar, there are several filter options:

- Limits:** Use All Fields pull-down menu to specify a field.
- Boolean operators AND, OR, NOT must be in upper case.
- If search fields tags are used enclose in square brackets, e.g, rubella [ti].
- Search [limits](#) may exclude in process and publisher supplied citations.

The "Limited to:" section includes the following filters:

- All Fields (pull-down menu)
- only items with abstracts
- Publication Types (pull-down menu) with a list: Clinical Trial, Editorial, Letter, **Meta-Analysis**, Practice Guideline, Randomized Controlled Trial, Review.
- Languages (pull-down menu)
- Subsets (pull-down menu)
- Human or Animal (pull-down menu)
- Gender (pull-down menu)
- From [] To [] [] [] (date range filter)

Month and day are optional.



検索編: PubMed

The screenshot shows the PubMed search results page for the query '#1 AND #2' with the limit set to 'Meta-Analysis'. The page displays a list of 7 items. Annotations in Japanese boxes with red arrows point to specific features:

- 抄録がある** (Abstract available): Points to the document icon of the first result.
- 抄録ない** (Abstract not available): Points to the document icon of the third result.
- 電子論文が公開されている (PubMed Central)** (Full-text article available (PubMed Central)): Points to the document icon of the fifth result.
- さらに詳細が見られる** (More details can be seen): Points to the '[No authors listed]' link of the fifth result.

The search results list includes:

- 1: Vincent JL, Dubois MJ, Navickis RJ, Wilkes MM. Hypoalbuminemia in acute illness: is there a rationale for intervention? A meta-analysis of cohort studies and controlled trials. *Ann Surg.* 2003 Mar;237(3):319-34. PMID: 12616115 [PubMed - indexed for MEDLINE]
- 2: Jacobs BP, Dennehy C, Ramirez G, Sapp J, Lawrence VA. Milk thistle for the treatment of liver disease: a systematic review and meta-analysis. *Am J Med.* 2002 Oct 15;113(6):506-15. Review. PMID: 12427501 [PubMed - indexed for MEDLINE]
- 3: [No authors listed]. Summaries for patients. Whether albumin therapy improves or worsens survival of critically ill patients is not known. *Ann Intern Med.* 2001 Aug 7;135(3):S-25. No abstract available. PMID: 11496845 [PubMed - indexed for MEDLINE]
- 4: Wilkes MM, Navickis RJ. Patient survival after human albumin administration. A meta-analysis of randomized, controlled trials. *Ann Intern Med.* 2001 Aug 7;135(3):149-64. PMID: 11487482 [PubMed - indexed for MEDLINE]
- 5: [No authors listed]. Human albumin administration in critically ill patients: a meta-analysis of randomized controlled trials. Cochrane Injuries Group Albumin Reviewers. *BMJ.* 1998 Jul 25;317(7153):235-40. PMID: 9677209 [PubMed - indexed for MEDLINE]
- 6: Melchior JC.



検索編 : PubMed

The screenshot displays the PubMed Central interface. On the left, there is a navigation menu with links for 'PubMed Central', 'Abstract', 'Full Text', 'Figures/Tables', 'PDF', 'Contents', and 'Archive'. Below this, it lists 'Articles by: Reviewers, C.' and a section for 'and links to:' with a dropdown menu set to 'Related articles' and a 'Show' button. A secondary menu at the bottom left includes 'Top', 'Abstract', 'Introduction', 'Methods', 'Results', 'Discussion', and 'References'. The main content area features the 'bmj.com' logo and a navigation bar with links for 'Home', 'Search/archive', 'Rapid responses', 'Collected resources', and 'Customised @lets'. The article details include the copyright notice 'Copyright © 1998, British Medical Journal BMJ. 1998 July 25; 317 (7153): 235-240', the title 'Human albumin administration in critically ill patients: systematic review of randomised controlled trials', the authors 'Cochrane Injuries Group Albumin Reviewers', and the affiliation 'Cochrane Injuries Group, Department of Epidemiology and Public Health, Institute of Child Health, London WC1N 1EH'. The contact email 'Ian.Roberts@ich.ucl.ac.uk' is provided. The article was accepted on July 1, 1998, and is noted as an editorial by Offringa and Letters p 277. It is also mentioned that this article has been cited by other articles in PMC. The 'Abstract' section is highlighted in blue and contains the following text: 'Objective: To quantify effect on mortality of administering human albumin or plasma protein fraction during management of critically ill patients. Design: Systematic review of randomised controlled trials comparing administration of albumin or plasma protein fraction with no administration or with administration of crystalloid solution in critically ill patients with hypovolaemia, burns, or hypoalbuminaemia. Subjects: 30 randomised controlled trials including 1419 randomised patients.'



検索編: PubMed

The screenshot displays the PubMed search interface. At the top, there are navigation tabs for 'PubMed', 'Nucleotide', 'Protein', 'Genome', 'Structure', 'PMC', 'Taxonomy', 'OMIM', and 'Books'. The search bar contains 'PubMed' and the criteria '#1 AND #2'. Below the search bar, there are options for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. The search results are filtered by 'Limits: Meta-Analysis'. The display format is set to 'Summary', showing 20 items per page, sorted by relevance. The results list 7 items, with the first six visible. The 'Clinical Queries' link in the left sidebar is circled in red.

Search PubMed for #1 AND #2

Limits Preview/Index History Clipboard Details

Limits: **Meta-Analysis**

Display Summary Show: 20 Sort Send to Text

Items 1-7 of 7 One page.

1: [Vincent JL, Dubois MJ, Navickis RJ, Wilkes MM.](#) Related Articles, Links
Hypoalbuminemia in acute illness: is there a rationale for intervention? A meta-analysis of cohort studies and controlled trials. *Ann Surg.* 2003 Mar;237(3):319-34. PMID: 12616115 [PubMed - indexed for MEDLINE]

2: [Jacobs BP, Dennehy C, Ramirez G, Sapp J, Lawrence VA.](#) Related Articles, Links
Milk thistle for the treatment of liver disease: a systematic review and meta-analysis. *Am J Med.* 2002 Oct 15;113(6):506-15. Review. PMID: 12427501 [PubMed - indexed for MEDLINE]

3: [\[No authors listed\]](#) Related Articles, Links
Summaries for patients. Whether albumin therapy improves or worsens survival of critically ill patients is not known. *Ann Intern Med.* 2001 Aug 7;135(3):S-25. No abstract available. PMID: 11496845 [PubMed - indexed for MEDLINE]

4: [Wilkes MM, Navickis RJ.](#) Related Articles, Links
Patient survival after human albumin administration. A meta-analysis of randomized, controlled trials. *Ann Intern Med.* 2001 Aug 7;135(3):149-64. PMID: 11487482 [PubMed - indexed for MEDLINE]

5: [\[No authors listed\]](#) Related Articles, Links
Human albumin administration in critically ill patients: systematic review of randomised controlled trials. Cochrane Injuries Group Albumin Reviewers. *BMJ.* 1998 Jul 25;317(7153):235-40. PMID: 9677209 [PubMed - indexed for MEDLINE]

6: [Melchior JC.](#) Related Articles, Links

Left sidebar menu items: About Entrez, Text Version, Entrez PubMed (Overview, Help | FAQ, Tutorial, New/Noteworthy, E-Utilities), PubMed Services (Journals Database, MeSH Database, Single Citation, Matcher, Batch Citation Matcher, **Clinical Queries**, LinkOut, Cubby), Related Resources (Order Documents, NLM Gateway, TOXNET, Consumer Health, Clinical Alerts, ClinicalTrials.gov, PubMed Central), Privacy Policy.



検索編 : PubMed

The screenshot shows the PubMed Clinical Queries search page. At the top, there is a navigation bar with links for PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, OMIM, and Books. The main heading is "PubMed Clinical Queries". Below this, there is a section for "Clinical Queries using Research Methodology Filters". This section includes a description of the search, instructions on how to indicate category and emphasis, and a search input field with a "Go" button and a "Clear" button. The search input field contains the text "#3". There are also links for "About Entrez", "Text Version", "Entrez PubMed", "PubMed Services", "Related Resources", and "Privacy Policy".

NCBI PubMed Clinical Queries

PubMed Nucleotide Protein Genome Structure PMC Taxonomy OMIM Books

About Entrez

Text Version

Entrez PubMed
Overview
Help | FAQ
Tutorial
New/Noteworthy
E-Utilities

PubMed Services
Journals Database
MeSH Database
Single Citation
Matcher
Batch Citation Matcher
Clinical Queries
LinkOut
Cubby

Related Resources
Order Documents
NLM Gateway
TOXNET
Consumer Health
Clinical Alerts
ClinicalTrials.gov
PubMed Central

Privacy Policy

Select from two filters to limit your retrieval. Choose either Clinical Queries or Systematic Reviews. Enter your search topic in the box below and click Go.

Clinical Queries using Research Methodology Filters

This specialized search is intended for clinicians and has built-in search "filters" based largely on [Haynes RB et al.](#) Four study categories are provided, and the emphasis may be more sensitive (i.e., most relevant articles but probably some less relevant ones) or more specific (i.e., mostly relevant articles but probably omitting a few). See [filter table](#) for details.

Indicate the category and emphasis below:

Category: therapy diagnosis etiology prognosis

Emphasis: sensitivity specificity

Systematic Reviews

This feature retrieves systematic reviews and meta-analysis studies for your search topic(s). For more information, see [Help](#). [Related sources](#) are also provided.

Enter subject search:

Note: If you want to retrieve everything on a subject area, you should not use this screen. The objective of filtering is to reduce the retrieval to articles that report research conducted with specific methodologies.



検索編: PubMed

The screenshot displays the PubMed website interface. At the top, there are logos for NCBI, PubMed, and the National Library of Medicine (NLM). Below the logos is a navigation bar with tabs for PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, OMIM, and Books. The main search area contains a search bar with the text "Search PubMed for (#3) AND (randomized controlled trial [PTY] OR drug therapy [SH] OR therapeutic use [SH:NOEXP] OR random* [WORD])" and buttons for "Preview", "Go", and "Clear". Below the search bar are tabs for "Limits", "Preview/Index", "History", "Clipboard", and "Details". The "History" tab is active, showing a list of search queries with columns for "Search", "Most Recent Queries", "Time", and "Result".

Search History will be lost after one hour of inactivity.

- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.

Search	Most Recent Queries	Time	Result
#6	Search (#3) AND (randomized controlled trial [PTY] OR drug therapy [SH] OR therapeutic use [SH:NOEXP] OR random* [WORD])	06:43:30	919
#5	Search (#3) AND ((double [WORD] AND blind* [WORD]) OR placebo [WORD])	06:43:11	102
#4	Search #1 AND #2 Field: All Fields, Limits: Meta-Analysis	06:30:23	7
#3	Search #1 AND #2	06:29:12	3436
#2	Search mortal*	06:29:03	354944
#1	Search albumin	06:28:53	116686

Clear History



検索編: PubMed

The screenshot shows the PubMed search results page. The search criteria are "PubMed" for "#1 AND #2" with "Limits: Meta-Analysis". The results list five items, with the first and fifth items selected. A red arrow points from a text box to the "Limits: Meta-Analysis" text. Another red arrow points from a text box to the "Clipboard" option in the "Send to" dropdown menu.

並び変え(著者、雑誌名、出版年)

クリップボードにコピーされる。重複は自動的に削除される。500件保存できるが、1時間後に消滅。他にテキスト表示、ファイルでの保存やE-mailでの送信、文献オーダもできる。

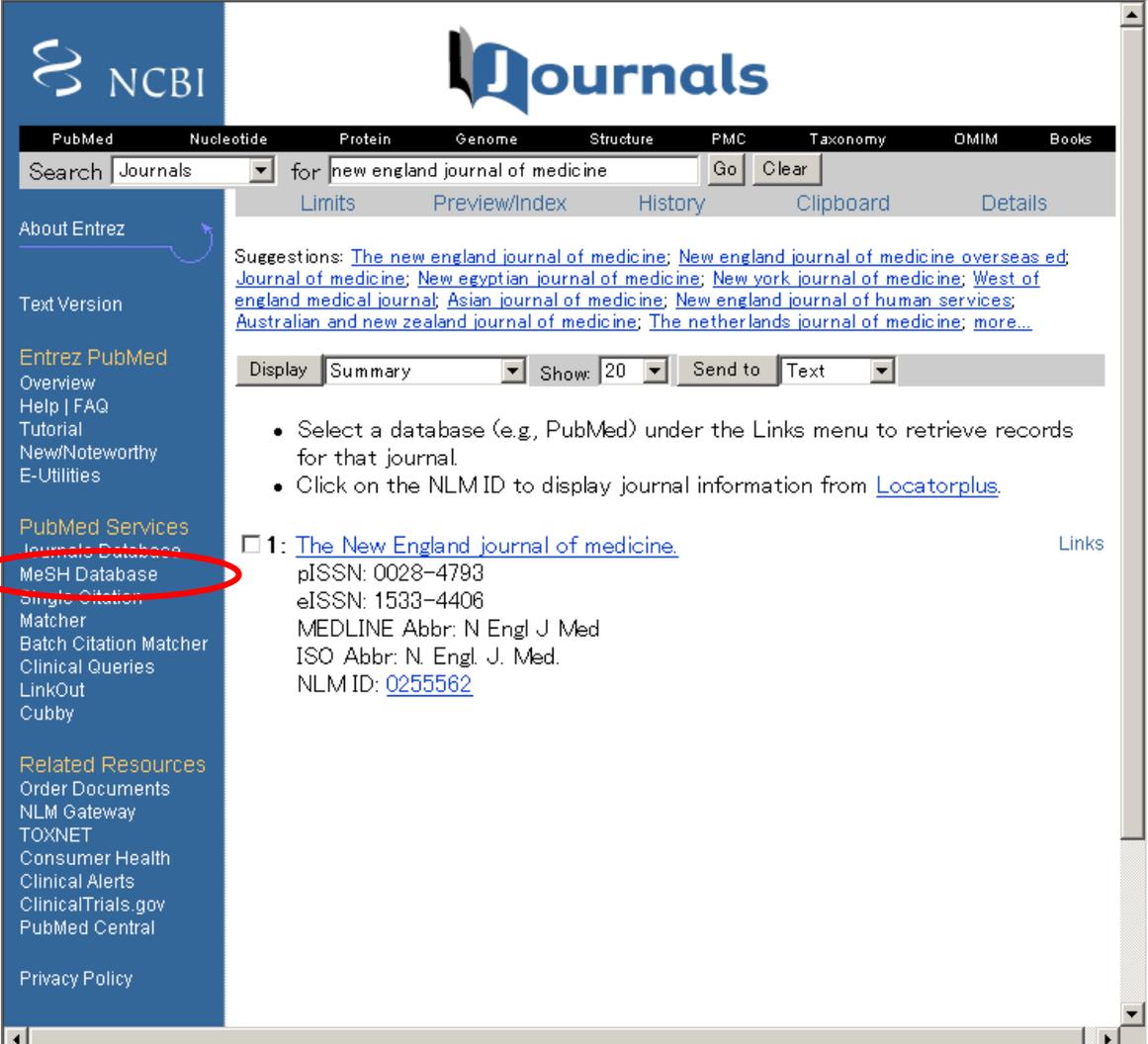


検索編: PubMed

The screenshot displays the PubMed website interface. At the top, the NCBI logo is on the left, the PubMed logo is in the center, and the National Library of Medicine (NLM) logo is on the right. Below the logos, there are navigation tabs for PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, and Other. A search bar is present with a dropdown menu set to 'PubMed' and a 'Go' button. Below the search bar, there are tabs for Limits, Preview/Index, History, Clipboard, and Details. The 'Clipboard' tab is active, showing a list of search results with a bullet point: 'Select options, enter recipient's e-mail address, and click Mail.' Below this, the 'PubMed clipboard' section includes a 'Format' dropdown set to 'Summary', an 'as' dropdown set to 'HTML', a 'Sorting' dropdown set to 'Sort', and a 'Start with item' field set to '1' and a 'send' dropdown set to '20' of 3. There is an 'Additional text (optional)' text area and an 'E-mail' input field. A 'Mail' button is located below the email field. On the left side of the page, there is a navigation menu with sections: 'About Entrez', 'Text Version', 'Entrez PubMed' (with sub-links: Overview, Help | FAQ, Tutorial, New/Noteworthy, E-Utilities), 'PubMed Services' (with sub-links: Journals Database, MESH Database, Single Citation, Matcher, Batch Citation Matcher, Clinical Queries, LinkOut, Cubby), 'Related Resources' (with sub-links: Order Documents, NLM Gateway, TOXNET, Consumer Health, Clinical Alerts, ClinicalTrials.gov, PubMed Central), and 'Privacy Policy'. The 'Journals Database' link is circled in red.



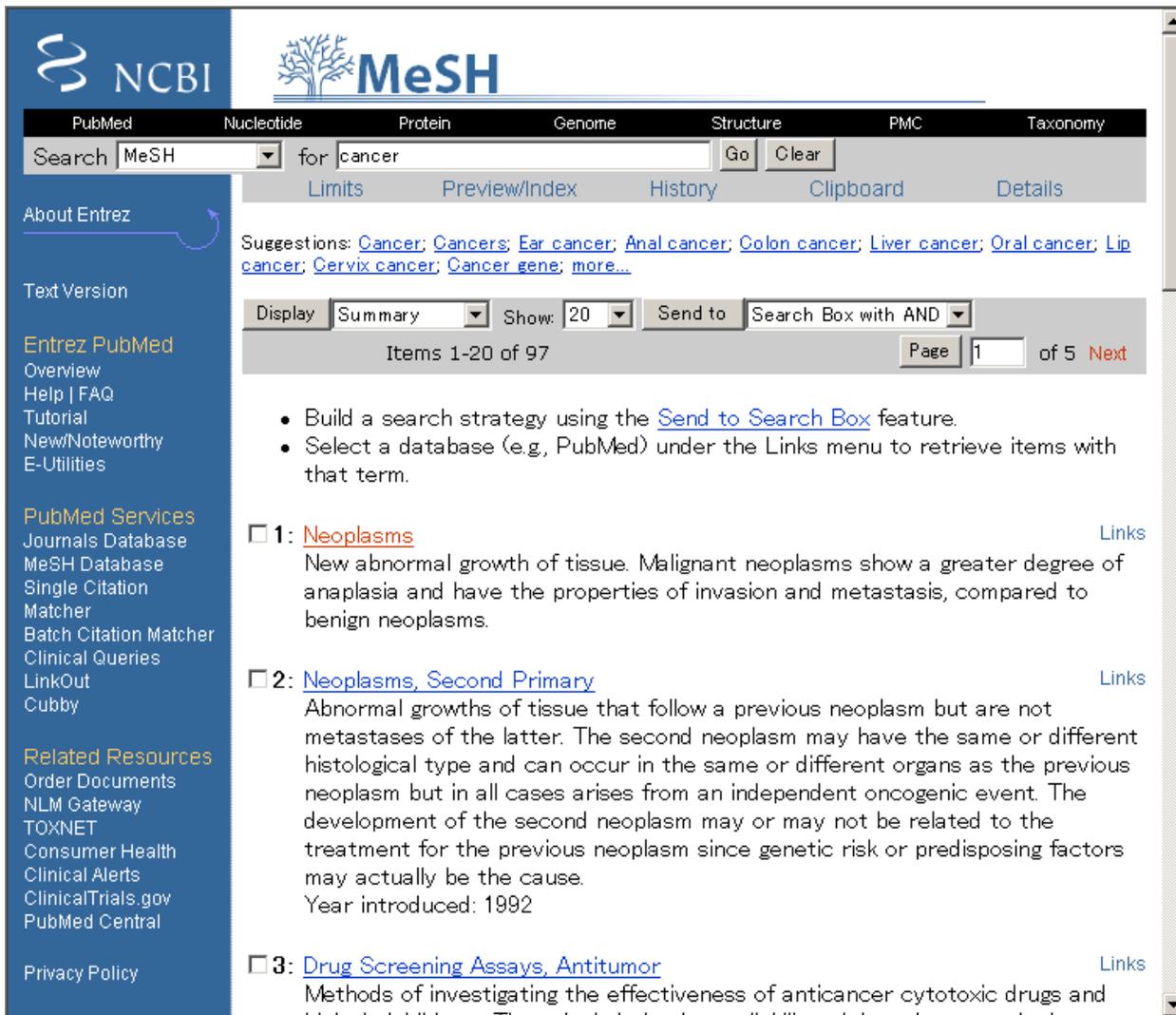
PubMedの便利な使い方(Journalの略称検索)



The screenshot displays the NCBI Journals search interface. At the top, the NCBI logo is on the left and the 'Journals' logo is on the right. Below the logos is a navigation bar with tabs for PubMed, Nucleotide, Protein, Genome, Structure, PMC, Taxonomy, OMIM, and Books. The search bar contains the text 'new england journal of medicine' and has a 'Go' button and a 'Clear' button. Below the search bar are links for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. On the left side, there is a vertical menu with sections: 'About Entrez', 'Text Version', 'Entrez PubMed' (with sub-items: Overview, Help | FAQ, Tutorial, New/Noteworthy, E-Utilities), 'PubMed Services' (with sub-items: Journals Database, MeSH Database, Single Citation Matcher, Batch Citation Matcher, Clinical Queries, LinkOut, Cubby), and 'Related Resources' (with sub-items: Order Documents, NLM Gateway, TOXNET, Consumer Health, Clinical Alerts, ClinicalTrials.gov, PubMed Central, Privacy Policy). The 'Journals Database' item is circled in red. The main content area shows search results for 'new england journal of medicine'. It includes a 'Suggestions' section with several journal titles. Below that is a 'Display' section with a dropdown set to 'Summary', 'Show' set to '20', and 'Send to' set to 'Text'. A list of results follows, with the first result being '1: The New England journal of medicine.' with a checkbox to its left and a 'Links' link to its right. The journal information includes pISSN: 0028-4793, eISSN: 1533-4406, MEDLINE Abbr: N Engl J Med, ISO Abbr: N. Engl. J. Med., and NLM ID: [0255562](#).



PubMedの便利な使い方(MeSH検索)



NCBI MeSH

PubMed Nucleotide Protein Genome Structure PMC Taxonomy

Search MeSH for cancer Go Clear

Limits Preview/Index History Clipboard Details

Suggestions: [Cancer](#); [Cancers](#); [Ear cancer](#); [Anal cancer](#); [Colon cancer](#); [Liver cancer](#); [Oral cancer](#); [Lip cancer](#); [Cervix cancer](#); [Cancer gene](#); [more...](#)

Display Summary Show: 20 Send to Search Box with AND

Items 1-20 of 97 Page 1 of 5 Next

- Build a search strategy using the [Send to Search Box](#) feature.
- Select a database (e.g., PubMed) under the Links menu to retrieve items with that term.

1: [Neoplasms](#) [Links](#)
New abnormal growth of tissue. Malignant neoplasms show a greater degree of anaplasia and have the properties of invasion and metastasis, compared to benign neoplasms.

2: [Neoplasms, Second Primary](#) [Links](#)
Abnormal growths of tissue that follow a previous neoplasm but are not metastases of the latter. The second neoplasm may have the same or different histological type and can occur in the same or different organs as the previous neoplasm but in all cases arises from an independent oncogenic event. The development of the second neoplasm may or may not be related to the treatment for the previous neoplasm since genetic risk or predisposing factors may actually be the cause.
Year introduced: 1992

3: [Drug Screening Assays, Antitumor](#) [Links](#)
Methods of investigating the effectiveness of anticancer cytotoxic drugs and



吟味編：エビデンスのレベルと勧告のグレード

David L Sackett et al.: Evidence-based Medicine—How to practice and teach EBM—. 2ed, London, Churchill Livingstone, 2000.

グレード	レベル	治療／予防／病因／害について
A	1a	無作為化比較試験の系統的レビュー(均質)
	1b	個別の無作為化比較試験(狭い信頼区間)
	1c	対象者が全て死亡または死亡者なしの場合
B	2a	コホート研究の系統的レビュー(均質)
	2b	個々のコホート研究(質の低い無作為化比較試験を含む:例えば追跡率80%未満)
	2c	“アウトカム(結果)”研究
	3a	症例対照研究の系統的レビュー(均質)
	3b	個別の対照症例研究
C	4	一連の症例(質の低いコホート研究や症例対照研究)
D	5	専門家の明確な批判的吟味のない意見, または生理学的研究に基づいたものや, “第一原理”というもの.



吟味編: RCT至上主義に陥ってはいけない

著作権処理の都合で、この場所に挿入されていた
『Range of Point Estimates According to Type of Research Design』
の図を省略させていただきます。

○が観察研究、●はRCT
Concato J, et al.: Randomized, controlled trials, observational studies, and the hierarchy of research designs. N Engl J Med 2000;342:1887-92より



吟味編: 臨床の疑問と研究デザインの組み合わせ

臨床の疑問	デザイン
診断	有病率調査
有病率	有病率調査
発生率	コホート
リスク	コホート
	症例対照
予後	コホート
治療	臨床試験
予防	臨床試験
原因	コホート
	症例対照

Fletcher, RH, et al. : Clinical Epidemiology. 3ed, より



吟味編：様々なチェックリスト

1. Flecherらの「臨床研究の妥当性決定に関する基本ガイドライン」
2. McMaster大学の「ワークシート(治療、診断、病因・副作用、予後、レビューの5種類)やハンドカード」
3. CASP (Critical Appraisal Skills Programme) Japanのワークシート(RCT用、系統的レビュー用、ガイドライン用、質的研究用)

2,3はCASP Japanのホームページ<http://caspjp.umin.ac.jp/> 参照。

またRCT論文投稿のための「CONSORT声明」やシステマティック・レビュー/メタアナリシス論文投稿のための「QUOROM声明」、疫学分野における観察研究のメタアナリシス 報告のための提案「MOOSE声明」がある。

http://www.sphere.ad.jp/cont/CONSORT_Statement/menu.html



吟味編：Flecherらの「臨床研究の妥当性 決定に関する基本ガイドライン」

1. すべての研究用
2. 診断的検査に関する研究用
3. 有病率研究用
4. コホート研究用
5. ランダム化試験用
6. 症例対照研究用
7. メタアナリシス用



吟味編：Flecherらの「臨床研究の妥当性 決定に関する基本ガイドライン」

1. すべての研究用

- a. その研究が解答しようとしているのは、どのような**種類の臨床**の疑問か？
- b. どのような**患者群、変数、結果**を研究しているか(外的妥当性)？
- c. 所見が**バイアス**がかかった結果である可能性はどの程度か(比較群間の差：患者特性、測定)？
- d. 効果の大きさはどの程度か？
- e. 結果はどの程度、偶然だけで起こりうるか(信頼区間、p値、検出力)？



吟味編：Flecherらの「臨床研究の妥当性 決定に関する基本ガイドライン」

7. メタアナリシス

- a. 関連している研究をすべてみつけたか(パブリケーションバイアス)?
- b. メタアナリシスには科学的に強固な研究のみを用いたか(バイアスの可能性はないか)?
- c. 効果の要約推定値を算出する場合
 - ① 研究は均一か(患者、介入、アウトカムは同様か)?
 - ② 研究サイズにしたがって重み付けされているか(大規模>小規模)?
- d. 質と結果が関連しているか(良いスタディ=信頼)?



最後に

利用可能な最善
の科学的な根拠

患者の価値
観及び意向

EBM

臨床的な専
門技能

