NLM Technical Bulletin

November-December 1997 No. 299

Welcoming in the *Technical Bulletin* on the Web

Along with the New Year, NLM welcomes in its new electronic *NLM Technical Bulletin*. We hope that you will continue to read the articles and give us your feedback on our new look and feel as we enter the era of Web-based electronic information.

The *Technical Bulletin* on the Web

The *Technical Bulletin* will now be published electronically in HTML (Hyper-Text Markup Language) format via the NLM Web site, http://www.nlm.nih.gov, beginning with the next issue, January-February 1998. The November-December 1997 issue is the last issue to be printed on paper and mailed to readers.

The name of the publication will not be changing and the issue numbers will continue sequentially without interruption. However, articles will now be numbered rather than having page numbers and they will have an electronic indicator "e" before the article number. For example, the first article in each online issue will be e1 and the second article will be e2.

Finding the *Technical Bulletin* on the Web

From the NLM Web site, under the heading Our Publications; click on More Publications; click on *NLM Technical Bulletin*. You can then bookmark the URL for quick and easy future use. The specific URL address for the electronic *Technical Bulletin* is: http://www.nlm.nih.gov/pubs/techbull/tb.html. You will still be able to download older issues of the *Technical Bulletin* in PDF (portable format document) and PostScript format.

Advantages of the *Technical Bulletin* on the Web

- Readers will have new information in a more timely manner - no more waiting for a complete issue to be cumulated and printed to find out about a new feature or other newsworthy information. **New articles and Technical Notes will be published electronically as they become available**.

- There will be electronic links to related material. If an article or Technical Note refers to a fact sheet, an item in the index, or any other material available on the Web, a link will be available (words will be underlined and a different color) and all you have to do is click on the link and the relevant material will appear on your Web browser.

- No more issues lost in the mail or on your desk. We receive several claims each month for issues never delivered; now the issue will always be as near as your computer.

Getting Around in the Web-based *Technical Bulletin*

Because each article will be in HTML format rather than a PDF or PostScript file you will be able to print a selected article right from your browser rather than downloading the entire issue. Reminder: The *Technical Bulletin* is not copyrighted and is freely reproducible.

All articles and Technical Notes published within the two-month time frame of an issue will then be compiled into one bimonthly issue and assigned an issue number. Completed issues will be easily distinguished by a dark icon. An issue that is in progress will be marked by a grayed-out icon.

Please note that beginning in 1998, new issues will no longer be available in the PostScript or Acrobat® PDF formats. However, the May-June 1993 through November-December 1997 issues, originally printed on paper, will continue to be available as downloadable PostScript and PDF files.

Alternatives to the *Technical Bulletin* on the Web

For users who do not yet have Web access, the following alternative methods of disseminating information will be available:

1. The complete table of contents for each issue of the *Technical Bulletin* will be posted in the newsletters published by the Regional Medical Libraries (RMLs). The RMLs will also be selecting and adapting material from the *Technical Bulletin* that is relevant for their particular

Continued on page 3

In this issue

Articles:

1 Welcoming in the Technical Bulletin on the Web
4 NCI's CancerNet Web Site Includes CANCERLIT® and PDQ® Information
5 Transitioning from ELHILL to PubMed
10 NLM Classification, 5th edition Additions and Changes List 2

Regular Features:

2 Technical Notes
PubMed Enhancements ■ New NLM Web Site for Cataloging Section ■ SI Field in GENBANK - Clarification
19 Instructions for Retrieving NLM Publications in Electronic Format
19 NLM Internet Directory

Technical Notes

PubMed Enhancements

Over the last few months, there have been many changes to the appearance of the formats for retrieved citations in PubMed. These changes were made in response to and in anticipation of the requests and needs of librarians and other experienced information specialists.

The document summary page (the brief format displayed when you first retrieve your citations) has been enhanced with the following features:

- All citations with a MEDLINE Unique Identifier (UI) display this number at the end of the record, where it is easily seen. The PubMed Identifier (PMID) is also shown.

- Citations for review articles or retracted publications show "Review" or "Retracted publication," right after the source information.

- Citations for non-English language articles display the language name after the source information.

- The source information (journal title abbreviation, date, volume, issue, pagination) is shown in a format which meets the ANSI (American National Standards Institute) standard for this data. Experienced ELHILL searchers will recognize it as the standard MEDLINE format they have seen for years.

- PREMEDLINE citations display the notice "[MEDLINE record in process]" on a separate line following the source information. Please remember that these citations are in the process of being indexed and undergoing quality control review. Therefore, in process citations will have no MeSH headings and any corrections for typographical errors will be done when the record is loaded into MEDLINE; no changes will appear on a citation while it is in process.

- Publisher-supplied data are indicated in the citation display with the note "[Record as supplied by the publisher]". This means that the publisher has supplied NLM with the data electronically, which expedites the citation's appearance in PREMEDLINE. However, indexing is still done from the full text, and is based on the complete article not just the title and abstract. The [Record as supplied by the publisher] note will remain permanently only on those citations that are out of scope for MEDLINE coverage from journals that are selectively indexed. For example, future geology articles from the journal *Science*, would be present in PubMed with the [Record as supplied by the publisher] notation.

[Editor's Note: For more information on PubMed searching, see the article on page 5 of this issue.]

New NLM Web Site for Cataloging Section

The Cataloging Section announces the arrival of the NLM Cataloging Section Web site:

http://www.nlm.nih.gov/tsd/cataloging/mainpage.html

This site became available in late November. You may link to it from the NLM Web site (http://www.nlm.nih.gov) by clicking on Services for Libraries (under Special Information Programs) and then click on Cataloging. This online tool offers users practical information about NLM cataloging policies and practices for monographs, serials, audiovisuals and electronic resources. The documentation of NLM classification practices is a key feature of this site.

The Cataloging Section hopes that this Web site will be a useful information source and would appreciate users' feedback on its content. Instructions for submitting questions and comments are included at the Web site.

SI Field in GENBANK - Clarification

The Technical Note on page 3 of the September-October 1997 *Technical Bulletin* announced a change in format to the Secondary Source Identifier (SI) Field in GenBank records from six characters to eight characters as of spring 1997. This should have stated that new records coming into the database as of spring 1997 will contain an eight character value in the SI field. Older records will retain their original six character value.

Continued from page 1

audiences and publishing this information in their regional newsletters. You may call 800-338-7657 to reach your RML and asked to be placed on the mailing list for the newsletter for your region.

2. The online NEWS in ELHILL will have a notice of each updated issue.

3. The complete table of contents for each issue will be posted in ELHILL and available with a $INFO command.

If you do not have Web access contact your RML. NLM and the RMLs are developing plans to assist all NN/LM hospital library members to obtain Web access.

The End of an Era

This is the final printed issue of the National Library of Medicine's *Technical Bulletin*. After 28 years the editorial staff has put the printed version to bed for the last time. The library has seen much growth and many changes over the years.

The first issue of the *Technical Bulletin* stated that the publication was "Established for the following purposes:

1) to communicate technical and management information among those with a need to know about MEDLARS and network developments, and

2) to enable MEDLARS and network staff to interact with NLM staff and each other on matters affecting their operations."

The overall purpose of the *Technical Bulletin* hasn't changed drastically, although the audience for this information has expanded tremendously since the earliest issues of this publication. And now the means of distributing this information is being updated to take advantage of the amazing changes in technology that have emerged in just the last few years. NLM will continue to keep its users informed of searching and system changes that will be happening in the future.

The Name Game

The name of the *Technical Bulletin* has been changed several times since it was first published. As a monthly publication, in May 1969 it was titled *MEDLARS/Network Technical Bulletin.*

In April 1977 the *Library Network/ MEDLARS Technical Bulletin* and the *TOXLINE Technical Bulletin* merged to become the *NLM Technical Bulletin.*

Milestones During the Life of the Printed *Technical Bulletin*

- October 1971, MEDLINE had 22 users and 147,000 citations from 236 journals.
- September 1972, MEDLINE Reference Manual was made available.
- In April 1985, a contractor was hired to do the printing and mailing of the *Technical Bulletin.*
- The June 1985 issue appeared in a new 2-column format using a new typeface and incorporating other design changes.
- The September 1986 special commemorative issue celebrated 15 years of MEDLINE.
- In 1986 the Library introduced Grateful Med, a user friendly software package that allowed the user to search the MEDLARS system without knowing the ELHILL command language. An important feature of Grateful Med was Loansome Doc. Loansome Doc made it possible to order full text of journal articles.
- July 1989, Gold Standard Searches began. Searchers could match wits against NLM staff on a search strategy formulation. The winner received a prize.
- The July-August 1990 issue began bimonthly frequency.
- The September-October 1991 issue was the first issue prepared on a Macintosh computer using desktop publishing software. This gave the publication a new look.
- The November-December 1991 issue contained the first compliment/complaint form to be continued in every issue until a redesign in May-June 1996.
- The May-June 1993 issue was the first issue available in electronic format, as well as paper. PostScript and PDF files were put on the NLM Web site for users to download.
- For the May-June 1996 issue the publication was re-designed to a 3-column format with new fonts and an up-to-date look.
- In April 1996, Internet Grateful Med (IGM) was born making it possible for users to now search via the World Wide Web.
- PubMed was introduced in 1997, offering free searching via the World Wide Web. IGM searching was also made free at this time.
- In 1997 the MEDLARS system had 170,000 User ID codes. In June, when searching was made free via Web-based access the number of codes dropped to 119,000, at the same time the number of searchers and searches increased.
- MEDLINE and all its Backfiles contain over 9 million citations from 3,854 indexed titles and they are searchable in one file using PubMed.

Cumulative Index

The *Technical Bulletin* cumulative index will also be available electronically on this Web site. The index covers 1979 to 1994. Future indexes will includes links to the cited HTML-formatted article if it was published in January-February 1997 or later.

Indexes for 1995-1997 are not yet available. However, an e-mail link will be available from the Index page so that you may send a message if you are trying to locate a subject and it cannot be found in 1979 to 1994. NLM staff will respond to these messages.

We would like to thank all of the editors of the *Technical Bulletin*, past and present, and all contributing authors who have made the *Technical Bulletin* a useful tool for MEDLARS searchers.

--prepared by Mary Herron
MEDLARS Management Section

NCI's CancerNet Web site includes CANCERLIT® and PDQ® Information

The National Cancer Institute's (NCI) databases, CANCERLIT and PDQ are now on the Web. For more than 20 years, the National Cancer Institute's (NCI) CANCERLIT, a bibliographic database of cancer-related literature has been available on the ELHILL computer at the National Library of Medicine. For nearly 15 years, PDQ, NCI's comprehensive cancer databank that includes information on cancer treatment, screening, prevention, and supportive care, also has been available on the mainframe computer. Now much of this information is available free of charge on the NCI's CancerNet Web site at:

http://cancernet.nci.nih.gov

There is a link to this site from the NLM Web site. Under Information Sources, click on More Databases, then scroll down to Cancer Information and click on CancerNet.

In early November, CANCERLIT was added to NCI's Web site, and most of the PDQ information also is available there. Only the physician and organizational directory information is not included with the Web version of PDQ.

CANCERLIT

From the CancerNet site, you can link to the Web version of CANCERLIT by clicking on "Health Professionals" followed by "CANCERLIT". Or you can go directly to the CANCERLIT Web site at:

http://cnetdb.nci.nih.gov

All of the nearly 1.4 million records from the CANCERLIT file in ELHILL are available here. Click on Search Instructions for a basic guide on how to search, display and save your retrieval. Please note that the Search Instructions for both the standard and expanded search forms have a table of contents and a detailed alphabetical index.

Standard Search Form

The Standard Search Form which first comes into view is designed for quick and basic searches. This search form permits only Boolean "and" searching (terms are separated by a space). For Boolean "and", "or", and "and not" searching, use the expanded search form under More Search Options at the bottom of the screen. Another option, "NCI-prepared searches", allows you to choose from a list of prepared searches on more than 90 topics in CANCERLIT. These searches show the date they were created and none are more than six months old.

Expanded Search Form

Before using the Expanded Search Form, you should review the Search Instructions. This Expanded Search Form offers options for limiting your search by many data fields (including MeSH terms). MeSH Word (major) is used for searching those MeSH terms that are considered to be a main point of the article (comparable to the *MeSH heading in ELHILL). MeSH Word (minor) is used for all MeSH terms whether major or minor points of the article. Main Heading - Subheading combinations must be typed in full and separated by a forward slash or space and surrounded by quote marks (e.g., "Breast neoplasms/drug therapy").

It should be noted that this version of CANCERLIT has **no** MeSH hierarchical EXPLODE capability. Therefore, broader MeSH terms will not retrieve the narrower terms in each hierarchical category. MeSH should be used as a supplement to your text word searches in this Web version of CANCERLIT. It is anticipated that some future CANCERLIT literature will not be MeSH-indexed as is the case with pre-1980 CANCERLIT literature.

The NCI plans to enhance both the standard and expanded search forms in 1998 with additional Boolean search capabilities, including the use of parentheses for nesting, the ability to custom tag your search terms with modifying data elements, and the ability to search based on proximity of terms within the text. Comments or questions about CANCERLIT may be sent to: cancerlit@icic.nci.nih.gov.

PDQ

Most of the PDQ information in the current MEDLARS PDQ database is available on the NCI Web site: http://cancernet.nci.nih.gov. From there click on: "Patient', or "Health Professional", and then click on one of the choices under "PDQ and Related Information". Through this site, you can access full-text information summaries from PDQ describing the latest advances in adult and childhood cancer treatment, supportive care, screening and prevention.

Clinical Trials (Protocols)

In searching for clinical trials (protocols), most of the PDQ database menu search elements are available on the Web site, including diagnosis, phase, modality, sponsorship, trial type, drug, protocol ID, city, state and country. All open and active clinical trials are included in the Web site, but the closed trials found on the MEDLARS PDQ database are not included here. Also, the very large Directory files of physicians and organizations are only available on the MEDLARS PDQ database. For PDQ, you may send your e-mail comments and questions to the following address: comments@icic.nci.nih.gov.

--prepared by Jim Carter
National Cancer Institute

Transitioning from ELHILL to PubMed

A previous article in the *Technical Bulletin* (July-August 1997 issue) highlighted the basics of PubMed searching. A listing of some of the PubMed search rules and syntax appears on page 9 in this article. This page may be photocopied or removed to keep for ready reference. PubMed's search rules can be easily used to construct expert search strategies similar to those that users are accustomed to creating using the ELHILL command language. PubMed's search rules are easy to master. Two of the biggest syntax hurdles will be to break the habit of using parentheses rather than square brackets to qualify search terms, e.g., [pt] not (pt), and to remember that Boolean connectors must be entered in uppercase, e.g., AND, OR, and NOT.

PubMed offers certain advantages such as the ability to search against all years of MEDLINE and PREMEDLINE in one fell swoop. And, "Overflow" errors that arise on ELHILL from conditions such as terms that generate a high number of postings or date ranging don't routinely happen on PubMed.

To illustrate how easy it is to convert ELHILL commands into PubMed commands, this article will transform a *Technical Bulletin* Gold Standard search strategy into a PubMed search strategy. The search "The client is a layperson who wants information on alternative treatments for breast cancer" was taken from the January-February 1997 issue. Figure 1 is the ELHILL search strategy originally formulated for CANCERLIT which explains search statements 9-11.

The PubMed Boolean Search page was used to recreate the ELHILL search strategy, in Figure 1, into a PubMed search. The Boolean Search page is best suited for constructing complex (or lengthy) search strategies--the query box is larger and scrollable which allows you to view your search strategy in full. To get there, click on Advanced Search from PubMed's Homepage and then click on the Boolean Search link.

Before you continue reading, at this point if you are still not familiar with PubMed, it is recommended that you review the listing of PubMed's search rules and syntax on Page 9. Otherwise, the translation detailed below from ELHILL language to PubMed may not be as clear.

The query box on the Boolean Search page must contain the entire search strategy as a single search statement. The first step in converting the ELHILL search strategy into a single search statement for PubMed was to create the three search statements that would be OR'd together (i.e., 3 or 5 or 6). Each of those search statements converted into a PubMed search statement follows:

SS 3: breast neoplasms [majr] AND alternative medicine [majr]

SS 5: holistic health [majr] OR wit and humor [majr] OR psychotherapy [majr] AND breast neoplasms [majr]

SS 6: breast neoplasms/diet therapy [majr]

Note: PubMed automatically explodes MeSH terms, whereas on ELHILL you must specify whether or not a term is to be exploded (e.g., breast neoplasms [majr] is equivalent to exp *breast neoplasms). The ability to turn off an automatic explode will be available soon. So, keep in mind that the same syntax is used for terms that are explodable as well as for terms that do not have any indentions. For example, the MeSH terms, "Holistic Health" and "Wit and Humor" (neither have indentions) are entered as holistic health [majr] and wit and humor [majr] and the explodable MeSH term "Psychotherapy" is entered as psychotherapy [majr].

Boolean search statements are processed left to right. To change the order in which PubMed processes a search statement, enclose the individual concept in parentheses. The terms inside a set of parentheses are processed as a unit and then incorporated into the overall strategy. Below are two examples of how the above PubMed search statements can be OR'd together with or without parentheses:

Example #1:
breast neoplasms [majr] AND alternative medicine [majr] OR (holistic health [majr] OR wit and humor [majr] OR psychotherapy [majr] AND breast neoplasms [majr]) OR breast neoplasms/diet therapy [majr]

Example #2:
alternative medicine [majr] OR holistic health [majr] OR wit and humor [majr] OR psychotherapy [majr] AND breast neoplasms [majr] OR breast neoplasms/diet therapy [majr]

PubMed can handle large explosions for over 9 million citations in a blink of an eye. While you should apply logic in formulating

SS 1:	exp *breast neoplasms
SS 2:	exp *alternative medicine
SS 3:	1 and 2
SS 4:	*holistic health or *wit a#d humor or exp *psychotherapy
SS 5:	1 and 4
SS 6:	exp *breast neoplasms/dh
SS 7:	3 or 5 or 6
SS 8:	7 contains eng (la) and 7 contains human (mh)
SS 9:	8 and 96 (yr) or 8 and 95 (yr) or 8 and 94 (yr)
SS 10:	8 and 93 (yr) or 8 and 92 (yr) or 8 and 91 (yr)
SS 11:	9 or 10

Figure 1 - ELHILL Search Strategy

a search, all those lessons about segmenting your terms into separate search statements for computer and cost-efficiency are just not vital to the new PubMed technology. That said, however, PubMed's future plans include a feature where you will be able to view a picture of the strategy--similar to Internet Grateful Med's "Details of Search" button. Here we hope to provide clarifying messages such as terms that have no postings. In addition, the plans also call for this feature to include an edit function so that a search strategy can be easily revised and resubmitted; and intermediate postings shown.

The remaining portion of the search strategy is to apply the search limiters for language (i.e., english), study group (i.e., human), and a date range (i.e., articles published during 1991-1996). Whereas, on ELHILL to apply the desired limits in CANCERLIT took an additional four steps (i.e., ELHILL search statements 8-11), this can be easily translated on PubMed into the syntax below and then added (ANDed) to the search strategy.

english [la] AND human [mh] AND 1991:1996 [dp]

Figure 2 contains the ELHILL Gold Standard search converted into a single PubMed search statement.

alternative medicine [majr] OR holistic health [majr] OR wit and humor [majr] OR psychotherapy [majr] AND breast neoplasms [majr] OR breast neoplasms/diet therapy [majr] AND english [la] AND human [mh] AND 1991:1996 [dp]

Figure 2 - ELHILL search converted to PubMed

To ensure that the ELHILL search strategy was correctly converted to PubMed, the search strategies were run in their respective systems to compare search results. The ELHILL search was run in MEDLINE, MED93, and MED90. In both ELHILL and PubMed, the results were the same -- 37 was the total postings.

If you have any questions or comments about the PubMed search strategy, please contact PubMed customer support by clicking on the "Help Desk" link.

Helpful Hint:

While constructing a complex (or lengthy) search strategy for PubMed, it is helpful to use your word processing software as a scratch pad. Use the word processing software to enter your search terms, the correct syntax (e.g., search field tags enclosed in square brackets, Boolean connectors in all uppercase), and spell check. It helps to use extra spaces or blank lines to separate your concepts for ease of proofreading and checking your logic. Once you are satisfied with the search strategy, "copy and paste" it into the PubMed query box. Be sure to remove all extra spaces, hard carriage returns or other special word processing codes. You can then go back to the search strategy in your word processing software to edit or reformulate the search strategy--quickly and easily. Repeating the "copy and paste" step into the PubMed query box will then let you execute the revised strategy with just a few clicks.

Test Your Skills

Now that you have stepped through the process of translating an ELHILL search strategy into PubMed, why not test your skills? Figure 3 is a rather complex and lengthy ELHILL search strategy for you to translate into PubMed. This example is based on a portion of an ELHILL search used to create the MEDLINE subfile of SPACELINE.

Helpful Hint:

Before you get started, please refer to the Helpful Hint box on page 6 that discusses using your word processing software in conjunction with PubMed for complex and lengthy search strategies.

Once you have completed your translation you can compare it to the PubMed strategy that was constructed by the MEDLARS Management Section as seen in Figures 4 and 5 on page 8.

When the ELHILL search was run against MEDLINE back through MED66 there were 20,997 postings. PubMed yielded 21,107 postings--a difference of 110 postings on the test day. The tested ELHILL search differed from the strategy in Figure 3 in only one way--the first two MeSH terms were exploded in order to compare the total postings to PubMed because the automatic explosion of MeSH in PubMed cannot be turned off yet. Even with that adjustment PubMed had higher postings, though. Why the difference you ask? Remember, PubMed is a single database that not only includes all of MEDLINE (1966 to present) but PREMEDLINE as well. In addition, there are citations, labeled as [Record as supplied by publisher], which are electronically-supplied to NLM by the publisher. These citations are first received by PubMed before being processed into PREMEDLINE and eventually MEDLINE. In addition, for those electronically supplied citations, from journals that are selectively indexed (e.g. Science or Nature), the non-indexed citations remain in PubMed even though they never become MEDLINE citations. The additional 110 citations found by PubMed for this search were confirmed to be either PREMEDLINE or publisher supplied citations.

Conclusion

In both the Gold Standard search and the Test Your Skills search you can see how a complex and lengthy ELHILL strategy can be transitioned to PubMed with equivalent results. Learning any new system is a challenge. As we work together with your direct feedback on your needs as information providers, PubMed will keep evolving to make it easier and clearer as evidenced by the future plans for the "Details of Search button."

--prepared by Carolyn Tilley, Lou Knecht and Rhonda Allard MEDLARS Management Section

SS 1: space flight or extraterrestrial environment or aerospace medicine or submarine medicine or cosmic radiation

SS 2: (ad) ames and research and center

SS 3: 2 and not iowa (ad) and not ia (ad) and not all agricult: (ad)

SS 4: (ad) johnson and space and center or kennedy and space and center or goddard and space and center or marshall and space and center or stennis and space and center

SS 5: (ad) national and aeronautics and space or nasa

SS 6: 5 and not spain (ad) and not france (ad)

SS 7: (tw) space and agency

SS 8: (tw) canadian or european or all japan: or french or german

SS 9: 7 and 8

SS 10: (tw) centre and national and etudes and spatiales

SS 11: (tw) deutsche and agentur and raumfahrtangelegenheiten

SS 12: blomqvist cg or booth f or booth fw or buckey jc or cintron nm or convertino v or convertino va or czeisler ca or daunton ng or dillaman rm or dudley ga or fitts rh or fortney s or fortney sm or fox ge or ganong wf or genant hk or hargens ar or hockstein li or horrigan dj jr or ingber de or jee ws or jukes th

SS 13: kanavarioti a or keil lc or koch kl or kretsinger rh or lacey jc jr or lackner rd or lambertsen cj or lanyi jk or leach cs or loeppky ja or malacinski gm or margulis l or mcfeters ga or meehan rt or moore-ede mc or morey er or morey-holton e or morey-holton er or musacchia xj

SS 14: orgel le or pak cy or partridge nc or perachio aa or pierson dl or ponnamperuma c or reschke mf or ross md or rumbaugh dm or schneider vs or schor rh or tipton cm or tischler me or vandenburgh hh or vailas ac or waligora jm or west jb or whalen rt or wilt f or wilt fh or woese cr or wolgemuth dj

SS 15: (jc) kxc or ppj or bp5 or 2rq or 9ja or bx7 or ok7 or ok8 or ux6

SS 16: 1 or 3 or 4 or 6 or 9 or 10 or 11 or 12 or 13 or 14 or 15

Figure 3 -Test Your Skills. Convert this ELHILL Search Strategy into PubMed

space flight [mh] OR extraterrestrial environment [mh] OR aerospace medicine [mh] OR submarine medicine [mh] OR cosmic radiation [mh] OR

(ames [ad] AND research [ad] AND center [ad] NOT (iowa [ad] OR ia [ad] OR agricult* [ad])) OR

((johnson [ad] OR kennedy [ad] OR goddard [ad] OR marshall [ad] OR stennis [ad]) AND space [ad] AND center [ad]) OR

((national [ad] AND aeronautics [ad] AND space [ad] OR nasa [ad]) NOT (spain [ad] OR france [ad])) OR

(space [tw] AND agency [tw] AND (canadian [tw] OR european [tw] OR japan* [tw] OR french [tw] OR german [tw])) OR

(centre [tw] AND national [tw] AND etudes [tw] AND spatiales [tw]) OR

(deutsche [tw] AND agentur [tw] AND raumfahrtangelegenheiten [tw]) OR

blomqvist cg OR booth f OR booth fw OR buckey jc OR cintron nm OR convertino v OR convertino va OR czeisler ca OR daunton ng OR dillaman rm OR dudley ga OR fitts rh OR fortney s OR fortney sm OR fox ge OR ganong wf OR genant hk OR hargens ar OR hockstein li OR horrigan dj jr OR ingber de OR jee ws OR jukes th OR

kanavarioti a OR keil lc OR koch kl OR kretsinger rh OR lacey jc jr OR lackner rd OR lambertsen cj OR lanyi jk OR leach cs OR loeppky ja OR malacinski gm OR margulis l OR mcfeters ga OR meehan rt OR moore-ede mc OR morey er OR morey-holton e OR morey-holton er OR musacchia xj OR

orgel le OR pak cy OR partridge nc OR perachio aa OR pierson dl OR ponnamperuma c OR reschke mf OR ross md OR rumbaugh dm OR schneider vs OR schor rh OR tipton cm OR tischler me OR vandenburgh hh OR vailas ac OR waligora jm OR west jb OR whalen rt OR wilt f OR wilt fh OR woese cr OR wolgemuth dj OR

kosm biol aviakosm med [ta] OR probl kosm biol [ta] OR adv space biol med [ta] OR aviakosm ekolog med [ta] OR aerosp med [ta] OR aviat space environ med [ta] OR orig life [ta] OR orig life evol biosph [ta] OR space life sci [ta]

Figure 4 - Test Your Skills ELHILL Search Converted to PubMed as it Might Appear in a Word Processing Document

space flight [mh] OR extraterrestrial environment [mh] OR aerospace medicine [mh] OR submarine medicine [mh] OR cosmic radiation [mh] OR (ames [ad] AND research [ad] AND center [ad] NOT (iowa [ad] OR ia [ad] OR agricult* [ad])) OR ((johnson [ad] OR kennedy [ad] OR goddard [ad] OR marshall [ad] OR stennis [ad]) AND space [ad] AND center [ad]) OR ((national [ad] AND aeronautics [ad] AND space [ad] OR nasa [ad]) NOT (spain [ad] OR france [ad])) OR (space [tw] AND agency [tw] AND (canadian [tw] OR european [tw] OR japan* [tw] OR french [tw] OR german [tw])) OR (centre [tw] AND national [tw] AND etudes [tw] AND spatiales [tw]) OR (deutsche [tw] AND agentur [tw] AND raumfahrtangelegenheiten [tw]) OR blomqvist cg OR booth f OR booth fw OR buckey jc OR cintron nm OR convertino v OR convertino va OR czeisler ca OR daunton ng OR dillaman rm OR dudley ga OR fitts rh OR fortney s OR fortney sm OR fox ge OR ganong wf OR genant hk OR hargens ar OR hockstein li OR horrigan dj jr OR ingber de OR jee ws OR jukes th OR kanavarioti a OR keil lc OR koch kl OR kretsinger rh OR lacey jc jr OR lackner rd OR lambertsen cj OR lanyi jk OR leach cs OR loeppky ja OR malacinski gm OR margulis l OR mcfeters ga OR meehan rt OR moore-ede mc OR morey er OR morey-holton e OR morey-holton er OR musacchia xj OR orgel le OR pak cy OR partridge nc OR perachio aa OR pierson dl OR ponnamperuma c OR reschke mf OR ross md OR rumbaugh dm OR schneider vs OR schor rh OR tipton cm OR tischler me OR vandenburgh hh OR vailas ac OR waligora jm OR west jb OR whalen rt OR wilt f OR wilt fh OR woese cr OR wolgemuth dj OR kosm biol aviakosm med [ta] OR probl kosm biol [ta] OR adv space biol med [ta] OR aviakosm ekolog med [ta] OR aerosp med [ta] OR aviat space environ med [ta] OR orig life [ta] OR orig life evol biosph [ta] OR space life sci [ta]

Figure 5 - Test Your Skills ELHILL Search Converted to PubMed as it Should Appear in the PubMed Query Box

Notes:

Author Searching: Currently, PubMed searches an author name having an initial or initials the same way ELHILL does. With the next system update, the search rules for author searching will change to incorporate automatic truncation that can be turned off. This will affect how this search would be translated to PubMed in the future. Be advised that unqualified author names can retrieve from other fields such as the abstract where references may be cited.

Journal Titles: In Figure 3, the 3-character journal code (e.g., 2rq (jc)) was used to retrieve citations to specific journals on ELHILL. In PubMed, the 3-character journal code is not searchable. Instead, you can use the MEDLINE title abbreviation (e.g., aerosp med [ta]) or the full title (e.g., aerospace medicine [ta]) to retrieve citations from specific journals.

PubMed Search Rules and Syntax

Boolean Syntax:

1. Boolean operators, AND, OR, NOT must be entered in UPPERCASE. Please note that the ELHILL connector "and not" is simply the single word NOT on PubMed.

   Because PubMed only recognizes Boolean operators in uppercase, it is no longer necessary to use a symbol to disguise MeSH terms that contain Boolean operators. For example, the MeSH term Wit and Humor must be entered in ELHILL as wit a#d humor using the hash mark to "hide" the word and. But in PubMed you simply enter wit and humor [mh].

2. PubMed processes all Boolean connectors in a left-to-right sequence. You can change the order in which PubMed processes a search statement by enclosing an individual concept in parentheses. The terms inside the set of parentheses will be processed as a unit and then incorporated into the overall strategy. On ELHILL, all AND statements are processed first.

3. When you enter a Boolean search statement, PubMed will automatically parse the search terms on either side of the Boolean operator into a single phrase. For example, cigarette smoking AND therapy will only search for cigarette smoking as a phrase, not cigarette AND smoking AND therapy.

   In addition, if PubMed finds a phrase within a search strategy string that uses unqualified terms it will automatically search the terms as a phrase rather than simply combining them. For example, if you enter air bladder fistula in the PubMed query box, PubMed will search "air bladder" as a phrase. If you do not want this automatic phrase parsing enter each term separated by the Boolean operator AND, e.g., air AND bladder AND fistula.

Truncation:

1. To truncate a term, use an asterisk (*) at the end of a search term. For example, bacter* will retrieve bacteria, bacterium, bacteriophage, etc. OR'd together automatically. Whereas on ELHILL, in addition to using the colon truncation symbol, you have to use the instruction word "all" to avoid getting an ELHILL Multi-Meaning message (e.g., all bacter:).

   Note: There is no single-character truncation symbol such as the pound sign (#) used on ELHILL.

Date and Date Range Format:

1. Dates or date ranges must be entered using the format YYYY/MM/DD [dp], e.g. 1997/10/06 [dp] . The month and day are optional (e.g., 1997 [dp] or 1997/03 [dp]). To enter a date range, insert a colon (:) between each date (e.g., 1993:1995 [dp] or 1997/01:1997/06 [dp]).

   Note: To specify a publication date or range, it is recommended that you search only by year (e.g., 1996 [dp] or 1995:1997 [dp]). Journals vary in the way the publication date appears. Some journals include just the year, whereas others include the year plus month or year plus month plus day. And, some journals use the year and season (e.g.,Winter 1997). The publication date is recorded as it appears in the journal.

Search Field Qualification:

Terms can be qualified using PubMed's search field tags. Note: A list of search field tags is available in PubMed's online help under Search Fields.

1. Terms must be post-qualified, such as aromatherapy [mh] not [mh] aromatherapy.

2. Search field tags must be enclosed in brackets, e.g., [mh] not (mh).

3. Case does not matter nor does spacing, e.g., crabs [mh] = Crabs[mh].

4. Terms that are qualified with the Text Words field tag [tw] will be searched for in the Title, Abstract, MeSH headings and Subheadings, and Names of Substance. Whereas, on ELHILL Subheadings are not included in a Text Word search. Some additional fields will be added to PubMed's [tw] soon.

MeSH Terms, Subheadings, and Language

MeSH Terms:

1. MeSH Terms must be qualified using the search field tags, e.g., [mh] for MeSH Terms or [majr] for Major MeSH Topic. The asterisk (*) which on ELHILL is used for MeSH Major Topic is reserved for truncation in PubMed.

2. MeSH terms are automatically exploded to include the more specific terms. The ability to turn off this automatic explosion is coming soon to PubMed.

   Note: Searching with MeSH terms will exclude PREMEDLINE citations as they have not yet been indexed with MeSH.

Subheadings:

1. You can directly attach subheadings using the format MeSH Term/subheading (spelled out), e.g., neoplasms/diet therapy [majr]. The ability to use the two-letter subheading abbreviations will be available soon. In addition, only one subheading may be directly attached to a MeSH term, e.g., neoplasms/diet therapy [majr] OR neoplasms/drug therapy [majr]

2. The Subheading field and search field tag (e.g., [sh]) will be available soon in PubMed so that multiple Subheadings can be "free-floated" in a search strategy.

Language:

1. Language must be spelled out. The 3-character abbreviation search (e.g., eng) is coming soon to PubMed.

   Note: The ELHILL expression "and not for (la)" was devised to aid in computer efficiency. Negating about 25% of MEDLINE citations (those that are foreign language) is much more efficient and less costly than limiting to 75% of MEDLINE (those that are English) on ELHILL. This shortcut is not necessary on PubMed. So, you can now use the syntax AND english [la] on PubMed without worrying about overloading the system.

Rev. 1/98

NLM Classification, 5th Edition

Additions and Changes List 2

The following additions and changes to the fifth edition of the *NLM Classification* have been made since the issuance of Additions and Changes, List 1, announced in the January-April 1996 issue of the *Technical Bulletin*. The Cataloging Section conducted a systematic review of the new 1996 and 1997 MeSH terms to determine the need for additions and changes to the classification. The resulting additions and changes are presented in chart form in the following categories: New Table G Numbers Added, Additions/Changes to the Main Schedules, Additions in the Index, and Notable Changes in the Index.

Questions may be referred to Christa Hoffmann at 301-496-7135.

--prepared by Wen-Min Kao
Technical Services Division

New Table G Numbers Added

AS9	–	Southeastern United States
AS95	–	Southwestern United States
DC3	–	Caribbean Region
DG4	–	Grenada
FG9	–	Guernsey
GM35	–	Mediterranean Region
JQ2	–	Qatar

Additions/Changes in the Main Schedules

Note: In the chart below, new numbers and their associated headings are italicized.

Page Reference	Change/Addition
p. 39 at QW 525.5	*add .I36 Immunophenotyping*
p. 48 at QY 21 Medical technology as a profession. Ethics. Peer review	change to: QY 21 Medical laboratory technology as a profession. Ethics. Peer review
p. 48 at *QY 22 Directories of medical technology (Table G)	change to: *QY 22 Directories of medical laboratory technology (Table G)
p. 48 at *QY 22.1 Directories of medical technology (Not Table G)	change to: *QY 22.1 Directories of medical laboratory technology (Not Table G)
p. 60	*add W 82 Medical technology (General)*
p. 60	*add W 83 Telemedicine (General) (Table G)*
	add W 83.1 General coverage (Not Table G)
p. 67	*add WA 30.5 Environmental medicine. Environmental illness*
p. 69	*add WA 330 Adolescent health services*
p. 96 at WD 200.5	*add .I7 Iron metabolism disorders*
p. 110 at WF 141.5	*add .C2 Capnography*
p. 117 at WG 166.5	*add .A3 Angioplasty*
p. 161 at WM 420.5	*add .I3 Imagery (Psychotherapy)*
p. 174	*add WO 505 Endoscopic surgery*
p. 208	*add WU 460 Dental care for the chronically ill*
p. 229	*add WY 86.5 Holistic nursing*
p. 230	*add WY 150.5 Rehabilitation nursing*

Additions in the Index

Note: In the chart below, index entries for new numbers added are *italicized*

Accidents, Radiation
In industry WA 470

Acupressure WB 537

Adolescent Health Services WA 330

Anatomy, Cross-Sectional QS 4
See also special organs or systems under Anatomy

Anesthetics, Combined
For general anesthesia QV 81

Angioplasty WG 166.5.A3
In the treatment of a particular disease, with the disease
See also Endarterectomy WG 170

Anti-Allergic Agents QV 157

Anti-Asthmatic Agents QV 120

Antibiotic Prophylaxis
General QV 350
In surgery WO 178-188
For prevention of specific disease, class with the disease; for use of specific antibiotic, class with the drug

Anti-HIV Agents QV 268.5

Anti-Obesity Agents QV 126
As appetite depressants QV 129

Antiparasitic Agents QV 250

Apoptosis QH 671

Appetite Stimulants QV 100
Used for a specific disorder, with the disorder

Aromatherapy WB 925
Used for special purposes, by subject

Beta Carotene QU 110
As a coloring agent WA 712
Vitamin A related QU 167

Bioreactors TP 248.25.B55
Special biological systems as bioreactors, with the system,e.g., Erythrocytes WH 150; Animal cells TP 248.27.A53

Bone Marrow Neoplasms WH 380

Breast Implants WP 910

Bronchoalveolar Lavage WF 600

Cancer Vaccines QZ 5
For particular neoplasms, with the neoplasm

Capillary Leak Syndrome WG 700

Capnography WF 141.5.C2
Used for general anesthesia monitoring WO 275

Case Management W 84.7
In nursing WY 100

Cell Culture QH 585.2-585.45
In histology QS 530
Techniques QS 525

Cell Respiration QH 633

Cells, Immobilized
Cytology QH 585.5.I45
Biotechnology TP 248.25.I55
Special topics, by subject

Chemoprevention
General WB 330
Neoplasms QZ 267

Chickenpox Vaccine WC 572

Chromosome Breakage QH 462.B7

Chronotherapy WB 340
For particular diseases, with the disease

Circumcision, Female
Anthropology GN 484
Medical procedure WP 200

Citric Acid QU 98

Color Therapy WB 890
For particular diseases, with the disease

Community Networks
In community health services WA 546
As information systems W 26.55.I4

Computational Biology QH 506

Computing Methodologies
In medicine (General) W 26.5
In other special fields (Form number 26.5 in any NLM schedule where applicable)
Used for special purposes, by subject

Condoms WJ 710

Condoms, Female WP 640

Contraception Behavior
General works HQ 766

Couples Therapy WM 430.5.M3

Craniofacial Abnormalities WE 705

Crime Victims HV 6250-6250.4
Crisis intervention WM 401
Psychological aspects (General) WM 165

Critical Pathways W 84.7
In nursing WY 100

Cultural Diversity
Personnel management HF 5549.5.M5
As social factor in public health WA 30
Special topics, by subject

Decompression, Surgical WO 500
Localized, by site
For special purposes, by subject

Defibrillators, Implantable WG 330

Delivery of Health Care, Integrated W 84

Dental Audit WU 29
Of a hospital dental service WU 27

Dental Care for Children WU 480

Dental Care for Chronically Ill WU 460

Dental Implants, Single-Tooth WU 640

Dental Prosthesis, Implant-Supported
WU 500-530

Dental Research WU 20.5

Dental Restoration Failure
Dental Prosthesis WU 500-530
Dental Restoration WU 300-360

Dentist's Practice Patterns WU 29

Dentition, Permanent WU 210

Depression, Postpartum WQ 500

Dietary Sucrose QU 83
As a sweetening agent WA 712

Disease Management W 84.7

DNA Footprinting
As a genetic technique QH 441

DNA Methylation QU 58.5

Drug Resistance, Neoplasm
In drug therapy (General) QZ 267
In particular neoplasms, with the
neoplasm
See also Antineoplastic Agents
QV 269, etc.

Drugs, Essential
General works QV 704
Economic aspects QV 736

Echocardiography, Four-Dimensional
WG 141.5.E2

Echocardiography, Three-Dimensional
WG 141.5.E2

Educational Technology LB 1028.3
Special topics, by subject

Embolism, Paradoxical WG 540

Embolization, Therapeutic
General works WH 310
Performed in interventional radiology
WN 200
Used for the control of operative hemorrhage
WO 500
Used for particular diseases, with the disease
See also Hemostasis, Surgical WO 500, etc.;
Hemostatic Techniques WH 310

Empiricism
Medical philosophy
History (Ancient) WZ 51

Enamel Microabrasion WU 220

Endemic Diseases WA 105
Statistics and surveys WA 900
Specific diseases, with the disease

Endosonography WN 208
Used for special purposes, by subject

Endotoxemia WC 240

Entropy
Biochemistry QU 34
Physics QC 318.E57

Environmental Illness
General WA 30.5
Due to specific etiology, by subject, e.g.,
Food Hypersensitivity WD 310;
Air Pollution, Indoor WA 754

Environmental Medicine WA 30.5

Ethnobotany GN 476.73
In medicine
Plants, Medicinal QV 766-770
Medicine, Traditional WB 50
History WZ 309

Evidence-Based Medicine WB 102

Evolution, Molecular
In biogenesis QH 325
See also Evolution QH 359-425, etc.;
Genetics QH 426-470, etc.;
Molecular Biology QH 506

Expressed Emotion BF 531-593
Specific emotions, with the emotion
Towards patients with specific disorders,
with the disorder

Facies
General physiology WE 705
Characteristic of a disease,
with the disease

Fat Substitutes QU 86

Feminism HQ 1101-1870.9

Financial Support
For health planning WA 525-546
For research (Form number 20-20.5 in any
NLM schedule where applicable)
For training (Form number 18 in any NLM
schedule where applicable)
See also Health Planning Support; Research
Support; Training Support

Food Packaging
Chemical technology TP 374
Public health aspects WA 695-722

Galanin WL 104

Granulocyte Colony-Stimulating Factor
WH 200

Grave Robbing WZ 320

Hair Follicle WR 450

Health Care Surveys W 84.3

Health Food
Nutritive value QU 145.5
Public health aspects WA 695-722

Health Personnel W 21
For the availability and distribution of health personnel see Health Manpower W 76
See also names of specific types of personnel, e.g., Allied Health Personnel W 21.5

Health Transition
Epidemiology WA 105
Statistics WA 900
Special population groups WA 300-395

Heat Stress Disorders WD 610

Heat Stroke WD 610
See also Sunstroke WD 610

Heat-Shock Response QT 120
See also Heat-Shock Proteins QU 55

Hematologic Neoplasms WH 525
Clinical pathology QZ 350

Hemorrhagic Fever, Ebola WC 534

Hemostatic Techniques WH 310
See also Embolization, Therapeutic WH 310, etc.

Hepatitis Agents, GB QW 170

High-Energy Shock Waves
Therapeutic use WB 480
Used for special purposes, by subject
See also Lithotripsy WJ 166, etc.

HIV Enteropathy WC 503.5

HIV Wasting Syndrome WC 503.5

Holistic Nursing
General WY 86.5

Hyperinsulinemia WK 880

Hypermedia
In medicine (General) W 26.55.S6
In other special fields (Form number 26.5 in any NLM schedule where applicable)

Ilizarov Technique
Bone lengthening WE 168
Fracture fixation WE 185
See also names of particular bones, joints, or conditions

Imagery (Psychotherapy) WM 420.5.I3

Immunity, Mucosal
General QW 563

Immunophenotyping QW 525.5.I36

Infection Control, Dental WU 29

Information Management
General works Z 665+
Special topics, by subject

Insurance Coverage
General HG 8011-9343
Health insurance W 100-275
See also names of specific types of insurance, e.g., Medicare WT 31

Integrase QU 141

Intellectual Property
Copyright Z 551-656
Patents T 201-342

Intuition BF 315.5

Iron, Dietary
Biochemistry QU 130.5
Pharmacology QV 183

Iron Metabolism Disorders WD 200.5.I7

Iron Overload WD 200.5.I7

Ischemic Preconditioning QZ 170
Localized, by site
See also Ischemic Preconditioning, Myocardial WG 300

Ischemic Preconditioning, Myocardial WG 300

Jaw Fixation Techniques WU 610

Keratectomy, Photorefractive, Excimer Laser WW 220

Kinesiology, Applied WB 890
Used for particular disorders, with the disorder

Lactic Acid QU 98

Landau-Kleffner Syndrome WL 340.5

Leukostasis WH 200

Library Materials
Acquisition and selection Z 689-689.8
Cataloging Z 693-695.83
Classification Z 696-697
Medicine Z 697.M4
Collection development Z 687
Library bookbinding Z 700
Preservation Z 700.9-701.5

Liver, Artificial WI 770

Living Donors QS 523–524
Of specific organs, with the organ

Managed Competition
Economic aspects W 74
Related to managed care W 130

Mandatory Reporting
Of child abuse WA 320
Legislation WA 32–33
Of elder abuse WT 30
Legislation WT 32–33

Marfan Syndrome WD 375

Medical Errors
In the practice of medicine (General) WB 100
In operative surgery WO 500
In particular areas, by subject
See also Diagnostic Errors WB 141; Medication Errors QZ 42, etc.

Medical Staff, Hospital WX 203
See also Medical Staff W 84; Personnel, Hospital WX 159; names of specific types of hospitals

Medicine, Unani WZ 80.5.A8
Currently practiced WB 50
Herbal medicine WB 925

Meditation
Behavior therapy WM 425.5.R3
Hygiene QT 265
Physical therapy WB 545
Transcendental meditation (Psychology) BF 637.T68

Megestrol WP 530
Used for special purposes, by subject

Mental Competency
Competency to consent in the acceptance of health care W 85
Legal aspects W 32–33
Related to the mentally ill WM 32–33

Metaphor
In psychoanalysis WM 460.5.D8
In psychotherapy WM 420
In other specific subjects, with the subject

Micronutrients
Biochemistry QU 130.5
Analytical chemistry QD 139.T7

Mind-Body Relations (Metaphysics)
In alternative medicine WB 880

Mineral Fibers
Biochemistry QU 130
As environmental air pollutants WA 754
Causing a specific disease, with the disease

Mosses QK 534–549.5

Motor Neuron Disease WE 550

Motor Vehicles TL 1–390
Accidents WA 275
Air pollution WA 754
Human engineering in design TL 250
Noise hazard WA 776
See also specific type of vehicles, e.g., Ambulances WX 215, etc.

Multilingualism
In language development WS 105.5.C8

Multimedia
(Form number 18.2 in any NLM schedule where applicable)
Special topics, by subject

Muscle Neoplasms WE 550

Muscle Weakness WE 550

Myocardial Ischemia WG 300

Neck Pain WE 708

Neovascularization, Physiologic WG 500

Neuromuscular Blockade
In surgery WO 234

No-Observed-Adverse-Effect Level QV 602
Of specific drugs, with the drug

Nucleic Acid Synthesis Inhibitors QU 58

Observation
As a scientific method in research (Form number 20 or 20.5 in any NLM schedule where applicable)
In specific topics, by subject

Occlusal Adjustment WU 440

Okadaic Acid
As an enzyme inhibitor QU 143

Optic Neuropathy, Ischemic WW 280

Oral Ulcer WU 140

Orphanages HV 959–1420.5

Ossification of Posterior Longitudinal Ligament WE 725

Osteotomy, Le Fort WU 610

Ovulation Detection WP 540

Paclitaxel
Pharmacology QV 269
Therapeutic use QZ 267

Pancreas, Artificial WI 830

Pancreatitis, Alcoholic WI 805

Pelvic Pain WP 155

Peroxisomal Disorders WD 205.5.L5

Persian Gulf Syndrome
Veterans' broad health care issues UB 368-369.5
Psychological aspects WM 170-184
Particular disorders, with the disorder

Phacoemulsification WW 260

Phantoms, Imaging WN 150

Physician-Nurse Relations
From the physician's perspective W 62
From the nurse's perspective WY 87

Point-of-Care Systems
In hospitals (General) WX 162
Special topics, by subject

Portasystemic Shunt, Transjugular Intrahepatic WI 720

Postoperative Hemorrhage WO 184

Pregnancy Rate HB 901-1108

Privacy
Applied psychology BF 637.P

Privacy
Applied psychology BF 637.P74
Medical records confidentiality WX 173
Special topics, by subject
See also Civil Rights

Quality-Adjusted Life Years
Demography HB 1322
Special topics, by subject
See also Quality of Life WA 30

Racquet Sports QT 260.5.R2

Radiovisiography, Dental WN 230

Rehabilitation Nursing WY 150.5
Of particular diseases, with the nursing number for the disease

Renal Agents
Therapeutic use WJ 166
See also Anti-Infective Agents, Urinary QV 243; Diuretics QV 160; Uricosuric Agents QV 98

Reproduction Techniques WQ 208

Reproductive History WQ 205

Rescue Work
First aid WA 292
Medical emergencies WB 105
For specific conditions, by subject

Resin Cements WU 190

Respiratory System Agents QV 120
See also specific kinds of agents, e.g., Antitussive Agents QV 76, etc.

Retinal Perforations WW 270

Retreatment
Of a particular disease, with the disease

Rhizotomy WL 368

RNA, Satellite QU 58.7

Rural Health Services WA 390

Safety Management
General WA 250-288
In hospitals WX 185
In occupational settings WA 485-491
Radiation WN 650
In specific types of facilities, class with type of facility in the number for administration if number for safety or accident prevention is unavailable; in the general works number if both are lacking

Salivary Ducts WI 230

Self Psychology WM 460.5.E3
See also Self Concept BF 697, etc.

Sepsis WC 240

Sexuality
Human HQ 12-449
In adolescence WS 462
In infancy & childhood WS 105.5.S4
Psychology BF 692

Shamanism
Alternative medicine WB 885
History WZ 309

Shoulder Impingement Syndrome WE 810

Single-Payer System W 100-275

Skull Base WE 705

Skull Base Neoplasms WE 707

Solar Activity QB 524-526

Somatropin WK 515
Deficiency WK 550
As a cause of a particular disorder, with the disorder

Soy Proteins QU 55
As a supplement in health or disease WB 430
Cookery for protein control WB 430

Space Suits TL 1550
In space medicine WD 750-758

Spectroscopy, Near-Infrared
General qualitative and quantitative analysis QD 96.I5
Organic analysis QD 272.S6
Food analysis TX 547.2.I53
Used for special purposes, by subject

Stethoscopes WB 26
See also Auscultation WB 278

Stomatognathic Diseases WU 140

Stomatognathic System
Anatomy WU 101
Abnormalities WU 101.5
Pathology WU 140
Physiology WU 102
Surgery WU 600

Streptococcus oralis QW 142.5.C6

Subacute Care WX 162-162.5
Nursing WY 152
Pediatric WY 159
Of a particular disease, with the disease

Substance Abuse Treatment Centers WM 29

Suburban Health WA 300

Suburban Health Services W 84-84.8
See also Community Health Services WA 546

Suicide, Attempted HV 6543-6548
Psychiatric aspects WM 165
Specific disorders associated with attempted suicide, with the disorder
See also Crisis Intervention WM 401

Superantigens QW 573

Surgery, Endoscopic
General works WO 505
For specific diseases or regions, with the disease or region

Surgery, Minimally Invasive
General works WO 505
For specific diseases or regions, with the disease or region

Tax Exemption HJ 2336-2337
Hospitals WX 157
In other fields, in practice management or economics number by subject

Technology, Medical Laboratory
As a profession QY 21
Clinical pathology QY
Diagnostic and therapeutic techniques QY 25
See also Diagnosis, Laboratory QY, etc.

Telemedicine
General works W 83
In private practice WB 50
In particular subjects, by subject

Telepathology QY 25

Teleradiology WN 160

Temporomandibular Joint Disk WU 101-102

Terminally Ill
In infancy and childhood WS 200
Medical aspects WB 310
Nursing WY 152
With a particular disease, with the disease

Therapeutic Touch WB 890

Tobacco Industry HD 9130-9149

Tooth Attrition WU 140

Tooth Preparation WU 300

Tooth Preparation, Prosthodontic WU 500

Topography, Medical WB 700-710
Of specific diseases, with the disease
See also Epidemiology WA 900, etc.

Toxicity Tests QV 602
For specific drugs, with the drug

Transplantation Conditioning WO 680
Used for special purposes, by subject, e.g., Bone Marrow Transplantation WH 380

Trauma Centers WX 215

Ultrasonography, Mammary WP 815

Universal Coverage W 100-275
See also names of specific types ofinsurance, e.g., Medicare WT 31

Urban Health Services WA 380

Vaccines, DNA QW 805

Vaginal Discharge WP 255

Vascular Capacitance WG 106

Vascular Neoplasms
General works WG 500
In arteries WG 510
In veins WG 600
In coronary vessels WG 300

Vegetable Proteins QU 55
As a supplement in health or disease WB 430
Cookery WB 430

Veterinary Drugs SF 917
See also Veterinary SF 915 under Pharmacology

Vocabulary, Controlled Z 695-695.1
Medicine Z 695.1.M48

Wasting Syndrome WB 146
Associated with nutrition disorders WD 100
In infancy & childhood WS 115
In connection with specific diseases, with the disease
See also HIV Wasting Syndrome WC 503.5

Women's Health Services
General WA 309

Zebrafish QL 638.C94

Notable Changes in the Index

Note: Minor changes such as adding subindexes under specific existing Index terms are not listed in this chart.

Page Reference	Change
p. I-81 under Embryo Transfer at sub-index Human	change classification no. from: WQ 205 to: WQ 208
p. I-86 at Epithalamus see Diencephalon	change entire line to: Epithalamus WL 312
p. I-93 at Fertilization in Vitro	change classification no. from: WQ 205 to: WQ 208
p. I-100 under Gamete Intrafallopian Transfer at sub-index Human	change classification no. from: WQ 205 to: WQ 208
p. I-106 at GTP-Binding proteins see G-Proteins	change entire line to: GTP-Binding Proteins QU 55
p. I-129 at Insurance, Disability see Medicare	change to: Insurance, Disability HD 7105.2-7105.25 Medicare WT 31
p. I-187 at Photons see Radiation	change to: Photons Physics QC 793.5.P42-793.5.P429 Radiation effects of WN 600-630 Special topics, by subject
p. I-233 under Surgery, Laparoscopic at sub-index General works	change classification no. from: WO 500 to: WO 505
p. I-236 at Technology, Medical	replace the entire Index entry with: Technology, Medical General works W 82 Diagnostic and therapeutic techniques WB 365 Economic aspects W 74 Instrumentation (General) W 26 In special fields (Form number 26 in any NLM schedule where applicable) Special topics, by subject

This page intentionally blank.

Retrieving NLM Publications in Electronic Format

Issues of the *NLM Technical Bulletin* may be retrieved electronically via Internet: using ftp via NLM's anonymous ftp server or via the NLM Web site. New issues are added as they go to print; look for new issues on the server during the last week of February, April, June, August, October and December. Also available electronically are updated chapters of the *Online Services Reference Manual* (OSRM) and the serials publications: *List of Serials Indexed for Online Users* (LSIOU) and *List of Journals Indexed in Index Medicus* (LJI). Monthly update information for indexed titles, formerly found at the back of each *Technical Bulletin* issue is available electronically. Instructions for retrieving any of these publications are included below.

The *Technical Bulletin* on the Web

The *Technical Bulletin* will be published exclusively on NLM's Web site (http://www.nlm.nih.gov) and cease paper copy beginning with the January-February 1998 issue. The URL for the electronic *Technical Bulletin* is: http://www.nlm.nih.gov/pubs/techbull/tb.html

Technical Bulletin (1993-1997)

ftp via the NLM Web site:
Connect to the NLM Web site (URL: http://www.nlm.nih.gov)
Click on More Publications;
click on NLM Technical Bulletin;
choose the desired format: pdf or postscript.
Choose the desired issue.

ftp via NLM's anonymous ftp server:
PostScript and pdf files
anonymous ftp to nlmpubs.nlm.nih.gov
in the directory online/medlars/techbull
in the directories:
pdf_tb for pdf files
ps_tb for PostScript files

Online Services Reference Manual -- Updated Chapters

ftp via the NLM Web site:
WordPerfect, PostScript, and pdf files
Connect to the NLM Web site: (URL: http://www.nlm.nih.gov)
Click on More Publications; click on Publications About Using NLM Programs and Services;
click on Online Services Reference Manuals; choose the desired format of the chapter you wish to retrieve.

ftp via NLM's anonymous ftp server:
WordPerfect, PostScript and pdf files
anonymous ftp to nlmpubs.nlm.nih.gov
in the directory online/medlars/manuals

NLM Serials Publications: LSIOU, LJI, and updates for indexed titles

ftp via the NLM Web site:
DOS Text and WordPerfect
Connect to the NLM Web site (URL: http://www.nlm.nih.gov)
Click on More Publications;
click on Publications About Using NLM Programs and Services; click on desired publication; choose the format you wish to retrieve.

ftp via NLM's anonymous ftp server:
WordPerfect, PostScript and Text files
anonymous ftp to nlmpubs.nlm.nih.gov
in the directory online/journals

Questions?

ftp: ftpadmin@nlm.nih.gov
gopher: admin@gopher.nlm.nih.gov
e-mail: admin@mailserv.nlm.nih.gov

To retrieve a list of MEDLARS databases online, their file counts and update information, type:
FILE ALERT at a USER: prompt, then type $info updates
To retrieve the Serials updates online, type:
FILE ALERT at a USER: prompt, then type $info seryymm, e.g. $info ser9603

NLM Internet Directory

The following Internet addresses may be used for specific questions and comments to NLM:

AIDS Information Services	aids@aids.nlm.nih.gov
Anonymous ftp Service Assistance	ftpadmin@nlm.nih.gov
Fixed-Fee and Flat-Rate Special Agreements	hajarian@nlm.nih.gov
GenBank Molecular Sequence Database Information	info@ncbi.nlm.nih.gov
Grateful Med	gmhelp@nlm.nih.gov
History of Medicine Division	hmdref@nlm.nih.gov
Images from the History of Medicine	hmdref@nlm.nih.gov
Interlibrary Loan (ILL)/DOCLINE Assistance	ill@nlm.nih.gov
International Programs Office	ip@nlm.nih.gov
Internet Grateful Med Assistance	access@nlm.nih.gov
MEDLARS Management Section	mms@nlm.nih.gov
MeSH Heading Suggestions	meshsugg@lhc.nlm.nih.gov
National Center for Biotechnology Information (NCBI)	info@ncbi.nlm.nih.gov
National Information Center on Health Services Research and Health Care Technology (HealthSTAR/HSTAT):	nichsr@nlm.nih.gov
Office of Public Information	publicinfo@nlm.nih.gov
Planning and Evaluation Office	siegel@nlm.nih.gov
Preservation Information	pres@nlm.nih.gov
PubMed Assistance	info@ncbi.nlm.nih.gov
Reference Assistance	ref@nlm.nih.gov
Technical Services Division	tsd@nlm.nih.gov
Toxicology Information Program	toxmail@tox.nlm.nih.gov

NLM Internet Access

TELNET

MEDLARS, PDQ & TOXNET	medlars.nlm.nih.gov
Locator	locator.nlm.nih.gov
HSTAT	text.nlm.nih.gov

FTP

MEDLARS Server	medlars.nlm.nih.gov
NLM Anonymous Server	nlmpubs.nlm.nih.gov

TOOLS

Internet Grateful Med	http://igm.nlm.nih.gov
NLM Web site	http://www.nlm.nih.gov
NLM AIDS Web site	http://sis.nlm.nih.gov/aidswww.htm
PubMed	http://www.ncbi.nlm.nih.gov
e-mail-Based File Server	files@mailserv.nlm.nih.gov

NLM TECHNICAL BULLETIN

Head, MMS Carolyn B. Tilley
Co-Editor/Technical Notes Editor Toby G. Port
Co-Editor Mary Herron

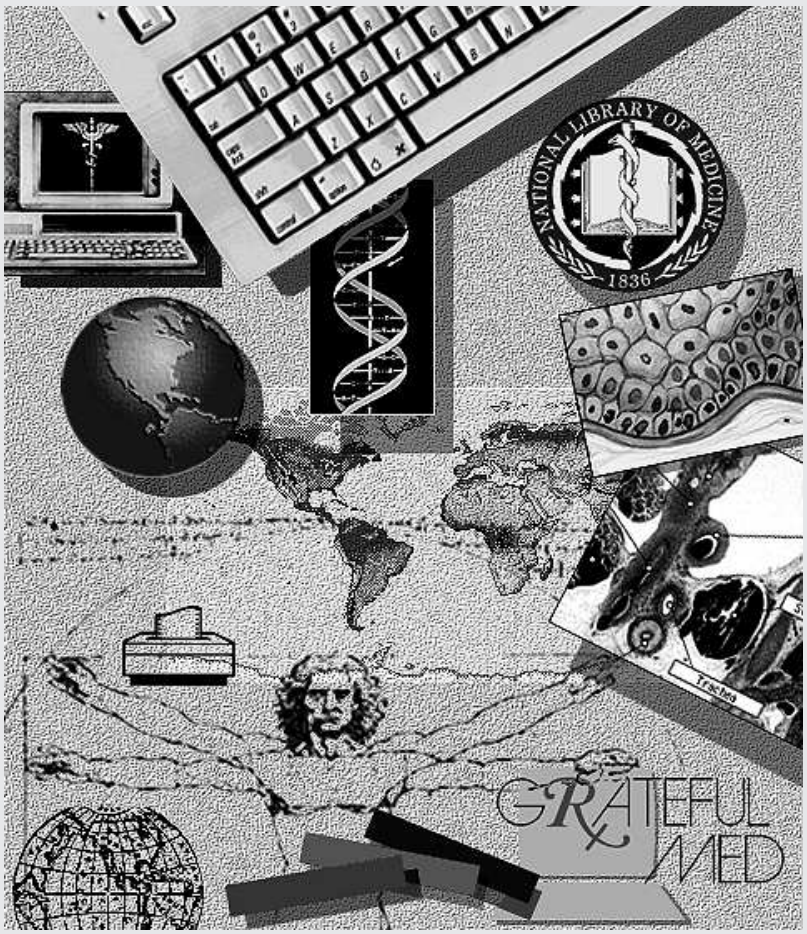
Direct Inquiries to:
MEDLARS Management Section
National Library of Medicine
Bldg., 38A, Rm. 4N421
Bethesda, Maryland 20894
(888) FINDNLM (888-346-3656)
TDD: (301) 435-2388
mms@nlm.nih.gov
gmhelp@nlm.nih.gov

The NLM Technical Bulletin is an administrative document sent to formal members of NLM's MEDLARS Online Network.

CONTENTS NOT COPYRIGHTED FREELY REPRODUCIBLE

Printed on Recycled Paper

NATIONAL LIBRARY OF MEDICINE



NLM's Phone Number:
888-FINDNLM (888-346-3656)

E-Mail Addresses:

Public Information
publicinfo@nlm.nih.gov

MEDLARS Service Desk
mms@nlm.nih.gov

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service, National Institutes of Health
National Library of Medicine (#38/4N-421)
8600 Rockville Pike
BETHESDA, MARYLAND 20894

Official Business
Penalty for Private Use $300

FIRST-CLASS MAIL
POSTAGE & FEES
PAID
PHS/NIH/NLM
PERMIT No. G-816