MESH VOCABULARY FILE - Data Element Descriptions [October 20, 1998]

ELHILL Unit Record Format

INTRODUCTION

The MESH Vocabulary File contains all descriptors and qualifiers used to index and catalog material for computer retrieval and for INDEX MEDICUS, the BIBLIOGRAPHY OF THE HISTORY OF MEDICINE, CATLINE and other more specialized bibliographies. It also contains chemical terms used for indexing and searching of chemicals in MEDLINE and related files.

For the purposes of this documentation, "descriptor" means a MeSH main heading; “qualifier" is a MeSH subheading; and a "supplementary chemical term" is a non-descriptor chemical term used in controlled indexing. A chemical in this database will be either a MeSH heading (MH) or a Name of Substance (NM) chemical term but not both.

The MESH Vocabulary File consists of three types of records (as identified in the RECID field of the Unit Record Header):

VOC - Main heading records which contain the authoritative form of descriptors used in indexing plus descriptive and control information about these descriptors; also identified by the value 'D' in the RY (Record Type) field; 19,232 records for 1999 (including 84 Publication Types).
QAL - Qualifier unit records which consist of topical, form, geographic, and language subheadings and their entry versions and abbreviations; also identified by the value 'Q' in the RY (Record Type) field; 787 records for 1999 of which 82 are topical subheadings used for MEDLINE indexing.
CAR - Chemical terms which contain mapping instructions to main headings, CAS registry numbers, EC numbers, and synonyms. This record type was added in 1980 and is also identified by the value 'C' in the RY (Record Type) field; about 102,500 records as of July, 1998.

Data in this file are in upper and lower case using the MEDLARS Character Set.

MeSH records are arranged on magnetic tape in the following order:

VOC records: 9 - 0, Z - A;
QAL records: 9 - 0, Z - A;
CAR records: 9 - 0, Z - A.

MeSH descriptors and qualifiers are updated annually. Chemical term unit records (Supplementary Chemical Records) are entered/updated several times per week. If the MeSH Vocabulary File is leased alone, NLM prefers to ship on an annual basis unless the licensee needs the chemical term unit records. If leased in conjunction with a MeSH-related bibliographic citation file, NLM will ship on either an annual or monthly basis.

The following outlines the changes that have been made to the MeSH Vocabulary file since 1995.

1995:

* CAS Type 1 Name (N1), data element number 614, extended to descriptor records.

* Two new topical subheading were added:
    a. agonists (/ag)
    b. virology (/vi)

* Two new Pre-Explosions were added:
    a. Amino Acids
    b. Diagnosis

* The Qualifier Cross Reference (QX) field, data element number 223, has been expanded to reflect entry terms or "see" references (synonyms) for almost all the topical subheadings.

1996:

* The Pharmacological Action (PA), data element 292, was extended to descriptor records. Previously, this element was present only on Supplementary Chemical Records.

* A new data element for descriptors was introduced - the Main Heading Thesaurus ID (MHTH), data element 321, which has as values abbreviations of a given thesaurus in which the MH term is found, with a subelement containing a four-character year date.

* The format for subheadings attached to other values was changed from the abbreviated version to the long (SH) version in the following fields in Supplementary Chemical Records: Heading Mapped-To (HM), data element 291, Pharmacologic Action (PA), data element 292, and Indexing Information, data element 278.

* Publication Types added in the MeSH Vocabulary File as RY=D. These indicate the form of a citation, for example, 'Review'. All Publication Types are characterized by an MH element value which ends with the string 'Publication Type' (enclosed by special characters that appear as left and right square brackets in NLM publications). All Publication Types have a DC value of 2 (though one record in which DC=2 is not a Publication Type - 'English Abstract').

1997:

* The list of Publication Types (DC=2) was expanded with the addition of 35 genre terms, though most of these will not be used primarily for indexing of current articles, but rather for description of historical works, and for cataloging.

* Two new Pre-Explosions were added:
    a. Metals, Heavy
    b. Metals, Light

* A new data element for descriptors was introduced - the BACKWARD CROSS REFERENCE THESAURUS ID (BXTH), data element 701, which has as values Thesaurus ID names that in occur in the BX element of a descriptor record.

1998:

* Two new MeSH Tree hierarchies (subcategories) were created: B7 - Archaea, and J2 - Food and Beverages.

* "Non-MeSH" descriptors (DC=5) were modified and made available as full MeSH headings (either DC=1 or DC=4). DC=5 is no longer a valid class value.

1999:

* The list of Publication Types (DC=2) was expanded with the addition of 33 genre terms. These are primarily used for cataloging and will be used in place of previously used form qualifiers.

PUBLICATIONS PRODUCED FROM THIS DATABASE

The following are annual publications produced from the MeSH Vocabulary File. They are available as order items from the National Technical Information Service (NTIS), U. S. Dept. of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

1. Medical Subject Headings, Annotated Alphabetic List
2. Medical Subject Headings, Tree Structures
3. Permuted MeSH

The introductory pages of the first two publications listed above contain detailed information about the structure of the MeSH vocabulary and how it changes from year to year, and are recommended as reference resources.

4. Online Services Reference Manual

ONLINE ACCESS TO DATABASE

The contents are available via FTP in MARC and ASCII formats. Additional descriptions and access are provided through the MeSH webpages at http://www.nlm.nih.gov/mesh.

RELATIONSHIP WITH MEDLINE

The MeSH Vocabulary File is the authority file for MEDLINE and all other NLM databases that use the MeSH Vocabulary. It is used to validate MeSH indexing terms at data entry/input and also operates in tandem with those databases in the online environment in order to enhance search capabilities. These enhanced capabilities are achieved through a special mapping program on the ELHILL software. This mapping program makes possible the following techniques:

1. Ability to search print see references and non-print see references (in BX field in MeSH record) and entry versions (in DE field and EV subelement in the BX field), in MEDLINE, etc. as though they were the preferred MeSH heading (MH). Data Form abbreviations (referred to as DF in certain annotations) are often found in the DE field in the MeSH record.

2. Ability to search chemical synonyms (from SY field in MeSH) in MEDLINE, etc. as though they were the preferred Name of Substance (NM).

3. Ability to search related registry numbers (from RR field in Supplementary Chemical Records) in MEDLINE, etc. as though

they were the Registry Number in the RN field of the preferred substance.

4. Ability to EXPLODE a MeSH heading in MEDLINE, etc. The software looks up the heading in MeSH and takes its Tree Number back into the citation database where it truncates the number, resulting in an implied OR strategy.

SPECIAL ELHILL ELEMENTS FOR THE MESH VOCABULARY FILE

For your information, the NLM generates the following searchable-only data elements for this database on ELHILL:

1. FI (First Tree Node) - contains the first node, e.g., D2, of the MeSH Tree number for each MeSH preferred descriptor. The FI is not a true data element and does not appear in the record but is an index point generated from the MeSH Tree Number (MN) element. This provides a way to retrieve descriptors by subcategories which is not possible by using other methods. For example, the search statement "(fi)c4," is equivalent to "exp c4" and "(mn)c4:" but while the latter two statements will produce a "GENTRM OVFLW" using ELHILL, the first node search will retrieve all of the C4 category.

2. NF (Name Fragments) - contains all meaningful parts of common and chemical names including parent, substituents, modifiers, and locants. For example, the chemical term

   ammonium carbonate

   would have the following name fragments:

   ammonium
   carbonate

   Name fragments are generated from the N1 (CAS Type 1 Name), NM (Name of Substance), SY (Synonyms), HM (Heading Mapped-To), and PA (Pharmacological Action) fields.

3. TW (Text Words) - contains unit terms according to the ELHILL Text Word term generation rules. Purely numeric strings and certain stop words are not kept as Text Words. Text Words are generated from the AN (Annotation), BX (Backward Cross Reference), EC (Entry Combination), HN (History Note), MH (MeSH Heading), MS (MeSH Scope Note), NO (Note) for Supplementary Chemical Records only, OL (Online Note), PI (Previous Indexing), and PM (Public MeSH Note) fields.

VOCABULARY RECORD - TABLES OF ELEMENTS

DESCRIPTOR FIELDS BY NAME

Name	Mnemonic	Number
Allowable Topical Qualifiers	AQ	398
Annotation	AN	260
Backward Cross Reference	BX	277
Backward Cross Reference Thesaurus ID	BXTH	701
CAS Registry/EC Number	RN	261
CAS Type 1 Name	N1	614
Consider Also Xref	CX	569
Country of Publication Code	CYC	220
Date Major Descriptor Established	DX	264
Date Minor Descriptor Established	DY	265
Date of Entry	DA	100
Descriptor Class	DC	250
Descriptor Entry Version	DE	266
Descriptor Form	DF	267
Descriptor Sort Version	DS	269
Descriptor Type	DT	252
Entry Combination	EC	270
Forward Cross Reference	FX	262
History Note	HN	219
Major Revision Date	MR	120
MED66 Postings	M66	280
MED75 Postings	M75	283
MED80 Postings	M80	285
MED85 Postings	M85	571
MED90 Postings	M90	286
MED93 Postings	M93	777
MEDLINE Postings	MED	538
MeSH Heading	MH	251
MeSH Scope Note	MS	215
MeSH Tree Number	MN	273
MH Thesaurus Id	MHTH	321
Online Note	OL	217
Pharmacological Action	PA	292
Pre-explosion	PX	126
Previous Indexing	PI	271
Public MeSH Note	PM	218
Record Originator	RO	101
Record Type	RY	272
Running Head	RH	274
Thesaurus Id	TH	276
Unique Identifier	UI	480

DESCRIPTOR FIELDS BY ELEMENT NUMBER

Number	Name	Mnemonic
100	Date of Entry	DA
101	Record Originator	RO
120	Major Revision Date	MR
126	Pre-explosion	PX
215	MeSH Scope Note	MS
217	Online Note	OL
218	Public MeSH Note	PM
219	History Note	HN
220	Country of Publication Code	CYC
250	Descriptor Class	DC
251	MeSH Heading	MH
252	Descriptor Type	DT
260	Annotation	AN
261	CAS Registry/EC Number	RN
262	Forward Cross Reference	FX
264	Date Major Descriptor Established	DX
265	Date Minor Descriptor Established	DY
266	Descriptor Entry Version	DE
267	Descriptor Form	DF
269	Descriptor Sort Version	DS
270	Entry Combination	EC
271	Previous Indexing	PI
272	Record Type	RY
273	MeSH Tree Number	MN
274	Running Head	RH
276	Thesaurus Id	TH
277	Backward Cross Reference	BX
280	MED66 Postings	M66
283	MED75 Postings	M75
285	MED80 Postings	M80
286	MED90 Postings	M90
292	Pharmacological Action	PA
321	MH Thesaurus Id	MHTH
398	Allowable Topical Qualifiers	AQ
480	Unique Identifier	UI
538	MEDLINE Postings	MED
569	Consider Also Xref	CX
571	MED85 Postings	M85
614	CAS Type 1 Name	N1
701	Backward Cross Reference Thesaurus Id	BXTH
777	MED93 Postings	M93

Descriptor Fields by Mnemonic

Mnemonic	Name
AN	Annotation
AQ	Allowable Topical Qualifiers
BX	Backward Cross Reference
BXTH	Backward Cross Reference Thesaurus Id
CX	Consider Also Xref
CYC	Country of Publication Code
DA	Date of Entry
DC	Descriptor Class
DE	Descriptor Entry Version
DF	Descriptor Form
DS	Descriptor Sort Version
DT	Descriptor Type
DX	Date Major Descriptor Established
DY	Date Minor Descriptor Established
EC	Entry Combination
FX	Forward Cross Reference
HN	History Note
M66	Med66 Postings
M75	Med75 Postings
M80	Med80 Postings
M85	Med85 Postings
M90	Med90 Postings
M93	Med93 Postings
MED	MEDLINE Postings
MH	MeSH Heading
MHTH	MH Thesaurus Id
MN	MeSH Tree Number
MR	Major Revision Date
MS	MeSH Scope Note
N1	CAS Type 1 Name
OL	Online Note
PA	Pharmacological Action
PI	Previous Indexing
PM	Public MeSH Note
PX	Pre-explosion
RH	Running Head
RN	CAS Registry/EC Number
RO	Record Originator
RY	Record Type
TH	Thesaurus Id
UI	Unique Identifier

QUALIFIER RECORD - TABLE OF ELEMENTS

Name	Mnemonic	Number
Annotation	AN	260
Date Qualifier Established	DQ	354
Date of Entry	DA	100
Geographic Area Code	GC	221
History Note	HN	219
Language	LA	306
Language Usage	LU	222
Major Revision Date	MR	120
MED66 Postings	M66	280
MED75 Postings	M75	283
MED80 Postings	M80	285
MED85 Postings	M85	571
MED90 Postings	M90	286
MED93 Postings	M93	777
MEDLINE Postings	MED	538
MeSH Scope Note	MS	215
Note	NO	211
Qualifier Usage	QG	214
Qualifier Type	QT	201
Qualifier Entry Version	QE	212
Qualifier Sort Version	QS	213
Qualifier Cross Reference	QX	223
Record Type	RY	272
Record Originator	RO	101
Subheading	SH	200
Topical Qualifier Abbreviation	QA	216
Tree Node Allowed	TN	210
Unique Identifier	UI	480

QUALIFIER FIELDS BY ELEMENT NUMBER

Number	Name	Mnemonic
100	Date of Entry	DA
101	Record Originator	RO
120	Major Revision Date	MR
200	Subheading	SH
201	Qualifier Type	QT
210	Tree Node Allowed	TN
211	Note	NO
212	Qualifier Entry Version	QE
213	Qualifier Sort Version	QS
214	Qualifier Usage	QG
215	MeSH Scope Note	MS
216	Topical Qualifier Abbreviation	QA
219	History Note	HN
221	Geographic Area Code	GC
222	Language Usage	LU
223	Qualifier Cross Reference	QX
260	Annotation	AN
272	Record Type	RY
280	MED66 Postings	M66
283	MED75 Postings	M75
285	MED80 Postings	M80
286	MED90 Postings	M90
306	Language	LA
354	Date Qualifier Established	DQ
480	Unique Identifier	UI
538	MEDLINE Postings	MED
571	MED85 Postings	M85
777	MED93 Postings	M93

QUALIFIER FIELDS BY MNEMONIC

Menmonic	Name
AN	Annotation
DA	Date of Entry

DQ	Date Qualifier Established
GC	Geographic Area Code
HN	History Note
LA	Language
LU	Language Usage
M66	MED66 Postings
M75	MED75 Postings
M80	MED80 Postings
M85	MED85 Postings
M90	MED90 Postings
M93	MED93 Postings
MED	MEDLINE Postings
MR	Major Revision Date
MS	MeSH Scope Note
NO	Note
QA	Topical Qualifier Abbreviation
QE	Qualifier Entry Version
QG	Qualifier Usage
QS	Qualifier Sort Version
QT	Qualifier Type
QX	Qualifier Related Term Reference (Cross Reference)
RO	Record Originator
RY	Record Type
SH	Subheading
TN	Tree Node Allowed
UI	Unique Identifier

MESH CHEMICAL RECORD - TABLE OF ELEMENTS

Name	Mnemonic	Number
CAS Type 1 Name	N1	614
CAS Registry/EC Number	RN	261
Date of Entry	DA	100
Frequency	FR	922
Heading Mapped-to	HM	291
Indexing Information	II	278
Major Revision Date	MR	120
Name of Substance	NM	290
Note	NO	211
Pharmacological Action	PA	292
Previous Indexing	PI	271
Record Originator	RO	101
Record Type	RY	272
Related Registry Number	RR	610
Source	SO	602
Synonyms	SY	616
Thesaurus Id	TH	276
Unique Identifier	UI	480

Number	Name	Mnemonic
100	Date of Entry	DA
101	Record Originator	RO
120	Major Revision Date	MR
211	Note	NO
261	CAS Registry/EC Number	RN
271	Previous Indexing	PI
272	Record Type	RY
276	Thesaurus Id	TH
278	Indexing Information	II
290	Name of Substance	NM
291	Heading Mapped-to	HM
292	Pharmacological Action	PA
480	Unique Identifier	UI
602	Source	SO
610	Related Registry Number	RR
614	CAS Type 1 Name	N1
618	Synonyms	SY
922	Frequency	FR

Mnemonic	Name
DA	Date of Entry
FR	Frequency
HM	Heading Mapped-to
II	Indexing Information
MR	Major Revision Date
N1	CAS Type 1 Name
NM	Name of Substance
NO	Note
PA	Pharmacological Action
PI	Previous Indexing
RN	CAS Registry/EC Number
RO	Record Originator
RR	Related Registry Number
RY	Record Type
SO	Source
SY	Synonyms
TH	Thesaurus Id
UI	Unique Identifier

VOCABULARY FILE ELEMENT DEFINITIONS

Element Name: ANNOTATION
Mnemonic: AN
Record Type: VOC, QAL
Number: 260
Description: The Annotation is an informative note about a descriptor or qualifier. Although written primarily for indexers and catalogers, it is often useful to online searchers.

Element Name: ALLOWABLE TOPICAL QUALIFIERS
Mnemonic: AQ
Record Type: VOC
Number: 398
Description: This field lists the subheadings allowed with a heading. It was added to MeSH effective with the 8903 (EM) update of MEDLINE. Entries are formatted as a string of subheading abbreviations (as in QA values) separated by a space.

Element Name: BACKFILE POSTINGS
Mnemonic: M## (M66,M75,M80,M85,M90,M93,MED)
Record Type: VOC, QAL
Number: 280, 283, 285, 571, 286, 777, 538
Description: Backfile Postings refers to seven data elements M66, M75, M80, M85, M90, M93, and MED which give the number of postings a term has in MED66, MED75, MED80, MED85, MED90, MED93, and MEDLINE respectively. Each data element has two occurrences for MeSH preferred descriptors: the total postings and the IM postings which are preceded by an asterisk. Only the total postings is given for MeSH subheadings. Examples are:

MH - Liver Diseases
MED - 2756
MED - *1936
M93 - 1983
M93 - *1388
M90 - 3248
M90 - *2326
M85 - 5558
M85 - *3619
M80 - 5582
M80 - *3619
M75 - 5722
M75 - *3606
M66 - 10573
M66 - *6735

SH - surgery
MED - 85774
M93 - 58395
M90 - 84173
M85 - 125068
M80 - 103854
M75 - 94671
M66 - 156654

These fields are updated annually, usually in late January when MEDLINE contains data through the March update.

Element Name: BACKWARD CROSS REFERENCE
Mnemonic: BX
Record Type: VOC
Number: 277
Description: The Backward Cross Reference identifies descriptors or entry terms from which "see" (from entry term to descriptor), or "see related" (from descriptor to descriptor) cross references have been made to the MeSH Heading. This multiply-occurring data element also contains, as non-print entry terms, other alternate forms of a descriptor

The format of the BX field is:

Structure: Subelement 1: Entry Term Print Version or Descriptor Referred From.

Subelement 2: Cross Reference Type; preceded by a hex 53 code. The Cross Reference Type is a number:

0 = entry term non-print (i.e., does not print in Annotated MeSH or Index Medicus)
1 = entry term print ("see" cross reference)
3 = "see related" cross reference

All Subelement 1 values in the BX occurrences with Subelement 2 equal to a 0 or 1 can be used as search terms in place of the MH in ELHILL databases indexed with the MH. (See the header RELATIONSHIP WITH MEDLINE).

Subelement 3: Thesaurus ID. Abbreviation of a thesaurus in which the entry term is found, with the year in which the term first appeared in that thesaurus. NLM is phasing in the addition of thesaurus identification for the BX terms; it is now incomplete. Only BX terms with a 6-digit date in the last subelement will carry this identification, otherwise the subelement is zero filled. Valid values for the related terms now are:

BAN	British Approved Name
BIOETHICS	Bioethics
INN	International Nonproprietary Names
IOM	Institute of Medicine
LCSH	Library of Congress
NLM	National Library of Medicine
POPLINE	POPLINE
USAN	United States Adopted Names
USP	United States Pharmacopeia

'NLM' is the thesaurus name if there are no other entries.

The Thesaurus ID subelement is directly searchable by the ELHILL retrieval system by virtue of the BXTH element. The BXTH contains no more data than the subelement but it provides an indexable element that makes the subelement effectively searchable.

Subelement 4: No longer used but zero filled; preceded by a hex 53 code.

Subelement 5: Date Entry term established for terms that have been input manually. A string of six “at” signs (@@@@@@) means the value in Subelement 1 is a permutation generated automatically by the MeSH maintenance system from either the MH field or the BX field. (See below the rules for automatic generation of permuted terms.)

Subelement 6: Sort Version (SV); preceded by a hex 51 code. Form of an entry term, print version, needed for sequencing in publications, such as Index Medicus, when the sort order produced automatically from the entry term would not be printed in the proper sequence. Similar in function to the DS element.

Subelement 7: Entry Version (EV); preceded by a hex 52 code. An abbreviated form of the entry term which can be used as a more convenient substitute for entering the heading online. Similar in function to the DE element.

Subelements 6 and 7 are optional and may exist in either the presence or absence of each other.

In the following examples, the symbol shown have the following values:

/SS/ = hex 53
/SV/ = hex 51
/EV/ = hex 52

MH - Antigens, Neoplasm
BX - Neoplasm Antigens/SS/1/SS/U (19XX)/SS/0000000/SS/740329/EV/NEOPL ANTIGENS
BX - Tumor Antigens/SS/1/SS/U (19XX)/SS/0000000/SS/740329
BX - Antigens, Tumor/SS/0/SS/00000000/SS/0000000/SS/@@@@@@@
BX - Neoplasms/SS/3/EV/NEOPL

MH - o-Aminoazotoluene
BX - ortho-Aminoazotoluene/SS/1/SS/U (19XX)/SS/0000000/SS/760517
BX - C.I. Solvent Yellow 3/SS/1/SS/U
(19XX)/SS/0000000/SS/760630/SV/CI SOLVENT YELLOW 03
BX - o Aminoazotoluene/SS/0/SS/00000000/SS/0000000/SS/@@@@@@

COMPUTER-GENERATED TERMS. Beginning with the 1987 MeSH Vocabulary File, NLM enhanced the BX field with additional "permutations" - alternate terms that were machine-generated from existing values in the MH and BX fields.

Permutations are generated from most MH or BX terms but not all. Excluded, for example, are Latin genus/species names (e. g., 'Escherichia coli', 'Entamoeba histolytica'); others are omitted because of processing limitations or because the result is not useful (e. G., tooths from tooth). Pemutations are not made to terms from the following groups of terms:

1. Category Z geographical headings;
2. Terms containing parentheses, e.g., Discrimination (Psychology), Translocation (Genetics);
3. All headings in Category B1.500 (Helminths) and B1.841 (Protozoa);
4. Any heading exclusively in Category B3 (Bacteria), Category B5 (Algae and Fungi), Category B6 (Plants) or Category B7 (Archaea);
5. Category D chemical terms are given direct/inverted expansions only - No singular/plural conversions are made.

Element Name: BACKWARD CROSS REFERENCE THESAURUS ID
Mnemonic: BXTH
Record Type: VOC
Number: 701
Description: While the BXTH is technically an independent data element, its values are derived completely from the Thesaurus ID subelement of the BX data element and exists solely as an indexable element which makes it possible to search on the third subelement of the BX element.

For each unique BX Thesaurus ID name in a descriptor there is a BXTH occurrence. The BXTH is somewhat similar to the MHTH but does not carry any date.

Example search statement:

SS 1 /C?
USER:
(bxth) popline and bioethics
PROG:
SS (3) PSTG (78)

Example record:

MH - Embryo
BX - Embryonic Structures:0:POPLINE (1984):0000000:861231
BX - Embryos:0:BIOETHICS (1982):0000000:840802
BX - Research Embryo Creation:0:BIOETHICS (1996):0000000:960315
BXTH- POPLINE
BXTH- BIOETHICS

Element Name: CAS Registry/EC Number
Mnemonic: RN
Record Type: VOC, CAR
Number: 261
Description: This field contains either the unique 5 to 9 digit chemical number assigned by the Chemical Abstracts Service (CAS), or, for enzymes, a code with a maximum of four nodes assigned by the Commission on Biological Nomenclature of the IUPAC and published in Enzyme Nomenclature. The format of the CAS number is xxxxx-xx-x; leading zeros are dropped. The format of the enzyme number includes the leading letters EC as follows: EC x.x.x.x. A zero (0) is a valid value in this field when an actual Registry Number has not yet been assigned or is not available.

Element Name: CAS TYPE 1 NAME
Mnemonic: N1
Record Type: VOC, CAR
Number: 614
Description: CAS Type 1 Name is the systematic name of a chemical which defines its structure. The first choice of entry in this field is the CAS Type 1 Name from CHEMLINE, which is the systematic name assigned by Chemical Abstracts. If this is not available, a systematic name given in the MEDLINE literature is used. If the CHEMLINE CAS Type 1 Name is used, then for Supplementary Chemical Records any other systematic names which have been identified are entered into the Synonyms (SY) field, and for descriptors in the BX field. For descriptors that are enzymes, the systematic name provided in Enzyme Nomenclature is used for the N1 when available.

Element Name: CONSIDER ALSO CROSS REFERENCE
Mnemonic: CX
Record Type: VOC
Number: 569
Description: This data element, established in 1991, is provided to suggest other headings in MeSH that relate to the subject and that may be useful in indexing, cataloging, or searching a particular topic. This notation indicates the presence of other headings that relate to the topic linguistically, e.g., 'Brain consider also terms at CEREBR- and ENCEPHAL-'. This data element refers to groups of headings beginning with a common stem.

Element Name: COUNTRY OF PUBLICATION CODE
Mnemonic: CYC
Number: 220
Description: This field is reserved for future use.

Element Name: DATE MAJOR DESCRIPTOR ESTABLISHED
Mnemonic: DX
Record Type: VOC
Number: 264
Description: The Date Major Descriptor Established, in the format YYMMDD, is the first day of the Index Medicus month in which the descriptor in any form was available for searching as a major descriptor.

Element Name: DATE MINOR DESCRIPTOR ESTABLISHED
Mnemonic: DY
Record Type: VOC
Number: 265
Description: The Date Minor Descriptor Established, in the format YYMMDD, was the first day of the Index Medicus month in which the descriptor in any form was available for searching as a minor descriptor. Use of minor descriptors ended in 1991.

Element Name: DATE OF ENTRY
Mnemonic: DA
Record Type: VOC, QAL, CAR
Number: 100
Description: In the Descriptor, Qualifier, and Chemical unit records, the Date of Entry is the computer-generated date, in the format YYMMDD, on which the record was added to the system. In the chemical term unit record for records created prior to 800211, the date is the year the chemical term was first identified in a MEDLINE-indexed journal, and the month and day are '0101'.

Element Name: DATE QUALIFIER ESTABLISHED
Mnemonic: DQ
Record Type: QAL
Number: 354
Description: This field was added to the MeSH that corresponded to the 8903 (EM) update of MEDLINE. This element should be present on all subheading records indicating the date the subheading was established. The format is YYMMDD.

Element Name: DESCRIPTOR CLASS
Mnemonic: DC
Record Type: VOC
Number: 250
Description: The descriptor class is a number from 1 to 5 as follows:

1 = an Index Medicus descriptor
2 = a citation type descriptor or Publication Type, e.g., Review
3 = a check tag descriptor, e.g., Human
4 = a geographic descriptor, e.g., France

Element Name: DESCRIPTOR ENTRY VERSION
Mnemonic: DE
Record Type: VOC
Number: 266
Description: The Descriptor Entry Version provides an abbreviated version of the descriptor. For example, in the unit record for 'Glucosephosphate Dehydrogenase', GPD would appear in the DE field. In searching MEDLINE the DE may be used in place of the preferred descriptor (MH). See the header RELATIONSHIP WITH MEDLINE.

Element Name: DESCRIPTOR FORM
Mnemonic: DF
Record Type: VOC
Number: 267
Description: The Descriptor Form is a number from 3 to 6 that gives the status of a descriptor for internal control purposes in searching, printing, and publications:

3 = a citation type descriptor or Publication Type, e.g., Review
4 = a check tag descriptor, e.g., Human
5 = a geographic descriptor, e.g., France

Element Name: DESCRIPTOR SORT VERSION
Mnemonic: DS
Record Type: VOC
Number: 269
Description: The Descriptor Sort Version is the form of the descriptor needed for proper sequencing in publications. It is required only when the descriptor would not be printed in the proper sequence by the sort algorithms of the publications subsystem. An example is:

MH - Antithrombin III
DS - ANTITHROMBIN 03

Element Name: DESCRIPTOR TYPE
Mnemonic: DT
Record Type: VOC
Number: 252
Description: The Descriptor Type is the number 1 for a major descriptor. (All descriptors now have the number 1 for this value.)

Element Name: ENTRY COMBINATION
Mnemonic: EC
Record Type: VOC
Number: 270
Description: The Entry Combination shows that a legal descriptor/qualifier combination is synonymous with a precoordinated descriptor or descriptor/qualifier combination. The Entry Combination is carried in the record of the descriptor in the descriptor/qualifier combination and may be multiply-occurring. For example in the record for 'Heart', this data element would contain the information that:

Heart/surgery = Heart Surgery

and would cause that descriptor/qualifier to map to the preferred, established form. The EC is the source of the subheading combination references published in Index Medicus and Annotated MeSH. For example,

Heart/surgery see Heart Surgery

Structure:
Subelement 1: Qualifier-From Input Version
Subelement 2: Mapping Type (always 0)
Subelement 3: Descriptor Print Version

Subelement 4: Qualifier-To Input Version

Selected occurrences of the EC field from the record for HEART are:

MH - Heart
EC - AB/SS/0/SS/Heart Defects, Congenital
EC - IN/SS/0/SS/Heart Injuries
EC - SU/SS/0/SS/Heart Surgery
EC - CH/SS/0/SS/Myocardium
EC - BS/SS/0/SS/Coronary Vessels
EC - CY/SS/0/SS/Myocardium/SS/CY
EC - EN/SS/0/SS/Myocardium/SS/EN
EC - ME/SS/0/SS/Myocardium/SS/ME

Element Name: FORWARD CROSS REFERENCE
Mnemonic: FX
Record Type: VOC
Number: 262
Description: The Forward Cross Reference is a descriptor to which the MeSH Heading refers in a "see related" cross reference. For example, in the record for ACID-BASE EQUILIBRIUM an entry in this field would be the term ACIDOSIS. In the printed MeSH-Annotated MeSH, the entry would be:

Acid-Base Equilibrium
see related Acidosis
Alkalosis

The FX field may be multiply-occurring.

Structure: Subelement 1: Descriptor Print Version
Subelement 2: Cross Reference Type (always 3)

The example above would appear in the record as follows:

MH - Acid-Base Equilibrium
FX - Acidosis/SS/3
FX - Alkalosis/SS/3

The /SS/ indicates the presence of the HEX 53 code.

Element Name: FREQUENCY
Mnemonic: FR
Record Type: CAR
Number: 922
Description: Frequency is the number of times the chemical has been identified in MEDLINE-indexed journals. It is the sum of the RN postings from the MEDLINE data and the number of occurrences of the SO (Source) field in the Supplementary Chemical Record.

Element Name: GEOGRAPHIC AREA CODE
Mnemonic: GC
Record Type: QAL
Number: 221
Description: This field was designated for MARC geographic area codes but was not fully implemented. GC data do not exist for most of the geographic qualifiers.

Element Name: HEADING MAPPED-TO
Mnemonic: HM
Record Type: CAR
Number: 291
Description: The Heading Mapped-To contains the descriptor(s), and descriptor/qualifier combination(s), used to index chemicals in MEDLINE. The field may be multiply-occurring. A descriptor preceded by an asterisk in this field is the descriptor to be used for indexing the article in Index Medicus when the chemical is a main point of the article. Examples are:

NM - aminoparathion
HM - PARATHION/*analogs & derivatives

NM - ADAAV solution
HM - ADENINE
HM - DEXTRANS

Note that the HM is carried in all upper case which is converted to upper/lower case MH value in the citation databases such as MEDLINE.

Element Name: HISTORY NOTE
Mnemonic: HN
Record Type: VOC, QAL
Number: 219
Description: The History Note gives the year, beginning in 1964, when the current form of the descriptor entered the system as a major descriptor (called main heading before 1975) and/or a minor descriptor (called provisional heading before 1975) and traces certain changes in the descriptor and its cross references. The minor descriptor entry date is in parentheses. Descriptors that have been in the system continuously as major descriptors since 1963 do not have entry dates. Dates are chronological from right to left so that the left-most date is the date of the latest change in the status of the descriptor (e.g., change from a minor to a major) or the date of re-entry of a descriptor that had been previously deleted from the system. If the dates are not continuous, a range is given. Examples are:

MH - Cardiac Volume
HN - 72(68)

MH - Actinomycetales
HN - 67; was ACTINOMYCETES 1963-66; CORYNEBACTERIACEAE was heading 1975-91 (see under CORYNEFORM GROUP 1976-90); CORYNEFORM GROUP was heading 1976-91

MH - Vibrio
HN - 90; BENECKEA was see under VIBRIONACEAE 1978-89, was heading 1963-65

MH - Cystathionine
HN - 73(71); was see under AMINO ACIDS 1963-72

MN - Acquired Immunodeficiency Syndrome
HN - 83

SH - epidemiology
HN - 89: was /occurrence 1966-88: was used with Category C, F3 & SMOKING+ 1989; C, F3 & Z 1990 forward.

Element Name: INDEXING INFORMATION
Mnemonic: II
Record Type: CAR
Number: 278
Description: This field contains the MeSH heading or MeSH heading/subheading combination that an indexer should consider for the bibliographic citation in addition to the Name of Substance (NM) and Pharmacological Action (PA) terms when appropriate to the article in hand. The field may be multiply-occurring.

Element Name: LANGUAGE
Mnemonic: LA
Record Type: QAL
Number: 306
Description: The language abbreviation corresponds to the language qualifier (Qualifier Type = 5). This field is used as an authority in validation of Language (LA) fields in other files. Abbreviations conform to MARC language codes. An example is:

SH - Icelandic
LA - Ice

Element Name: LANGUAGE USAGE
Mnemonic: LU
Record Type: QAL
Number: 222
Description: A value of "C" in this field indicates the Language (LA) is for cataloging use only. Absence of this field means the Language (LA) may be used for indexing and cataloging. An example is:

SH - Greek, Ancient
LA - Grc
LU - C

Element Name: MAJOR REVISION DATE
Mnemonic: MR
Record Type: VOC, QAL, CAR
Number: 120
Description: The Major Revision Date is the computer-generated date, in the format YYMMDD, of the last major revision made to a record. Effective with 1989 MeSH, this field occurs only once. (Through 1988 MeSH, this field was multiply-occurring and the most recent revision date was the first occurrence of this field rather than the last occurrence.)

Element Name: MeSH HEADING (DESCRIPTOR PRINT VERSION)
Mnemonic: MH
Record Type: VOC
Number: 251
Description: The MeSH Heading is the preferred form of the descriptor. It is the form printed in NLM's bibliographic publications. The MH is also the form of Publication Types that are used in NLM online databases where the term always ends with the string 'Publication Type' (enclosed by special characters that appear as left and right square brackets in NLM publications).

Element Name: MH Thesaurus ID
Mnemonic: MHTH
Record Type: VOC
Number: 321
Description: Abbreviations of a given thesaurus in which the MH term is found, with a subelement containing a four-character year date. The value is 'NLM' when no other thesaurus name has been entered.

Element Name: MeSH SCOPE NOTE
Mnemonic: MS
Record Type: VOC, QAL
Number: 215
Description: The MeSH Scope Note consists of free text giving the meaning and scope of descriptors and qualifiers as used in NLM indexing and cataloging.

Element Name: MESH TREE NUMBER
Mnemonic: MN
Record Type: VOC
Number: 273
Description: The MeSH Tree Number is the alphanumeric string that designates the position of a descriptor in the tree structures. This field may be multiply-occurring, and does not necessarily occur on every MeSH heading. For example, headings in Descriptor Class 2 (Citation Type or Publication Type) or 3 (Check Tag) do not contain MeSH Tree Numbers. Beginning with 1992 MeSH, a maximum of 9-level trees are possible.

Element Name: NAME OF SUBSTANCE
Mnemonic: NM
Record Type: CAR
Number: 290
Description: Name of Substance is the preferred term used as the main entry for the chemical. The most desirable preferred entry is the generic (common, non-proprietary) name of the drug as given in UNITED STATES ADOPTED NAMES (USAN), MERCK INDEX, or the INTERNATIONAL NON-PROPRIETARY NAMES (INN). If the common name is not known or not yet assigned, trade (proprietary) or experimental names are used. If these too are unavailable, the chemical or systematic name is used.

Element Name: NOTE
Mnemonic: NO
Record Type: QAL, CAR
Number: 211
Description: In the chemical term unit record, Note consists of narrative information about the chemical, e.g., biological properties.

Element Name: ONLINE NOTE
Mnemonic: OL
Record Type: VOC, QAL
Number: 217
Description: The Online Note gives data helpful to online searchers, especially when the history of a descriptor or entry term has implications for online searching. Dates in the Online Note go back to 1966, the beginning of the searchable computer file. Examples are:

MH - Altitude Sickness
OL - search ANOXIA 1966-74

MH - Ambulatory Care Facilities
OL - use AMBULATORY CARE FACILITIES to search AMBULATORY CARE FACILITIES, NON-HOSPITAL 1980-82 & HEALTH CENTERS 1979

SH - surgery
OL - search policy: Online Manual; use: main heading/SU or SU (SH) or SUBS APPLY SU

Element Name: PHARMACOLOGICAL ACTION
Mnemonic: PA
Record Type: VOC, CAR
Number: 292
Description: Pharmacological Action contains current descriptors describing observed biological activity (e.g., TRANQUILIZING AGENTS) of the chemical. The field may be multiply-occurring.

Element Name: PRE-EXPLOSION
Mnemonic: PX
Record Type: VOC, QAL
Number: 126
Description: This field may be present on descriptors (Record Type D) since 1988 and qualifiers (Record Type Q) since 1991. On descriptor records, the presence of this field indicates that the MeSH heading is a Pre-Explosion on MEDLARS where the headings in a root tree have been automatically “ORed” (connected in a search with “or”) offline in batch for certain citation databases. In 1991, the subelement structure changed from 3 to 2. The third subelement, which indicated the root tree was dropped. Examples:

PX - PX/SS/GENETICS/SS/G5 (from 1988-1990)
PX - PX/SS/GENETICS (beginning in 1991)

The symbol, /SS/, represents a hex 53 code which is a subelement separator. The first subelement carries the generic tag 'PX'; the second carries the actual Pre-Explosion name, which may be slightly different than its associated MH.

In 1991 this element was first added to qualifier records and in 1992 a subelement structure was implemented. The field is multiply-occurring on qualifier records (once for the full subheading name and once for the abbreviation). In both cases a trailing ampersand exists.

Examples:

PX - PX/SS/ADVERSE EFFECTS&
PX - PX/SS/AE&

Element Name: PREVIOUS INDEXING
Mnemonic: PI
Record Type: VOC, CAR
Number: 271
Description: In the descriptor unit record, Previous Indexing suggests the current MeSH descriptor(s) or descriptor/qualifier combination(s) the online searcher of MEDLINE data may use to search the concept before the descriptor became available. The field may be multiply-occurring. Each entry is followed by a year or range of years as a guide to the period when the term in the PI field should be searched. Boolean logic for the PI terms is not provided. The searcher must make the decision whether to AND or "OR" the terms supplied.

MH - Lenses, Intraocular
HN - 79
PI - Cataract Extraction (66-78)
PI - Lenses (66-78)
PI - Prosthesis (66-78)

In the chemical unit record, the PI field contains 1) the MeSH descriptor(s) or descriptor/qualifier combination(s) used to index the chemical before the current descriptor became available, 2) additional MeSH descriptors removed from the HM field when reliance on coordinate indexing ceased to be necessary, and 3) descriptors removed from the HM field when new information about the chemical resulted in a different mapped-to heading. The numbers in parentheses are the year(s) when the entry in the PI field should be searched.

NM - ADTN
HM - *TETRAHYDRONAPHTHALENES
PI - *NAPHTHOLS (76-81)

NM - adrenosterone
HM - *ANDROSTENES
PI - ANDROSTENEDIONE/*analogs (76-79)

Element Name: PUBLIC MESH NOTE
Mnemonic: PM
Record Type: VOC
Number: 218
Description: The Public MeSH Note gives the year since 1964 when the current form of the descriptor entered the system as an Index Medicus descriptor and traces certain changes in the descriptor and its cross references as used for Index Medicus. Descriptors that have been in the system continuously as major descriptors since 1963 do not have entry dates. If there is more than one date, the left-most date is the year of re-entry of a descriptor that had previously been deleted from the system. For example:

MH - Adrenal Cortex
PM - 78,63-67; was see under ADRENAL GLANDS 1968-77

Element Name: QUALIFIER CROSS REFERENCE
Mnemonic: QX
Record Type: QAL
Number: 223
Description: Contains terms to be used as printed "see" references either to the Subheading (SH) or the Language (LA). An example is:

SH - Dutch
LA - Dut
QX - Flemish:800922

In 1995 the field was expanded to reflect entry terms or "see" references (synonyms or related terms) for almost all of the topical subheadings. There may be a single term or multiple terms for a subheading. These values are informative only; NLM does not perform any automated mapping from the term to the subheading for online searching. This expanded QX field has a subelement structure, with the term in the first subelement and the relationship of the term to the subheading in the second subelement. The two subelements are separated by a HEX 53 separator. The values in the second subelement may be: BRD (broader), NRW (narrower), or EQV (equivalent).

An example is:

SH - etiology
QX - causality/SS/EQV
QX - causes/SS/EQV
QX - contributing factors/SS/NRW
QX - pathogenesis/SS/NRW

Element Name: QUALIFIER ENTRY VERSION
Mnemonic: QE
Record Type: QAL
Number: 212
Description: The Entry Version of a qualifier is the abbreviated form which is used in indexing and cataloging. For example, PHARMACOL may be used in place of PHARMACOLOGY for data input.

Element Name: QUALIFIER SORT VERSION
Mnemonic: QS
Record Type: QAL
Number: 213
Description: The Qualifier Sort Version is the form of a qualifier needed for proper sequencing in NLM publications. It is required only when the qualifier needs a sort version that cannot be generated automatically by the computer's publications subsystem.

Element Name: QUALIFIER TYPE
Mnemonic: QT
Record Type: QAL
Number: 201
Description: The Qualifier Type is identified in the record as a number from 1 to 5.

1 = a topical qualifier, e.g., pharmacology
2 = a form qualifier, e.g., popular Works
3 = a time qualifier, e.g., 19th cent. (No occurrences currently.)
4 = a geographic qualifier, e.g., France
5 = a language qualifier, e.g., German

Qualifiers of types 2 through 5 are used exclusively in cataloging.

Element Name: QUALIFIER USAGE
Mnemonic: QG
Record Type: QAL
Number: 214
Description: Qualifier Usage has the value "C" if the qualifier is used only in cataloging. Absence of this field means the subheading may be used in both indexing and cataloging.

Element Name: RECORD ORIGINATOR
Mnemonic: RO
Record Type: VOC, QAL, CAR
Number: 101
Description: The Record Originator field contains the letter O, C, and/or M. O is followed by the initials of the specialist who is the originator of the record, C by the initials of the checker (that is, reviewer), and M by the initials of the person maintaining the record (that is, updating it on the computer). The field is multiply-occurring; however, effective with the MeSH that corresponded to the 8903 (EM) update of MEDLINE, there is only one occurrence of each subelement.

Structure: Subelement 1: Relationship to Record
Subelement 2: Initials

Examples are:

RO - O/SS/AGS
RO - C/SS/PLS
RO - M/SS/TGC

The /SS/indicates the presence of the HEX 53 code.

Element Name: RECORD TYPE
Mnemonic: RY
Record Type: VOC, QAL, CAR
Number: 272
Description: A one-character code in this field identifies the kind of record. Valid values are:
D = Descriptor Record (MeSH heading) or Publication Type
Q = Qualifier Record (MeSH subheading)
C = Chemical Term Unit Record

In Publication Types RY=D but do not function as descriptors, that is, as subject headings, but rather indicate the form of a citation, for example, 'Review'. All Publication Types are characterized by an MH element value which ends with the string 'Publication Type' (enclosed by special characters that appear as left and right square brackets in NLM publications). All Publication Types have a DC value of 2 (though one record in which DC=2 is not a Publication Type - 'English Abstract').

Element Name: RELATED REGISTRY NUMBER
Mnemonic: RR
Record Type: VOC, CAR
Number: 610
Description: This multiply-occurring field contains the Chemical Abstracts Service Registry Numbers for salts, optical isomers, or isotope-labeled versions of the compound in the Name of Substance (NM) field in the Supplementary Chemical Records or in the MeSH Heading (MH) field of a descriptor record. An example is:

NM - ADTN
RN - 53463-78-8
RR - 71074-52-7 ((S)-isomer)
RR - 71074-51-6 ((R)-isomer)
RR - 66996-60-9 (HCl)
RR - 13575-86-5 (HBr)

The notation in parentheses shows the relationship of the RR to the RN. This field is involved with the mapping program (see the header RELATIONSHIP WITH MEDLINE).

Element Name: RUNNING HEAD, MESH TREE STRUCTURES
Mnemonic: RH
Record Type: VOC
Number: 274
Description: The Running Head, MeSH Tree Structures is the text string to be printed at the top of the page in the MeSH TREE STRUCTURES in those cases where the running head is different from the descriptor at the first node of the category or subcategory. For example, in subcategory D2 the term at the first node is 'Organic Chemicals, but the running head is 'D2 - CHEMICALS-ORGANIC'.

Element Name: SOURCE
Mnemonic: SO
Record Type: CAR
Number: 602
Description: Source gives citations in MEDLINE to articles in which the chemical was identified before the supplementary chemical term unit record was implemented in early 1980. Sources since that time period can be obtained by searching the MEDLINE data for an NM or RN. Examples are:

SO - Nature 274(5670):514;1978
SO - Eur J Pharmacol 1979;58(4):515

The SO field may be multiply-occurring.

Element Name: SUBHEADING (QUALIFIER PRINT VERSION)
Mnemonic: SH
Record Type: QAL
Number: 200
Description: The Subheading is the form of the qualifier printed in NLM's bibliographic publications and printouts.

Element Name: SYNONYMS
Mnemonic: SY
Record Type: CAR
Number: 616
Description: Synonyms are names of chemicals other than those entered in the Name of Substance (NM) field and the CAS Type 1 Name (N1) field which have been identified in MEDLINE journals. This multiply-occurring field is involved with the mapping program (see the header RELATIONSHIP WITH MEDLINE).

Element Name: THESAURUS ID
Mnemonic: TH
Record Type: VOC, CAR
Number: 276
Description: In the descriptor unit record, this field contains the abbreviation of a thesaurus in which the MH or an entry term (BX) is found. 'NLM ' is the value if there are no other entries. For a list of valid values see BACKWARD CROSS REFERENCE (BX), subelement 3 and BACKWARD CROSS REFERENCE THESAURUS ID (BXTH).

In the chemical term unit record, Thesaurus ID gives authoritative references, e.g., USAN, MERCK INDEX, NEGWER, where the chemical is listed.

This field may be multiply-occurring.

Element Name: TOPICAL QUALIFIER ABBREVIATION
Mnemonic: QA
Record Type: QAL
Number: 216
Description: The Topical Qualifier Abbreviation is the two-character abbreviation which the online searcher may use in searching topical qualifiers. For instance, the two-letter abbreviation for 'poisoning' is PO.

Element Name: TREE NODE ALLOWED
Mnemonic: TN
Record Type: QAL
Number: 210
Description: The Tree Node Allowed is a letter of a category of the MeSH Tree Structures, indicating that the qualifier may be used with most descriptors in that subcategory (as computed from the AQ element). Formerly used by NLM's indexing system, but beginning with 1989 used only to produce a list in the introduction to the annual Annotated MeSH. The field is multiply-occurring. An example is:

SH - transmission
TN - C1
TN - C2
TN - C3
TN - C22

Element Name: UNIQUE IDENTIFIER
Mnemonic: UI
Record Type: VOC, QAL, CAR

Number: 480

Description: The Unique Identifier is a 7-character alphanumeric code assigned to all descriptor, qualifier, and Supplementary Chemical Records as follows:

1. For descriptor records, the UI begins with a capital letter 'D' followed by 6 digits, e.g.: D000001.
2. For qualifier records, the UI begins with a capital letter 'Q' followed by 6 digits, e.g.: Q000001.
3. For Supplementary Chemical Records, the UI begins with a capital letter 'C' followed by 6 digits, e.g.: C000012.

SAMPLE RECORDS

Descriptor (D)

MH - Heart
DT - 1
DC - 1
MN - A7.541
FX - Angiocardiography:3
FX - Anti-Arrhythmia Agents:3
FX - Ballistocardiography:3
FX - Cardiotonic Agents:3
FX - Electrocardiography:3
FX - Myocardium:3
AQ - AH DE EM GD IR MI PH PP PS RA RE RI VI
MS - The hollow, muscular organ that maintains the circulation of the blood.
MR - 970620
RO - O:NLM
RO - C:SJN
RO - M:PXP
EC - IN:0:Heart Injuries
EC - SU:0:Cardiac Surgical Procedures
EC - CH:0:Myocardium:CH
EC - BS:0:Coronary Vessels
EC - CY:0:Myocardium:CY
EC - EN:0:Myocardium:EN
EC - ME:0:Myocardium:ME
EC - PA:0:Myocardium:PA
EC - IM:0:Myocardium:IM
EC - UL:0:Myocardium:UL
EC - SE:0:Heart:PH
EC - TR:0:Heart Transplantation
EC - US:0:Echocardiography ëCY
MHTH- NLM:1966
BXTH- BIOETHICS
TH - NLM
TH - BIOETHICS
BX - Hearts:0:BIOETHICS (1989):0000000:770317
CX - consider also terms at CARDI- and MYOCARDI-
AN - heart as pump, not tissue (MYOCARDIUM); qualif permitted: /anat /drug
 eff /embryol (FETAL HEART also exists) /growth /innerv (HEART
 CONDUCTION SYSTEM also exists) /microbiol /parasitol /physiol (see also
 ATRIAL FUNCTION & VENTRICULAR FUNCTION & their specifics; see also
 MYOCARDIAL CONTRACTION & its specifics) /physiopathol /rad eff /radiogr
 (do not confuse with ANGIOCARDIOGRAPHY) /radionuclide /virol; /blood
 supply = CORONARY VESSELS but consider also CORONARY CIRCULATION; /drug
 eff: consider also MYOCARDIAL DEPRESSANTS see ANTI-ARRHYTHMIA AGENTS &
 CARDIOTONIC AGENTS; /transpl = HEART TRANSPLANTATION: do not coord with
 TRANSPLANTATION, HOMOLOGOUS unless particularly discussed; /ultrasonogr
  = ECHOCARDIOGRAPHY or ECHOCARDIOGRAPHY, DOPPLER; inotropism:
  INOTROPISM, CARDIAC see MYOCARDIAL CONTRACTION & INOTROPIC AGENTS,
  POSITIVE CARDIAC are available but see MYOCARDIAL CONTRACTION note;
  chronotropism: see HEART RATE note; DIASTOLE & SYSTOLE are also
  available; heart-lung prep: index HEART /physiol (probably NIM); Manual
  21.48+; carditis = MYOCARDITIS; mural thrombosis: index HEART DIS (IM)
  + THROMBOSIS (IM) CATALOG: form qualif permitted
RY - D
UI - D006321
MED - 6986
MED - *4650
M93 - 5063
M93 - *3308
M90 - 8158
M90 - *5438
M85 - 15384
M85 - *10887
M80 - 11511
M80 - *7341

M75 - 10268
M75 - *6194
M66 - 19033
M66 - *11614

Qualifer (Q)

SH - surgery
QE - SURG
QA - SU
QT - 1
PX - PX/SURGERY&
PX - PX/SU&
DQ - 660101
MS - Used for operative procedures on organs, regions, or tissues in the treatment of diseases, including tissue section by lasers. It excludes transplantation, for which "transplantation" is used.
TN - A1
TN - A2
TN - A3
TN - A4
TN - A5
TN - A7
TN - A8
TN - A9
TN - A10
TN - A13
TN - A14
TN - B2
TN - C1
TN - C2
TN - C3
TN - C4
TN - C5
TN - C6
TN - C7
TN - C8
TN - C9
TN - C10
TN - C11
TN - C12
TN - C13
TN - C14
TN - C15
TN - C16
TN - C17
TN - C18
TN - C19
TN - C20
TN - C21
TN - C22
TN - C23
TN - F3
DA - 731227
MR - 940708
RO - O:NLM
RO - C:PLS
RO - M:TGC
AN - subhead only; includes "operation¸, "surgical therapy¸; for tissue section or coagulation by laser; not for transplantation (= /transplantation); indexing policy: Manual 19.8.70; DF: /surg or /SU
HN - 66; used with Category A, C & F 1966-74; A, C & F3 1975; A, B2, C & F3 1976-89; A1-10, A13-14, A16, B2, C & F3 1990 forward
OL - search policy: Online Manual; use: main heading/SU or SU (SH) or SUBS APPLY SU
RY - Q
UI - Q000601
MED - 85774
M93 - 58395
M90 - 84173
M85 - 125068

M80 - 103854
M75 - 94671
M66 - 156654
QX - intraoperative procedures:NRW
QX - invasive procedures:EQV
QX - operations:EQV
QX - operative procedures:EQV
QX - operative therapy:EQV
QX - perioperative procedures:NRW
QX - peroperative procedures:NRW
QX - preoperative procedures:NRW

Supplementary Substance (C)

NM - dehydrothyrsiferol
RN - 0
SY - DHT thyrsiferol
HM - *PYRANS
PA - ANTINEOPLASTIC AGENTS, PHYTOGENIC
II - PLANT EXTRACTS
DA - 980908
RO - OëSZM
RO - CëBVL
SO - Anticancer Res 1998 Jul-Aug;18(4C):3027-32
FR - 0
NO - structure in first source
RY - C
UI - C114056