#### **Department of Medicine Research Curriculum:**

#### Tools for Searching the Literature and Referencing Articles

Natalie Tagge, Education Services Librarian Ginsburg Health Sciences Library

#### Session Objectives

More effectively search PubMed using MeSH, filters and automatic term mapping.

Gain knowledge of biomedical databases beyond PubMed.

Identify an appropriate citation management tool for managing research projects.

### Getting started from the Library website



#### Database #1: PubMed



#### PubMed provides free access to MEDLINE

MEDLINE is the National Library of Medicine's premier bibliographic database containing over 24 million citations and author abstracts from approximately 5,600 biomedical journals published in the United States and in other countries.

#### Most PubMed records are MEDLINE citations

Other records include those in *early stages of processing* (including records provided directly from the journal publisher) but destined to be MEDLINE citations. A relatively small number of records that are included in PubMed are not selected for MEDLINE.

#### Power of Pubmed at Temple

<u>PubMed</u> is a database of citations and abstracts for millions of articles from thousands of journals.

Temple University purchases access to an enormous amount of full text journals. These are linked to from the abstract view of a citation in PubMed. Look for this icon

Always access <u>PubMed</u> from the library homepage



#### Access PubMed through Library



### Subject headings

Subject heading=is a controlled vocabulary thesaurus used for indexing articles

MeSH subject heading= the subject headings used for indexing articles for **PubMed** 

### Subject headings and my dog



My dog, Quincy

### Subject headings and my dog



Quincy or Quincy Bones or Mr. Q or Quince or Q or Quincy Tagge or Quincy Bones Tagge

### Subject headings and my dog



Subject heading: Quincy Bones Tagge

**Finds all instances of:** Quincy or Quincy Bones or Mr. Q or Quince or Q or Quincy Tagge or Quincy Bones Tagge

### Keyword vs. MeSH Searching

#### Keyword search

Tries to automatically map to MeSH as well as searching terms in All Fields More comprehensive, will include more recent citations that haven't been indexed yet

Necessary for new and emerging topics

MeSH search

Using MeSH subject headings is more focused and precise

Can limit to major topic and use subheadings to focus on a specific aspect of a topic

Use when automatic term mapping is not effective

Will not find newest article citations that have yet to be indexed

#### PubMed Search

•Sample research topic:

Organ dysfunction and VADs as destination therapy

#### Search to try:

#### Heart failure VADs destination therapy







### PubMed Search

- •PubMed will try to automatically match terms to subject headings (MeSH) and also search terms in **All Fields**
- •Always check *Search details* box to see how PubMed interprets your search
- •Acronyms, abbreviations and drug names are problematic in PubMed
  - Spell out concepts fully and use generic drug names when possible

Improved search:

# ventricular assist devices heart failure destination therapy

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Article types	Format: Summary - Sort by: Publication Date - Per page: 20 - Send to -	Filter your results:
Clinical Trial		All (688)
Customize	See 9 citations found by title matching your search:	80 and Over (26)
T	Destination therapy: the new gold standard treatment for heart failure patients with left ventricular assist	Clinical Trial (30)
Abstract	devices. Yamakawa M et al. Gen Thorac Cardiovasc Surg. (2013) Use of Left Ventricular Assist Devices as Destination Therapy in End-Stage Congestive Heart Failure: A	MEDLINE (618)
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Full text	Outcomes in advanced heart failure patients with left ventricular assist devices for destination therapy. Park	Manage Filters
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10 years	A case of electromagnetic interference between beartmate 3 LVAD and implantable cardioverter	∢ ►
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Species	Sehatbakhsh S, Kushnir A, Kabach M, Kolek M, Chait R, Ghumman W.	
Humans	Pacing Clin Electrophysiol. 2017 Oct 4. doi: 10.1111/pace.13210. [Epub ahead of print]	PMC Images search for ventricular
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	Fighth annual INTERMACS report: Special focus on framing the impact of adverse events	
	<ol> <li>Kirklin JK. Pagani FD. Kormos RL, Stevenson LW. Blume ED. Myers SL, Miller MA, Baldwin JT. Young</li> </ol>	
	JB, Naftel DC.	
	J Heart Lung Transplant. 2017 Oct;36(10):1080-1086. doi: 10.1016/j.healun.2017.07.005. Epub 2017 Jul 15.	
	PMID: 28942782 Similar articles	See more (7)
	Palliative Care Clinicians Caring for Patients Before and After Continuous Flow-Left Ventricular	Titles with your search terms
	<ol> <li>ASSIST Device.</li> <li>Wordingham SE, Mellyannan CK, Fondlar TT, Bohnkan AL, Dunlay SM, Kirknatriak JN, Swatz KM.</li> </ol>	Destination therapy: the new gold standard
	J Pain Symptom Manage. 2017 Oct;54(4):601-608. doi: 10.1016/i.jpainsymman.2017.07.007. Epub 2017 Jul 13.	reament to [Gen Thorac Cardiovasc Surg. 2013]
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PubMed.gov US National Library of Medicine National Institutes of Health PubMed Ventricular assist devices heart failure destination therapy Advanced	Search
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<pre>("heart"[All Fields]) AND ("heart"Failure [Mesh Terms] OK ("heart"[All Fields] AND "failure"[All Fields]) OR "heart failure"[All Fields]) AND destination[All Fields] AND ("therapy"[Subheading] OR "therapy"[All Fields] OR "therapeutics"[MeSH Terms] OR "therapeutics"[All Fields])</pre>	MeSH term, "heart-assist device", mapped to
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MeSH MeSH	heart-assist devices Create alert Limits Advanced	<ul> <li>Rectangular Snip</li> </ul>	Search	Help	
Full ← Heart-Assist Devices Small pumps, often implantable, designed for tempumping chamber and a power source, which may Year introduced: 1990(1986)	porarily assisting the heart, usually the LEFT y be partially or totally external to the body ar	Send to: - VENTRICLE, to pump blood. They consist of a nd activated by electromagnetic motors.	PubMed Search Builder "Heart-Assist Devices/adverse effects"[Mesh]		
PubMed search builder options Subheadings:	Add to search builder AND <ul> <li>Add to search builder</li> </ul>				
✓ adverse effects	methods	statistics and numerical data	You Tut	e Tutorial	
<ul> <li>classification</li> <li>contraindications</li> <li>economics</li> </ul>	<ul> <li>microbiology</li> <li>mortality</li> <li>nursing</li> </ul>	<ul> <li>supply and distribution</li> <li>therapeutic use</li> <li>therapy</li> </ul>	Related information PubMed		
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Text availability Abstract Free full text	Items: 1 to 20 of 2146 << First < Prev Page 1 of 108 Next > Last >>	<u>Clinical Trial (89)</u> MEDLINE (2146)	Manage Filters
Full text PubMed Commons Reader comments Trending articles	<ol> <li>De Novo Aortic Regurgitation After Continuous-Flow Left Ventricular Assist Device Implantation.</li> <li>Gasparovic H, Kopjar T, Saeed D, Cikes M, Svetina L, Petricevic M, Lovric D, Milicic D, Biocina B. Ann Thorac Surg. 2017 Aug;104(2):704-711. doi: 10.1016/j.athoracsur.2017.01.114. Epub 2017 May 6. Review. PMID: 28483150 Similar articles</li> </ol>	Results by year	
Publication dates 5 years 10 years Custom range	<ul> <li>Long-term use of left ventricular assist devices: a report on clinical outcomes.</li> <li>Raju S, Maclver J, Foroutan F, Alba C, Billia F, Rao V. Can J Surg. 2017 Aug;60(4):236-246.</li> <li>PMID: 28730986 Free PMC Article Similar articles</li> </ul>		Download CS\
Species Humans Other Animals <u>Clear all</u> <u>Show additional filters</u>	<ul> <li>Left ventricular assist device exchange: the Toronto General Hospital experience.</li> <li>Tsubota H, Ribeiro RVP, Billia F, Cusimano RJ, Yau TM, Badiwala MV, Stansfield WE, Rao V. Can J Surg. 2017 Aug;60(4):253-259.</li> <li>PMID: 28562236 Free PMC Article Similar articles</li> </ul>	Find related data Database: Select Find items	▼
	<ul> <li>HeartMate II Left Ventricular Assist Device Pump Exchange: A Single-Institution Experience.</li> <li>Shaikh AF, Joseph SM, Lima B, Hall SA, Malyala R, Rafael AE, Gonzalez-Stawinski GV, Chamogeorgakis T. Thorac Cardiovasc Surg. 2017 Aug;65(5):410-414. doi: 10.1055/s-0036-1593867. Epub 2016 Nov 30. PMID: 27903010 Similar articles</li> </ul>	Search details "Heart-Assist Devices/a [Mesh]	adverse effects"

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### PubMed Filters: Limit your search

•You can narrow your results with filters for:

- Article Types: Review, Randomized Controlled Trial, Practice Guideline, etc.
- Publication Dates
- Ages, etc.

### PubMed Filters: Limit your search

- •A few filters are available to the left of your search results
- •To access more filter options click customize under Article Types or show additional filters
- •Then click on desired filters to activate them (will turn blue and have a checkmark)
- •Filters remain active until you clear them!

#### Publication types-kinds of articles

Articles are published in a variety of types. From comments on published articles, to letters to the editor, to careful reviews of the literature and reports on research there are many choices. It is important to be aware of the type you want and are retrieving. Limit options in the database allow you to select the type.

Examples: Bibliography Case reports Clinical conferences Comparative Study Guideline

Meta-analysis Practice guideline Systematic Review Editorial

Letter

Full list with links to definitions available <u>here</u>

#### Consider what a filter may do

Be aware that these filters will <u>exclude</u> "in process" and "supplied by publisher" citations because they have not yet completed the MEDLINE indexing process.

In other words recently published articles will not show in the results.

### Combine Searches with AND/OR



Image source: guides.temple.edu/content.php?pid=1805&sid=1150348

# Advanced Search Page-building your search

- Select field (if you want), Put in your terms and then click Add to History.
- The number of results will display below.
- Once you are done, combine terms wanted by clicking Add
- Leave the "Boolean operator" to AND if you want all together

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### Managing Search Results

- •Follow Temple's link to get the full-text of articles
- •Select citations and send to email, file, or citation software (RefWorks, EndNote, etc.)
- •Create a My NCBI account to save searches, citations & get email alerts of new results and customize your PubMed filters and display

#### Database # 2: Embase

**Description**: Embase includes six million+ records and 2,900+ journals that are not covered by MEDLINE. Strong coverage of EU journals, drug, medical devices and conference abstracts.

What is it used for: Medical and clinical research topics

All of these databases can be found here: https://library.temple.edu/hsl#tab4

#### Database #3: Web of Science

**Description:** Covers basic science and health sciences.

What is it used for: Medical and clinical research and basic science topics. Times cited by and cited references links are unique and invaluable.

A quantitative, systematic review of randomized controlled trials of ephedrine versus phenylephrine for the management of hypotension during spinal anesthesia for cesarean delivery

Citation Network 149 Times Cited 24 Cited References

By: Lee, A (Lee, A); Kee, WDN (Kee, WDN); Gin, T (Gin, T)

#### Database #4: PsycInfo

**Description**: Comprehensive. More than 4 million bibliographic records centered on psychology and behavioral sciences.

What is it used for: Topics related to all fields of Psychology and Psychiatry.

### Database #5: Cochrane Library

**Description**: a collection of six databases that contain different types of high-quality, independent evidence to inform healthcare decision-making **What is it used for**: systematic reviews, high quality, independent evidence

#### What do citation managers do?

Gather citations and PDFs (in some cases) from databases and (in some cases) websites

Edit, organize, and search citations

Output citations in many formats (AMA, individual journal style, etc.)

#### **Reference Management Tools in the Health Sciences**



### How They Compare



#### Refworks login through Library: <u>https://library.temple.edu/hsl</u> (left of screen under Quick links)

## Online personal library of citations

Web-based

S RefWorks					
About RefWorks Administrator Other	Products Contact Us Help				
Login to Your RefWorks Acco	unt Register if new to Temple's Refworks				
Newto RefWorks? Sign Up for a New Account Login Variance Credentials Temple University (not my institution) Login Name Password Login Forqot Your Login Information? Login using Other Credentials Athens Credentials My Institution's Credentials (Shibboleth)	<text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text>				
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#### Empowering researchers to connect and inspire each other

Create a free account

#### Reference management

Read, organize and cite all of your research from one library.

#### Research network

Connect and collaborate with millions of researchers worldwide.

#### Datasets

Store, share and cite your datasets with one secure online repository. Mendeley has a free or pay version. The free version is usable.

eley.co

/w.n

### Mendeley Collecting and Organizing Citations (+PDFs)

Drag and drop PDFs into Mendeley

Browse PDFs on your computer and add them to Mendeley

Download and use Mendeley web importer to add citations (and PDFs when available) from databases, such as PubMed

#### **Endnote Access**

Endnote Desktop: individual pays for this software, group pricing

Endnote Online: Temple students, faculty, and staff can sign up for a free account on EndNote Web. Just go to the database <u>Web of</u> <u>Science</u>. Click on "Sign In" to register for a free Web of Science account. Once you are signed into your Web of Science account, click on the link to "EndNote" to access EndNote Web (also known as EndNote Online).

#### Endnote Desktop vs. Endnote Online

You must have Endnote Desktop to:

Annotate and highlight PDFs

Search PDF text

For PDF auto importing

For more formatting styles (6,000+ vs. 3,000+ styles)

Find duplicates

Full library sharing

### WriteNCite Options

RefWorks, Mendeley and EndNote all have this option

Add citations directly from the citation manager as you write

Creates bibliographies and reference lists

Check compatibility with your version of Word

Health Sciences Librarians: Experts in locating and teaching others how to search for, evaluate and organize information





Contact the Library for Help!

- Circulation: 215-707-2665
- Reference e-mail: <u>hscref@temple.edu</u>



- Chat via <u>library website</u>, Mon-Fri, 9:00-5:00
- Contact Natalie Tagge, natalie.tagge@temple.edu