

STANFORD WIP SURGERY – 2024 Quick Start Literature Searching Toolkit

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COURSE OBJECTIVES: *BY THE END OF THIS SESSION YOU WILL BE ABLE TO*

1. Quickly locate articles, journals, and books
2. Manage your citations, PDFs, and bibliographies with Zotero
3. Utilize some quick tips for getting better results from PubMed
4. Learn about more advanced search features of Google
5. Learn about the benefits of AI tools for research
6. Extras!

Part 1: *THE BASICS*

LANE LIBRARY WEBSITE: Use it to find digital texts, journals, etc. e.g., *JOMI – Journal of Medical Insight*

SURGERY GUIDE: Core texts and other research resources in Surgery.

TOP MOBILE APPS AT LANE Source Download and install *UpToDate*, *DynaMed*, *Complete Anatomy* and more.

LITERATURE SEARCH SERVICE Need to run a lit review? We can help!

LIBKEY full-text browser extension. If we don't carry the journal, we get you the article at no charge to you via our **DOXPRESS** service. [Example](#)

ZOTERO: Open-source reference/PDF/bibliography management application. Extremely effective at quickly capturing a wide variety of content from the web; e.g., webpages, PDFs, databases citations, etc.

GETTING HELP, ASKING FOR STUFF: Use "Live Chat" or "Ask Us" if you have a question. You can also ask for help from your division's/department's library liaison:

Part 2: *PUBMED: KEYS TO SUCCESS*

- **BEST MATCH:** Run a search and note the results are sorted by *Best Match simulation vascular access*
- **WILDCARDS:** Use the asterisk * as a wildcard for term variants, *intubat** retrieves intubation, intubate, etc.
- **PHRASE SEARCHING:** Use quotes when looking for a phrase *"surgical residen*" AND simulation*

- **OPERATORS:** The key PubMed search operators are “AND,” “OR,” “NOT.” MUST be in upper case!
"cardiothoracic surgery" AND career AND women*
"cardiothoracic surgery" AND career AND women OR gender Why so many?*
"cardiothoracic surgery" AND career AND (women OR gender) Parentheses! Big improvement!*
- **TAGS:** Use PubMed field tags to search particular field(s) within a reference.
 - **[ti] TITLE** searching is an incredibly effective initial strategy as it quickly retrieves highly relevant citations: *"cardiothoracic surgery" [ti] AND (women [ti] OR gender [ti])*
 - **[tw] TEXTWORD** searching is a broad search of multiple fields within a reference, *not* the full text of the article. These fields include: Title, Abstract, Medical Subject Headings, and Author Keywords. *"cardiothoracic surgery" [tw] AND (women [ti] OR gender [ti])*
- **SEARCH STRING FOR AI:**
("language process*" [tw] OR nlp [tw] OR "conversational ai" [tw] OR "computational linguistic*" [tw] OR "computational intelligence" [tw] OR "computer reasoning" [tw] OR "predictive analy*" [tw] OR "cognitive comput*" [tw] OR "text analytic*" [tw] OR "text analys*" [tw] OR "artificial intelligence" [tw] OR "artificial neural network*" [tw] OR "convolutional neural network*" [tw] OR "deep learning" [tw] OR "deep neural learning" [tw] OR "deep neural network*" [tw] OR "machine learning" [tw] OR "iterative method*" [tw] OR "naïve bayes" [tw] OR "bayesian learning" [tw] OR "iterative reconstruction" [tw] OR "data mining" [tw] OR "adversarial network*" [tw] OR "artificial intelligence" [mesh] OR "neural networks, computer" [mesh] OR "deep learning" [mesh] OR "machine learning" [mesh] OR "large language model*" [tw] OR chatgpt* [tw] OR "chat gpt" [tw] OR gpt [tw] OR "generative pre-trained" [tw] OR "generative ai" [tw] OR "generative artificial" [tw] OR "pre trained model*" [tw] OR llms [tw]) AND english [lang]
- **SEARCH STRING FOR PEDIATRICS:**
(infan* [tw] OR newborn* [tw] OR "new-born" [tw] OR "new borns" [tw] OR perinat* [tw] OR neonat* [tw] OR baby [tw] OR baby* [tw] OR babies [tw] OR toddler* [tw] OR minors [tw] OR child [tw] OR child* [tw] OR children* [tw] OR schoolchild* [tw] OR "school child" [tw] OR "school children" [tw] OR adolescen* [tw] OR juvenil* [tw] OR youth* [tw] OR teen* [tw] OR "under age" [tw] OR pubescen* [tw] OR prepubesc* [tw] OR pediatric* [tw] OR paediatric* [tw] OR "Nursery school" [tw] OR kindergar* [tw] OR "primary school" [tw] OR "secondary school" [tw] OR "elementary school" [tw] OR "high school" [tw] OR "primary schools" [tw] OR "secondary schools" [tw] OR "elementary school" [tw] OR "high schools" [tw] OR highschool* [tw] OR "infant" [mesh] OR "Child"[mesh] OR "Adolescent"[mesh] OR "Minors" [mesh] OR "Puberty" [mesh] OR "Pediatrics" [mesh] OR pediatrics)
- **SEARCH STRING FOR TRAINING/CURRICULUM:**
("Curriculum"[Mesh] OR "Inservice Training"[Mesh] OR train* [tw] OR curricul* [tw] OR education [sh] OR educat* [tw])
- **SEARCH STRING FOR RESIDENTS/FELLOWS:**
("internship and residency" [mesh] OR "Education, Medical, Graduate" [mesh] OR "Fellowships and Scholarships"[Mesh] OR interns [ti] OR intern [ti] OR residen* [ti] OR fellow* [ti])

Part 3: **BEYOND PUBMED! EXPLORING OTHER DATABASES AND AI TOOLS**

- **MEDEDPORAL.ORG:** AAMC's open access *journal* of teaching and learning resources in the health professions. Publications are "...publications are stand-alone, complete teaching or learning modules that have been implemented and evaluated with medical or dental trainees or practitioners." *surgical skills medical students*
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- **OPENEVIDENCE:** Aggregates, synthesizes, and visualizes clinically relevant evidence in support of evidenced-based decisions. *You're looking for articles on teaching the use of bedside ultrasound to diagnose inflammatory bowel disease in kids*
- **ELICIT.COM:** Locate some articles that: *Locate articles that describe the experiences of underrepresented minorities in surgical residencies.*
- **STANFORD AI PLAYGROUND:** The Stanford AI Playground is a user-friendly platform, built on open-source technologies, that allows you to safely try various AI models from vendors like OpenAI, Google, and Anthropic in one spot. The AI Playground is being managed by University IT (UIT) as a pilot for Stanford faculty, staff, students, postdocs, and visiting scholars. *Merge the two attached sentinel papers on POCUS training for pediatric residents and create an abstract submission from the content.*
- **Speechify:** A mobile, chrome extension and desktop app that reads text aloud using a computer generated text to speech voice. The app also uses optical character recognition technology to turn physical books or printed text into audio. The app lets users take photos of text and then listen to it read out loud.
- **STANFORD SECURE GPT:** Stanford Health Care and Stanford School of Medicine Secure GPT (beta) for interacting with large language models (LLMs), built and supported by Stanford Medicine TDS. This Secure GPT is powered by GPT 4.0 and provides a safe, secure environment that can be used to ask questions, summarize text and files, and help solve a range of complex problems
- **CHAT GPT-4:** Create the following: *A patient case study for a medical student in a surgical clerkship rotation related to surgical versus antibiotic treatment of appendicitis.*
- **CLAUDE.AI:** LLM/ChatBot similar to ChatGPT - Similar to other LLMs/Chatbots, but tries to minimize risk & enhance safety. Uses the concept of "constitutional AI," a set of foundational principles intended to align their actions with human value. Ethics!
- **GRADUATE SCHOOL OF BUSINESS LIBRARY:** The Graduate School of Business Library has developed a variety of guides to business resources related to medical devices and healthcare, including market research reports. *surgery virtual reality*

Part 4: **GOOGLE TIPS! GOOGLE AND/OR GOOGLE SCHOLAR**

GOOGLE: SITE: When a website's search engine feels "under powered," you can use Google's "SITE:" option to search the website from within Google.

antibiotic prophylaxis site:sts.org
guideline hypertrophic cardiomyopathy site:.org
exercise heart disease -site:.com

GOOGLE: FILETYPE: PDF and more. You can limit searches to certain types of files, e.g., PPT, DOC, PDF.

implementation "surgical checklist" global health filetype:pdf

GOOGLE SCHOLAR: A full-text academic journal article search engine.

"validated instrument" burnout residents

Part 5: **STAYING CURRENT – CME & JOURNAL TRACKING RESOURCES**

STAT+

[Newsletters and podcasts](#) that provide stories on the technologies, personalities, and political forces driving changes in the life science and human health industries.

BOARDVITALS

[Exam preparation](#)

AUDIODIGEST

[AudioDigest](#) CME/CE and Maintenance of Certification for medical professionals.

BROWZINE: [Instructions for downloading](#) Instructions for downloading. Find, read, and monitor thousands of scholarly journals available from your university or college library. Browzine covers all academic disciplines, not just biomedicine!

