HEAL-WA:

CONTINUING EDUCATIONAL RESOURCES FOR NURSES

Top 10 Reasons for Using HEAL-WA, Your Website for Evidence-Based Answers

Washington State Council of Perioperative Nurses
October 14, 2011
Janet G. Schnall, MS, AHIP
HEAL-WA
University of Washington
Health Sciences Libraries
Seattle, WA
schnall@uw.edu

Objectives

- *By the end of this session you will be able to:*
  - Describe the importance of evidence-based nursing practice
  - Locate e-resources in HEAL-WA to use for evidence-based nursing practice
  - Identify strategies to improve searching skills to find appropriate evidence on the web to answer clinical questions
  - List **Top 10** reasons to use HEAL-WA

Reason #1

You want to practice Evidence-Based Nursing.

What is evidence-based medicine?

- Evidence-based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.
- The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.

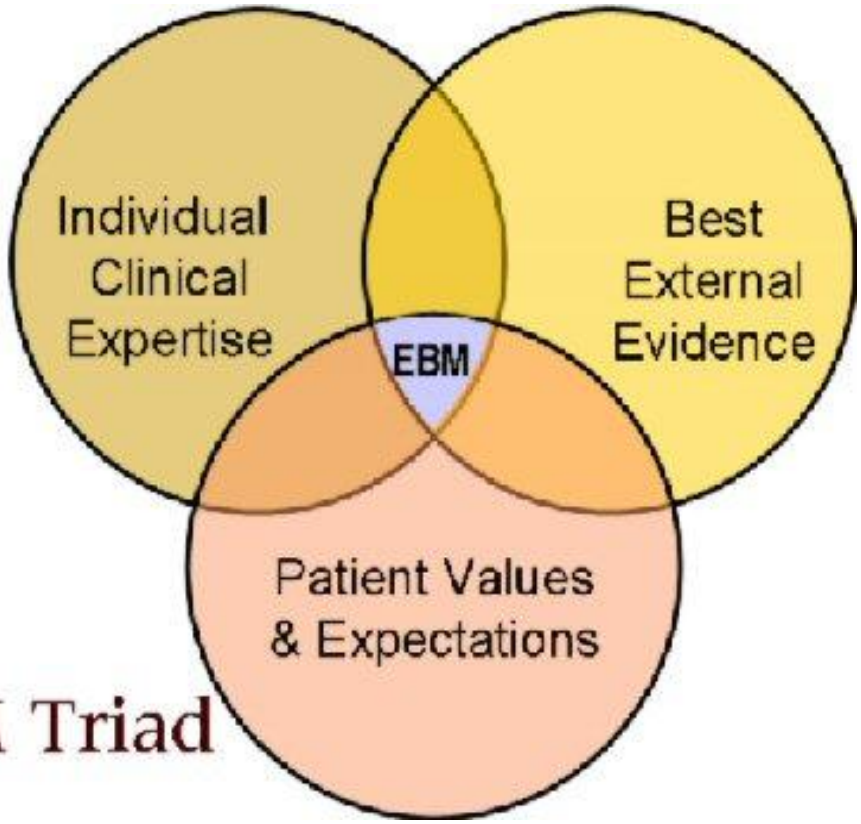
Sackett DL et al. *Evidence based medicine: what it is and what it isn't.* BMJ 1996 Jan 13; 312 (7023): 71-2.

What is evidence-based nursing practice?

"Evidence-based nursing (EBN) means using the best available evidence from research, along with patient preferences and clinical experience, when making nursing decisions."

Cullum N. Users' guides to the nursing literature: an introduction. *Evid Based Nurs* 2000 Jul;3(3):71-2. doi:10.1136/ebn.3.3.71

Evidence-Based Practice



The EBM Triad

Why is evidence important?

- Results in better patient outcomes:
  Failure to use evidence results in lower quality, less effective, and more expensive care.
  Berwick DM. Disseminating innovations in health care. *JAMA* 2003 Apr 16;289(15):1969-75.
- Standards of practice and "best practices" change over time
- Keeps practice current and relevant
- Increases confidence in decision making
- Incorporating evidence into practice ensures that patients receive the best possible care

What makes good evidence?

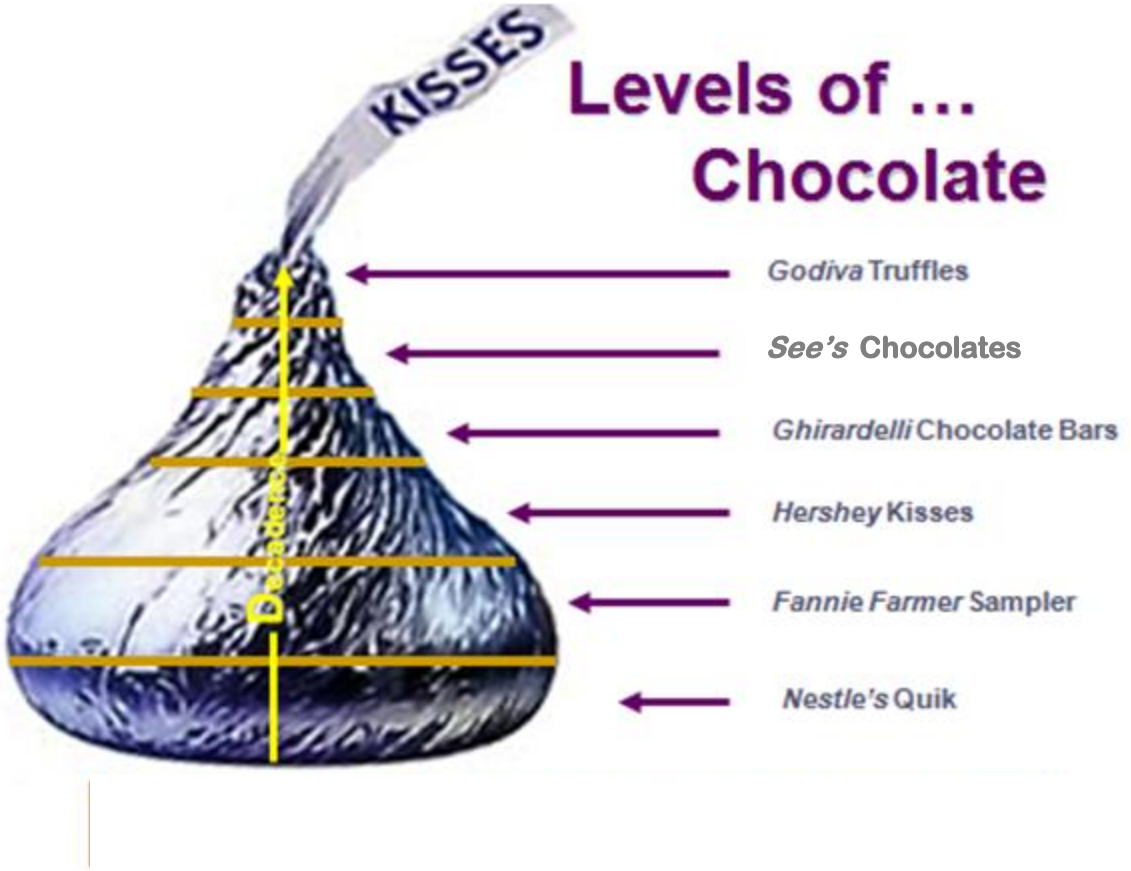
Good

- Based on scientific research
- RCT
- Systematic review
- Meta-analysis
- Clinical guidelines

Shoddy

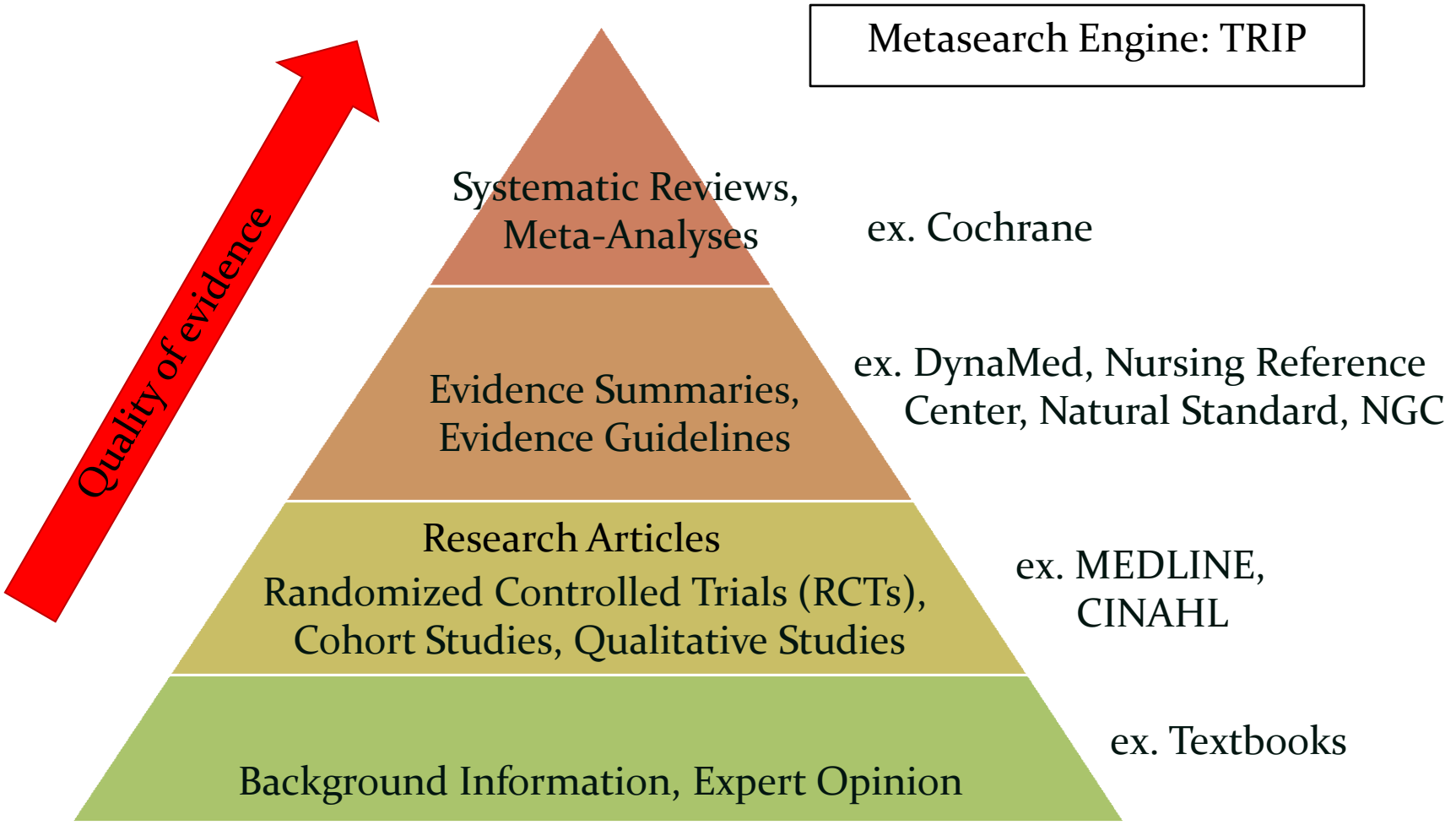
- Expert opinion
- Consensus
- Because it's been done this way for 100 years

Chocolate Decadence Pyramid



Slide adapted from Edward G. Miner Library, University of Rochester School of Medicine and Dentistry

How do HEAL-WA resources stack up as evidence?



Reason #2

Your colleagues are using HEAL-WA, but you don't know how to access it or what is on it.

Health Electronic Resource for Washington

heal-wa.org

- Began: January 2009
- Website: offers online access to a collection of health information resources
- Who has access? selected health care providers in Washington YES, NURSES !
- Mission: provide you with access to evidence-based information to support patient care

What is included in HEAL-WA?

- Resources: electronic databases, online texts, and eJournals
- Includes information resources specific to nurses, such as *CINAHL* and *Nursing Reference Center*
- Other excellent resources: MEDLINE, *DynaMed, Cochrane, Natural Standard*
- Gives practitioners access to timely, uptodate, evidence-based answers to patient care Q's

How do I get to HEAL-WA?

- Site address: http://heal-wa.org
- Use the "Getting Started" links to set up your UW NetID and password
  - You will need your RN license number in order to set up your UW NetID (even if you hold an advanced practice license)
  - May take up to 24 hours for your access code to be recognized

A quick tour of the site:

http://heal-wa.org

HEAL-WA
Health Evidence Resource for Washington State

Authoritative, current, evidence-based information for health care providers in Washington State.

heal-wa.org

TOOLKITS | DATABASES | EBOOKS | EJOURNALS | REFERENCE | HELP | ABOUT

news

Volunteers needed for C.A.R.E. Clinic 4/30/2011
Apr 08, 2011

IE 6 and EBSCOHost Databases
Apr 01, 2011

Japan nuclear reactor damage - implications for Washington State
Mar 21, 2011

Accredited CNE modules for Registered Nurses
Mar 14, 2011

Patient ed, mental health, and infectious disease resources
Jan 07, 2011

More news...

UpToDate

To access UpToDate, you need an individual subscription. Get a free

search

Search Multiple Resources | Title | Go

Diagnosis & Therapy

Guidelines & Evidence

Search for Articles

Drugs, Labs, Diagnostic Tests

Complementary & Alternative Medicine

Prevention, Screening, Immunizations

Patient Care Management

Nursing Reference Center
Nursing Reference Center includes information about conditions and diseases, patient education resources, drug information, continuing education, lab & diagnosis detail, best practice guidelines, and more.

CINAHL (Nursing Literature)
CINAHL with full text covers nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and 17 allied health disciplines and provides the full text for more than 600 journals.

Nursing Calculators

Multicultural Information

Information for Patients

access

Logged in

Getting Started

Certain resources in HEAL-WA (indicated by a lock) require a HEAL-WA access code (UW NetID) and password for access.

Once you have set up your HEAL-WA access code and password, LOG IN to HEAL-WA by clicking on the "Log In" button at the top of this column.

LOG OUT from HEAL-WA by simply closing your browser.

Set up your HEAL-WA access - to set up a HEAL-WA access code and password, see the instructions on the Getting Started page.

PLEASE NOTE that once you have set up your access code, it can take up to a day for your access code to be recognized so you can log in to HEAL-WA.

HEAL WA
Health Evidence Resource for Washington State

Authoritative, current, evidence-based information for health care providers in Washington State.

Search multiple databases simultaneously

TOOLKITS | DATABASES | EBOOKS | EJOURNALS | REF

news

Volunteers needed for C.A.R.E. Clinic 4/30/2011
Apr 08, 2011

IE 6 and EBSCOHost Databases
Apr 01, 2011

Japan nuclear reactor damage - implications for Washington State
Mar 21, 2011

Accredited CNE modules for Registered Nurses
Mar 14, 2011

Patient ed, mental health, and infectious disease resources
Jan 07, 2011

More news...

UpToDate

To access UpToDate, you need an individual subscription. Get a free

search

Search Multiple Resources | Title | Go

Diagnosis & Therapy

Guidelines & Evidence

Search for Articles

Drugs, Labs, Diagnostic Tests

Complementary & Alternative Medicine

Prevention, Screening, Immunizations

Patient Care Management

Nursing Reference Center
Nursing Reference Center includes information about conditions and diseases, patient education resources, drug information, continuing education, lab & diagnosis detail, best practice guidelines, and more.

CINAHL (Nursing Literature)
CINAHL with full text covers nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and 17 allied health disciplines and provides the full text for more than 600 journals.

Nursing Calculators

Multicultural Information

Information for Patients

access

Logged in

Getting Started

Certain resources in HEAL-WA (indicated by a lock) require a HEAL-WA access code (UW NetID) and password for access.

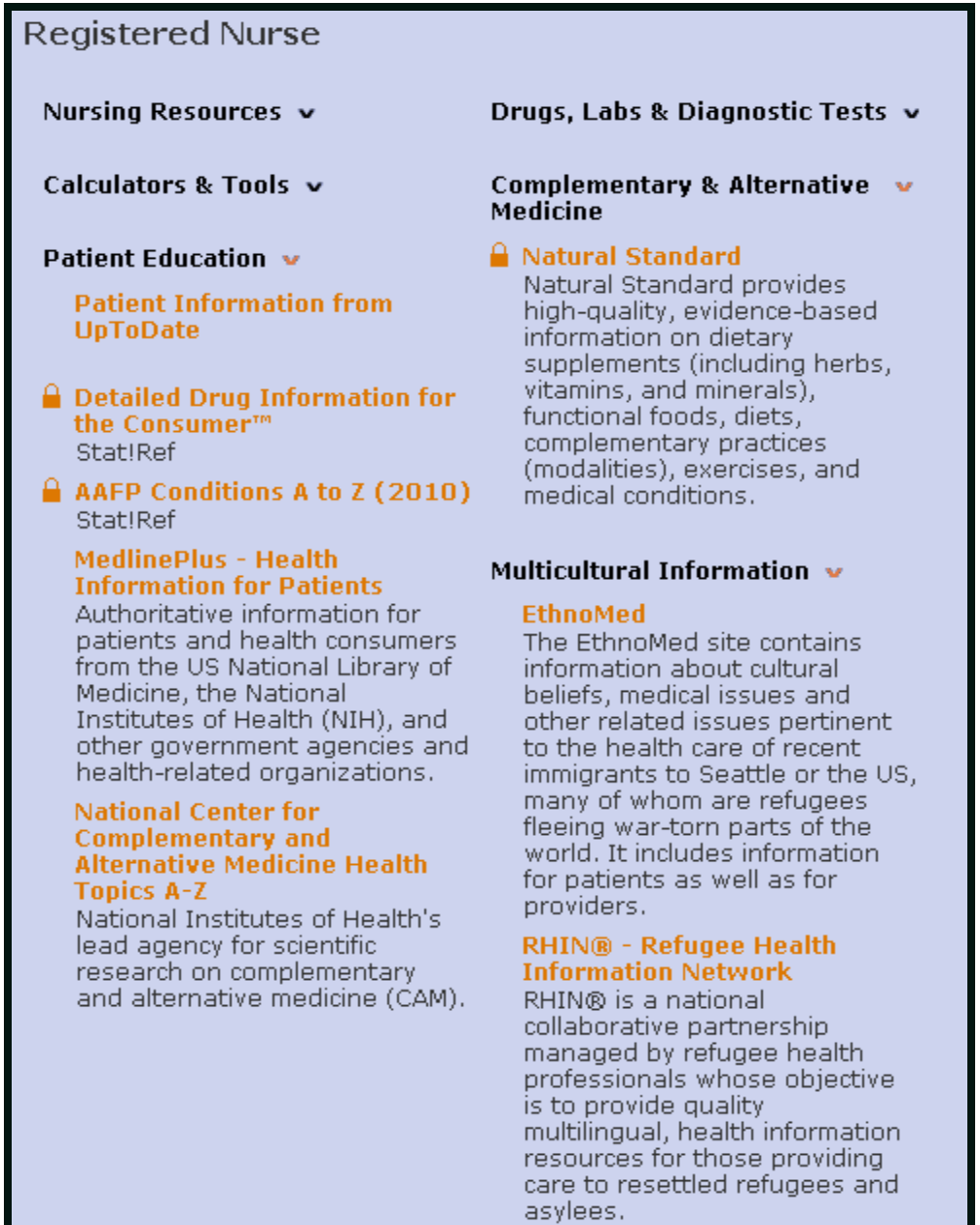
Once you have set up your HEAL-WA access code and password, LOG IN to HEAL-WA by clicking on the "Log In" button at the top of this column.

LOG OUT from HEAL-WA by simply closing your browser.

Set up your HEAL-WA access - to set up a HEAL-WA access code and password, see the instructions on the Getting Started page.

PLEASE NOTE that once you have set up your access code, it can take up to a day for your access code to be recognized so you can log in to HEAL-WA.

HEAL-WA Toolkit: Registered Nurse



Registered Nurse

Nursing Resources

Calculators & Tools

Patient Education

Patient Information from UpToDate

Detailed Drug Information for the Consumer™
Stat!Ref

AAFP Conditions A to Z (2010)
Stat!Ref

MedlinePlus - Health Information for Patients
Authoritative information for patients and health consumers from the US National Library of Medicine, the National Institutes of Health (NIH), and other government agencies and health-related organizations.

National Center for Complementary and Alternative Medicine Health Topics A-Z
National Institutes of Health's lead agency for scientific research on complementary and alternative medicine (CAM).

Drugs, Labs & Diagnostic Tests

Complementary & Alternative Medicine

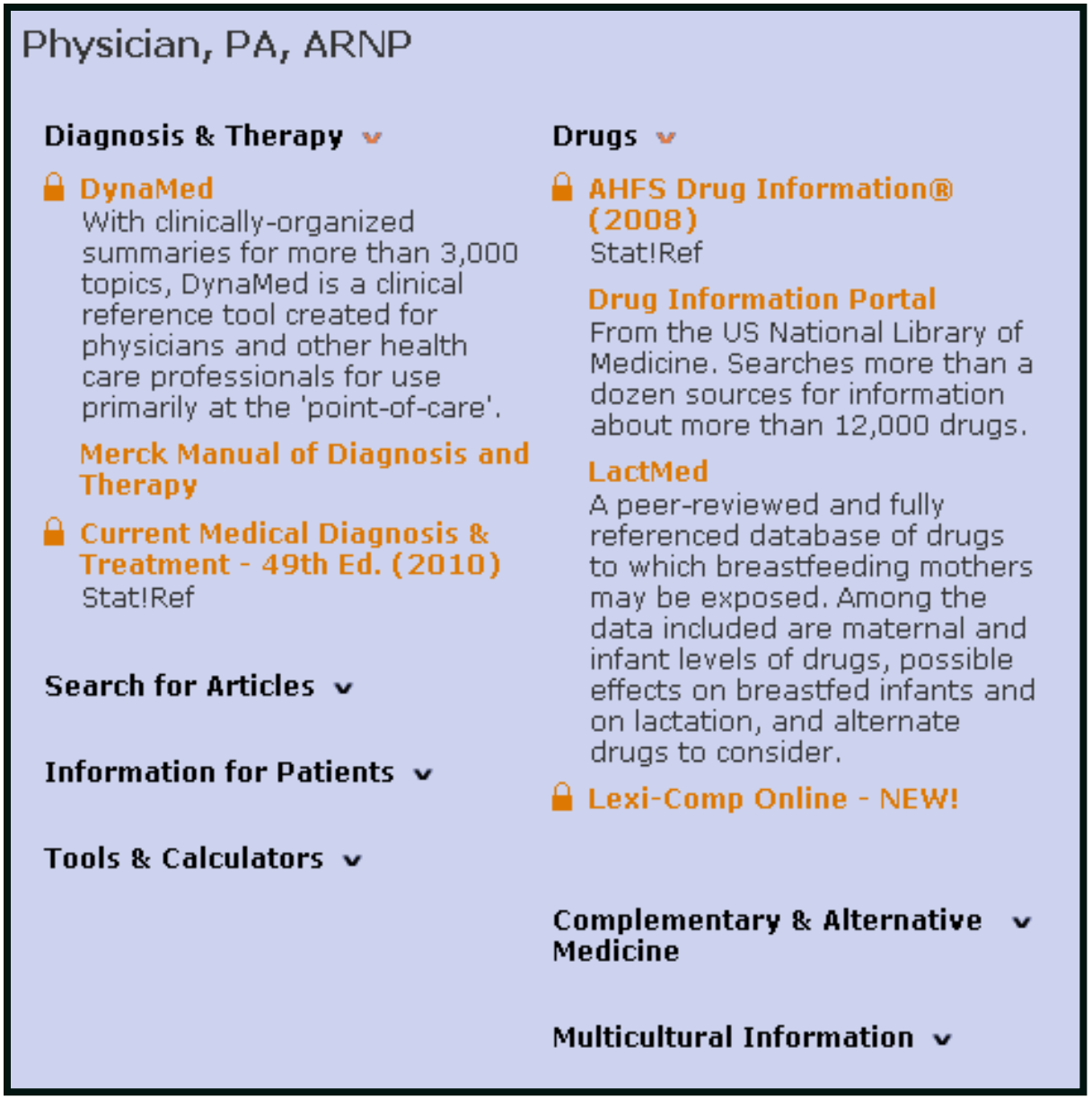
Natural Standard
Natural Standard provides high-quality, evidence-based information on dietary supplements (including herbs, vitamins, and minerals), functional foods, diets, complementary practices (modalities), exercises, and medical conditions.

Multicultural Information

EthnoMed
The EthnoMed site contains information about cultural beliefs, medical issues and other related issues pertinent to the health care of recent immigrants to Seattle or the US, many of whom are refugees fleeing war-torn parts of the world. It includes information for patients as well as for providers.

RHIN® - Refugee Health Information Network
RHIN® is a national collaborative partnership managed by refugee health professionals whose objective is to provide quality multilingual, health information resources for those providing care to resettled refugees and asylees.

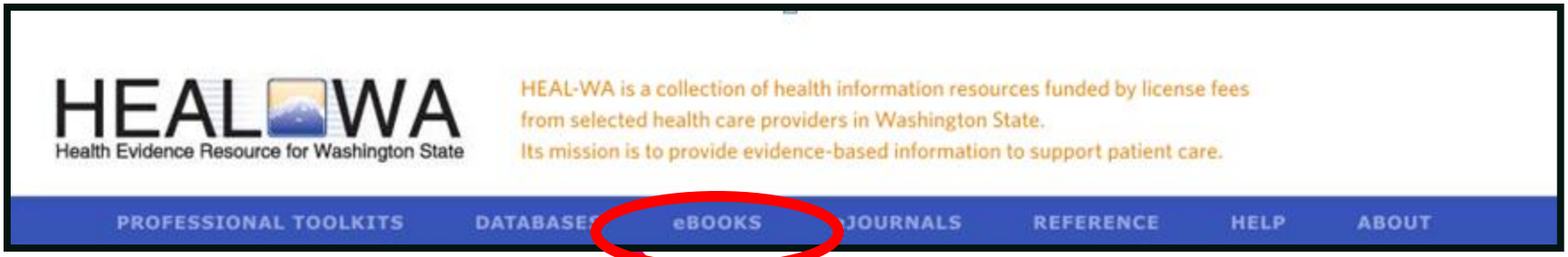
HEAL-WA Toolkit: ARNP



Reason #3

You want to search a Textbook.

eBooks/Textbooks

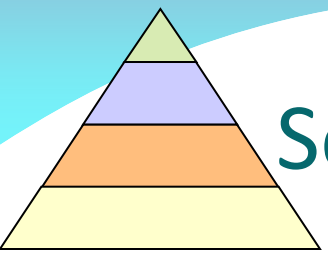


Examples of nursing eBooks on HEAL-WA:

- Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests - with Nursing Implications – 4th Ed. (2011)
- Greenfield's Surgery Scientific Principles and Practice – 5th Ed. (2011)
- Laboratory Tests and Diagnostic Procedures with Nursing Diagnoses - 7th Ed. (2008)
- Medical-Surgical Nursing Care - 3rd Ed. (2011)
- Nursing Diagnosis Reference Manual, Sparks and Taylor's - 8th Ed.(2011)
- Pharmacology for Nurses: A Pathophysiologic Approach – 3rd Ed. (2011)
- Schwartz's Principles of Surgery, 9th Ed. (2010)

Reason #4

You want to search a Database to find research articles, and then locate the full-text article in a journal.



Search Databases Efficiently for Research Journal Articles

MEDLINE or CINAHL

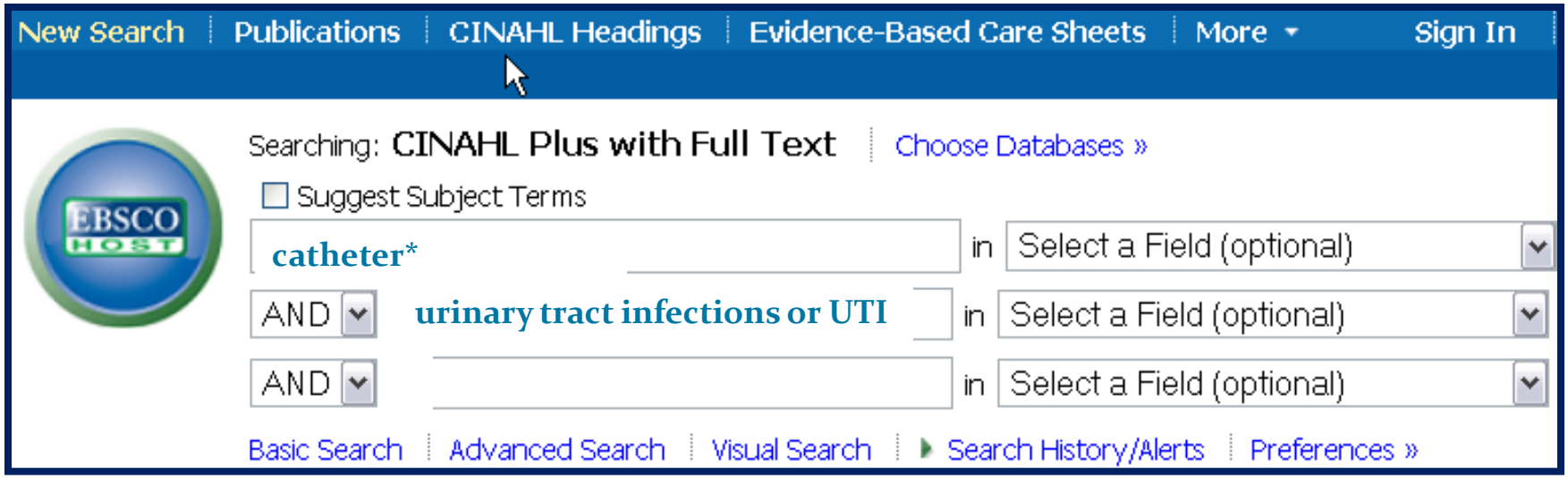
- Includes references to research articles on a topic:
  - Some with full-text links to article
  - Most with abstracts
- Same interface when searching

  MEDLINE or CINAHL (or Cochrane) on HEAL-WA

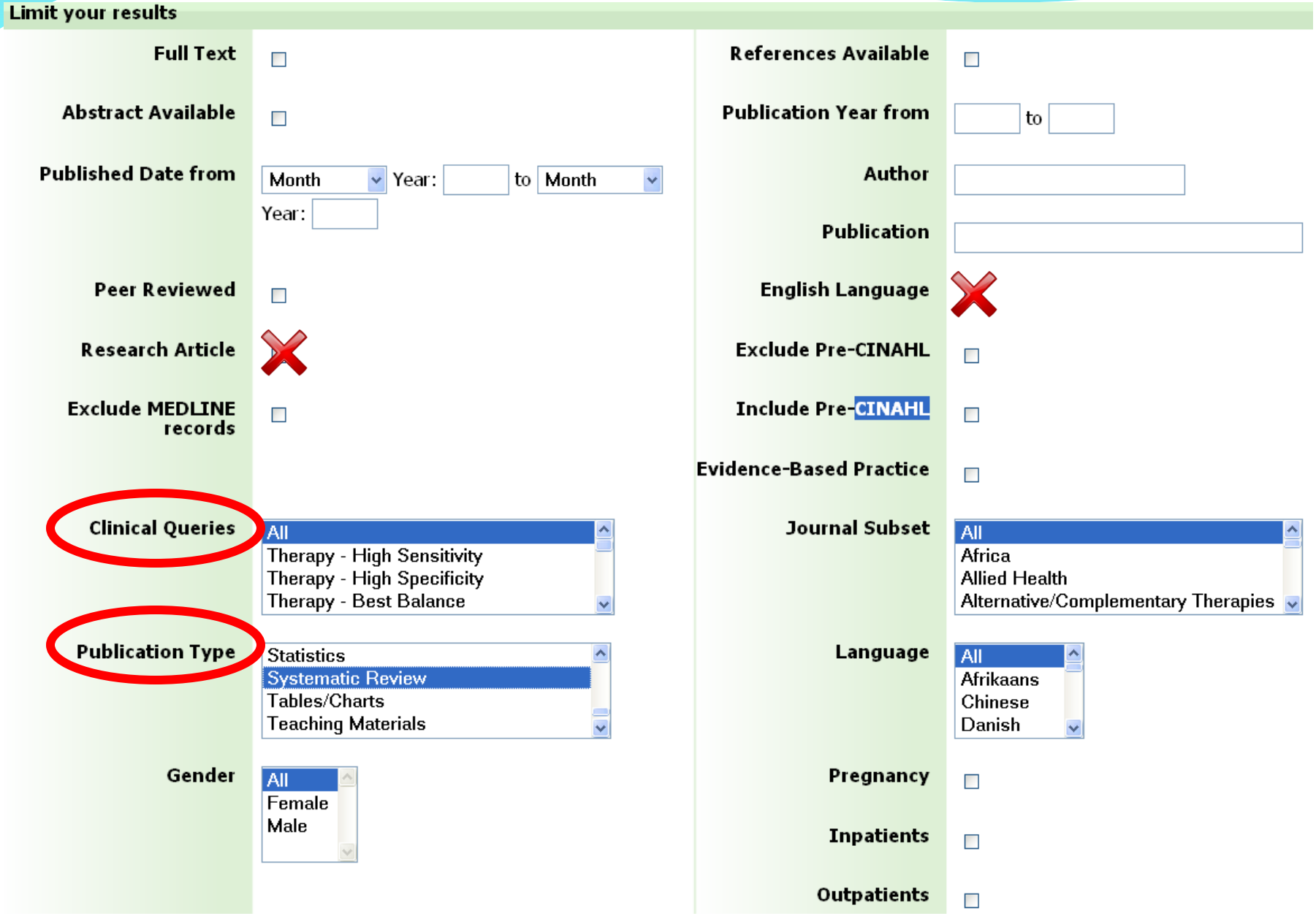
CINAHL

Cumulative Index to Nursing and Allied Health Literature

- Provides coverage from 1982+ of nursing and 17 allied health disciplines literature
- 1700+ journals indexed including virtually all English-language nursing journals
- Can easily search for Research articles

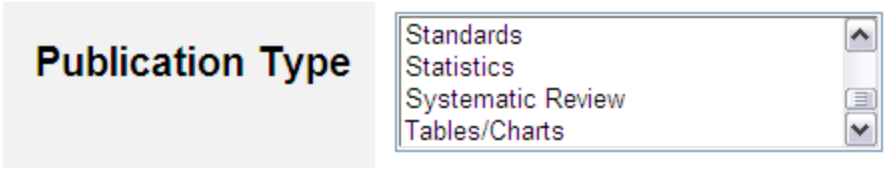


Limit your Results



CINAHL Publication Type Limits

- Clinical trial
- Critical path
- Practice guidelines
- Research
- Standards
- Systematic review



New Search | Publications | CINAHL Headings | Cited References | More | Sign In to My EBSCOhost | Folder | New Features! | Help

Searching: **CINAHL with Full Text** | Choose Databases »

HEAL-WA

Suggest Subject Terms

(MM "Urinary Tract Infections") in Select a Field (optional) **Search** **Clear**

and catheter* in Select a Field (optional)

and in Select a Field (optional) Add Row

Basic Search | Advanced Search | Visual Search | Search History/Alerts | Preferences »

CINAHL Results

Narrow Results by

Source Types
- All Results
- Periodicals
- Books/Monographs
- Pamphlets
- CEUs

Subject: Major Heading
- Urinary Tract Infections
- Catheter-Related Infections
- Catheters, Urinary
- Urinary Catheterization
- Cross Infection
- Escherichia Coli

More »

Publication

Age

Gender

Results: 1-20 of 420 **Page: 1** 2 3 4 5 **Next** **Sort by:** Date Descending Add (1-20)

Results for: (MM "Urinary Tract Infections") ✓Options set Alert / Save / Share »

Search Mode: Boolean/Phrase

1. Periurethral cleaning prior to urinary catheterization in children: sterile water versus 10% povidone-iodine.
Objective. To compare urinary infection rate in children cleaned with sterile water versus a 10% povidone-iodine before bladder catheterization. Methods. Prospective randomized controlled study o...
(includes abstract); Al-Farsi S; Oliva M; Davidson R; Richardson SE; Ratnapalan S; Clinical Pediatrics, 2009 Jul; 48 (6): 656-60 (journal article - clinical trial, research, tables/charts) ISSN: 0009-9228 PMID: 19264723 CINAHL AN: 2010313316
Database: CINAHL with Full Text
Add to folder
PDF Full Text

Link to full text

2. UTIs in adolescents: common infections, uncommon challenges.
Diagnosing UTIs in teens can be tricky because symptoms of UTIs and STIs overlap. Antibiotics are standard treatment, though resistanoe is increasing.
(includes abstract); Robbins C; Shew ML; Contemporary Pediatrics, 2009 Jul; 26 (7): 48-54 (journal article - pictorial, tables/charts) ISSN: 8750-0507 CINAHL AN: 2010352917
Database: CINAHL with Full Text
Add to folder
PDF Full Text

3. CDC issues draft UTI guideline.
OR Manager, 2009 Jul; 25 (7): 20 (journal article - brief item) ISSN: 8756-8047 CINAHL AN: 2010348834
Database: CINAHL with Full Text
Add to folder
PDF Full Text

4. Sexual activity, alcohol are major factors in a woman's first UTI.
Urology Times, 2009 Jul; 37 (8): 32 (journal article - brief item) ISSN: 0093-9722 CINAHL AN: 2010366897
Database: CINAHL with Full Text
Add to folder
PDF Full Text

Limit your results

- Full Text
- References Available
- Abstract Available

Filter by Publication Date:
1982 2009
1976 2009
Update Results

« Search Options ✓Options set

1 of 420 Return to Result List | Refine Search

Citation PDF Full Text

Abstract record also contains link to full text

Title: Peri-urethral cleaning prior to urinary catheterization in children: sterile water versus 10% povidone-iodine.

Authors: Al-Farsi S; Oliva M; Davidson R; Richardson SE; Ratnapalan S

Affiliation: The Hospital for Sick Children, University of Toronto, Canada.

Source: Clinical Pediatrics (CLIN PEDIATR), 2009 Jul; 48(6): 656-60 (21 ref)

Publication Type: journal article - clinical trial, research, tables/charts

Language: English

Major Subjects: Povidone-Iodine -- Administration and Dosage
Urinary Catheterization -- In Infancy and Childhood
Urinary Tract Infections -- Prevention and Control
Urinary Tract Infections -- Risk Factors

Minor Subjects: Child, Preschool; Clinical Trials; Data Analysis Software; Emergency Service; Female; Funding Source; Infant; Male; Prospective Studies; Random Assignment

Abstract: Objective. To compare urinary infection rate in children cleaned with sterile water versus a 10% povidone-iodine before bladder catheterization. Methods. Prospective randomized controlled study of children requiring bladder catheterization in the emergency department whose parents consented to the study were randomly assigned to either of 2 groups, in which sterile water (the "sterile water" group) or 10% povidone-iodine (the "10% povidone-iodine" group) was to be used for peri-urethral cleansing prior to catheterization. Results. The sterile water group had 92 patients and the povidone-iodine group had 94. Most children (87%) were under 12 months of age. Urine cultures were positive in 16% of children in the povidone-iodine group and in 18% in the water group. There was no significant difference in signs and symptoms between the 2 groups. There was no significant association between solution preparation and cultures on univariate regression analysis. Conclusions. Cleaning the periurethral area of children with sterile water prior to catheterization is not inferior to cleaning with povidone-iodine

Related Information

Similar Results

Find Similar Results using SmartText Searching.

Search MEDLINE for Research Articles

- MEDLINE (1940's+) is included on PubMed
- Indexes 5,200 biomedical journals
- Covers all aspects of biosciences and healthcare
- 75%-80% of citations have abstracts
- Updated 5x/week

2 MEDLINE Strategies for Finding Evidence-Based Citations

1. Use Publication Type limits
   - Randomized Controlled Trial
   - Meta-Analysis
   - Practice Guideline
   - Clinical Trial
   - Consensus Development Conference
2. Use Clinical Queries

MEDLINE Search Screen

Searching: MEDLINE with Full Text | Choose Databases »

HEAL-WA

Suggest Subject Terms

catheter* in Select a Field (optional)

AND urinary tract infections or UTI in Select a Field (optional)

AND in Select a Field (optional) Add Row

Search Clear

Limit your results

Full Text

Publication

Abstract Available

EBM Reviews

Human

Gender: All, Female, Male

Clinical Queries: All, Therapy - High Sensitivity, Therapy - High Specificity, Therapy - Best Balance

Journal & Citation Subset: All, AIDS, Bioethics, Core Clinical (AIM)

Date of Publication from Month Year: to Month Year:

Author

English Language

Review Articles

Animal

Age Related: All, Infant, Newborn: birth-1 month, Infant: 1-23 months, All Infant: birth-23 months

Subject Subset: All, AIDS, Bioethics, Cancer

Publication Type: All, Randomized Controlled Trial, Biography

MEDLINE Results

RCT of **urethral** versus **suprapubic catheterization**.

(**eng**) By Dixon L, Dolan LM, Brown K, Hilton P, British Journal Of Nursing (Mark Allen Publishing) [Br J Nurs], ISSN: 0966-0461, 2010 Oct 14-27; Vol. 19 (18), pp. S7-13; PMID: 20948487; To compare the use of intermittent **urethral catheterization** with indwelling **suprapubic catheterization** in women undergoing surgery for urodynamic stress incontinence or uterovaginal prolapse.

Subjects: Cystostomy methods; Drainage methods; Intermittent Urethral Catheterization methods; Postoperative Complications prevention & control; Urinary Retention prevention & control; Female

Database: MEDLINE with Full Text

Add to folder

PDF Full Text

link to full text

Suprapubic versus transurethral **catheterisation** of males undergoing pelvic colorectal surgery.

(**eng**) By Ratnaval CD, Renwick P, Farouk R, Monson JR, Lee PW, International Journal Of Colorectal Disease [Int J Colorectal Dis], ISSN: 0179-1958, 1996; Vol. 11 (4), pp. 177-9; PMID: 8876274; A prospective, randomised double-blind trial of **suprapubic** (SPC) versus transurethral (TUC) **catheterisation** was undertaken in fifty consecutive male patients of median age 66 (range 32-81) years undergoing pelvic colorectal surgery. Twenty-four patients were randomised to SPC. **Catheter** removal times were comparable between the two groups: SPC = mean 7.2 (3-14) days; TUC = man 7.5 (2-13) days; P > 0.5. Acute **urinary** retention was recorded in 5 patients with SPC and 6 in the TUC group. Chronic retention with overflow was recorded in one TUC patient. Frequent voiding after **catheter** removal occurred in two SPC, and in eleven TUC patients (P < 0.05). Re-**catheterization** was required in two SPC, and seven TUC patients. One culture positive **urinary tract** infection occurred in the SPC, and three in the TUC groups. It is concluded that **suprapubic catheterisation** allows comparable controlled return of normal voiding with fewer bladder and **urethral** symptoms when compared with transurethral **catheterisation**.

Subjects: Colonic Diseases surgery; Rectal Diseases surgery; Urinary Catheterization methods; Urinary Retention etiology; Urinary Tract Infections etiology; Adult: 19-44 years; Aged: 65+ years; Aged, 80 and over; Middle Aged: 45-64 years; All Adult: 19+ years; Male

Database: MEDLINE with Full Text

Add to folder

CINAHL vs MEDLINE

CINAHL

- Coverage: 1982+
- Indexes 1700 journals
- Focuses on nursing and allied health literature
- CINAHL Thesaurus with more nursing terms
- Has peer-reviewed limit
- Includes cited references at end of many refs

MEDLINE

- Coverage: late 1940's+
- Indexes 5200 journals
- Focuses on biomedical literature
- Uses MeSH as its controlled vocabulary
- No peer-reviewed limit
- No cited references

Journals A to Z

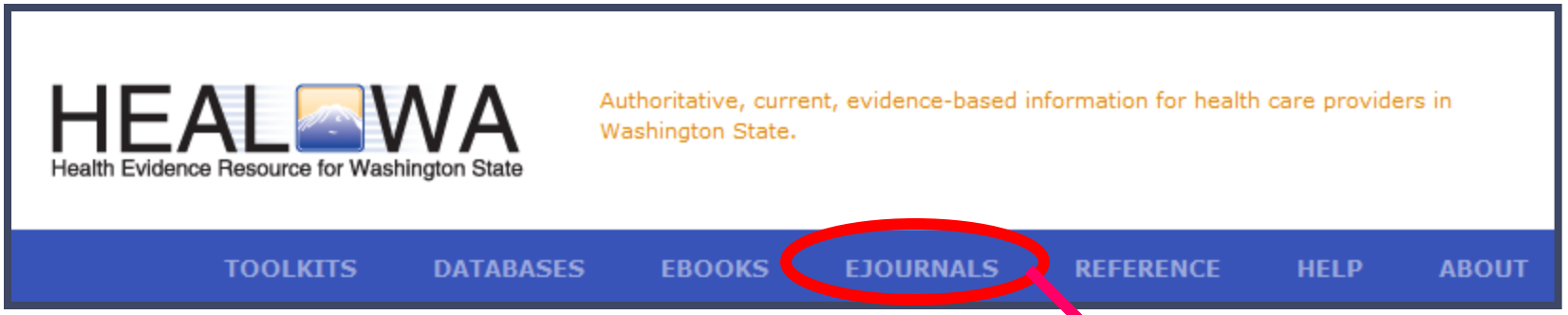
- Full-text articles:
  - Records in MEDLINE and CINAHL link out to those that are available 

  - Or go directly to eJournals tab in HEAL-WA and search by title 

  - Fastest: go directly to eJournals tab when you're searching for a specific known article 

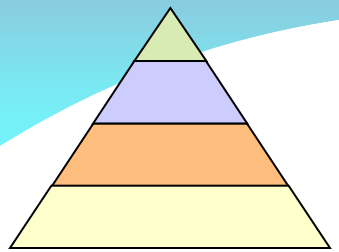
HEAL-WA Journals A-Z

5,000 full-text health-related journals



Reason #5

You want to locate Evidence Summaries and Clinical Practice Guidelines.

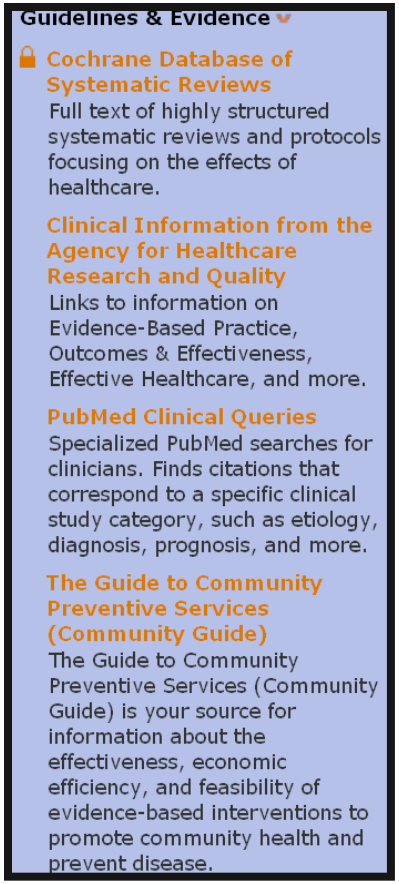


Search for Clinical Practice Guidelines

- Systematically developed statements of appropriate care designed to assist the practitioner and patient make decisions about appropriate health care for specific clinical circumstances
- Usually based on the most current available research if from reputable, authoritative organizations
- Developed using widely varying standards
  - *Cost* may be considered as well as *health outcomes* or *politics*

Practice Guideline Resources

- National Guideline Clearinghouse
- Nursing Reference Center
- MEDLINE
- CINAHL
- Association/Society guidelines
- Advanced Google or Google Scholar



National Guideline Clearinghouse

guideline.gov

- Initiative of the Agency for Healthcare Research and Quality (AHRQ)
- Database of clinical practice guidelines and related docs
- Mostly evidence-based guidelines
- Voluntary participation
- Free
- Updated weekly

Home
Guidelines
Expert Commentaries
Guideline Syntheses
Guideline Resources
Annotated Bibliographies
Compare Guidelines
FAQ
Submit Guidelines
About

< Back

'ventilator associated pneumonia'

Search within: GO

Sort results by: Relevance Publication date

Compare Guidelines

1-20 of 35 Next >

1. **Clinical practice guidelines for hospital-acquired pneumonia and ventilator-associated pneumonia in adults.** 2008 Jan. NGC:007473
   Association of Medical Microbiology and Infectious Disease Canada - Medical Specialty Society; Canadian Thoracic Society - Medical Specialty Society. *View all guidelines by the developer(s)*

2. **Strategies to prevent ventilator-associated pneumonia in acute care hospitals.** 2008 Oct. NGC:006807
   Infectious Diseases Society of America - Medical Specialty Society; Society for Healthcare Epidemiology of America - Professional Association. *View all guidelines by the developer(s)*

3. **Prevention of ventilator-associated pneumonia. In: Prevention and control of healthcare-associated infections in Massachusetts.** 2008 Jan 31. NGC:006634
   Betsy Lehman Center for Patient Safety and Medical Error Reduction - State/Local Government Agency [U.S.]; Massachusetts Department of Public Health - State/Local Government Agency [U.S.]. *View all guidelines by the developer(s)*

Guideline Comparison

Guideline Title	Clinical practice guidelines for hospital-acquired pneumonia and ventilator-associated pneumonia in adults.	Strategies to prevent ventilator-associated pneumonia in acute care hospitals.	Prevention of ventilator-associated pneumonia. In: Prevention and control of healthcare-associated infections in Massachusetts.
Date Released	2008 Jan	2008 Oct	2008 Jan 31
Guideline Developer (s)	Association of Medical Microbiology and Infectious Disease Canada - Medical Specialty Society Canadian Thoracic Society - Medical Specialty Society	Infectious Diseases Society of America - Medical Specialty Society Society for Healthcare Epidemiology of America - Professional Association	Betsy Lehman Center for Patient Safety and Medical Error Reduction - State/Local Government Agency [U.S.] Massachusetts Department of Public Health - State/Local Government Agency [U.S.]
Intended Users	Advanced Practice Nurses Hospitals Nurses Pharmacists Physician Assistants Physicians Respiratory Care Practitioners	Advanced Practice Nurses Allied Health Personnel Hospitals Nurses Physician Assistants Physicians Respiratory Care Practitioners Utilization Management	Advanced Practice Nurses Hospitals Nurses Physician Assistants Physicians Respiratory Care Practitioners
Methods Used to Collect/Select the Evidence	Hand-searches of Published Literature (Primary Sources) Hand-searches of Published Literature (Secondary Sources) Searches of Electronic Databases	Searches of Electronic Databases	Hand-searches of Published Literature (Primary Sources) Hand-searches of Published Literature (Secondary Sources) Searches of Electronic Databases
Major Recommendations	View Major Recommendations	View Major Recommendations	View Major Recommendations
Availability of Original Guideline	View original (full-text) guideline	View original (full-text) guideline	View original (full-text) guideline

Guideline Summary

Guideline Title

Clinical practice guidelines for hospital-acquired pneumonia and ventilator-associated pneumonia in adults.

Bibliographic Source(s)

Rotstein C, Evans G, Born A, Grossman R, Light RB, Magder S, McTaggart B, Weiss K, Zhanel GG. Clinical practice guidelines for hospital-acquired pneumonia and ventilator-associated pneumonia in adults. Can J Infect Dis Med Microbiol 2008 Jan;19(1):19-53. [381 references] PubMed

Guideline Status

This is the current release of this guideline.

Recommendations

Back to to

Major Recommendations

The levels of evidence (1-3) and strength of recommendation (A-E) are defined at the end of the "Major Recommendations" field.

Prevention and Risk Reduction

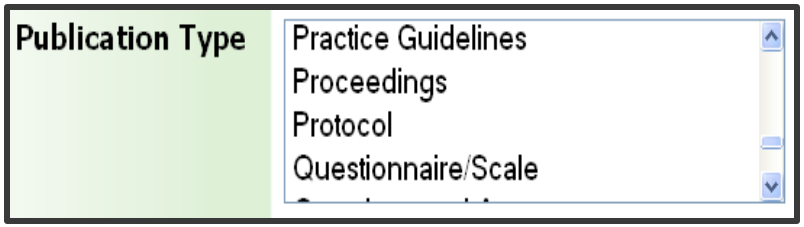
Major Points and Recommendations

1. To control the spread of antibiotic-resistant organisms (AROs), an effective infection control program must be implemented in all institutions (**A-1**).
2. Oral intubation should be the preferred way for invasive mechanical ventilation (**B-2**).
3. Patients should be nursed in a semirecumbent position (30° to 45° angle) (**A-2**).
4. Kinetic beds may be useful in some carefully selected groups of patients.
5. Circuit changes should be performed not more than once a week, except if visibly soiled (**A-1**).
6. If not contraindicated, a heat and moisture exchanger (HME) should be used and changed on a weekly basis (**B-2**).
7. The regular use of subglottic secretion drainage should be encouraged in intubated patients (**A-2**).
8. A closed suction catheter should be used for each new patient (**B-2**).
9. Routine prophylaxis of HAP with oral antibiotics (selective decontamination of the digestive tract [SDD]), with or without systemic antibiotics, reduces the incidence of ICU-acquired VAP, has helped

Searching for *Practice Guidelines* in CINAHL and MEDLINE

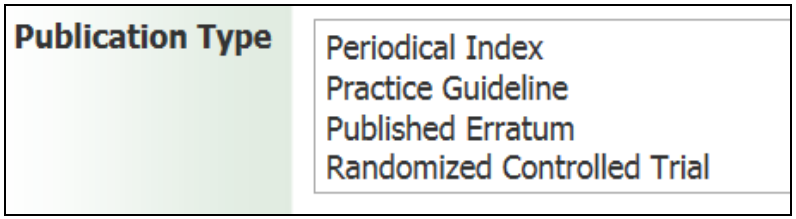
- In CINAHL

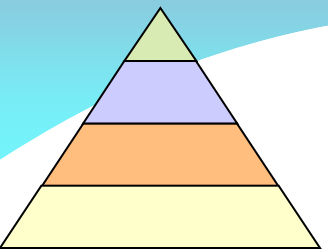
  Limit to **Practice Guidelines** as a Publication Type



- In MEDLINE

  Limit to **Practice Guideline** as a Publication Type





Search for Evidence Summaries

- DynaMed

  Evidence-based clinical resource providing summaries of 3500+ diseases and conditions
- Nursing Reference Center (NRC)

  Point-of-care resource for nurses

- Both DynaMed and NRC:
  - Designed as point-of-care resources
  - Links to any full-text articles that HEAL-WA accesses
  - Broad monographs written around the whole picture of a disease rather than only one treatment or intervention
  - Include information from Cochrane studies

Nursing Reference Center

- Evidence-based Care Sheets
  - Evidence-based summaries on key topics incorporating the best available evidence through vigorous systematic surveillance
- Diseases & Conditions
- Quick Lessons
- Drug information
- Skills & Procedures
- Practice Guidelines
- Patient Education materials
- CE modules

Browse for: urinary catheter in All

Browse

Alphabetical | Relevancy Ranked

Page: Previous | Next A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

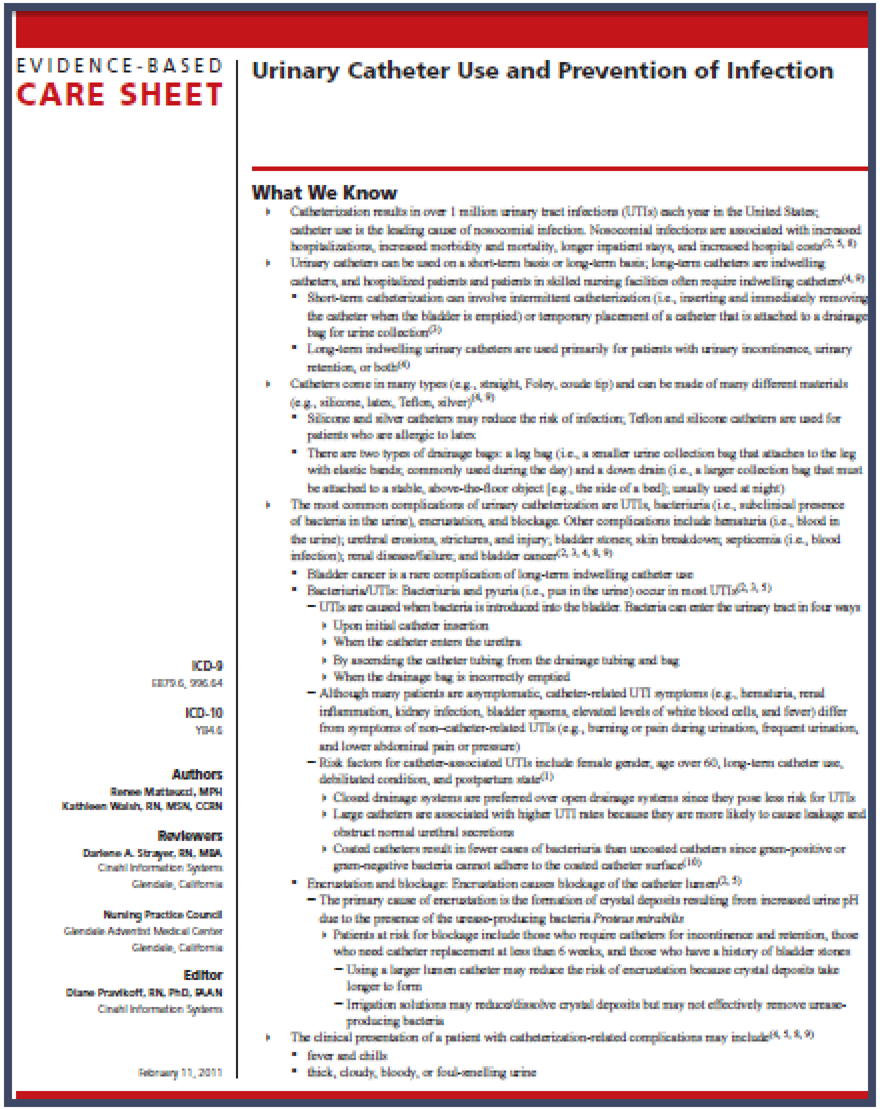
- Urinary Bladder Prolapse
- Urinary Calculi and Extracorporeal Shock Wave Lithotripsy
- Urinary Calculi in Children
- Urinary Calculi in Pregnancy
- Urinary Calculi: an Overview
- Urinary Catheter Use and Prevention of Infection EB
- Urinary Incontinence: Menopause EB
- Urinary Incontinence: Pelvic Organ Prolapse

Key Content

Diseases & Conditions includes:

- **Quick Lessons**
  Clinically-organized nursing overviews that are designed to map the nursing work flow
- **Evidence-Based Care Sheets** EB
  Evidence-based summaries on key topics incorporating the best available evidence through rigorous systematic surveillance

Nursing Reference Center
Evidence-Based Care Sheet


EVIDENCE-BASED
CARE SHEET

Urinary Catheter Use and Prevention of Infection

What We Know

- Catheterization results in over 1 million urinary tract infections (UTIs) each year in the United States; catheter use is the leading cause of nosocomial infection. Nosocomial infections are associated with increased hospitalizations, increased morbidity and mortality, longer inpatient stays, and increased hospital costs[2, 5, 8]
- Urinary catheters can be used on a short-term basis or long-term basis; long-term catheters are indwelling catheters, and hospitalized patients and patients in skilled nursing facilities often require indwelling catheters[4, 9]
  - Short-term catheterization can involve intermittent catheterization (i.e., inserting and immediately removing the catheter when the bladder is emptied) or temporary placement of a catheter that is attached to a drainage bag for urine collection[3]
  - Long-term indwelling urinary catheters are used primarily for patients with urinary incontinence, urinary retention, or both[4]
- Catheters come in many types (e.g., straight, Foley, coude tip) and can be made of many different materials (e.g., silicone, latex, Teflon, silver)[4, 9]
  - Silicone and silver catheters may reduce the risk of infection; Teflon and silicone catheters are used for patients who are allergic to latex
  - There are two types of drainage bags: a leg bag (i.e., a smaller urine collection bag that attaches to the leg with elastic bands; commonly used during the day) and a down drain (i.e., a larger collection bag that must be attached to a stable, above-the-floor object [e.g., the side of a bed]; usually used at night)
- The most common complications of urinary catheterization are UTIs, bacteriuria (i.e., subclinical presence of bacteria in the urine), encrustation, and blockage. Other complications include hematuria (i.e., blood in the urine); urethral erosions, strictures, and injury; bladder stones; skin breakdown; septicemia (i.e., blood infection); renal disease/failure; and bladder cancer[2, 3, 4, 8, 9]
  - Bladder cancer is a rare complication of long-term indwelling catheter use
  - Bacteriuria/UTIs: Bacteriuria and pyuria (i.e., pus in the urine) occur in most UTIs[2, 3, 5]
    - UTIs are caused when bacteria is introduced into the bladder. Bacteria can enter the urinary tract in four ways
      - Upon initial catheter insertion
      - When the catheter enters the urethra
      - By ascending the catheter tubing from the drainage tubing and bag
      - When the drainage bag is incorrectly emptied
    - Although many patients are asymptomatic, catheter-related UTI symptoms (e.g., hematuria, renal inflammation, kidney infection, bladder spasms, elevated levels of white blood cells, and fever) differ from symptoms of non-catheter-related UTIs (e.g., burning or pain during urination, frequent urination, and lower abdominal pain or pressure)
    - Risk factors for catheter-associated UTIs include female gender, age over 60, long-term catheter use, debilitated condition, and postpartum state[1]
      - Closed drainage systems are preferred over open drainage systems since they pose less risk for UTIs
      - Large catheters are associated with higher UTI rates because they are more likely to cause leakage and obstruct normal urethral secretions
      - Coated catheters result in fewer cases of bacteriuria than uncoated catheters since gram-positive or gram-negative bacteria cannot adhere to the coated catheter surface[10]
  - Encrustation and blockage: Encrustation causes blockage of the catheter lumen[2, 5]
    - The primary cause of encrustation is the formation of crystal deposits resulting from increased urine pH due to the presence of the urease-producing bacteria *Proteus mirabilis*
      - Patients at risk for blockage include those who require catheters for incontinence and retention, those who need catheter replacement at less than 6 weeks, and those who have a history of bladder stones
        - Using a larger lumen catheter may reduce the risk of encrustation because crystal deposits take longer to form
        - Irrigation solutions may reduce/dissolve crystal deposits but may not effectively remove urease-producing bacteria
- The clinical presentation of a patient with catheterization-related complications may include[4, 5, 8, 9]
  - fever and chills
  - thick, cloudy, bloody, or foul-smelling urine

ICD-9
ICD-10

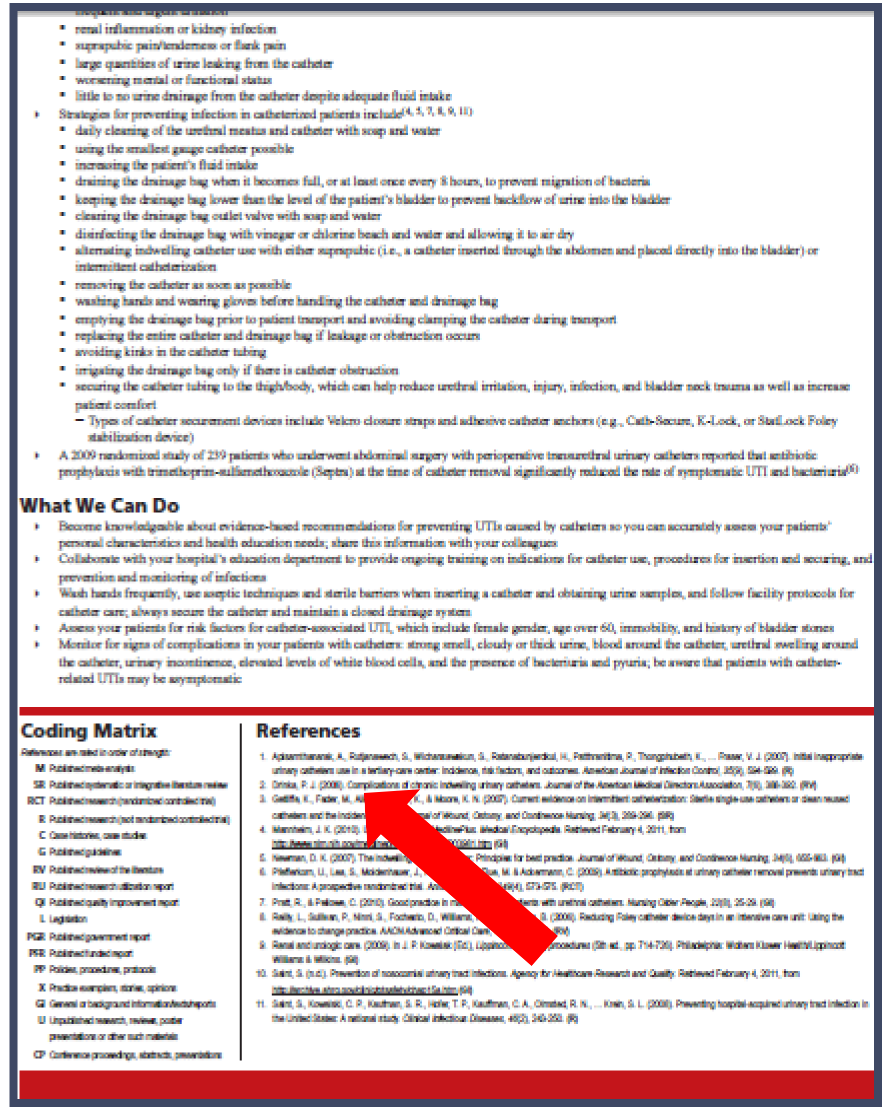
Authors
Renee Matteucci, MPH
Kathleen Walsh, RN, MSN, CCRN

Reviewers
Darlene A. Strayer, RN, MBA
Cinahl Information Systems
Glendale, California

Nursing Practice Council
Glendale Adventist Medical Center
Glendale, California

Editor
Diane Pravikoff, RN, PhD, FAAN
Cinahl Information Systems

February 11, 2011


  - renal inflammation or kidney infection
  - suprapubic pain/tenderness or flank pain
  - large quantities of urine leaking from the catheter
  - worsening mental or functional status
  - little to no urine drainage from the catheter despite adequate fluid intake
- Strategies for preventing infection in catheterized patients include[4, 5, 7, 8, 9, 11]
  - daily cleaning of the urethral meatus and catheter with soap and water
  - using the smallest gauge catheter possible
  - increasing the patient's fluid intake
  - draining the drainage bag when it becomes full, or at least once every 8 hours, to prevent migration of bacteria
  - keeping the drainage bag lower than the level of the patient's bladder to prevent backflow of urine into the bladder
  - cleaning the drainage bag outlet valve with soap and water
  - disinfecting the drainage bag with vinegar or chlorine beach and water and allowing it to air dry
  - alternating indwelling catheter use with either suprapubic (i.e., a catheter inserted through the abdomen and placed directly into the bladder) or intermittent catheterization
  - removing the catheter as soon as possible
  - washing hands and wearing gloves before handling the catheter and drainage bag
  - emptying the drainage bag prior to patient transport and avoiding clamping the catheter during transport
  - replacing the entire catheter and drainage bag if leakage or obstruction occurs
  - avoiding kinks in the catheter tubing
  - irrigating the drainage bag only if there is catheter obstruction
  - securing the catheter tubing to the thigh/body, which can help reduce urethral irritation, injury, infection, and bladder neck trauma as well as increase patient comfort
    - Types of catheter securement devices include Velcro closure straps and adhesive catheter anchors (e.g., Cath-Secure, K-Lock, or StatLock Foley stabilization device)
- A 2009 randomized study of 239 patients who underwent abdominal surgery with perioperative transurethral urinary catheters reported that antibiotic prophylaxis with trimethoprim-sulfamethoxazole (Septra) at the time of catheter removal significantly reduced the rate of symptomatic UTI and bacteriuria[6]

What We Can Do

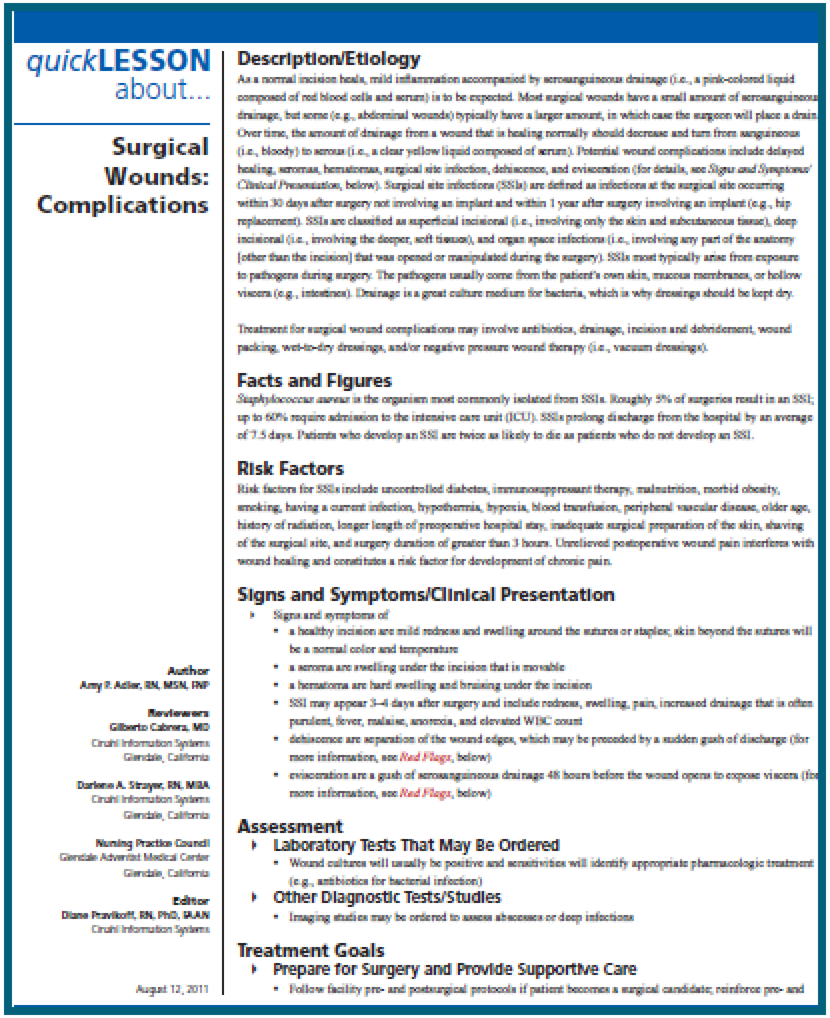
- Become knowledgeable about evidence-based recommendations for preventing UTIs caused by catheters so you can accurately assess your patients' personal characteristics and health education needs; share this information with your colleagues
- Collaborate with your hospital's education department to provide ongoing training on indications for catheter use, procedures for insertion and securing, and prevention and monitoring of infections
- Wash hands frequently, use aseptic techniques and sterile barriers when inserting a catheter and obtaining urine samples, and follow facility protocols for catheter care; always secure the catheter and maintain a closed drainage system
- Assess your patients for risk factors for catheter-associated UTI, which include female gender, age over 60, immobility, and history of bladder stones
- Monitor for signs of complications in your patients with catheters: strong smell, cloudy or thick urine, blood around the catheter, urethral swelling around the catheter, urinary incontinence, elevated levels of white blood cells, and the presence of bacteriuria and pyuria; be aware that patients with catheter-related UTIs may be asymptomatic

Coding Matrix

References

February 2011

Nursing Reference Center Quick Lesson



quick**LESSON** about…

Surgical Wounds: Complications

Description/Etiology

As a normal incision heals, mild inflammation accompanied by serosanguineous drainage (i.e., a pink-colored liquid composed of red blood cells and serum) is to be expected. Most surgical wounds have a small amount of serosanguineous drainage, but some (e.g., abdominal wounds) typically have a larger amount, in which case the surgeon will place a drain. Over time, the amount of drainage from a wound that is healing normally should decrease and turn from sanguineous (i.e., bloody) to serous (i.e., a clear yellow liquid composed of serum). Potential wound complications include delayed healing, seromas, hematomas, surgical site infection, dehiscence, and evisceration (for details, see *Signs and Symptoms/Clinical Presentation*, below). Surgical site infections (SSIs) are defined as infections at the surgical site occurring within 30 days after surgery not involving an implant and within 1 year after surgery involving an implant (e.g., hip replacement). SSIs are classified as superficial incisional (i.e., involving only the skin and subcutaneous tissue), deep incisional (i.e., involving the deeper, soft tissues), and organ space infections (i.e., involving any part of the anatomy [other than the incision] that was opened or manipulated during the surgery). SSIs most typically arise from exposure to pathogens during surgery. The pathogens usually come from the patient's own skin, mucous membranes, or hollow viscera (e.g., intestines). Drainage is a great culture medium for bacteria, which is why dressings should be kept dry.

Treatment for surgical wound complications may involve antibiotics, drainage, incision and debridement, wound packing, wet-to-dry dressings, and/or negative pressure wound therapy (i.e., vacuum dressings).

Facts and Figures

Staphylococcus aureus is the organism most commonly isolated from SSIs. Roughly 5% of surgeries result in an SSI; up to 60% require admission to the intensive care unit (ICU). SSIs prolong discharge from the hospital by an average of 7.5 days. Patients who develop an SSI are twice as likely to die as patients who do not develop an SSI.

Risk Factors

Risk factors for SSIs include uncontrolled diabetes, immunosuppressant therapy, malnutrition, morbid obesity, smoking, having a current infection, hypothermia, hypoxia, blood transfusion, peripheral vascular disease, older age, history of radiation, longer length of preoperative hospital stay, inadequate surgical preparation of the skin, shaving of the surgical site, and surgery duration of greater than 3 hours. Unrelieved postoperative wound pain interferes with wound healing and constitutes a risk factor for development of chronic pain.

Signs and Symptoms/Clinical Presentation

- Signs and symptoms of
  - a healthy incision are mild redness and swelling around the sutures or staples; skin beyond the sutures will be a normal color and temperature
  - a seroma are swelling under the incision that is movable
  - a hematoma are hard swelling and bruising under the incision
  - SSI may appear 3–4 days after surgery and include redness, swelling, pain, increased drainage that is often purulent, fever, malaise, anorexia, and elevated WBC count
  - dehiscence are separation of the wound edges, which may be preceded by a sudden gush of discharge (for more information, see *Red Flags*, below)
  - evisceration are a gush of serosanguineous drainage 48 hours before the wound opens to expose viscera (for more information, see *Red Flags*, below)

Assessment

- **Laboratory Tests That May Be Ordered**
  - Wound cultures will usually be positive and sensitivities will identify appropriate pharmacologic treatment (e.g., antibiotics for bacterial infection)
- **Other Diagnostic Tests/Studies**
  - Imaging studies may be ordered to assess abscesses or deep infections

Treatment Goals

- **Prepare for Surgery and Provide Supportive Care**
  - Follow facility pre- and postsurgical protocols if patient becomes a surgical candidate; reinforce pre- and

Author
Amy P. Adler, RN, MSN, FNP

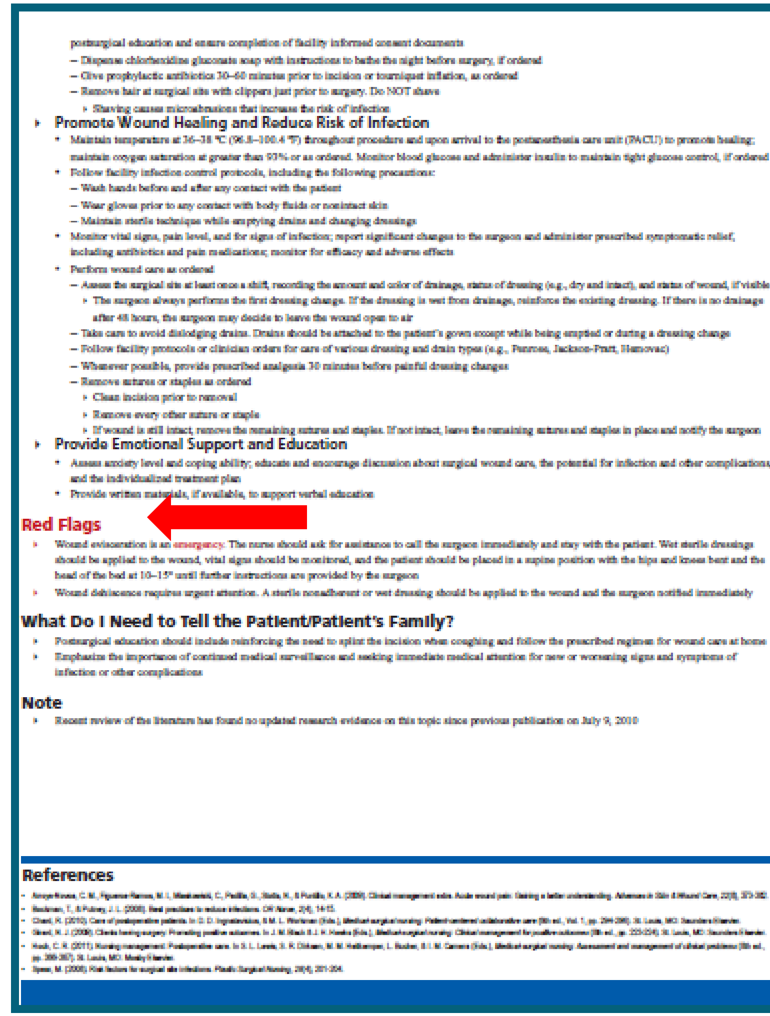
Reviewers
Gilberto Cabrera, MD
Cinahl Information Systems
Glendale, California

Darlene A. Strayer, RN, MBA
Cinahl Information Systems
Glendale, California

Nursing Practice Council
Glendale Adventist Medical Center
Glendale, California

Editor
Diane Pravikoff, RN, PhD, FAAN
Cinahl Information Systems

August 12, 2011



postsurgical education and ensure completion of facility informed consent documents
  - Dispense chlorhexidine gluconate soap with instructions to bathe the night before surgery, if ordered
  - Give prophylactic antibiotics 30–60 minutes prior to incision or tourniquet inflation, as ordered
  - Remove hair at surgical site with clippers just prior to surgery. Do NOT shave
    - Shaving causes microabrasions that increase the risk of infection
- **Promote Wound Healing and Reduce Risk of Infection**
  - Maintain temperature at 36–38 °C (96.8–100.4 °F) throughout procedure and upon arrival to the postanesthesia care unit (PACU) to promote healing; maintain oxygen saturation at greater than 93% or as ordered. Monitor blood glucose and administer insulin to maintain tight glucose control, if ordered
  - Follow facility infection control protocols, including the following precautions:
    - Wash hands before and after any contact with the patient
    - Wear gloves prior to any contact with body fluids or nonintact skin
    - Maintain sterile technique while emptying drains and changing dressings
  - Monitor vital signs, pain level, and for signs of infection; report significant changes to the surgeon and administer prescribed symptomatic relief, including antibiotics and pain medications; monitor for efficacy and adverse effects
  - Perform wound care as ordered
    - Assess the surgical site at least once a shift, recording the amount and color of drainage, status of dressing (e.g., dry and intact), and status of wound, if visible
      - The surgeon always performs the first dressing change. If the dressing is wet from drainage, reinforce the existing dressing. If there is no drainage after 48 hours, the surgeon may decide to leave the wound open to air
    - Take care to avoid dislodging drains. Drains should be attached to the patient's gown except while being emptied or during a dressing change
    - Follow facility protocols or clinician orders for care of various dressing and drain types (e.g., Penrose, Jackson-Pratt, Hemovac)
    - Whenever possible, provide prescribed analgesia 30 minutes before painful dressing changes
    - Remove sutures or staples as ordered
      - Clean incision prior to removal
      - Remove every other suture or staple
      - If wound is still intact, remove the remaining sutures and staples. If not intact, leave the remaining sutures and staples in place and notify the surgeon
- **Provide Emotional Support and Education**
  - Assess anxiety level and coping ability; educate and encourage discussion about surgical wound care, the potential for infection and other complications, and the individualized treatment plan
  - Provide written materials, if available, to support verbal education

Red Flags

- Wound evisceration is an emergency. The nurse should ask for assistance to call the surgeon immediately and stay with the patient. Wet sterile dressings should be applied to the wound, vital signs should be monitored, and the patient should be placed in a supine position with the hips and knees bent and the head of the bed at 10–15° until further instructions are provided by the surgeon
- Wound dehiscence requires urgent attention. A sterile nonadherent or wet dressing should be applied to the wound and the surgeon notified immediately

What Do I Need to Tell the Patient/Patient's Family?

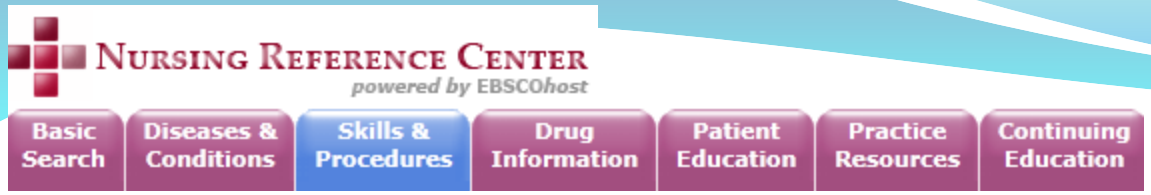
- Postsurgical education should include reinforcing the need to splint the incision when coughing and follow the prescribed regimen for wound care at home
- Emphasize the importance of continued medical surveillance and seeking immediate medical attention for new or worsening signs and symptoms of infection or other complications

Note

- Recent review of the literature has found no updated research evidence on this topic since previous publication on July 9, 2010

References

February 2011



Skills and Procedures List, "S"

- Surgery - Performing Preoperative Preparation: Patient Admission
- Surgery, Obtaining from Patients Undergoing: Informed Consent
- Surgical and Certain Medical Procedures, Using in: Masks, Goggles, and Face Shields
- Surgical Bed: Making
- Surgical Count Procedure: Performing - an Overview
- Surgical Count Procedure: Performing - Sponge Counts
- Surgical Count Procedure: Performing -- Sharps Counts
- Surgical Instruments: Performing Sterilization
- Surgical Patient, Teaching the: Patient Education
- Surgical Procedures, Using for: Sterile Gloves
- Surgical Risk Factors in Older Adults: Assessment and Prevention Strategies
- Surgical Risk Factors: Cardiovascular Diseases - Assessment and Prevention Strategies
- Surgical Risk Factors: Fluid-Electrolyte Status - Implementing Assessment and Prevention Strategies to Maintain Balance
- Surgical Risk Factors: Obesity -- Implementing Assessment and Prevention Strategies
- Surgical Scrubbing: Performing
- Surgical Site Infection: Pre- and Perioperative Prevention
- Surgical Skin Infections, Preventing: Postoperative Care
- Surgical Time Out: Performing
- Sutures or Staples Removal: Wound Closure

Nursing Skills in NRC

NURSING PRACTICE & SKILL

Urinary Catheter Insertion and Care

ICD-9
57.94

Authors
Nathalie Smith, RN, MSN, CNP
Carita Caple, RN, BSN, MSHS

Reviewers
Darlene A. Strayer, RN, MBA
Cinahl Information Systems
Glendale, California

Nursing Practice Council
Glendale Adventist Medical Center
Glendale, California

Editor
Diane Pravikoff, RN, PhD, FAAN
Cinahl Information Systems

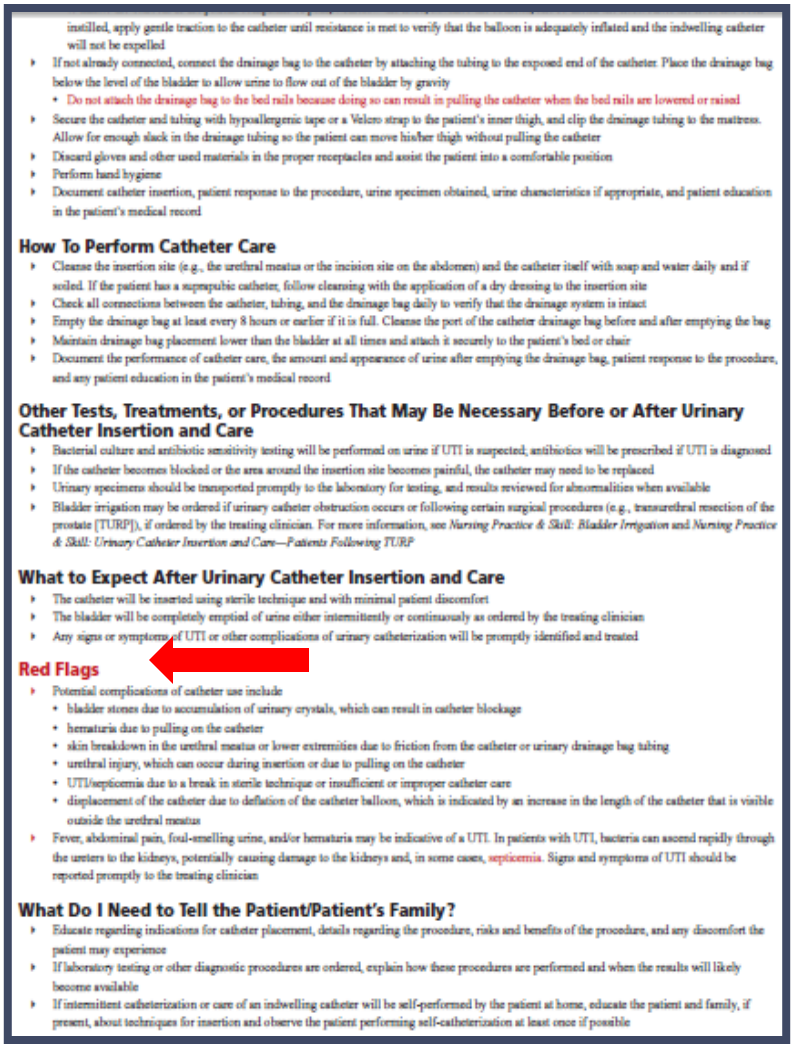
April 1, 2011

What Is Urinary Catheter Insertion and Care?

- A urinary catheter is any tube device or system that is inserted into the bladder for the purpose of urinary drainage. Placement of a urinary catheter may be indicated following urinary tract surgery, for relief of urinary retention, or to facilitate urine collection in patients who are incontinent and/or incapacitated
  - *What* and *How*: A urinary drainage catheter, made of flexible latex, silicone, or Teflon, is inserted into the bladder through the urethra (called transurethral catheterization; commonly referred to as Foley catheter insertion if indwelling catheterization is ordered) or by suprapubic catheterization through a percutaneous abdominal incision. The focus of the *How To* section of this paper is on performing transurethral catheter insertion
    - During transurethral catheterization, the catheter is placed into the urethra and extended into the bladder using sterile technique. Once the catheter is in place, urine will flow freely through it until the bladder is emptied. The catheter is then removed if intermittent catheterization has been ordered or left in place for ongoing bladder drainage if indwelling catheterization has been ordered. The indwelling catheter is secured by inflating the balloon attached to the tip of the catheter inside the bladder with sterile water. Indwelling catheters are attached to a collection bag placed below the level of the bladder, allowing urine to flow into the collection bag by gravity. The procedure is moderately invasive and can be painful to patients who have urethral irritation
    - Suprapubic catheterization is a surgical procedure requiring anesthesia during which the catheter is inserted into the bladder through an abdominal wall incision for the purpose of ongoing urinary drainage. Suprapubic catheters are indicated when placement of a transurethral catheter is contraindicated or is unsuccessful
    - Catheter care is performed regularly on all urinary catheters to confirm that the system is intact and to prevent the proliferation of bacterial microorganisms, which can lead to infection of the urinary tract. Catheter care involves regular cleansing of the insertion site and the catheter device/system, checking of all connections, emptying the collection bag, and verifying proper placement of the collection bag. Depending on the indication for catheterization and/or the treating clinician orders, catheter care can include periodic or continuous irrigation
  - *Where*: Transurethral catheterization is commonly performed in inpatient, outpatient, and homecare settings. Suprapubic catheterization is performed in an outpatient surgical facility, in the operating room of a hospital, or at the bedside in an inpatient facility
  - *Who*: Transurethral catheterization can be performed by registered nurses, physicians, nurse practitioners, and physician's assistants. Suprapubic catheter insertion is typically performed by a urology clinician specialist. Patients can learn to self-perform intermittent catheterization at home when indicated for certain medical conditions and ordered by the treating clinician. Registered and licensed practical (vocational) nurses are principally responsible for routine catheter care and for patient education regarding self-catheterization. These tasks should not be delegated to assistive healthcare staff. Because of the need to promote patient privacy, it is usually not appropriate for family members to be present during the urinary catheter insertion and care. Exceptions can be made in the case of young children because the presence of a parent or other supportive adult known to the child will reduce the child's anxiety and promote cooperation with the procedure

Why Is Urinary Catheter Insertion and Care Ordered?

- To relieve urinary retention due to acute or chronic obstruction, benign prostatic hyperplasia, or neurogenic bladder
- For the collection of sterile urine for laboratory analysis
- To measure residual bladder volume in evaluation of voiding dysfunction
- To precisely measure urinary output (e.g., in critically ill or surgical patients)
- To instill fluid into the bladder for a diagnostic procedure (e.g., pelvic ultrasound)
- As treatment for incontinence when other methods have proven unsuccessful and when it is essential to keep the perineal area clean of urine (e.g., for a patient at risk for a pressure ulcer or with an existing pressure ulcer)



instilled, apply gentle traction to the catheter until resistance is met to verify that the balloon is adequately inflated and the indwelling catheter will not be expelled
- If not already connected, connect the drainage bag to the catheter by attaching the tubing to the exposed end of the catheter. Place the drainage bag below the level of the bladder to allow urine to flow out of the bladder by gravity
  - Do not attach the drainage bag to the bed rails because doing so can result in pulling the catheter when the bed rails are lowered or raised
- Secure the catheter and tubing with hypoallergenic tape or a Velcro strap to the patient's inner thigh, and clip the drainage tubing to the mattress. Allow for enough slack in the drainage tubing so the patient can move his/her thigh without pulling the catheter
- Discard gloves and other used materials in the proper receptacles and assist the patient into a comfortable position
- Perform hand hygiene
- Document catheter insertion, patient response to the procedure, urine specimen obtained, urine characteristics if appropriate, and patient education in the patient's medical record

How To Perform Catheter Care

- Cleanse the insertion site (e.g., the urethral meatus or the incision site on the abdomen) and the catheter itself with soap and water daily and if soiled. If the patient has a suprapubic catheter, follow cleansing with the application of a dry dressing to the insertion site
- Check all connections between the catheter, tubing, and the drainage bag daily to verify that the drainage system is intact
- Empty the drainage bag at least every 8 hours or earlier if it is full. Cleanse the port of the catheter drainage bag before and after emptying the bag
- Maintain drainage bag placement lower than the bladder at all times and attach it securely to the patient's bed or chair
- Document the performance of catheter care, the amount and appearance of urine after emptying the drainage bag, patient response to the procedure, and any patient education in the patient's medical record

Other Tests, Treatments, or Procedures That May Be Necessary Before or After Urinary Catheter Insertion and Care

- Bacterial culture and antibiotic sensitivity testing will be performed on urine if UTI is suspected; antibiotics will be prescribed if UTI is diagnosed
- If the catheter becomes blocked or the area around the insertion site becomes painful, the catheter may need to be replaced
- Urinary specimens should be transported promptly to the laboratory for testing, and results reviewed for abnormalities when available
- Bladder irrigation may be ordered if urinary catheter obstruction occurs or following certain surgical procedures (e.g., transurethral resection of the prostate [TURP]), if ordered by the treating clinician. For more information, see *Nursing Practice & Skill: Bladder Irrigation* and *Nursing Practice & Skill: Urinary Catheter Insertion and Care—Patients Following TURP*

What to Expect After Urinary Catheter Insertion and Care

- The catheter will be inserted using sterile technique and with minimal patient discomfort
- The bladder will be completely emptied of urine either intermittently or continuously as ordered by the treating clinician
- Any signs or symptoms of UTI or other complications of urinary catheterization will be promptly identified and treated

Red Flags

- Potential complications of catheter use include
  - bladder stones due to accumulation of urinary crystals, which can result in catheter blockage
  - hematuria due to pulling on the catheter
  - skin breakdown in the urethral meatus or lower extremities due to friction from the catheter or urinary drainage bag tubing
  - urethral injury, which can occur during insertion or due to pulling on the catheter
  - UTI/septicemia due to a break in sterile technique or insufficient or improper catheter care
  - displacement of the catheter due to deflation of the catheter balloon, which is indicated by an increase in the length of the catheter that is visible outside the urethral meatus
- Fever, abdominal pain, foul-smelling urine, and/or hematuria may be indicative of a UTI. In patients with UTI, bacteria can ascend rapidly through the ureters to the kidneys, potentially causing damage to the kidneys and, in some cases, septicemia. Signs and symptoms of UTI should be reported promptly to the treating clinician

What Do I Need to Tell the Patient/Patient's Family?

- Educate regarding indications for catheter placement, details regarding the procedure, risks and benefits of the procedure, and any discomfort the patient may experience
- If laboratory testing or other diagnostic procedures are ordered, explain how these procedures are performed and when the results will likely become available
- If intermittent catheterization or care of an indwelling catheter will be self-performed by the patient at home, educate the patient and family, if present, about techniques for insertion and observe the patient performing self-catheterization at least once if possible

April 2011

Skill Competency Checklist

SKILL COMPETENCY *checklist*

Urinary Catheter: Insertion and Care - Patients Following TURP

Standard Met/Initials	Competency Areas
Prerequisite Skills	
	Knowledge of the anatomy and ph • Understanding that the loca obstruction in patients with
	Knowledge of indications for trans obstruction that does not improve
	• Familiarity with types of urin of methods of bladder irriga
	Competence in assessment of the
	Knowledge of potential complicati • hemorrhage • bladder spasm • urinary retention • blockage of the urinary cath • skin breakdown in the area • UTI/septicemia • displacement of the catheter • TURP syndrome
	Knowledge of standard precaution aseptic technique
Preparation	
	Verifies the treating clinician's orde
	Follows facility protocols for identif
	Assesses the patient and family me and related patient care. Provides e
	Verifies whether or not the patient materials
	Assembles the following supplies: • Nonsterile gloves • Closed, continuous urinary irrigation kit (containing 50 • Bathing supplies (e.g., wash • Waterproof pad • Antiseptic swabs • I.V. pole (if providing contin • Graduated measuring conta
Procedure	
	Closes the door or draws curtain to
	Provides good lighting

Standard Met/Initials	Competency Areas
Procedure	
	Assists the urologist in removing the urinary drainage catheter after a designated time period has elapsed (usually after 72 hours) and the urine has begun to run clear • Removes the catheter by attaching a 10 ml empty syringe to the balloon inflation port, withdrawing all fluid out of the balloon, then slowly withdrawing the catheter from the urethra
	Discards gloves and other used materials into the proper receptacles and assists the patient into a comfortable position in bed
	Performs hand hygiene
	Documents the following information in the patient's medical record: • Date and time of procedure • Catheter care provided • Urinary output and urine appearance • Patient's tolerance of the procedure • Any unexpected outcomes and interventions performed • Patient education provided
Post-Procedural Responsibilities	
	Provides ongoing monitoring of intake and output, appearance of urine, and postoperative patient status • Encourages fluid intake of 2–3 liters daily • Encourages ambulation following completion of aggressive bladder irrigation • Performs bladder scanning to assess for urinary retention
	Monitors for complications of TURP • Immediately notifies the treating clinician of catheter blockage, urinary retention, skin breakdown, suspected infection, catheter displacement, or signs of TURP syndrome
	Reinforces patient education regarding what to expect after TURP, indications for catheter placement and care, and what to expect after the catheter is removed

Editor
Diane Pravikoff, RN, PhD, FAAN
Cinahl Information Systems

June 24, 2011

Signature		**Date**	
Evaluator's Signature		**Date**	

Languages Available | Spanish

Patient Education

Title: *Intubation and Mechanical Ventilation* By: Martin JJ, Chwistek M, Health Library: Evidence-Based Information, September 1, 2010
Database: *Nursing Reference Center*

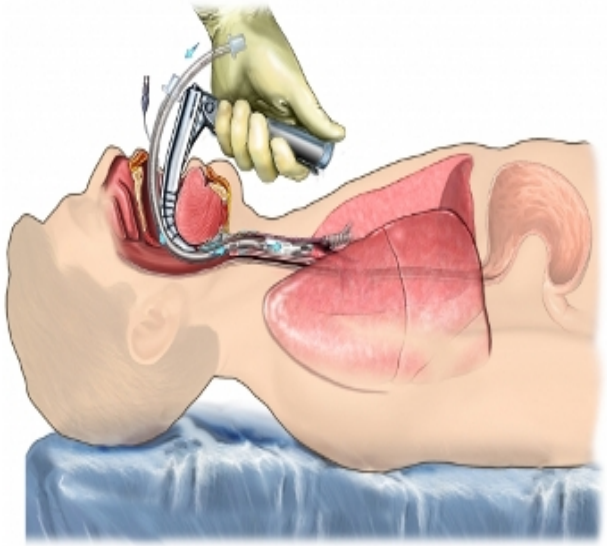
Intubation and Mechanical Ventilation

Contents

Definition

Intubation and mechanical ventilation is the use of a tube and a machine to help get air into and out of your lungs. This is often done in emergencies, but it can also be done when you are having surgery.

Endotracheal Intubation



Related Information

- Quick Lessons
- Skills
- Evidence-Based Care Sheets
- Drugs
- Patient Education
- Guidelines
- CE
- Books
- Legal Cases

Reasons for Procedure

Your lungs help exchange gases in your body. Oxygen gets moved from the air in your lungs into your blood, and carbon dioxide in your blood moves into the air in your lungs. This movement of gases is needed to live. If you cannot move air into and out of your lungs, then this gas exchange cannot happen. Intubation and mechanical

DynaMed

Powered by EBSCOhost

- Provides summaries of the best evidence for over 3,500 clinical topics
- Can quickly browse and find key recommendations
- Updated daily
- Monitors content of over 500 journals and systematic review databases
- More detailed information than *NRC*
- Not as directed toward nursing practices as *NRC*

DynaMed Powered by EBSCOhost

surgical wound Search

Back 1 of 1 Expand All | Collapse All A A A Search Within Text

Top
- Related Summaries
- Overview
- Recommendations
- Surgeon Preparation
- Surgical Site Preparation
- Antimicrobial Prophylaxis
- Intraoperative Management
- Postoperative Wound Management
- Additional Information
- Quality Improvement
- References including Reviews and Guidelines
- Patient Information
- Acknowledgements

Search Other Services »

Surgical wound infection - prevention

- **Updated 2011 Aug 09 01:17:00 AM:** for surgical wounds healing by primary intention, neither use of wound dressing (compared to leaving wounds exposed) nor type of wound dressing appears to reduce surgical site infections (Cochrane Database Syst Rev 2011 Jul 6) view update | Show more updates

Related Summaries:

- Surgical wound infection
- Physician Quality Reporting System 2011 Quality Measures
- Medicare and Joint Commission National Hospital Inpatient Quality Measures
- Medicare Hospital Outpatient Quality Reporting Measures

Overview:

Level of evidence

- alcohol rubs used in preparation for surgery by scrub team appear as ef… …s aqueous scrubbing for prevention of surgical site infections (level 2 [mid-level] evidence)
- warming before surgery reduces risk of wound infection (level 1 [likely reliable] evidence)
- surgical site preparation
  - insufficient evidence regarding preoperative skin antiseptics, but chlorhexidine for preoperative bathing or showering does not appear effective for reducing risk of surgical site infection (level 2 [mid-level] evidence)
  - preoperative hair removal not shown to reduce risk of surgical wound infection (level 2 [mid-level] evidence), but shaving may increase risk of surgical wound infections compared to clipping or depilatory cream (level 2 [mid-level] evidence)
  - preoperative intraincisional clindamycin may reduce surgical wound infections (level 2 [mid-level] evidence)
- antimicrobial prophylaxis typically given as single IV dose 60 minutes before surgery
  - prophylactic antibiotics may decrease rate of surgical wound infection in patients having colorectal surgery, oral plus IV regimens appear more effective than oral or IV alone (level 2 [mid-level] evidence)

Levels and Grades of Evidence

Levels of Evidence and Grades of Recommendations

Grade of recommendation	Level of evidence	Interventions
A	1a	Systematic review of randomized controlled trials
	1b	Individual randomized controlled trial
B	2a	Systematic review of cohort studies
	2b	Individual cohort study
	3a	Systematic review of case-control studies
	3b	Individual case-control study
C	4	Case series
D	5	Expert opinion without explicit critical appraisal or based on physiology or bench research

REPROLINE, Johns Hopkins University *www.reproline.jhu.edu*

Surgical wound infection - prevention

Postoperative Wound Management

Bathing:

- **allowing sutures to get wet during normal bathing 12 vs. 48 hours after surgery does not appear to increase risk of wound infections**
  - 870 patients who had minor skin excisions were randomized to wet vs. dry wound management
    - wet group instructed to remove dressing within 12 hours and bathe as normal until sutures removed
    - dry group instructed to keep wound dry for 48 hours, remove dressing at 48 hours, then bathe as usual
  - both groups asked to avoid antiseptic washes and soaps -outcome assessment not blinded to treatment assignment
  - 98.5% completed follow-up
  - wound infection defined as purulent discharge or general practitioner diagnosing a wound infection or general practitioner starting antibiotics
  - 8.4% wet group vs. 8.9% dry group had wound infection within 30 days, statistical likelihood of wet group having higher rate of infections was < 5%
  - Reference - BMJ 2006 May 6;332(7549):1053 full-text, commentary can be found in Am Fam Physician 2006 Oct 1;74(7):1200

Dressing:

- **for surgical wounds healing by primary intention, neither use of wound dressing (compared to leaving wounds exposed) nor type of wound dressing appears to reduce surgi site infections (level 2 [mid-level] evidence)**
  - based on Cochrane review of trials with methodologic limitations
  - systematic review of 16 randomized trials comparing wound dressings or alternative wound dressings to each other and to leaving wounds exposed in 2,578 patients with wounds healing primary intention
  - all trials considered to have unclear or high risk of bias
  - no significant differences in surgical site infections in comparisons of
    - basic wound contact dressing vs. wound exposure in 1 trial with 112 patients and in 1 trial with 207 patients (trials could not be combined due to heterogeneity of interventions)
    - advanced dressings vs. exposed wounds in 1 trial with 107 patients
    - different basic wound contact dressings in 1 trial with 50 patients
    - basic wound contact dressings vs. film dressings in analysis of 6 trials with 1,987 patients
    - basic contact wound dressings vs. hydrocolloid dressings in analysis of 5 trials with 834 patients
    - basic wound contact dressings vs. fibrous-hydrocolloid (hydrofiber) dressings in 1 trial with 160 patients
    - different advanced dressings in 1 trial with 494 patients
  - lack of differences in surgical site infections remained when analyses were grouped by type of wound
  - Reference - Cochrane Database Syst Rev 2011 Jul 6;(7):CD003091 EBSCO*host* Full Text

Full text link

DynaMed: Reviews and Guidelines

Reviews:

- review of antibiotic prophylaxis to prevent surgical site infections can be found in Am Fam Physician 2011 Mar 1;83(**Full Text**
- review of prophylactic antibiotics can be found in Pediatric Surgery Update 2008 Jul;31(1):1
- review of antiseptic use in surgical practice to prevent and treat surgical site infections can be found in Br J Surg 20

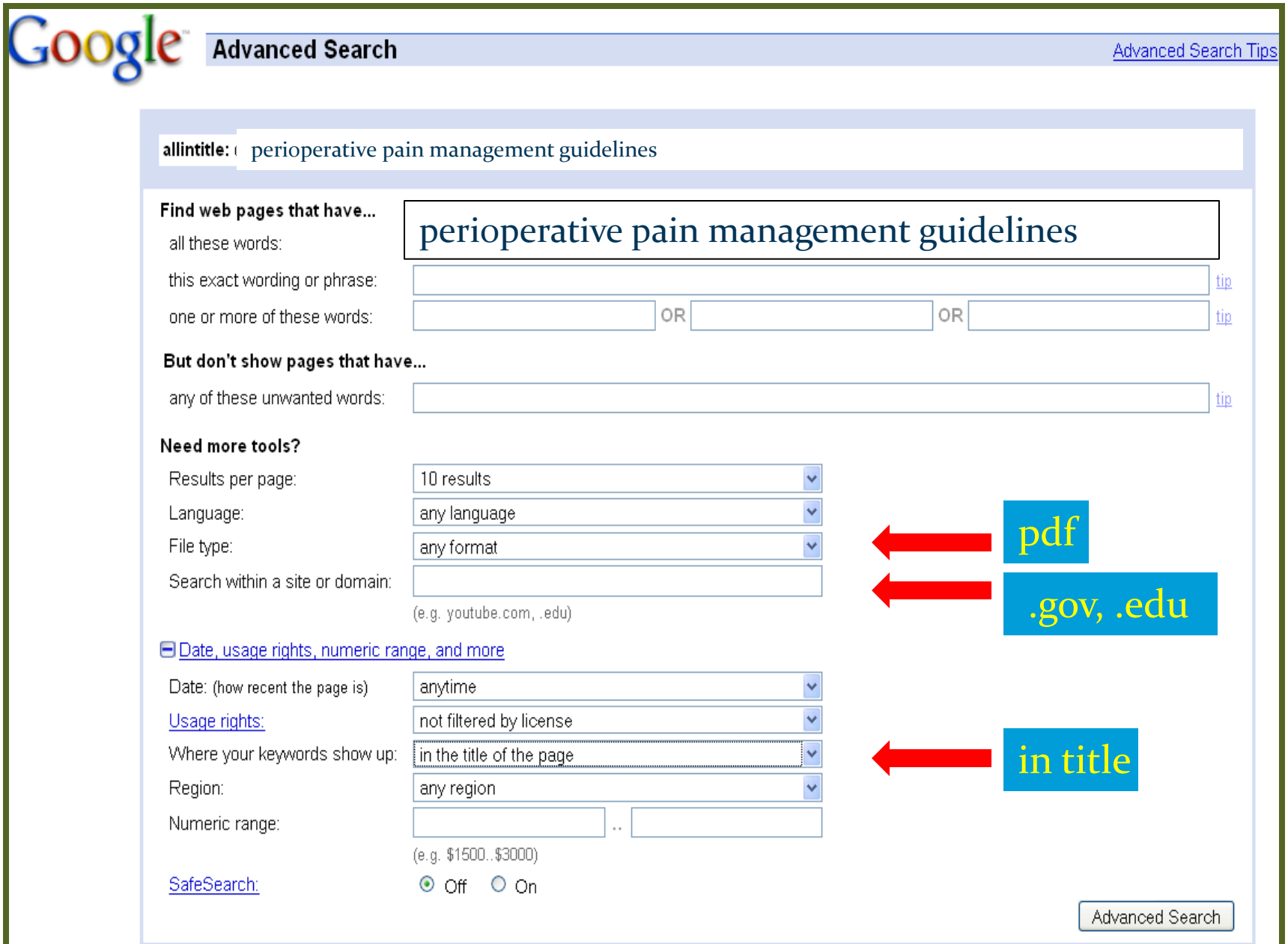
Guidelines:

United States guidelines:

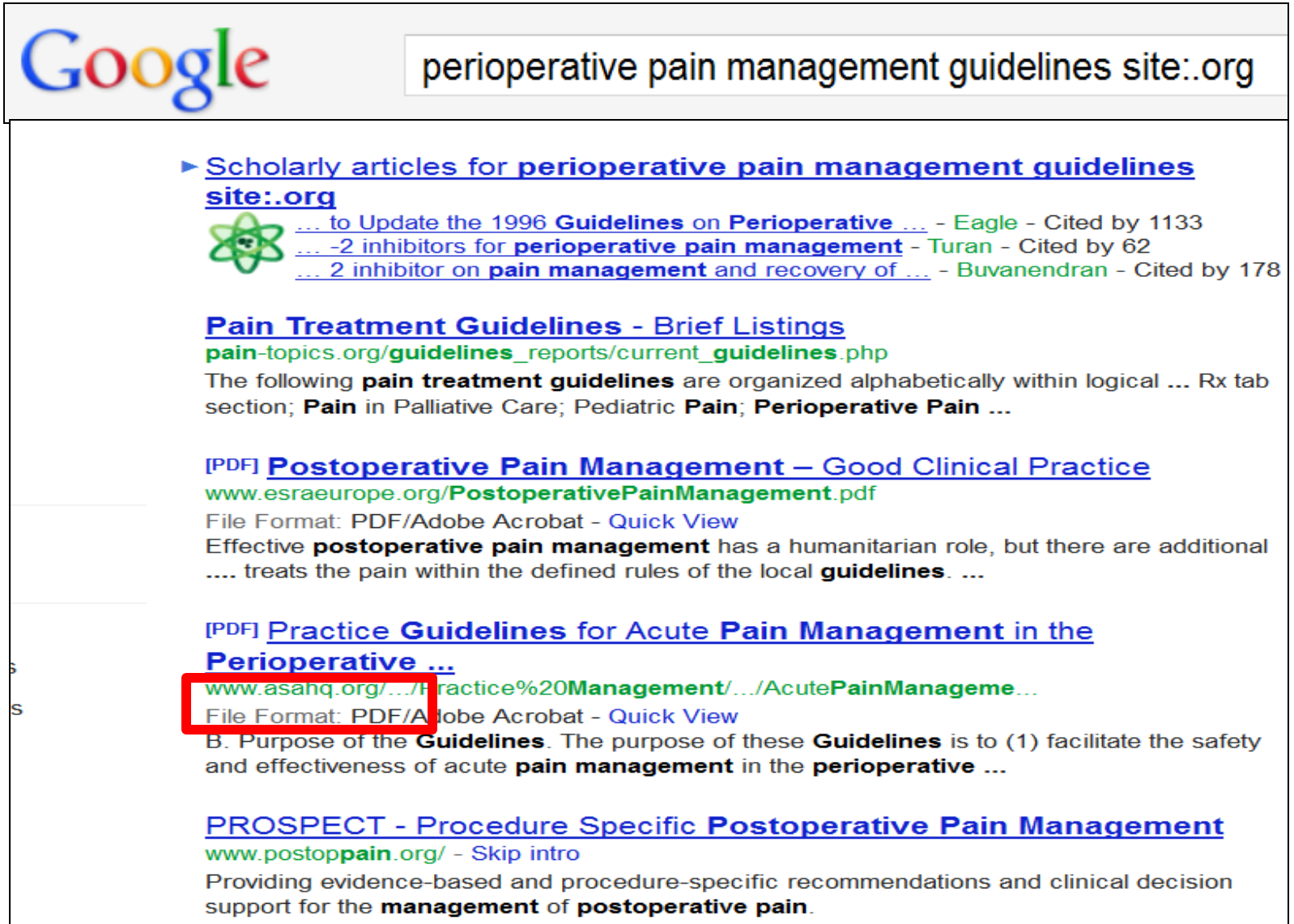
- United States Department of Health and Human Services prioritized recommendations to prevent surgical site infecti Action Plan to Prevent Healthcare-associated Infections accessed 2009 Jan 7
- Society for Healthcare Epidemiology of America/Infection Diseases Society of America (SHEA/IDSA) practice recomm surgical site infections in acute care hospitals can be found in Infect Control Hosp Epidemiol 2008 Oct;29 Suppl 1:S Guideline Clearinghouse 2009 May 18:13399
- CDC 1999 guideline for prevention of surgical site infection can be found in Infect Control Hosp Epidemiol 1999 Apr
- Massachusetts Department of Public Health guideline on prevention of surgical site infections can be found at Natior Clearinghouse 2009 Feb 9:12921
- Institute for Clinical Systems Improvement (ICSI) guideline on perioperative protocol can be found at ICSI Oct 201 Guideline Clearinghouse 2011 Apr 4:24226
- American Society of Health-System Pharmacists therapeutic guidelines on antimicro y can be Syst Pharm 1999 Sep 15;56(18):1839
- National Surgical Infection Prevention Project (representing 18 North American groups ommendations for antimi surgery from can be found in Clin Infect Dis 2004 Jun 15;38(12):1706 **EBSCO*host* Full Text**, summary can be Physician 2005 Mar 15;71(6):1199

Full text link

Searching Advanced Google for Guidelines



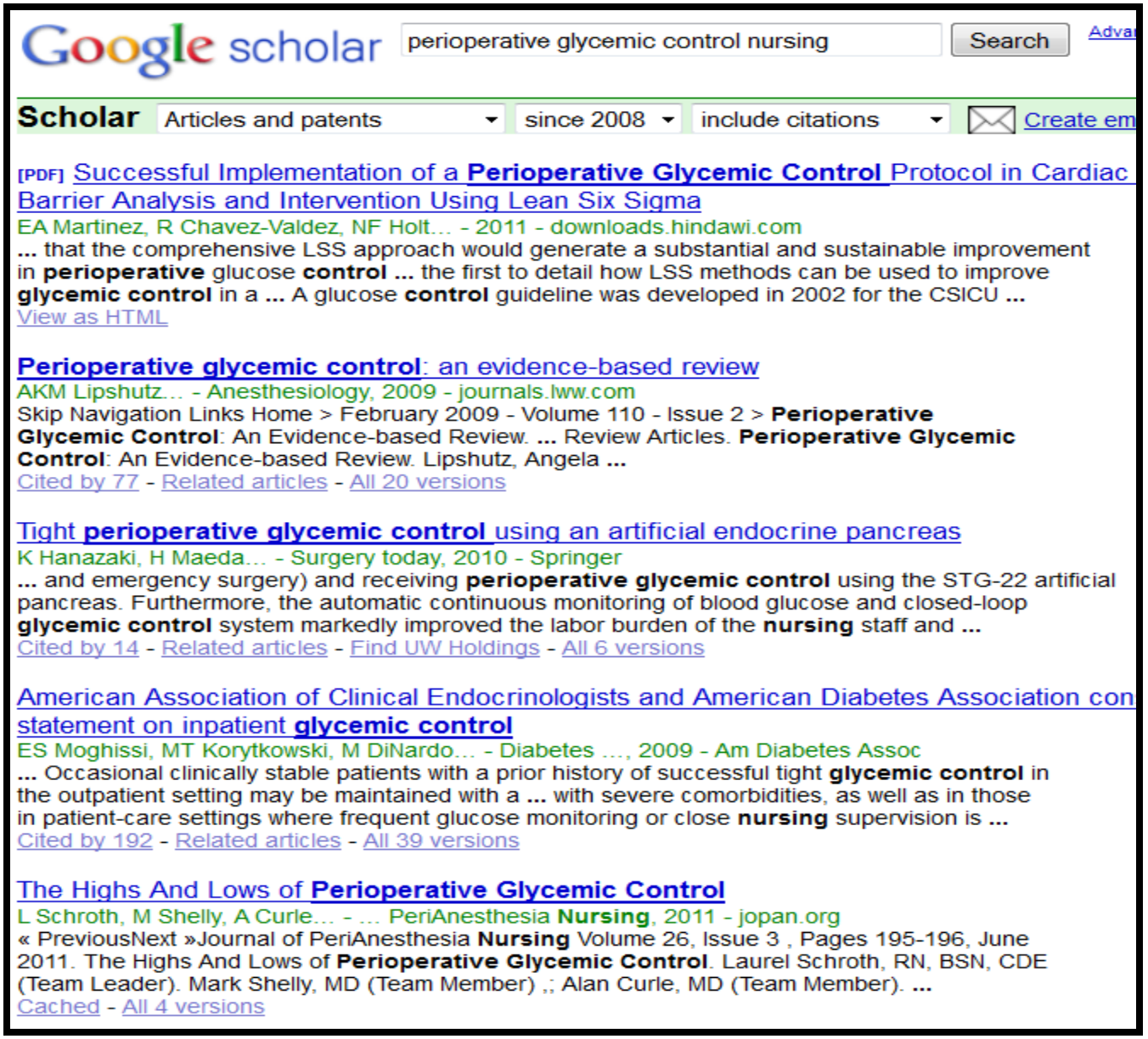
Advanced Google Results



Google Scholar

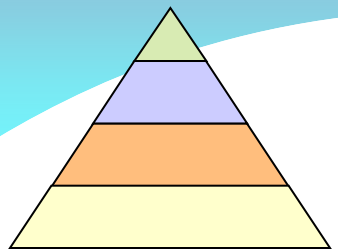
scholar.google.com

- Searches for scholarly literature, including peer-reviewed papers, theses, books, abstracts and technical reports
- Finds articles from academic publishers, professional societies, universities, etc. as well as scholarly articles on the web
- "Cited by" link identifies # that have cited the original
- Access to full text only available with subscription
- **Caution:** Not a reliable sole source for searching scholarly literature


Google scholar
perioperative glycemic control nursing
Search
Adva
Scholar
Articles and patents
since 2008
include citations
Create em
[PDF] Successful Implementation of a Perioperative Glycemic Control Protocol in Cardiac Barrier Analysis and Intervention Using Lean Six Sigma
EA Martinez, R Chavez-Valdez, NF Holt... - 2011 - downloads.hindawi.com
... that the comprehensive LSS approach would generate a substantial and sustainable improvement in perioperative glucose control ... the first to detail how LSS methods can be used to improve glycemic control in a ... A glucose control guideline was developed in 2002 for the CSICU ...
View as HTML
Perioperative glycemic control: an evidence-based review
AKM Lipshutz... - Anesthesiology, 2009 - journals.lww.com
Skip Navigation Links Home > February 2009 - Volume 110 - Issue 2 > Perioperative Glycemic Control: An Evidence-based Review. ... Review Articles. Perioperative Glycemic Control: An Evidence-based Review. Lipshutz, Angela ...
Cited by 77 - Related articles - All 20 versions
Tight perioperative glycemic control using an artificial endocrine pancreas
K Hanazaki, H Maeda... - Surgery today, 2010 - Springer
... and emergency surgery) and receiving perioperative glycemic control using the STG-22 artificial pancreas. Furthermore, the automatic continuous monitoring of blood glucose and closed-loop glycemic control system markedly improved the labor burden of the nursing staff and ...
Cited by 14 - Related articles - Find UW Holdings - All 6 versions
American Association of Clinical Endocrinologists and American Diabetes Association con statement on inpatient glycemic control
ES Moghissi, MT Korytkowski, M DiNardo... - Diabetes ..., 2009 - Am Diabetes Assoc
... Occasional clinically stable patients with a prior history of successful tight glycemic control in the outpatient setting may be maintained with a ... with severe comorbidities, as well as in those in patient-care settings where frequent glucose monitoring or close nursing supervision is ...
Cited by 192 - Related articles - All 39 versions
The Highs And Lows of Perioperative Glycemic Control
L Schroth, M Shelly, A Curle... - ... PeriAnesthesia Nursing, 2011 - jopan.org
« PreviousNext »Journal of PeriAnesthesia Nursing Volume 26, Issue 3 , Pages 195-196, June 2011. The Highs And Lows of Perioperative Glycemic Control. Laurel Schroth, RN, BSN, CDE (Team Leader). Mark Shelly, MD (Team Member) ,; Alan Curle, MD (Team Member). ...
Cached - All 4 versions

Reason #6

You want to use a Meta-Search engine to find evidence sites.



Use a Meta -Search Engine to find evidence sites

- TRIP database *tripdatabase.com*
  - Meta-search engine
  - Performs a simple search 75+ databases
  - Finds evidence-based resources
  - Includes links to peer-reviewed journals and other publications
  - Searches *Cochrane, National Guideline Clearinghouse, Bandolier,* etc.

Donate

trip database

catheter* urinary tract infections

Search Advanced Search History Search Tips

Order By: Date **Relevance**

SELECT ALL Choose Your Action

1. Urethral catheter or suprapubic aspiration to reduce contamination of urine samples in young children?
BestBETS 2009
Developing World? CPD/CME Preview Conclusion Related TILT

2. Washout policies in long-term indwelling urinary catheterisation in adults
Cochrane Database of Systematic Reviews 2010
Developing World? CPD/CME Preview Conclusion Related TILT

3. Urinary catheter policies for long-term bladder drainage
Cochrane Database of Systematic Reviews 2009
Developing World? CPD/CME Preview Conclusion Related TILT

4. Removal of Short-term Indwelling Urethral Catheters
Joanna Briggs Institute 2006
Developing World? CPD/CME Preview Conclusion Related TILT

5. Catheter care: RCN guidance for nurses
Royal College of Nursing 2008
Developing World? CPD/CME Preview Conclusion Related TILT

6. Short term urinary catheter policies following urogenital surgery in adults
Cochrane Database of Systematic Reviews 2006
Developing World? CPD/CME Preview Conclusion Related TILT

Filter Your Search what is this?

Total	13
Evidence Based Synopses	2
Systematic Reviews	6
Guidelines	
Aus. & NZ	0
Canada	0
UK	1
USA	0
Other	0
Clinical Q	0
Core primary research	0
Extended primary research	2
eTextbooks	2
Patient Information	0
More	0
News	0

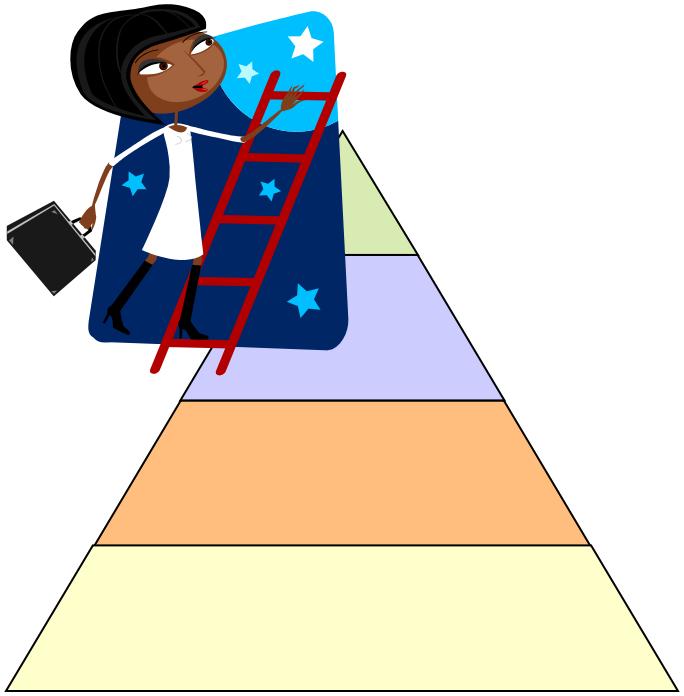
Suitable for the Developing World

Reason #7

You need to find a Systematic Review or a Meta-Analysis.

Search for Systematic Review and Meta-Analyses Resources

- Cochrane Database of Systematic Reviews (CDSR)
- MEDLINE Systematic Reviews
- CINAHL



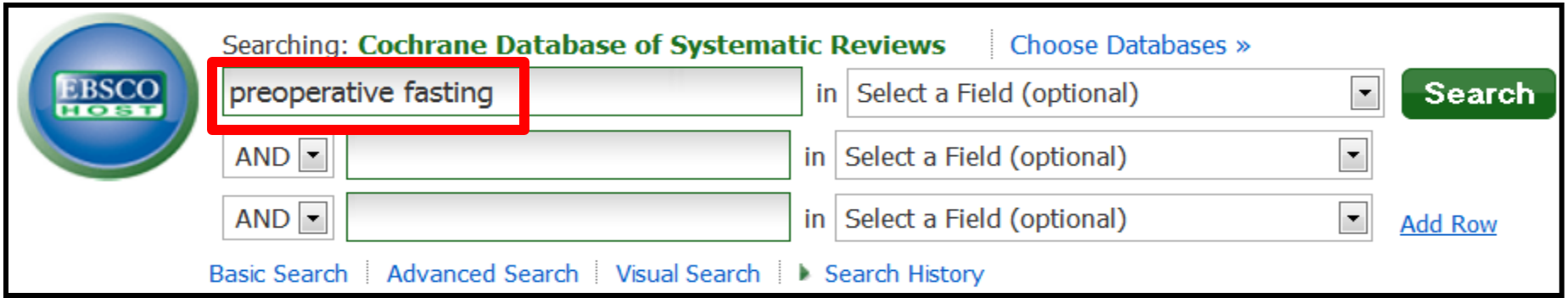
Systematic review vs Meta-analysis

- Systematic review:
  - a literature review of RCTs focused on a single question which tries to identify, appraise, select and synthesize all high quality research evidence relevant to that question.
  - Uses explicit methods to identify, select and critically evaluate relevant research.
- Meta-analysis:
  - a systematic review combining results of several studies using quantitative statistics.

Cochrane Database of Systematic Reviews

- Widely regarded as the "gold standard" of evidence-based information
- Extensive systematic reviews and complex synthesis
- Very focused, specific questions
- Includes full-text reviews and protocols
- Cochrane Abstracts indexed in *Medline* and *CINAHL*

Cochrane Database of Systematic Reviews



1. **Preoperative fasting for adults to prevent perioperative complications**

(Cochrane Review). Reviewers: Brady, Marian C; Kinn, Sue; Stuart, Pauline; Ness, Valerie. Review Group: Cochrane Wounds Group; *Cochrane Database of Systematic Reviews*; Edited/Substantively amended: 13 April 2010; Edited (no change to conclusions) this issue.

BACKGROUND: **Fasting** before general anaesthesia aims to reduce the volume and acidity of stomach contents during surgery, thus reducing the risk of regurgitation/aspiration. Recent guidelines have...

Subjects: Adult; Humans; Drinking; Gastroesophageal Reflux prevention & control; Randomized Controlled Trials as Topic; Anesthesia, General; Fasting; Intraoperative Complications prevention & control; Pneumonia, Aspiration prevention & control

Database: Cochrane Database of Systematic Reviews

Add to folder

HTML Full Text | PDF Full Text (1616K)

2. **Preoperative fasting for preventing perioperative complications in children**

Preoperative fasting for adults to prevent perioperative complications

Cochrane Systematic Review

Contents

Listen | American Accent | Medium Reading Speed | Download MP3 | Help

Abstract

Background

Fasting before general anaesthesia aims to reduce the volume and acidity of stomach contents during surgery, thus reducing the risk of regurgitation/aspiration. Recent guidelines have recomme
shift in fasting policy from the standard 'nil by mouth from midnight' approach to more relaxed policies which permit a period of restricted fluid intake up to a few hours before surgery. The evid
underpinning these guidelines however, was scattered across a range of journals, in a variety of languages, used a variety of outcome measures and methodologies to evaluate fasting regimens t
differed in duration and the type and volume of intake permitted during a restricted fasting period. Practice has been slow to change.

Objectives

To systematically review the effect of different preoperative fasting regimens (duration, type and volume of permitted intake) on perioperative complications and patient wellbeing (including aspir
regurgitation and related morbidity, thirst, hunger, pain, nausea, vomiting, anxiety) in different adult populations.

Search strategy

Electronic databases, conference p … were consulted.

Selection criteria

Randomised controlled trials which …

Data collection and analysis

Details of the eligible studies were i … uthors.

Main results

Thirty eight randomised controlled … sed risk of regurgit
aspiration during anaesthesia. Few … ve gastric volume a
There was no evidence that the v … e fluid fast or contin
standard fast. Fluids evaluated incl … operatively were fo
have a significantly lower volume of gastric contents than the groups that followed a standard fasting regimen. This difference was modest and clinically insignificant. There was no indication that
volume of fluid permitted during the preoperative period (i.e. low or high) resulted in a difference in outcomes from those participants that followed a standard fast. Few trials specifically investiga
preoperative fasting regimen for patient populations considered to be at increased risk during anaesthesia of regurgitation/aspiration and related morbidity.

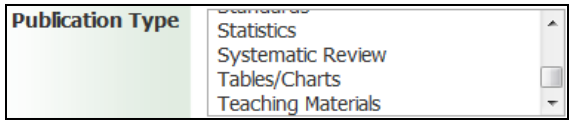
Authors' conclusions

There was no evidence to suggest a shortened fluid fast results in an increased risk of aspiration, regurgitation or related morbidity compared with the standard 'nil by mouth from midnight' fasting policy. Permitting patients to drink water preoperatively resulted in significantly lower gastric volumes. Clinicians should be encouraged to appraise this evidence for themselves and when necessary adjust any remaining standard fasting policies (nil-by-mouth from midnight) for patients that are not considered 'at-risk' during anaesthesia.

Finding Systematic Reviews and Meta-Analyses in *MEDLINE and CINAHL*

CINAHL

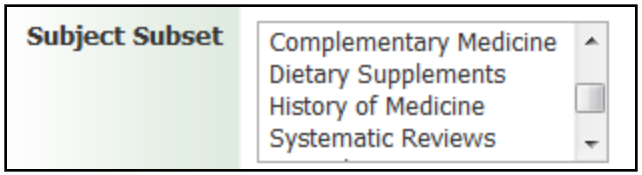
- Refine search to Publication Type: *Systematic Review*



- Search *Meta Analysis* as a Subject Heading

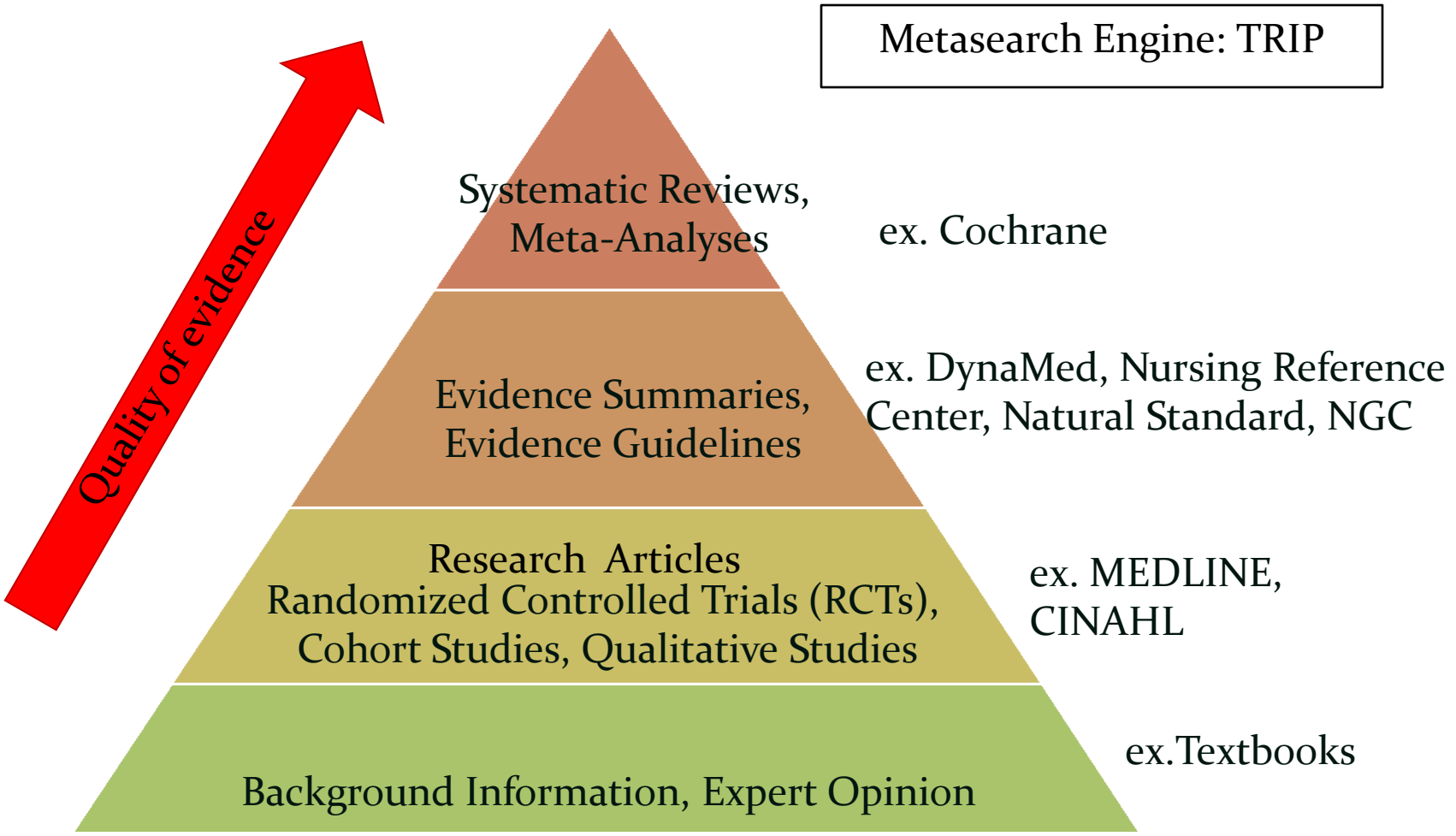
MEDLINE

- Select Systematic Reviews in *Subject Subset*



- Limit to *Meta-Analysis* as Publication Type

How do HEAL-WA resources stack up as evidence?

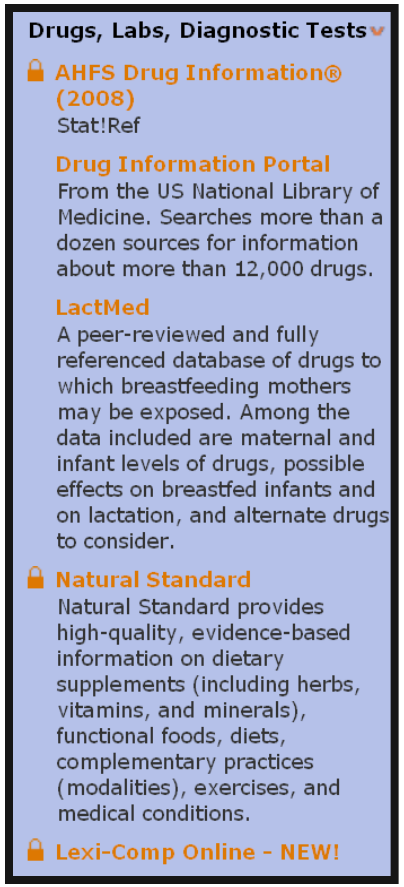


Reason #8

You need evidence-based Drug information.

Search for Evidence in Drug and Natural Medicines Databases

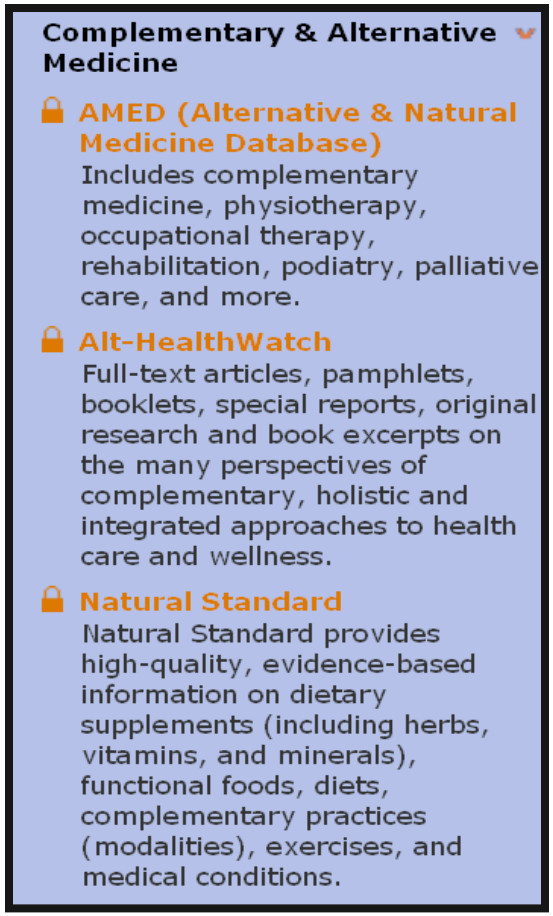
- AHFS Drug Information
- Davis's Drug Guide for Nurses
- Lexi-Comp Online
- Natural Standard



HEAL-WA Resources

Drugs, Labs, Diagnostic Tests

Complementary & Alt Med



AHFS Drug Information

Escitalopram Oxalate

Introduction

$C_{20}H_{21}FN_2O \cdot C_2H_2O_4$

• Escitalopram, the *S*-enantiomer of citalopram, is a selective serotonin-reuptake inhibitor (SSRI) and an antidepressant.[1]

Uses

• Major Depressive Disorder

Escitalopram oxalate is used in the
established in 3 placebo-controlled
disorder.[1, 2] In these studies, 10-
Montgomery Asberg Depression Rat
Impression Improvement and Sever
aspects of depressive disorder, inc
HAM-D scores was noted in patient
therapy.[2, 14, 16] In addition, escita
of 20-40 mg daily.[2, 16] There is som
selective serotonin-reuptake inhibit
however, additional studies are nee
established to date.[1, 8] For further
choosing the most appropriate anti
Hydrobromide 28:16.04.20.

Routes	Dosage Forms	Strengths	Brand Names
Oral	Solution	5 mg (of escitalopram) per 5 mL	Lexapro®
	Tablets, film-coated	5 mg (of escitalopram)	Lexapro®
		10 mg (of escitalopram)	Lexapro® (scored)
		20 mg (of escitalopram)	Lexapro® (scored)

• Comparative Pricing

This pricing information is subject to change at the sole discretion of DS Pharmacy. For the information, please visit drugstore.com.

Lexapro 10MG Tablets (FOREST): 30/$92.99 or 90/$259.97

Lexapro 20MG Tablets (FOREST): 30/$95.99 or 90/$265.98

Lexapro 5M

Lexapro 5M

References

1. Forest Pharmaceuticals, Inc. Lexapro® (escitalopram oxalate) tablets/oral solution prescribing inf

2. Burke WJ, Gergel I, Bose A. Fixed-dose trial of the single isomer SSRI escitalopram in depressed c
63:331-6. [IDIS 479908] [PubMed 12000207]

3. Anon. Forest Lexapro® approval includes label claim of greater potency than celexa. FDC Rep. Au

Davis's Drug Guide for Nurses 2011

NURSING IMPLICATIONS

ASSESSMENT

- Monitor mood changes and level of anxiety during therapy.
- Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient. Risk may be increased for children or adolescents. After starting therapy, children and adolescents should be seen by health care professional at least weekly for 4 wks, every 2 wks for next 4 wks, and on advice of health care professional thereafter .
- Assess for sexual dysfunction (erectile dysfunction; decreased libido) .

POTENTIAL NURSING DIAGNOSES

Ineffective coping (Indications).
Risk for injury (Side Effects).
Sexual dysfunction (Side Effects).
(Indications).

IMPLEMENTATION

- Do not administer escitalopram and citalopram concomitantly. Taper to avoid potential withdrawal reactions. Reduce dose by 50% for 3 days, then again by 50% for 3 days, then discontinue.
- **PO:** Administer as a single dose in the morning or evening without regard to meals.

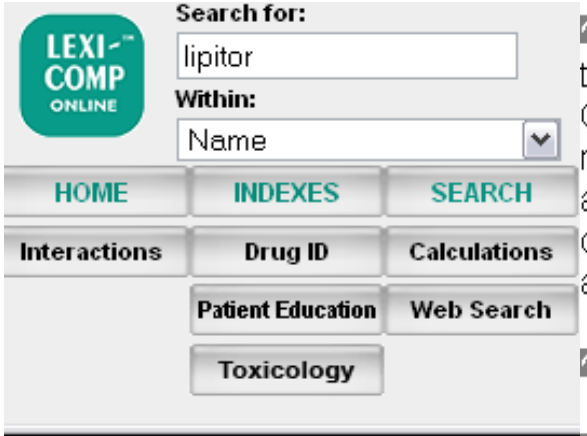
PATIENT/FAMILY TEACHING

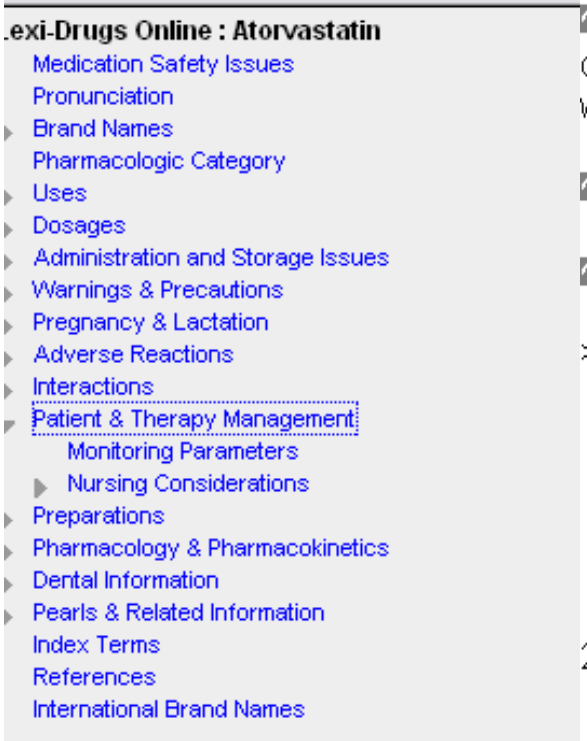
- Instruct patient to take escitalopram as directed. Take missed doses on the same day as soon as remembered and consult health care professional. Resume regular dosing schedule next day. Do not double doses. Do not stop abruptly, should be discontinued gradually .
- May cause dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to avoid alcohol and other CNS-depressant drugs during therapy and to consult a health care professional before taking other Rx or OTC medications or herbal products.
- Instruct female patients to notify health care professional if pregnancy is planned or suspected or if they plan to breastfeed an infant.
- Caution patients that escitalopram should not be used for at least 14 days after discontinuing MAO inhibitors, and at least 14 days should be allowed after stopping escitalopram before starting an MAO inhibitor.
- Emphasize importance of follow-up exams to monitor progress.
- Encourage patient participation in psychotherapy to improve coping skills .
- Refer patient/family to local support groups.

EVALUATION/DESIRED OUTCOMES

- Increased sense of well-being - Renewed interest in surroundings. May require 1-4 wk of therapy to obtain antidepressant effects. Full antidepressant effects occur in 4-6 wks .

Lexi-Comp Online





Geriatric Considerations Effective and well tolerated in elderly. The definition of and, therefore, when to treat hyperlipidemia in the elderly is a controversial issue. The National Cholesterol Education Program recommends that all adults maintain a plasma cholesterol <160 mg/dL. Elderly patients with one additional risk factor, goal LDL would be <130 mg/dL. It is the authors' belief that pharmacologic treatment be reserved for those who are unable to obtain a desirable plasma cholesterol concentration by diet alone and for whom the benefits of treatment are believed to outweigh the potential adverse effects, drug interactions, and cost of treatment.

Pregnancy Risk Factor X

Pregnancy Considerations Cholesterol biosynthesis may be important in fetal development. Contraindicated in pregnancy. Administer to women of childbearing potential only when conception is highly unlikely and patients have been informed of potential hazards.

Lactation Excretion in breast milk unknown/contraindicated

Adverse Reactions

>10%:

Gastrointestinal: Diarrhea (5% to 14%)

Neuromuscular & skeletal: Arthralgia (4% to 12%)

Respiratory: Nasopharyngitis (4% to 13%)

2% to 10%:

Central nervous system: Insomnia (1% to 5%)

Natural Standard

- Provides high quality, evidence-based information on Complementary and Alternative medicine (CAM), including grading of the evidence:
  - dietary supplements (including herbs, vitamins, and minerals)
  - functional foods
  - diets
  - complementary practices (modalities), such as yoga, massage, acupuncture
  - exercises
  - medical conditions

Natural Standard

Ginger

Professional Monograph:Ginger (Zingiber officinale Roscoe) ← Professional reading level

Bottom Line Monograph:Ginger (Zingiber officinale Roscoe) ← 12th grade reading level

Spanish Bottom Line Monograph:Jengibre (Zingiber officinale Roscoe) ← Spanish

Spanish Bottom Line Monograph:Á aro ← Spanish

Flashcard:Ginger ← Patient handout 5th grade

Natural Standard Professional Monograph

Ginger (*Zingiber Officinale* Roscoe)

Synonyms/Common Names/Related Substances:

- (+)-germacrene D synthase, 1-(4'-hydroxy-3'-methoxyphenyl)-2-nonadecen-1-one, 1-(4-O-beta-D-glucopyranosyl-3-methoxyphenyl)-3,5-dihydroxydecane, 1,7-bis-(4'-hydroxy-3'-methoxyphenyl)-3-hydroxy-5-acetoxyheptane, 1,7-bis-(4'-hydroxy-3'-methoxyphenyl)-5-methoxyheptan-3-one, 1-dehydrogingerdione, 1-hydroxy-[6]-paradol, 3-acetoxy-[4]-gingerdiol, 3-acetoxydihydro-[6]-paradol methyl ether, 5-acetoxy-3-deoxy-[6]-gingerol, 5-acetoxy-[6]-gingerdiol (stereoisomer), 5-methoxy-[n]-gingerols, 5-O-beta-D-glucopyranosyl-3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)decane, 6-(4'-hydroxy-3'-methoxyphenyl)-2-nonyl-2-hydroxytetrahydropyran, 6-dehydro-[6]-gingerol, 6-dehydrogingerdione, 6-gingerdiol, 6-gingerol, 8- gingerol, 10-gingerol, 6-gingesulfonic acid, 6-hydroxy-[n]-shogaol, [6]-isoshogaol, 6-paradol, 6-shogaol, 8-shogaol, and 10-shogaol, acetoxy-3-dihydrodemethoxy-[6]-shogaol, aadaa (Assamese, Bengali), adarak (Hindi), adrak (Urdu), adraka (Urdu), adruka (Hindi), aduvaa (Nepalese), African ginger, allaama (Telugu), allaamu (Telugu), alpha-curcumene, alpha

Clinical Bottom Line/Effectiveness

Brief Background:

- The rhizomes and stems of ginger have assumed significant roles in Chinese, Japanese, and Indian medicine since the 1500s. The oleoresin of ginger is often contained in digestive, antitussive, antiflatulent, laxative, and antacid compounds.
- There is supportive evidence from several randomized controlled trials that ginger reduces the severity and duration of nausea or emesis during pregnancy (1;2;3;4;5;6;7;8;9;10). Ginger's effects on other types of nausea or emesis, such as chemotherapy-induced (11;12;13;14;15), postoperative nausea, or motion sickness remain undetermined (16;17). Zinopin, made of Pycnogenol® and standardized ginger root extract (SGRE), has been suggested as a possible treatment for motion sickness (18). However, a clinical trial reported that patients could not distinguish ginger from placebo (19).
- Ginger is used orally, topically, and intramuscularly for a wide array of other conditions without clear scientific evidence of benefit.
- The most frequent side effects associated with ginger use are gastrointestinal upset, heartburn, gas, and bloating. Ginger may inhibit platelet aggregation or decrease platelet thromboxane production, thus theoretically increasing bleeding risk.

Natural Standard

Ginger

Indication	Evidence Grade
Hyperemesis gravidarum	B
Anti-platelet agent	C
Chemotherapy-induced leukopenia	C
Chemotherapy-induced nausea and vomiting	C
Dysmenorrhea	C
Exercise recovery	C
Hemorrhage (upper digestive tract)	C
Hyperglycemia-evoked dysrhythmias	C
Hyperlipidemia	C
Knee pain	C
Migraine	C
Motion sickness/sea sickness	C
Nausea and vomiting (postoperative)	C
Osteoarthritis	C
Rheumatoid arthritis	
Shortening labor	
Urinary disorders (post-stroke)	
Weight loss	

Level of Evidence Grade	Criteria
A (Strong Scientific Evidence)	Statistically significant evidence of benefit from >2 properly randomized trials (RCTs), OR evidence from one properly conducted RCT AND one properly conducted meta-analysis, OR evidence from multiple RCTs with a clear majority of the properly conducted trials showing statistically significant evidence of benefit AND with supporting evidence in basic science, animal studies, or theory.
B (Good Scientific Evidence)	Statistically significant evidence of benefit from 1-2 properly randomized trials, OR evidence of benefit from ≥1 properly conducted meta-analysis OR evidence of benefit from >1 cohort/case-control/non-randomized trials AND with supporting evidence in basic science, animal studies, or theory. *This grade applies to situations in which a well designed randomized controlled trial reports negative results but stands in contrast to the positive efficacy results of multiple other less well designed trials or a well designed meta-analysis, while awaiting confirmatory evidence from an additional well designed randomized controlled trial.*
C (Unclear or conflicting scientific evidence)	Evidence of benefit from ≥1 small RCT(s) without adequate size, power, statistical significance, or quality of design by objective criteria,* OR conflicting evidence from multiple RCTs without a clear majority of the properly conducted trials showing evidence of benefit or ineffectiveness, OR evidence of benefit from ≥1 cohort/case-control/non-randomized trials AND without supporting evidence in basic science, animal studies, or theory, OR evidence of efficacy only from basic science, animal studies, or theory.
D (Fair Negative Scientific Evidence)	Statistically significant negative evidence (i.e., lack of evidence of benefit) from cohort/case-control/non-randomized trials, AND evidence in basic science, animal

Nausea and related conditions

Levels of scientific evidence for specific therapies

Grade: A (Strong Scientific Evidence)	
Therapy	**Specific therapeutic Use(s)**
Acupressure, shiatsu, tuina	Nausea (of various etiologies)
Grade: B (Good Scientific Evidence)	
Therapy	**Specific therapeutic Use(s)**
Acupuncture	Nausea (chemotherapy-induced)
Acupuncture	Post-operative nausea / vomiting (adults)
Acustimulation	Motion sickness
Acustimulation	Nausea (postoperative)
Cayenne	Post-operative nausea / vomiting (plaster at acupoint)
Ginger	Hyperemesis gravidarum
Grade: C (Unclear or Conflicting Scientific Evidence)	
Therapy	**Specific therapeutic Use(s)**
Acupuncture	Nausea
Acupuncture	Nausea and vomiting of pregnancy
Acupuncture	Post-operative nausea / vomiting (pediatric)
Acustimulation	Nausea (chemotherapy-induced)
Acustimulation	Nausea and vomiting (electroconvulsive therapy-related)
Acustimulation	Nausea and vomiting during pregnancy
Aromatherapy	Nausea and vomiting (postoperative)
Ginger	Motion sickness/sea sickness
Ginger	Nausea and vomiting (postoperative)
Hypnotherapy, hypnosis	Nausea/vomiting
Music therapy	Nausea/vomiting
Peppermint	Post-operative nausea (inhalation)

Reason #9

You want Patient Ed materials.

Patient Education Resources

- Patient Education Resource Center (PERC)
  - 12,000 evidence-based patient education materials for clinicians to print and distribute at point-of-care
  - Also accessed through Nursing Reference Center

- MedlinePlus *medlineplus.gov*
  - includes basic quality consumer/patient information
  - 800 health topics
  - Drug and Herbal information
  - Medical Encyclopedia – full-text with illustrations
  - Spanish version
  - Interactive tutorials
  - Current health news

Patient Education Resource Center

Patient Education Resource Center

Coronary Artery Bypass Grafting

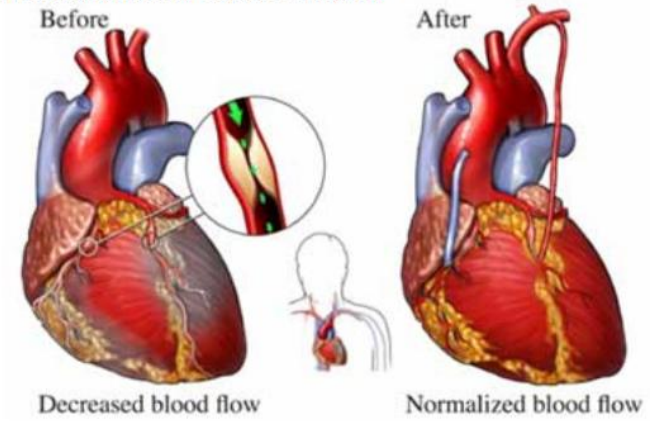
(CABG)

Contents

Definition

A coronary artery bypass graft (CABG) is a surgery to restore blood flow to the heart muscle. This is done by using blood vessels from other parts of your body to make a new route for blood to flow around blocked coronary (heart) arteries.

Coronary Artery Bypass Surgery



Related Information

- Procedures
- Discharge Instructions
- Lifestyle
- News

MedlinePlus *medlineplus.gov*

MedlinePlus®
Trusted Health Information for You

A service of the U.S. National Library of Medicine
NIH National Institutes of Health

About MedlinePlus | Site Map | FAQs | Contact Us | ESPAÑOL | Search MedlinePlus | GO

→ Health Topics | → Drugs & Supplements | → Videos & Cool Tools

MEDICAL DICTIONARY GO

POPULAR SEARCHES

anemia asthma copd diabetes fibromyalgia gerd gout hypertension lisinopril lupus mrsa shingles stroke vitamin d

Share this widget | See more

FEATURED SITE

It's hurricane and tropical storm season. Learn more on the Hurricane topic page

About Your Health

General | Seniors | Men | Women | Children

Back Pain
COPD (Chronic Obstructive Pulmonary Disease)
Depression
Diabetes
Exercise and Physical Fitness
Heart Diseases
High Blood Pressure
Pregnancy
Skin Conditions
Weight Control

NIHSeniorHealth | Clinical Trials

Visit NIHSeniorHealth.gov - Easy-to-Use Health and Wellness Information for Older Adults →

Directories | Organizations | Medical Encyclopedia

02 SEP Health News

'DASH Diet' Shown to Lower Heart Attack Risk Almost 20%

Dementia Patients, Caregivers May Benefit from Home-Based Program

More Evidence Hormone Therapy Can Muddy Mammograms

more health news

Stay Connected

Get the latest information on the health topics that matter to you most. Sign up for MedlinePlus email updates:

Enter email address GO

MAGAZINE | EASY TO READ

MULTIPLE LANGUAGES

Traumatic Brain Injury

Also called: Acquired brain injury, Head injury, Head trauma, TBI

Every year, millions of people in the U.S. sustain head and brain injuries. More than half are bad enough that people must go to the hospital. The worst injuries can lead to permanent brain damage or death.

Half of all traumatic brain injuries (TBIs) are due to motor vehicle accidents. Military personnel are also at risk. Symptoms of a TBI may not appear until days or weeks following the injury. Serious traumatic brain injuries need emergency treatment.

Treatment and outcome depend on the injury. TBI can cause a wide range of changes affecting thinking, sensation, language, or emotions. TBI can be associated with post-traumatic stress disorder. People with severe injuries usually need rehabilitation.

Get Traumatic Brain Injury updates by email — Enter email address — GO — What's this?

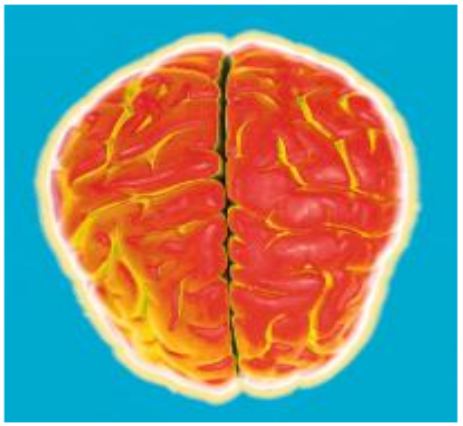
Start Here

- Head Injuries: What to Watch for Afterward (American Academy of Family Physicians)
  Also available in Spanish
- Traumatic Brain Injury: Hope through Research *NIH* (National Institute of Neurological Disorders and Stroke)
  Also available in Spanish
- Traumatic Brain Injury *Interactive Tutorial* (Patient Education Institute)
  Also available in Spanish

Basics	Learn More	Multimedia & Cool Tools
Overviews	Rehabilitation/Recovery	Health Check Tools
Latest News	Specific Conditions	Tutorials
Diagnosis/Symptoms	Related Issues	Videos
Treatment		
Prevention/Screening		

Research	Reference Shelf	For You
Anatomy/Physiology	Directories	MedlinePlus Magazine
Clinical Trials	Organizations	Children
Research	Law and Policy	Teenagers
Journal Articles	Statistics	Seniors
		Patient Handouts

MedlinePlus



MEDICAL ENCYCLOPEDIA

Brain components
Brain herniation
Brain injury - discharge
Cerebral hypoxia
Chronic subdural hematoma
CPK isoenzymes test
Cranial CT scan
CSF leak
Daily bowel care program
EEG

Related Topics

Coma
Concussion
Brain and Nerves
Injuries and Wounds

National Institutes of Health

The primary NIH organization for research on

Authoritative, Quality Links for Consumers

Overviews

- Living with Brain Injury (Brain Injury Association of America)
- Traumatic Brain Injury (Centers for Disease Control and Prevention)
- Traumatic Brain Injury ***NIH*** (National Institute of Neurological Disorders and Stroke) - Short Summary

Latest News

- Depression Common After Brain Injury (04/19/2011, HealthDay)
- Steroid May Help Cut Pneumonia Risk After Brain Trauma (03/22/2011, HealthDay)
- Learn TBI Signs, Symptoms and How to Respond (03/07/2011, Centers for Disease Control and Prevention)

Diagnosis/Symptoms

- CT -- Head (American College of Radiology, Radiological Society of North America)
  Also available in Spanish
- Diagnosing Brain Injury (Brain Injury Association of America)
- Functional MR Imaging (fMRI) -- Brain (American College of Radiology, Radiological Society of North America) - PDF
  Also available in Spanish

Treatment

- Brain Injury Treatment (Brain Injury Association of America)
- Head Trauma: First Aid (Mayo Foundation for Medical Education and Research)
- Neurosurgery - What Is It? ***Interactive Tutorial*** (Patient Education Institute)
  Also available in Spanish

Return to top

Prevention/Screening

- What Can I Do to Help Prevent Concussion and Other Forms of TBI? (Centers for Disease Control and Prevention)
  Also available in Spanish

Return to top

Rehabilitation/Recovery

- Cognitive Retraining (American Brain Tumor Association)
- Guide to Selecting and Monitoring Brain Injury Rehabilitation Services (Brain Injury Association of America) - PDF
- Traumatic Brain Injury (TBI), Effects and Intervention (American Occupational Therapy Association)

Interactive Tutorial

X-Plain PATIENT EDUCATION

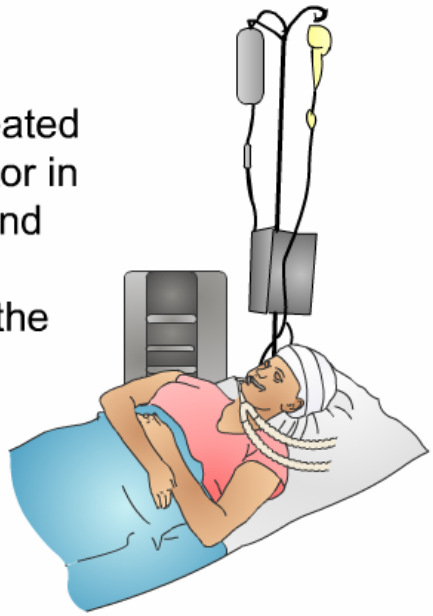
MedlinePlus® Trusted Health Information for You

Traumatic Brain Injury

Help | Credits | Terms of Use

- Introduction
- Causes of TBI
- Effects of TBI
- Types of TBI
- Symptoms
- Complications
- Diagnosis
- Treatment
- Conclusion

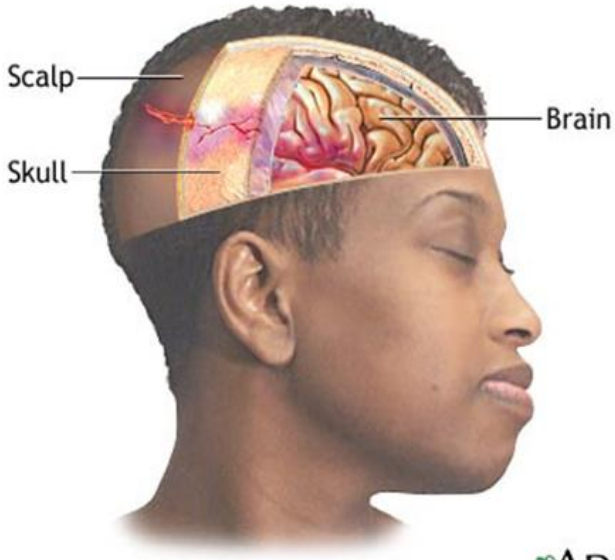
Severe TBI is sometimes treated with placement on a respirator in order to protect the airway and hyperventilate the patient. Hyperventilation decreases the pressure inside the skull.



Slide 70 of 86

Medical Encyclopedia

Head injury



Head injuries can range from a minor bump on the head to a devastating brain injury. Learning to recognize a serious head injury, and implementing basic first aid, can make the difference in saving someone's life. Common causes of head injury include traffic accidents, falls, physical assault, and accidents at home, work, outdoors, or while playing sports.

Reason #10

You would like free CE!

Continuing Education Credit

Browse for: bariatric Browse

Alphabetical **Relevancy Ranked**

Page: Previous | Next A **B** C D E F G H I J K L M N O P Q R S T U V W X Y Z

- Bariatric Surgery
- Bariatric Surgery: Complications
- Barotrauma: Diving Accidents
- Basal Cell Carcinoma
- Basal Cell Epithelioma
- Bathing the Infant
- Bathing the Newborn Infant
- Bathing the Premature Infant
- bCG Vaccine

Key Content

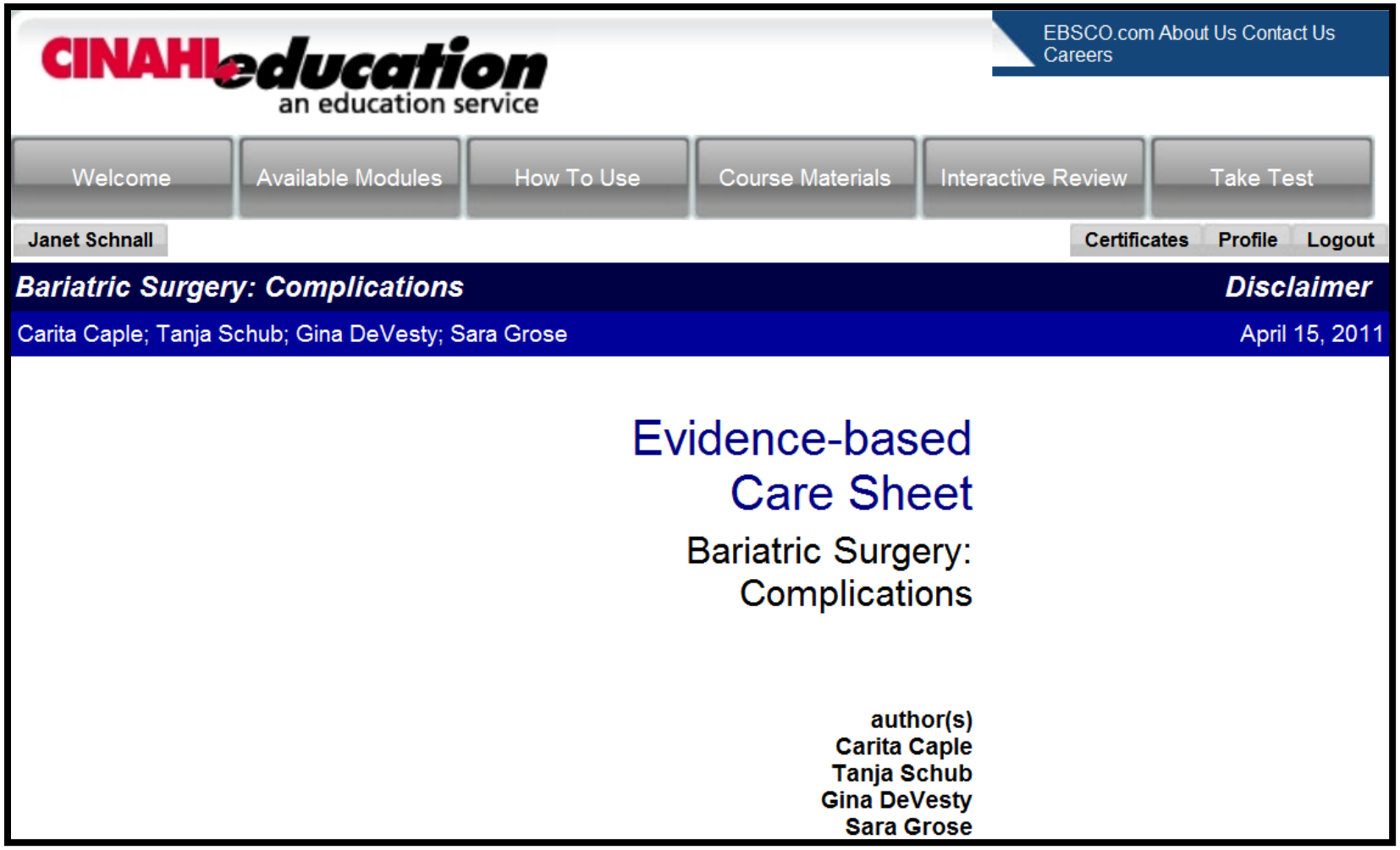
ANCC AMERICAN NURSES CREDENTIALING CENTER

IACET AUTHORIZED PROVIDER

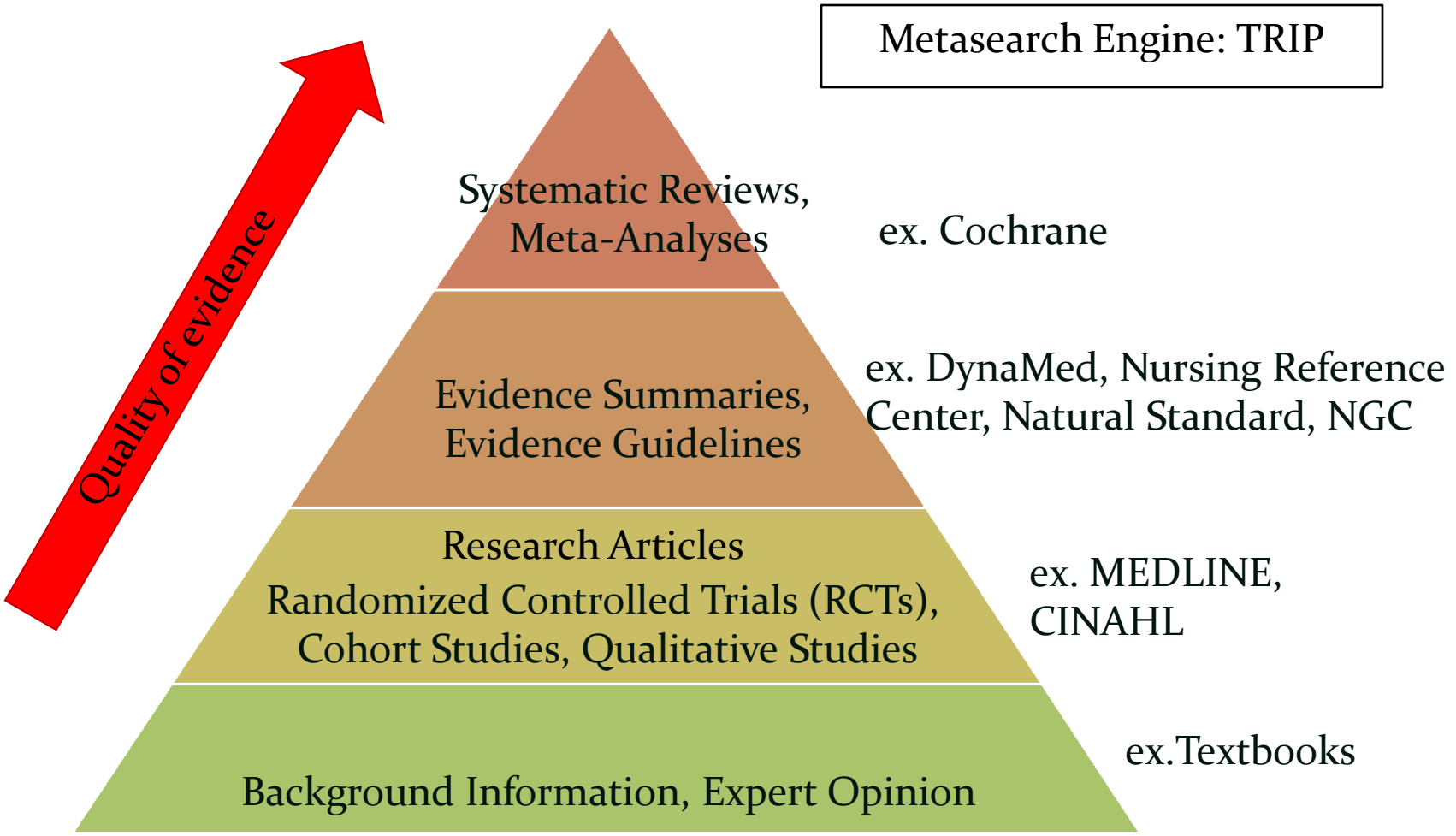
CINAHL Information Systems is accredited as a provider of continuing education by the American Nurses Credentialing Center (ANCC), which promotes the highest standards of nursing practice and quality care.

CINAHL Information Systems is also accredited by the International Association for Continuing Education and Training

Continuing Education Credit



How do HEAL-WA resources stack up as evidence?



HEAL WA
Health Evidence Resource for Washington State

Authoritative, current, evidence-based information for health care providers in Washington State

Try HEAL-WA at : *heal-wa.org*

TOOLKITS | DATABASES | EBOOKS | EJOURNALS | REFERENCE | HELP | ABOUT

news

Volunteers needed for C.A.R.E. Clinic 4/30/2011
Apr 08, 2011

IE 6 and EBSCOHost Databases
Apr 01, 2011

Japan nuclear reactor damage - implications for Washington State
Mar 21, 2011

Accredited CNE modules for Registered Nurses
Mar 14, 2011

Patient ed, mental health, and infectious disease resources
Jan 07, 2011

More news...

UpToDate

To access UpToDate, you need an individual subscription. Get a free

search

Search Multiple Resources | Title | Go

Diagnosis & Therapy

Guidelines & Evidence

Search for Articles

Drugs, Labs, Diagnostic Tests

Complementary & Alternative Medicine

Prevention, Screening, Immunizations

Patient Care Management

Nursing Reference Center
Nursing Reference Center includes information about conditions and diseases, patient education resources, drug information, continuing education, lab & diagnosis detail, best practice guidelines, and more.

CINAHL (Nursing Literature)
CINAHL with full text covers nursing, biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health and 17 allied health disciplines and provides the full text for more than 600 journals.

Nursing Calculators

Multicultural Information

Information for Patients

access

Logged in

Getting Started

Certain resources in HEAL-WA (indicated by a lock) require a HEAL-WA access code (UW NetID) and password for access.

Once you have set up your HEAL-WA access code and password, LOG IN to HEAL-WA by clicking on the "Log In" button at the top of this column.

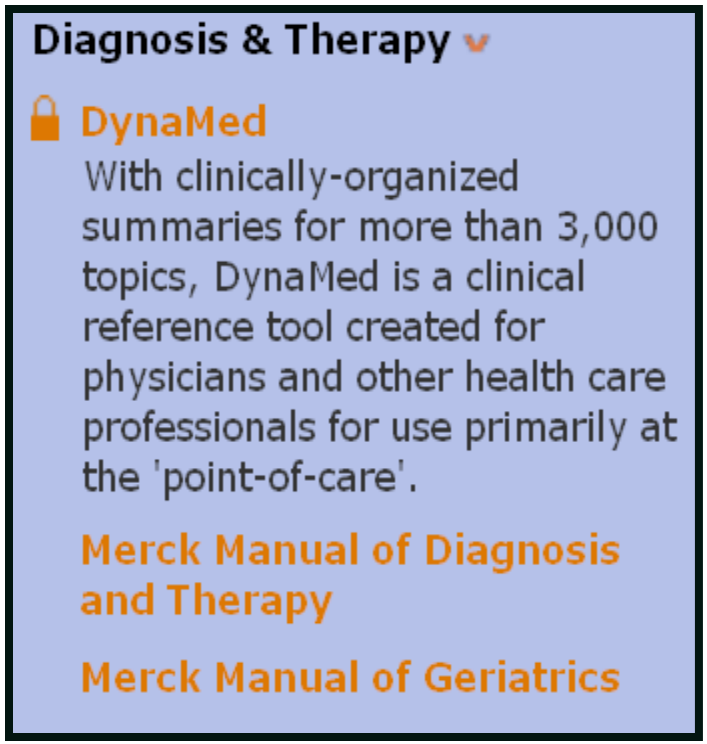
LOG OUT from HEAL-WA by simply closing your browser.

Set up your HEAL-WA access - to set up a HEAL-WA access code and password, see the instructions on the Getting Started page.

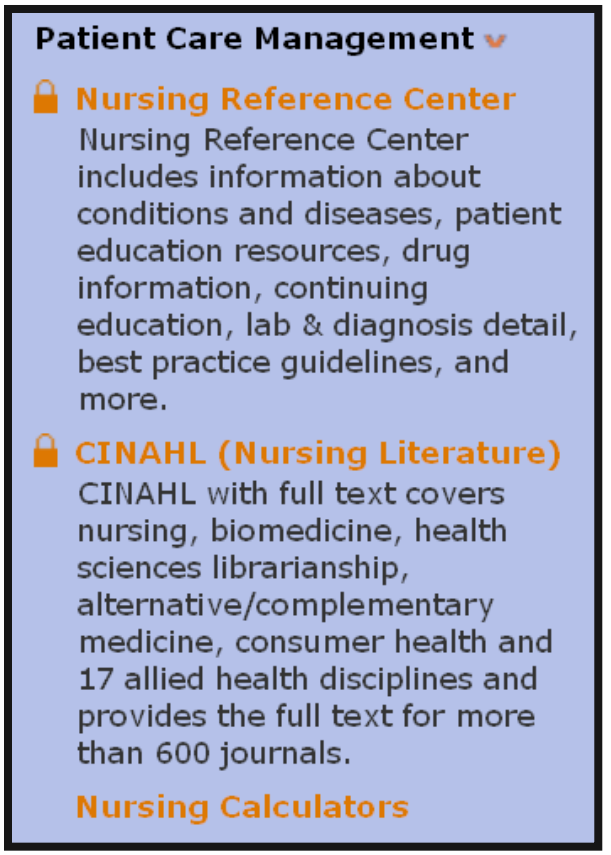
PLEASE NOTE that once you have set up your access code, it can take up to a day for your access code to be recognized so you can log in to HEAL-WA.

HEAL-WA Resources

Diagnosis & Therapy

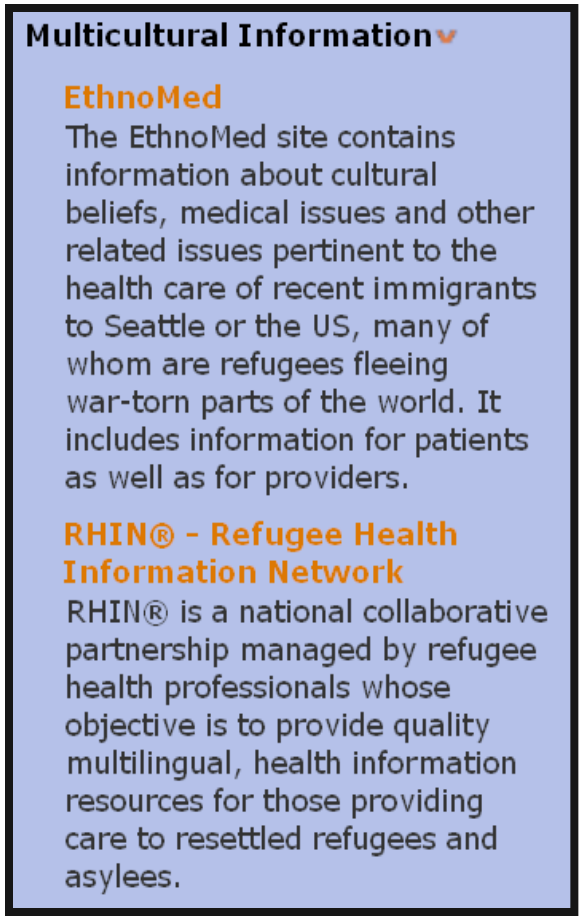


Patient Care Management



HEAL-WA Resources

Complementary & Alt Med Multicultural Information



HEAL-WA Resources

Prevention, Screening, Immunizations

Information for Patients

Questions?