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
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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.

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

- Individual Clinical Expertise
- Best External Evidence
- Patient Values & Expectations

EBM
Why is evidence important?

- Results in better patient outcomes: Failure to use evidence results in lower quality, less effective, and more expensive care.
- 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?

- **Metasearch Engine: TRIP**
  - ex. Cochrane
  - ex. DynaMed, Nursing Reference Center, Natural Standard, NGC
  - ex. MEDLINE, CINAHL
  - ex. Textbooks

- **Quality of evidence**
  - Systematic Reviews, Meta-Analyses
    - ex. Cochrane
  - Evidence Summaries, Evidence Guidelines
    - ex. DynaMed, Nursing Reference Center, Natural Standard, NGC
  - Research Articles
    - Randomized Controlled Trials (RCTs), Cohort Studies, Qualitative Studies
    - ex. MEDLINE, CINAHL
  - Background Information, Expert Opinion
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, up-to-date, 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
Search multiple databases simultaneously

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...
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

Physician, PA, ARNP

**Diagnosis & Therapy**

- **DynaMed**
  With clinically-organized summaries for more than 3,000 topics, DynaMed is a clinical reference tool created for physicians and other healthcare professionals for use primarily at the 'point-of-care'.

- **Merck Manual of Diagnosis and Therapy**

- **Current Medical Diagnosis & Treatment - 49th Ed. (2010)**
  Stat!Ref

**Drugs**

- **AHFS Drug Information® (2008)**
  Stat!Ref

  **Drug Information Portal**
  From the US National Library of Medicine. Searches more than a dozen sources for information about more than 12,000 drugs.

- **LactMed**
  A peer-reviewed and fully referenced database of drugs to which breastfeeding mothers may be exposed. Among the data included are maternal and infant levels of drugs, possible effects on breastfed infants and on lactation, and alternate drugs to consider.

- **Lexi-Comp Online - NEW!**

**Search for Articles**

**Information for Patients**

**Tools & Calculators**

**Complementary & Alternative Medicine**

**Multicultural Information**
Reason #3

You want to search a Textbook.
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)
• 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

Example search:
- catheter*
- urinary tract infections or UTI
Limit your Results

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CINAHL Publication Type Limits

- Clinical trial
- Critical path
- Practice guidelines
- Research
- Standards
- Systematic review
| 1. | Perinephric cleaning prior to urinary catheterization in children: sterile water versus 10% povidone-iodine. | Include abstract; Al-Farsi S; Oliva M; Davidson R; Richardson SE; Ramapalan S; Clinical Pediatrics, 2009 Jul; 49 (6): 655-60 (journal article - clinical trial, research, tables/charts) | ISSN: 0009-9229 CINAHL AN: 2010313315 |
| 2. | UUTIs in adolescents: common infections, uncommon challenges. | Include abstract; Robbins C; Shaw ML; Contemporary Pediatrics, 2009 Jul; 26 (7): 49-54 (journal article - pictorial, tables/charts) | ISSN: 8750-0617 CINAHL AN: 2010352917 |
| 3. | CDC issues draft UTT guideline. | CR Manager, 2009 Jul; 25 (7): 20 (journal article - brief item) | ISSN: 8756-6047 CINAHL AN: 2010348834 |
| 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: 0033-9722 CINAHL AN: 2010366897 |
Objective. To compare urinary infection rate in children cleaned with sterile water versus 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 perineal cleaning 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 perineal area of children with sterile water prior to catheterization is not inferior to cleaning with povidone-iodine.
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

- catheter*
- AND urinary tract infections or UTI

Limit your results

- Full Text
- Publication
- Abstract Available
- EBM Reviews
- Human
- Gender

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
- Randomized Controlled Trial
RCT of **urethral** versus **suprapubic catheterization**.


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

Database: MEDLINE with 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 = mean 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-**catheterisation** 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
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
Association of Medical Microbiology and Infectious Disease Canada - Medical Specialty Society; Canadian Thoracic Society - Medical Specialty Society. View all guidelines by the developer(s)

Infectious Diseases Society of America - Medical Specialty Society; Society for Healthcare Epidemiology of America - Professional Association. View all guidelines by the developer(s)

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)
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Guideline Summary


Bibliographic Source(s)

Guideline Status
This is the current release of this guideline.

Jump To | Guideline Classification | Related Content
--- | --- | ---
Scope | Qualifying Statements |
Methodology | Implementation of the Guideline |
Recommendations | Institute of Medicine (IOM) National Healthcare Quality Report Categories |
Evidence Supporting the Recommendations | Identifying Information and Availability |
Benefits/Harms of Implementing the Guideline Recommendations | Disclaimer |

Recommendations

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
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

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
- Urinary Incontinence: Menopause
- Urinary Incontinence: Pelvic Organ Prolapse

Key Content

Quick Lessons
Clinically-organized nursing overviews that are designed to map the nursing work flow

Evidence-Based Care Sheets
Evidence-based summaries on key topics incorporating the best available evidence through rigorous systematic surveillance
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.1, 2
- Urinary catheters can be used on a short-term basis or long-term placement. Long-term catheters are indwelling catheters, and hospitalized patients and patients in skilled nursing facilities often require indwelling catheters.2, 4
- Urinary catheters can be used on a short-term basis or long-term placement. Long-term catheters are indwelling catheters, and hospitalized patients and patients in skilled nursing facilities often require indwelling catheters.2, 4
- Catheters are used primarily for patients with urinary incontinence, urinary retention, or both.9
- Catheters come in many types (e.g., straight, Foley, ouder tip) and can be made of many different materials (e.g., silicone, latex, Teflon, silastic.5
- Silicone and silver catheters may reduce the risk of infection. Teflon and silicone catheters are used for patients who are allergic to latex.5
- There are two types of drainage bags: a bag that attaches to the leg with elastic band, commonly used during the day; and a bag that must be attached to a stable, non-portable device (e.g., the side of a bed), usually used at night.6
- The most commonly isolated bacteria are UTIs (e.g., Enterococcus faecalis, Staphylococcus aureus, and Escherichia coli). UTIs can be a cause of bloodstream infections (e.g., blood in the urine), urinary tract infections, and infection of the bladder (e.g., catheter-associated urinary tract infection [CAUTI]).
- Bladder cancer is a rare complication of long-term indwelling catheter use.
- Bacterial UTIs are associated with hospitalization, urinary tract infections, and infection of the bladder.5, 6

What We Can Do

- Become knowledgeable about evidence-based recommendations for preventing UTIs caused by catheters so you can accurately assess your patient's 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 removal, and prevention and monitoring of infections.
- Wash hands frequently, use aseptic technique and sterile barriers when inserting a catheter and obtaining urine samples, and follow facility protocols for catheter care. Always ensure the catheter and maintain a closed drainage system.
- Assess your patients for risk factors for catheter-associated UTI, which include female gender, age over 65, immobility, and infection of the bladder stones.
- Assess your patients with complications strong, cloudy or thick urine, blood around the catheter, urinated smell or urine, and the presence of bacteria and pyuria, be aware that patients with catheter-related UTIs may be asymptomatic.

Coding Matrix

References

Surgical Wounds: Complications

Description/Etiology
As a normal incision heal, 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) may 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 serosanguineous to serous (i.e., clear, yellow liquid composed of serum). Potential wound complications include delayed wound healing, seroma, hematoma, 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 deep muscle, tendon, or organ spaces), 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 (i.e., intestines). Drainage is a great culture medium for bacteria, which is why dressings should be kept dry.

Facts and Figures
Sepsis/severe sepsis is the most common complication of surgical wounds. Roughly 10% of patients who undergo surgery develop an SSI, with up to 60% requiring admission to the intensive care unit (ICU). SSIs prolong discharge hospitalization 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, immunosuppression therapy, malnutrition, marked obesity, smoking, having a current infection, hypothermia, hypoxia, blood transfusion, peripheral vascular disease, 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. Unintended postoperative wound infections with wound healing and constitutes a risk factor for development of chronic pain.

Red Flags
Wound extravasation is an emergency. The nurse should ask assistance to call the surgeon immediately and stay with the patient. Wet dressings should be applied to wound, vital signs should be monitored, and the patient should be placed in a supine position with arms and knees bent and the head of the bed at 15-30°. Further instructions are provided by the surgeon.

What Do I Need to Tell the Patient/Patient’s Family?
Potentially should include reinforcing the need to avoid touching the incision when coughing and follow the prescribed regimen for wound care at home. Explain 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 an updated research evidence on this topic since previous publication on July 9, 2010.

References
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<td>Surgical Patient, Teaching the: Patient Education</td>
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<td>Surgical Risk Factors in Older Adults: Assessment and Prevention Strategies</td>
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<td>Surgical Site Infection: Pre- and Perioperative Prevention</td>
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<td>Surgical Skin Infections, Preventing: Postoperative Care</td>
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<td>Surgical Time Out: Performing</td>
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<tr>
<td>Sutures or Staples Removal: Wound Closure</td>
</tr>
</tbody>
</table>
Nursing Skills in NRC

NURSING PRACTICE & SKILL

Urinary Catheter Insertion and Care

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 incontinent.

- What and How: A urinary drainage catheter, made of flexible latex, silicone, or TeFon, is inserted into the bladder through the urethra (catheterized or suprapubic catheterization, commonly referred to as Foley catheter). If indwelling catheterization is ordered or by suprapubic catheterization through a percutaneous abdominal incision. The focus of the How 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 if the patient is incontinent.

- Suprapubic catheterization is a surgical procedure requiring anastomosis during which the catheter is inserted into the bladder through an abdominal wall incision for the purpose of ongoing urinary drainage.

How To Perform Catheter Care

- Clean the insertion site (e.g., the urethral meatus or the incision site of 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.

- For patients with an indwelling catheter, inspect the drainage bag daily to verify that the drainage system is intact. Empty the drainage bag at least 4 to 8 hours or earlier if it is full. Clean the port of the catheter drainage bag before and after emptying the bag. Maintain drainage bag placement lower than the bladder to ensure drainage is secure.

- Document the performance of catheter care, the amount of appearance of urine after emptying the drainage bag, response to the procedure, the patient's medical record.

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

- Bladder irrigation may be ordered if urinary catheter obstruction occurs 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
  - Urinary injury that occurs during insertion or due to pulling on the catheter
  - UTI/sepsis as a result of poor technique or malnourished state
  - Displacement of the catheter due to dehydration 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, sepsis. 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, risks and benefits of the procedure, and any discomfort the patient may experience.

- If laboratory testing or other diagnostic procedures are ordered, explain these procedures to the patient and family. In some instances, the patient may experience discomfort when ordered.

- If intermittent catheterization is not 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.
# Skill Competency Checklist

## Urinary Catheter: Insertion and Care - Patients Following TURP

### Prerequisite Skills

- Knowledge of the anatomy and physiology of the urinary tract
- Understanding of the indications for and contraindications to urinary catheterization
- Familiarity with types of urinary catheters and their uses
- Competency in assessment of the patient's urinary drainage system
- Knowledge of potential complications associated with urinary catheterization

### Standard Met/Initials | Competency Areas

#### Preparation

- Verifies the patient's identity and charting
- Consults with the attending physician or nurse
- Assesses the patient's condition and previous medical history
- Verifies whether or not the patient has a urinary tract infection
- Assembles the necessary supplies

#### Procedure

- Removes all hair from the perineal area
- Prepares the patient for the procedure
- Instills a topical anesthetic
- Inserts the catheter into the urethra
- Assists in the initial installation of the urinary drainage system
- Provides comfort and support to the patient

#### Post-Procedural Responsibilities

- Monitors for complications of TURP
- Provides ongoing monitoring of the patient's vital signs
- Encourages bladder irrigation
- Encourages mobility
- Reinforces patient education regarding postoperative care

### Editor

Diana Pravikoff, RN, PhD, FAAN  
Cinahl Information Systems  
June 24, 2011

### Signature | Date  
Evaluator’s Signature | Date
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.

**Definition**

Endotracheal Intubation

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 ventilation provide a way to assist with breathing.
• 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
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:
- alcohol rubs used in preparation for surgery by scrub team appear as effective as 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 intracisional 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 of Evidence and Grades of Recommendations

<table>
<thead>
<tr>
<th>Grade of recommendation</th>
<th>Level of evidence</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1a</td>
<td>Systematic review of randomized controlled trials</td>
</tr>
<tr>
<td></td>
<td>1b</td>
<td>Individual randomized controlled trial</td>
</tr>
<tr>
<td>B</td>
<td>2a</td>
<td>Systematic review of cohort studies</td>
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<tr>
<td></td>
<td>2b</td>
<td>Individual cohort study</td>
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<tr>
<td></td>
<td>3a</td>
<td>Systematic review of case-control studies</td>
</tr>
<tr>
<td></td>
<td>3b</td>
<td>Individual case-control study</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>Case series</td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>Expert opinion without explicit critical appraisal or based on physiology or bench research</td>
</tr>
</tbody>
</table>
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 surgical 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 by 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 128 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
Reviews:

- review of antibiotic prophylaxis to prevent surgical site infections can be found in *Am Fam Physician* 2011 Mar 1;83(5):717. [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* 2011 Feb;98(2):196. [Full Text]

Guidelines:

United States guidelines:

- United States Department of Health and Human Services prioritized recommendations to prevent surgical site infection can be found in *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 recommendations for surgical site infections in acute care hospitals can be found in *Infect Control Hosp Epidemiol* 2008 Oct;29 Suppl 1:S51-S59. [Full Text]
- CDC 1999 guideline for prevention of surgical site infection can be found in *Infect Control Hosp Epidemiol* 1999 Apr;20(4):242
- Massachusetts Department of Public Health guideline on prevention of surgical site infections can be found at National Guideline Clearinghouse 2009 Feb 9:12921
- Institute for Clinical Systems Improvement (ICSI) guideline on perioperative protocol can be found at *ICSI Oct 2011* Guideline Clearinghouse 2011 Apr 4:24226
- American Society of Health-System Pharmacists therapeutic guidelines on antimicrobial prophylaxis can be found at *Syst Pharm* 1999 Sep 15;56(18):1839
- National Surgical Infection Prevention Project (representing 18 North American groups) recommendations for antimicrobial prophylaxis in surgery from can be found in *Clin Infect Dis* 2004 Jun 15;38(12):1706. [EBSCOhost Full Text] Summary can be found in *Am Fam Physician* 2005 Mar 15;71(6):1199
Searching Advanced Google for Guidelines

perioperative pain management guidelines

But don't show pages that have...
any of these unwanted words:

Need more tools?
Results per page:
Language:
File type:
Search within a site or domain:
(e.g. youtube.com, .edu)

Date, usage rights, numeric range, and more
Date: (how recent the page is)
Usage rights:
Where your keywords show up:
Region:
Numeric range:
(e.g. $1500, $3000)

SafeSearch

Advanced Search
Advanced Google Results

Scholarly articles for perioperative pain management guidelines

... to Update the 1996 Guidelines on Perioperative ... - Eagle - Cited by 1133
... -2 inhibitors for perioperative pain management - Turan - Cited by 62
... 2 inhibitor on pain management and recovery of ... - Buvanendran - Cited by 178

Pain Treatment Guidelines - Brief Listings
pain-topics.org/guidelines_reports/current_guidelines.php
The following pain treatment guidelines are organized alphabetically within logical ... Rx tab section; Pain in Palliative Care; Pediatric Pain; Perioperative Pain ...

[PDF] Postoperative Pain Management – Good Clinical Practice
www.esraeurope.org/PostoperativePainManagement.pdf
File Format: PDF/Adobe Acrobat - Quick View
Effective postoperative pain management has a humanitarian role, but there are additional ... treats the pain within the defined rules of the local guidelines. ...

[PDF] Practice Guidelines for Acute Pain Management in the Perioperative ...
www.asahnq.org/.../Practice%20Management/.../AcutePainManagement...
File Format: PDF/Adobe Acrobat - Quick View
B. Purpose of the Guidelines. The purpose of these Guidelines is to (1) facilitate the safety and effectiveness of acute pain management in the perioperative ...

PROSPECT - Procedure Specific Postoperative Pain Management
www.postoppain.org/ - Skip intro
Providing evidence-based and procedure-specific recommendations and clinical decision support for the management of postoperative pain.
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
Successful Implementation of a Perioperative Glycemic Control Protocol in Cardiac Surgery Analysis and Intervention Using Lean Six Sigma

E.A. Martinez, R. Chavez-Valdez, N.F. 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

A.K. 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 consensus statement on inpatient glycemic control

E.S. Moghissi, M.T. 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... - ... PenAnesthesia Nursing, 2011 - jopan.org
« PreviousNext » Journal of PeriAnesthesia Nursing Volume 26, Issue 3, Pages 105-106, June 2011. The Highs And Lows of Perioperative Glycemic Control. Lauren Schroth, RN, BSN, CDE (Team Leader), Mark Shelly, MD (Team Member)... Alan Curle, MD (Team Member)... Cited - 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.
catheter* urinary tract infections
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*
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](PDF Full Text) (1616K)

2. **Preoperative fasting for preventing perioperative complications in children**
Preoperative fasting for adults to prevent perioperative complications

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 recommended a 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 evidence 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 that 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 aspiration, regurgitation and related morbidity, thirst, hunger, pain, nausea, vomiting, anxiety) in different adult populations.

Search strategy
Electronic databases, conference proceedings and reference lists were consulted.

Selection criteria
Randomised controlled trials which evaluated the effect of different preoperative fasting regimens on perioperative complications and patient wellbeing in adult populations were included.

Main results
Thirty-eight randomised controlled trials were included in the review. There was no evidence that the 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 investigated preoperative fasting regimens 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?

- Systematic Reviews, Meta-Analyses
  - ex. Cochrane
- Evidence Summaries, Evidence Guidelines
  - ex. DynaMed, Nursing Reference Center, Natural Standard, NGC
- Research Articles, Randomized Controlled Trials (RCTs), Cohort Studies, Qualitative Studies
  - ex. MEDLINE, CINAHL
- Background Information, Expert Opinion
  - ex. Textbooks
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

- AHFS Drug Information® (2008)
  Stat!Ref

- Drug Information Portal
  From the US National Library of Medicine. Searches more than a dozen sources for information about more than 12,000 drugs.

- LactMed
  A peer-reviewed and fully referenced database of drugs to which breastfeeding mothers may be exposed. Among the data included are maternal and infant levels of drugs, possible effects on breastfed infants and on lactation, and alternate drugs to consider.

- 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.

- Lexi-Comp Online - NEW!

Complementary & Alt Med

- AMED (Alternative & Natural Medicine Database)
  Includes complementary medicine, physiotherapy, occupational therapy, rehabilitation, podiatry, palliative care, and more.

- Alt-HealthWatch
  Full-text articles, pamphlets, booklets, special reports, original research and book excerpts on the many perspectives of complementary, holistic and integrated approaches to health care and wellness.

- 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.
**Escitalopram Oxalate**

**Introduction**

C₂₀H₂₁FN₂O₆•C₂H₂O₄

- 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 treatment of major depressive disorder, established in 3 placebo-controlled trials.¹ ² In these studies, 10- Montgomery Asberg Depression Rating Scale (MADRS) improvement and a reduction in HAM-D scores was noted in patients who received escitalopram over placebo.² ³ ¹⁶ In addition, escitalopram (20-40 mg daily)² ¹⁶ There is some evidence that escitalopram may be effective in the treatment of major depressive disorder, however, additional studies are needed to establish the effectiveness of escitalopram in the treatment of major depressive disorder.² ³ ¹⁶

**Dosage Forms**

<table>
<thead>
<tr>
<th>Routes</th>
<th>Dosage Forms</th>
<th>Strengths</th>
<th>Brand Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Solution</td>
<td>5 mg (of escitalopram) per 5 mL</td>
<td>Lexapro</td>
</tr>
<tr>
<td></td>
<td>Tablets, film-coated</td>
<td>5 mg (of escitalopram)</td>
<td>Lexapro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg (of escitalopram)</td>
<td>Lexapro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 mg (of escitalopram)</td>
<td>Lexapro</td>
</tr>
</tbody>
</table>

**Comparative Pricing**

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

- **Lexapro**
  - 10MG Tablets (FOREST): 30/$92.99 or 90/$259.97
  - 20MG Tablets (FOREST): 30/$95.99 or 90/$265.98

**References**

1. Forest Pharmaceuticals, Inc. Lexapro® (escitalopram oxalate) tablets/oral solution prescribing information.
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 a healthcare professional at least weekly for 4 wks, every 2 wks for next 4 wks, and on advice of healthcare 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 a healthcare 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 healthcare professional before taking other Rx or OTC medications or herbal products.
• Instruct female patients to notify healthcare 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.
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
Ginger (Zingiber Officinale Roscoe)


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

**Level of Evidence Grade**

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 studies, or theory.
# Nausea and related conditions

Levels of scientific evidence for specific therapies

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Grade: A (Strong Scientific Evidence)</th>
<th>Specific therapeutic Use(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acupressure, shiatsu, tuina</td>
<td></td>
<td>Nausea (of various etiologies)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Grade: B (Good Scientific Evidence)</th>
<th>Specific therapeutic Use(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acupuncture</td>
<td>Nausea (chemotherapy-induced)</td>
<td></td>
</tr>
<tr>
<td>Acupuncture</td>
<td>Post-operative nausea / vomiting (adults)</td>
<td></td>
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<tr>
<td>Acustimulation</td>
<td>Motion sickness</td>
<td></td>
</tr>
<tr>
<td>Acustimulation</td>
<td>Nausea (postoperative)</td>
<td></td>
</tr>
<tr>
<td>Cayenne</td>
<td>Post-operative nausea / vomiting (plaster at acupoint)</td>
<td></td>
</tr>
<tr>
<td>Ginger</td>
<td>Hyperemesis gravidarum</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Grade: C (Unclear or Conflicting Scientific Evidence)</th>
<th>Specific therapeutic Use(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acupuncture</td>
<td>Nausea</td>
<td></td>
</tr>
<tr>
<td>Acupuncture</td>
<td>Nausea and vomiting of pregnancy</td>
<td></td>
</tr>
<tr>
<td>Acupuncture</td>
<td>Post-operative nausea / vomiting (pediatric)</td>
<td></td>
</tr>
<tr>
<td>Acustimulation</td>
<td>Nausea (chemotherapy-induced)</td>
<td></td>
</tr>
<tr>
<td>Acustimulation</td>
<td>Nausea and vomiting (electroconvulsive therapy-related)</td>
<td></td>
</tr>
<tr>
<td>Acustimulation</td>
<td>Nausea and vomiting during pregnancy</td>
<td></td>
</tr>
<tr>
<td>Aromatherapy</td>
<td>Nausea and vomiting (postoperative)</td>
<td></td>
</tr>
<tr>
<td>Ginger</td>
<td>Motion sickness/sea sickness</td>
<td></td>
</tr>
<tr>
<td>Ginger</td>
<td>Nausea and vomiting (postoperative)</td>
<td></td>
</tr>
<tr>
<td>Hypnotherapy, hypnosis</td>
<td>Nausea/vomiting</td>
<td></td>
</tr>
<tr>
<td>Music therapy</td>
<td>Nausea/vomiting</td>
<td></td>
</tr>
<tr>
<td>Peppermint</td>
<td>Post-operative nausea (inhalation)</td>
<td></td>
</tr>
</tbody>
</table>
Reason #9

You want Patient Ed materials.

Information for Patients

- 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.
- MedlinePlus Health Information in Other Languages (for patients)
- Medline Health Info in Other Languages
- Patient Information from UpToDate
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

**Spotlight**

**Key Features:**

- **Diseases & Conditions**: Evidence-based patient education handouts on diseases, health conditions and injuries
- **Discharge Instructions**: Patient discharge handouts and how-to instructions with images
- **Procedures and Lab Tests**: Evidence-based patient education handouts for hundreds of procedures and lab tests
- **Patient Education Discharge Instructions**: Latest New and Revised
- **Meaningful Use**: Learn how PERC can help!
# Coronary Artery Bypass Grafting (CABG)

## 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

Before

![Decreased blood flow](before.png)

After

![Normalized blood flow](after.png)

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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

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](https://www.ninds.nih.gov) (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](#)

### 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](#)

### 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)
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.
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

• 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

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.
How do HEAL-WA resources stack up as evidence?

- Systematic Reviews, Meta-Analyses (ex. Cochrane)
- Evidence Summaries, Evidence Guidelines (ex. DynaMed, Nursing Reference Center, Natural Standard, NGC)
- Research Articles, Randomized Controlled Trials (RCTs), Cohort Studies, Qualitative Studies (ex. MEDLINE, CINAHL)
- Background Information, Expert Opinion (ex. Textbooks)

Metasearch Engine: TRIP
Try HEAL-WA at: heal-wa.org
HEAL-WA Resources

Diagnosis & Therapy

- **DynaMed**
  With clinically-organized summaries for more than 3,000 topics, DynaMed is a clinical reference tool created for physicians and other health care professionals for use primarily at the 'point-of-care'.

- **Merck Manual of Diagnosis and Therapy**

- **Merck Manual of Geriatrics**

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**
HEAL-WA Resources

Complementary & Alt Med  Multicultural Information

**Complementary & Alternative Medicine**

- **AMED (Alternative & Natural Medicine Database)**
  Includes complementary medicine, physiotherapy, occupational therapy, rehabilitation, podiatry, palliative care, and more.

- **Alt-HealthWatch**
  Full-text articles, pamphlets, booklets, special reports, original research and book excerpts on the many perspectives of complementary, holistic and integrated approaches to health care and wellness.

- **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 Resources
Prevention, Screening, Immunizations

**Prevention, Screening, Immunizations**

- **Immunization Schedules**
  For children, adolescents, and adults. From the US Centers for Disease Control and Prevention.

  Stat!Ref

- **Travelers' Health**
  from the US Centers for Disease Control and Prevention

**Information for Patients**

- **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.

- **MedlinePlus Health Information in Other Languages (for patients)**
  Medline Health Info in Other Languages

- **Patient Information from UpToDate**
Questions?