

Integrating Best Evidence into Patient Care: A Process Facilitated by a Seamless Integration with Informatics Tools

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on behalf of

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Evidence Integration into Vanderbilt's Electronic Medical Record (StarPanel)

- ❑ Successful adoption of the Clinical Informatics Consult Service (CICS) necessitated implementation of a scalable approach
- ❑ Two fundamental accomplishments achieved by rounding
 - ❑ No more “Fish Is Fish”
 - ❑ Value-added for clinical decision-making
- ❑ StarPanel
 - ❑ Internally created electronic medical record
 - ❑ Supports outpatient clinics & inpatient units
 - ❑ Provided opportunity for broader dissemination of CICS model

Order Set Collaboration

Order Set: Collections of *point-of-care actions* (“orderables”) such as drug treatments, lab tests, & procedures for use in inpatient care usually grouped around a specific procedure (e.g. asthma control);

typically are integrated into *Computer-based Provider Order Entry* systems as advisors to inform decision-making.

Order Set: Admission for Asthma

Medications

- Albuterol _____ mg by nebulizer every _____ hours
- Albuterol _____ mg by nebulizer continuously (*Suggested dose 2.5 mg/neb*)
- Albuterol MDI _____ puffs every _____ hours as needed
- Albuterol/Ipratropium MDI _____ puffs every _____ hours as needed
- Levalbuterol _____ mg by nebulizer every _____ hours (*Suggested dose 0.63 mg – 1.25 mg/neb*)
- Levalbuterol MDI _____ puffs every _____ hours as needed
- Ipratropium _____ mg by nebulizer every _____ hours (*Suggested dose 0.5 mg every 6 hours*)
- Methylprednisolone _____ puffs every _____ hours (*Suggested dose 30 mg – 60 mg every 6 hours*)

“Your hard work in obtaining the evidence on the use of magnesium on a scheduled basis for the pediatric asthma patient saved the institution thousands of dollars.” – VMC Case Manager

Vanderbilt Medical Center
VU SEARCH VUMC HELP VUMC EMAIL ABOUT ESKIND
QUESTIONS FROM PATHWAYS TEAM
PATHWAY/ORDER SET LITERATURE LOCATOR
THE ESKIND BIOMEDICAL LIBRARY

Topic Keyword Search

Topics by Title
Topics by Subject
Adult Topics A - Z
Pediatric Topics A - Z
Patient Care e-Docs
EBM Resources
Evidence Based Site
Library Catalog
Document Delivery
Eskind Main Portal

Pyloric Stenosis

Information specialists provide searching and synthesis of the literature in response to complex queries that may take several hours to complete, ranging from those that require complex search strategies and the use of multiple resources to those that require inclusion of multiple viewpoints to thoroughly represent the current thought on a topic. Please click the icon to access filtered full-text.

Displaying questions 1 - 2 of 2

#	Modified	Details	Question
1	2009-11-03	<input type="checkbox"/>	What are the current recommendations/evidence for best practices for postoperative nutrition after pyloromyotomy?

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Order Set Literature Support

Topic: What is the evidence regarding the administration of antibiotic prophylaxis before pyloromyotomy? Do you need an antibiotic if the umbilical cord has not fallen off? If an antibiotic is recommended, is it only one preoperative dose?

Summary: There is a small body of literature on outcomes following pyloromyotomy and even fewer studies that address this issue directly - recommendations vary according to the specific type of procedure utilized - whether it is the more traditional Ramstedt pyloromyotomy, laparoscopic pyloromyotomy or other methods such as supraumbilical pyloromyotomy. The trend in the literature seems to reflect a move toward laparoscopic techniques. Research on the effectiveness of laparoscopic vs. open pyloromyotomy is in progress and the St. Peter et al. article (2006, Reference #1) represents the only known randomized-controlled trial to directly compare their effectiveness. The retrospective article by Ladd et al. (2005, Reference #2) discusses the role that antibiotic prophylaxis may have to bear in supraumbilical prophylaxis.

Ofnote: 2001 guidelines from the Cincinnati's Children's Hospital (CCH) (Additional Reference #1) on pyloromyotomy, promoted the use of antibiotic prophylaxis for the procedure based primarily on the 1999 CDC guidelines for surgical site wound infection prevention (expert consensus statement), review articles and retrospective data (included as an Additional Reference #2) recommends one dose of cefazolin, 20mg/kg given intravenously 30 minutes prior to surgery. For those patients allergic to penicillin, clindamycin is recommended at 10mg/kg of body weight. One dose is stated to be sufficient unless the time between administration of antibiotic and surgical procedure is greater than 4 hours.

With regard to presence/absence of umbilical cord, the Ladd article makes brief mention - indicating that the presence of the umbilical stump and its proximity to the supraumbilical incision area may contribute to an increased wound infection rate (an increase from 2.3% to 7.0% as observed in their baseline demographic data).

Author, Date	Patients	Method	Outcomes
St. Peter et al (December 2006)	-controlled randomized trial 200 patients with pyloric stenosis as identified by Children's Mercy Hospital, Missouri	- study powered at 0.80 and sample size determination = 60 patients in each arm. Investigators established recruitment goal of 100 patients in each arm to detect potential differences in severe complications and other parameters.	- outcome results showed that at follow-up of 2 weeks, only postoperative emesis and dose of analgesia were significantly different among groups (n=2.61 to n=1.83, p<0.05 and n=2.23 to n=1.59, p<0.005 respectively)
Children's Mercy Hospital, Missouri	- patients older than 3 months and those with a contraindication to the laparoscopic approach were excluded	- patients were not blinded, but randomized to open or laparoscopic technique, from April 2003 to March 2006	-no significant difference observed in wound infection rates (wound infection in 2 of the laparoscopic patients and in 4 of the open group, p=0.68)
		- patients did not receive antibiotic prophylaxis	-authors note that it has been their clinical practice not to administer antibiotics as pyloromyotomy is considered a clean case. They feel their randomized study design give credibility to their non-significant finding in regard to wound infection rate differences among groups - they recommend no prophylactic antibiotic use for pyloromyotomy.

MyHealthAtVanderbilt Collaboration



- ❑ Heightened awareness of ESKIND services created environment ripe for collaboration
- ❑ EBL involved from the beginning for understanding optimal methods of patient education
- ❑ MyHealthAtVanderbilt – web-based application that allows patients to view components of their medical records at the institution



Home Page For: **ZTESTSYC, HOLIDAY JUST TESTING** [Select Another Account](#)

All Health Topics

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- [Blood Pressure Screening](#)
- [Vaccinations](#)
- [Vitamins and Supplements](#)

Health News You Can Use

- [Vanderbilt-Ingram Cancer Center Opens New Chemotherapy Clinic](#)
 - [Vanderbilt University Licenses Cancer Cell Identifying Technology to DiaTech Oncologyder](#)
 - [Two Vanderbilt Epilepsy Efforts to Offer Answers about Complex Condition](#)
- [more stories]

Account Access

- [View others who have access to ZTESTSYC, HOLIDAY JUST TESTING](#)

Messaging

- [Message Your Doctor's Office](#)

1 New Messages  Waiting

Clinical Record

- [View Your Clinical Record](#)

Appointments

Request an appointment with

- [Your Doctor](#)
- [New Doctor](#)
- [View Existing Appointments](#)

Health Screenings

- [Peripheral Artery Disease! Are you at risk?](#)

Research Opportunities

- [Experienced surprising effects of medications? Tell us \(iPod drawing for participants\)](#)

Patient Resources

- [Information about a Doctor](#)
- [Healthcare Breakthroughs](#)
- [Quality of Care](#)
- [Maps & Directions](#)
- [Key Telephone](#)

MyHealthAtVanderbilt – health topics integration



Information specialists at the Eskind Biomedical Library at Vanderbilt have compiled and organized reliable information for health conditions and preventive health screenings. The topics found under "Health Topics Specific to You" are based on your age, gender and diagnoses from the past year. Click on the name of a health condition or preventive health screening to learn more. Check back often as new topics will continue to be added.

Be Healthy, Stay Healthy

- [Abdominal Aortic Aneurysm Screening](#)
- [Blood Pressure Screening](#)
- [Breast Cancer Screening](#)
- [Cervical Cancer Screening](#)
- [Cholesterol Screening](#)
- [Colorectal Cancer Screening](#)
- [Genetic Screening for Newborns](#)
- [Nutrition Management in Seniors](#)
- [Osteoporosis Screening](#)
- [Seniors and Exercise](#)
- [Smoking Cessation](#)
- [Taking Multiple Medications](#)
- [Toilet Training](#)
- [Vaccinations](#)
- [Vaccinations \(Kids and Teens\)](#)
- [Vitamins and Supplements](#)

Health Conditions



- [Alzheimer's Disease](#)
- [Asthma](#)
- [Asthma \(Kids and Teens\)](#)
- [Autism Spectrum Disorders](#)
- [Brain Aneurysm](#)
- [Chronic Obstructive Pulmonary Disease \(COPD\)](#)
- [Crohn's Disease](#)
- [Cystic Fibrosis](#)
- [Delirium](#)
- [Dementia](#)
- [Diabetes](#)
- [Diabetes \(Kids and Teens\)](#)
- [Diarrhea in Children](#)
- [Diverticular Disease](#)
- [Epilepsy](#)
- [Falls and Older Adults](#)
- [Fever in Children](#)
- [Fibromyalgia](#)
- [Gastroesophageal Reflux Disease \(GERD\)](#)
- [Hearing Loss](#)
- [High Blood Pressure](#)

[What is High Blood Pressure?](#)


[Manage Your High Blood Pressure](#)
[Conditions Linked with High Blood Pressure](#)
[Specific Populations](#)

Health Topics Specific To You

- [Blood Pressure Screening](#)
- [Vaccinations](#)
- [Vitamins and Supplements](#)



What is High Blood Pressure?



Understanding your disease is the first step in knowing how to manage it. The resources below provide basic information about high blood pressure (also called hypertension), including what the numbers mean and the different types of high blood pressure.

Overview of High Blood Pressure


- [High Blood Pressure Overview](#) (National Heart, Lung, & Blood Institute)
- [High Blood Pressure Overview](#) (UpToDate Patient Information)
- [Questions to Ask Your Doctor if You Have High Blood Pressure](#) (National Heart, Lung, & Blood Institute)
- [What is High Blood Pressure?](#) (American Heart Association)

What Do the Numbers Mean?

- [About High Blood Pressure: What the Numbers Indicate](#) (American Heart Association)
- [High Blood Pressure: Things you can do to Lower yours](#) (American Academy of Family Physicians)

Other Types of Hypertension

- [Secondary High Blood Pressure: When Another Condition Causes Hypertension](#) (MayoClinic.com)
- [What Are High Blood Pressure and Prehypertension?](#) (National Heart, Lung, & Blood Institute)


THE ANNETTE & IRWIN ESKIND
BIOMEDICAL LIBRARY

This health information provided by Eskind Biomedical Library, Vanderbilt University Medical Center

MyHealthAtVanderbilt – lab test integration

Labs Reports Vital Signs Immunizations Medications/Allergies Click to Ask about Labs / Radiology

Labs

Print

** Laboratory tests that are not performed at VUMC or Williamson County Hospital laboratories may not appear in MHAV.

** Not all your labs are being displayed. (Click here to find out why.)

** What do all these labs mean? (Click here to find out.)

02/27/09 00:00 **TBtests** TB lot number: abc123 TB lot expiration date: 02/12/10 TB date injected:

2009/02/27

10/29/08 08:04 [Performed by Williamson Medical Center Lab] **BasicMetab** Sodium Blood: 138 Potassium Blood: 4.6 Chloride Blood: 103 Carbon Dioxide Blood: 32.8* Urea Nitrogen Blood: 16 Creatinine Blood: 1.0 eGFR: > 60 eGFRAA: > 60 Glucose Blood: 102 Calcium Blood: 9.3

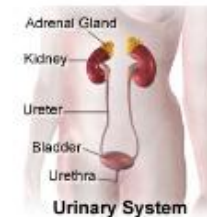
10/29/08 08:04 [Performed by Williamson Medical Center Lab] **CompMetab** PROTEIN TOTAL BLOOD: 7.2 ALBUMIN BLOOD: 4.0 BILIRUBIN TOTAL BLOOD: 0.51 ALKALINE PHOSPHATASE BLD: 81 SGOT Blood: 25 SGPT BLOOD: 45

Creatinine measurement, serum

GENERAL INFORMATION:

What is this test?

This test measures the amount of creatinine in blood. Creatinine is a byproduct of muscle breakdown that the kidneys filter from blood. This test is used to assess kidney function.



What are other names for this test?

- Serum creatinine

What are related tests?

- [Myoglobin measurement, urine](#)
- [Blood urea nitrogen measurement](#)
- [Disseminated intravascular coagulation screen](#)
- [Serum creatine kinase measurement](#)
- Creatinine measurement, urine
- Renal function monitoring

References

Giuse NB, Williams AM, Giuse DA. Integrating Best Evidence into Patient Care: A Process Facilitated by a Seamless Integration with Informatics Tools. To be published in the Journal of the Medical Library Association, July 2010; 98(3).

Giuse NB, Jerome R, Koonce TY. Specialty-Specific Medical Librarians Provide Quick Access to Evidence-Based Research, Leading to Reports of Improvements in Clinician Decisionmaking. AHRQ Health Care Innovations Exchange, August 18, 2008. [epub: <http://www.innovations.ahrq.gov/content.aspx?id=2057>]

Koonce TY, Giuse DA, Beauregard JM, Giuse NB. Toward a More Informed Patient: Bridging Healthcare Information to the Patient through an Interactive Communication Portal. Journal of the Medical Library Association. January 2007; 95(1): 77-81.

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Giuse NB, Kafantaris SR, Miller MD, Wilder KS, Martin SL, Sathe NA. Clinical Medical Librarianship: The Vanderbilt Experience. Bulletin of the Medical Library Association. July 1998; 86(3):412-416.