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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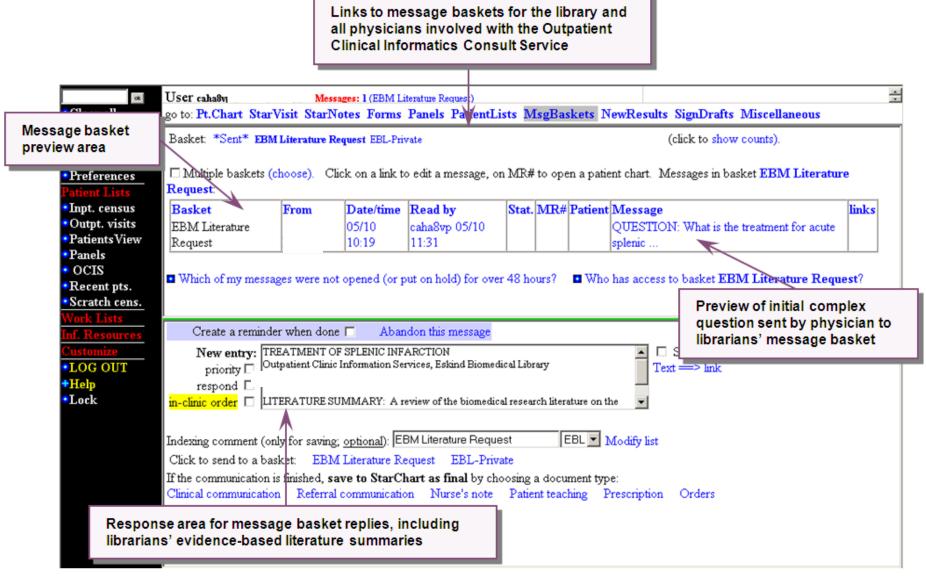*Nashville, Tennessee*

Vanderbilt Medical Center

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

Links to message baskets for the library and all physicians involved with the Outpatient Clinical Informatics Consult Service

Message basket preview area

Preview of initial complex question sent by physician to librarians' message basket

Response area for message basket replies, including librarians' evidence-based literature summaries

User **caha8v**   **Messages: 1** (EBM Literature Request)

go to: **Pt.Chart StarVisit StarNotes Forms Panels PatientLists MsgBaskets NewResults SignDrafts Miscellaneous**

Basket: ***Sent* EBM Literature Request EBL-Private**   (click to show counts).

☐ Multiple baskets (choose).   Click on a link to edit a message, on MR# to open a patient chart. Messages in basket **EBM Literature Request**:

Basket	From	Date/time	Read by	Stat.	MR#	Patient	Message	links
EBM Literature Request		05/10 10:19	caha8vp 05/10 11:31				QUESTION: What is the treatment for acute splenic ...	

▪ Which of my messages were not opened (or put on hold) for over 48 hours?   ▪ Who has access to basket **EBM Literature Request**?

Create a reminder when done ☐   Abandon this message

New entry: TREATMENT OF SPLENIC INFARCTION
    priority ☐   Outpatient Clinic Information Services, Eskind Biomedical Library   Text ==> link
    respond ☐
in-clinic order ☐   LITERATURE SUMMARY: A review of the biomedical research literature on the

Indexing comment (only for saving; optional): EBM Literature Request   EBL ▾ Modify list
  Click to send to a basket: EBM Literature Request   EBL-Private
If the communication is finished, **save to StarChart as final** by choosing a document type:
Clinical communication | Referral communication | Nurse's note | Patient teaching | Prescription | Orders

Preferences
Patient Lists
▪ Inpt. census
▪ Outpt. visits
▪ PatientsView
▪ Panels
▪ OCIS
▪ Recent pts.
▪ Scratch cens.
Work Lists
Inf. Resources
Customize
▪ LOG OUT
+ Help
▪ Lock

View of StarPanel Message Basket tool

Vanderbilt Medical Center

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*)
☐ Methylprednisole_____puffs every _____ hours (*Suggested dose 30 mg – 60 mg every 6 hours*)

SAMPLE

"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

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VU · SEARCH VUMC · HELP · VUMC EMAIL · ABOUT ESKIND

PATHWAY / ORDER SET LITERATURE LOCATOR
QUESTIONS FROM PATHWAYS TEAM
THE ESKIND BIOMEDICAL LIBRARY

- 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 Digital

▸ Topic Keyword Search [ ] Go!

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	⬚	What are the current recommendations/evidence for best practices for postoperative nutrition after pyloromyotomy?

Vanderbilt University Medical Center
Annette and Irwin Eskind Biomedical Library
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.

Of note, 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, 25mg/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) Children's Mercy Hospital, Missouri	-controlled randomized trial 200 patients with pyloric stenosis as identified by ultrasonography. - patients older than 3 months and those with a contraindication to the laparoscopic approach were excluded	- 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. - patients were not blinded, but randomized to open or laparoscopic technique, from April 2003 to March 2006. -patients did not receive antibiotic prophylaxis	- 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=1.85, p=0.05 and n=2.23 to n=1.59, p=0.008 respectively) -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). -authors note that is 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.

Vanderbilt **Medical Center**

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

My Health *at* Vanderbilt

Home Page For: ZTESTSYC, HOLIDAY JUST TESTING   Select Another Account

All Health Topics

- View all Health Topics

Be Healthy, Stay Healthy

- 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

MyHealthAtVanderbilt – lab test integration