

**Department of Internal Medicine** 

Resident Quality and Safety Quarterly

Winter 2019

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# 1. Current NMH QI Initiatives

## Penicillin Allergy Challenge

If your patient has an indication for a beta-lactam antibiotic but has an allergy listed, AND they have never received/tolerated antibiotics in the same class ever since, please consult ASP by paging **55955** to discuss candidacy for **Graded Challenge**.

- This only applies to non-critically ill patients.
- The only reason to NOT call is if their prior reaction was a severe, non-IgE mediated reaction (i.e. hemolysis, serum sickness, SJS/TEN, or DRESS) in which case they do not qualify for a Graded Challenge.

#### Why does this matter?

10-20% of hospitalized patients self-report a penicillin allergy. Less than 10% of these individuals when tested have a positive penicillin skin test and >90% have been shown to tolerate PCN without an immediate IgE-mediated hypersensitivity reaction.

Unconfirmed PCN allergies and the use of alternatives and/or broad-spectrum antimicrobial agents (fluoroquinolones, clindamycin, vancomycin, and aztreonam) have been associated with more treatment failure, serious side effects, longer hospital stays, and higher incidences of C diff, VRE, and MRSA.

#### Sepsis Early Identification Project

Severe Sepsis alerts/BPAs are back! These are computer-generated alerts based on vitals/labs meeting <u>severe</u> sepsis. When this happens:

- RN pages MD for bedside evaluation
- RN driven lactic acid draw
- RN calls Sepsis RRT (brings pharmacist and additional RNs)

What do YOU need to do?

- Evaluate patient
- Document! Helpful dotphrases include:
  - o .sepsislabs
  - o .sepsisreassessment

"Infection Treatment" Order Set – check it out!!

- Helpful bundles for:
  - Specific infections (e.g. PNA, UTI, Cellulitis, etc)
  - Sepsis of unknown source
- Include recommendations/orders for:
  - Antibiotic regimen
  - Labs
  - Consults to consider

#### Order Sets

Infection Treatment & Personalizev 🛸

- NMH - Link to empiric guidelines and other NM system Antimicrobial Stewardship Resources

- Sepsis Bundle
- Pneumonia
- UTI/Pyelonephritis
- Cellulitis/Soft Tissue Infection
- Neutropenic Fever
- Meningitis: Aseptic
- Meningitis: Bacterial
- Clostridium Difficile

### **Time-Limited Telemetry Orders**

#### Just launched 12/2019!

The telemetry order has changed! Now, we must select an indication, and certain indications will have time limits on telemetry duration. Times will be auto-adjusted to expire 7am – 5pm

- Best-practice advisory (BPA) alerts will fire in Epic when close to expiration, prompting an MD action on the order as shown below
- Manage Orders you can choose from:
  - o Renew
  - o Modify
  - Discontinue

Other health systems that have implemented this have seen 10-30% decrease in telemetry utilization without increasing adverse events!

- Let Expire: will stay in Manage Orders so that people know it was intentionally selected
- $\circ~$  If no MD action, RNs will receive notification to remove the tele box

Manage Orders		0	<b>X</b> 54
Active Cosign Quick List Signed & Held PTA	Meds Order Review VTE		
Sort by: Order Type 🗸 Go to: Expiring Orders 🗸			С
Expiring Orders			^
Cardiac Telemetry	Routine, CONTINUOUS, Starting Sun 9/8/19 at 1617, Until Sun 9/8/19, For 1 hour Indications: Post Coronary Intervention, cardiac surgery, device implant or Cardioversion	Renew Let Expire Modify Discontinue	

Indication for Tele	Expiration Time
r/o ACS	24 hrs
AMI	48 hrs
CVA/TIA	48 hrs
Decompensated HF	72 hrs
Endocarditis	72 hrs
High-risk arrhythmia	72 hrs
Pro-arrhythmic medication monitoring	No expiration
Metabolic abnormality	72 hrs
Syncope/Pre-syncope	24h
s/p CT surgery, cardiac intervention, or cardioversion	No Expiration
PE	48 hrs
Other	24h

# 2. Upcoming NMH QI Initiatives – be on the lookout!

- Early identification and treatment of clinical deterioration
- Improvements to inpatient colonoscopy order set
- Improving designation of inpatient vs observation status
- Post-endoscopy order set to improve post-procedural complications

## 3. AQSI Project Spotlight: Prone to Heal

IM Resident: Peter Glynn

**Project Description**: The goal of this project is to improve our MICU's rate of proning patients with ARDS. Initial data suggests we are not proning often enough. As part of the intervention, the project is trying to increase resident reporting and documenting of the P/F (PaO2/FiO2) ratio in order to facilitate decision-making regarding proning.

**EBM pearl**: **PROSEVA** trial (NEJM, 2013) – early application of proning in mechanically ventilated patients with severe ARDS (inclusion criteria: **P/F ratio < 150**, FiO2 > 0.6, PEEP 5+ cmH2O, tidal volume ~6cc/kg) resulted in significant reduction in mortality at 28 and 90 days!

What we can do: Incorporate the P/F ratio into our daily assessment of a patient with ARDS!

#### ORIGINAL ARTICLE

#### Prone Positioning in Severe Acute Respiratory Distress Syndrome

Claude Guérin, M.D., Ph.D., Jean Reignier, M.D., Ph.D., Jean-Christophe Richard, M.D., Ph.D., Pascal Beuret, M.D., Arnaud Gacouin, M.D., Thierry Boulain, M.D., Emmanuelle Mercier, M.D., Michel Badet, M.D., Alain Mercat, M.D., Ph.D., Olivier Baudin, M.D., Marc Clavel, M.D., Delphine Chatellier, M.D., et al., for the PROSEVA Study Group\*

Stay tuned for more information on other AQSI projects your friends and colleagues are involved in this year!

For PGY2s and PGY1s: calls for joining AQSI projects each year happen in the late Spring/Summer. Be on the lookout then if you're interested in participating!

# 4. Resident Outpatient Quality Metrics: Lakeside VA

Individualized outpatient quality metrics are now available for residents with VA clinics. These performance measures are benchmarked against **all VA primary care providers nationally**. For those with a Lakeside clinic, please discuss your individual clinic metrics with your preceptor!

A snapshot of the aggregate Lakeside VA clinic metrics for each attending are included below for reference:

		90th percentile		83%	92%	100%	100%	100%	96%	83%	100%	100%	100%	82%	86%	89%
		50th percentile	<50th	72%	69%	75%	62%	74%	85%	70%	89%	88%	78%	71%	75%	80%
		VA National Average		80%	83%	76%	86%	90%	79%	79%	94%	84%	79%	73%	77%	83%
Site	Clinic	Team	Patients	Colorectal CA Screen v15m	Colorectal GAP Reminder	Mammogram Scrn age 52-74	Mammogram Scrn age 45-74	VA Pap Smear Screening	AAA Screening	CVD on Mod Statin	AMI on ASA	AMI on Beta Blocker	CHF on ACE I or ARB	HTN BP<140/90 age 18-85	DM BP<140/90	DM HbA1c≤9
JB	e in ite	Toam	34724	72%	84%	80%	70%	68%	83%	79%	83%	77%	84%	68%	73%	78%
	LS/1	Dr. Apolonio	486	70%	90%	100%	86%	77%	84%	83%	75%	92%	100%	64%	75%	78%
-	LS/3	Dr. Chu	477	67%	79%		50%	39%	73%	86%	97%	89%	87%	65%		82%
	LS/5	Dr. Kim	408	87%	88%	83%	71%	63%	91%	92%	84%	54%	79%	70%	71%	82%
	LS/2	Dr. Stern	715	75%	79%	85%	74%	46%	80%	82%	91%	75%	84%	65%	75%	77%
	LS/6	Dr. Otto	806	76%	90%	67%	63%	92%	86%	77%	91%	82%	95%	64%	65%	81%
	LS/7	Dr. Urdaneta	719	78%	95%	78%	69%	57%	90%	68%	72%	60%	88%	64%	70%	77%

Coming soon: second installation ever of inpatient resident metrics (~January 2020) & NM outpatient clinic quality metrics!

## 5. NETS Report: What happens to them? How are we doing?

- About 9600 NETS Reports were filed last year.
  - Of them, 370 went to protected investigations.
  - Of them, 117 cases went to quality committee review.
  - Ultimately 24 resulted in a Root Cause Analysis with action plans (focused on systems improvement).
- During this process, Risk reaches out to clinicians as appropriate/relevant to help with disclosure, documentation, advice, and support.
- ALL NETS reports are looked at even if no formal review is ever pursued.

How many NETS Reports are filed at NMH? ~9600 per year (~800 per month)

How many of them are anonymous? ~28% of the reports

How many of the reports are filed by "Physician-HouseStaff/Fellow"? Only ~2.5%!!

(Only a small fraction of those were from IM residents) We can do better!

## 6. Resident QI Involvement: Who is in the Subcommittees?

**Department of Medicine Quality Management Committee**: Patrick Campbell, Peter Glynn, Elyse Linson, Michael Jiang, Amanda Krause, and Caitlin Visek

Sepsis Committee: Michael Jiang, Amanda Krause, Sneha Thatipelli, Todd Vankerhoff

Glycemic Control Committee: Kasey Coyne, Sally Friedman

Nets (error reporting) Working Group: Sarah Hale, Caitlin Visek

Shock/ECPR (VA ECMO) Committee: Peter Glynn, Martin Gruca, Yossi Schwartz

**Lung Rescue (VV ECMO) Committee**: Now Hiring! Email any of your QI committee members if interested!

Several Subcommittees may need additional residents to fill spots vacated by graduating residents- stay tuned for the Spring!

Please email us with any questions!

Your Quality Management Committee:

- Michael Jiang, Amanda Krause, Caitlin Visek
- Patrick Campbell, Peter Glynn, Elyse Linson
- VA Chief Resident in Quality & Safety: Lauren Lee
- Faculty Mentors: Dr. Didwania, Dr. Cyrus, Dr. Theodorou