Welcome
Announcements

Jill Jakubus
10:00

Disclosures

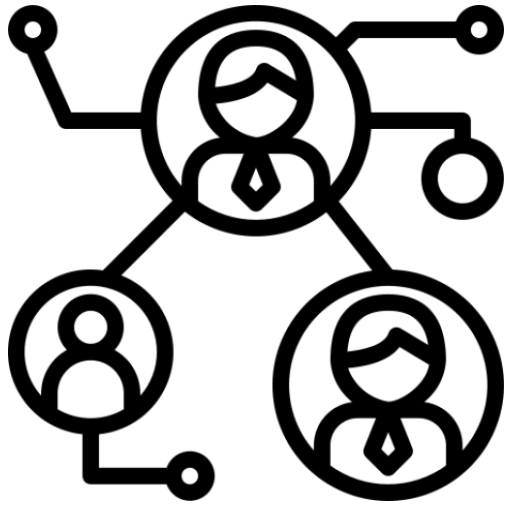
Salary support for MTQIP from BCBSM/BCN

- Anne Cain-Nielsen
- Mark Hemmila
- Jill Jakubus
- Judy Mikhail
- Sara Samborn

No Photos Please

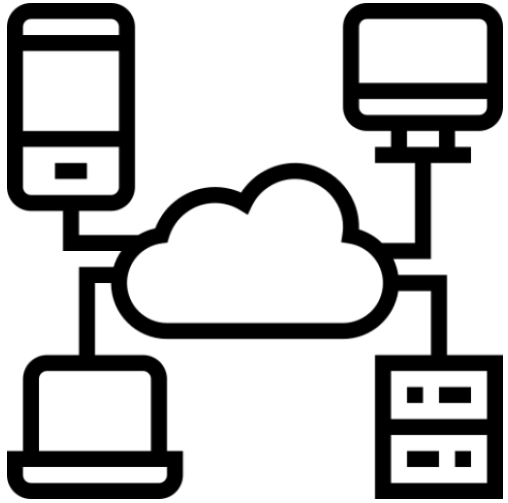
New Members

- **Bronson Battle Creek**
- **Henry Ford West Bloomfield**
- **Metro Health**
- **MidMichigan - Gratiot**
- **Providence Novi**
- **Spectrum Zeeland**



Data Submission

- **Due: June 7, 2019**
- **Minimum interval: 11/1/17 – 2/28/19**
- **First submissions: 1/1/16**



State of Michigan Collaboration – All

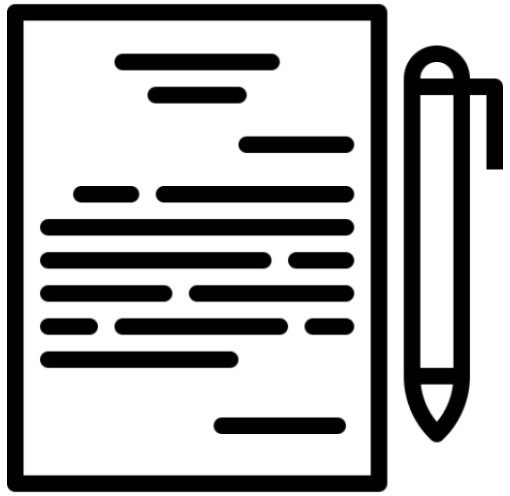
- **Region report summer 2019**

State of Michigan Collaboration – Level 3

- **Center report summer 2019**
- **Data validation (n=5)**

AIS 2015

- **Vendors pending AAAM to provide the annual license cost**
- **MTQIP requests transition in unity**

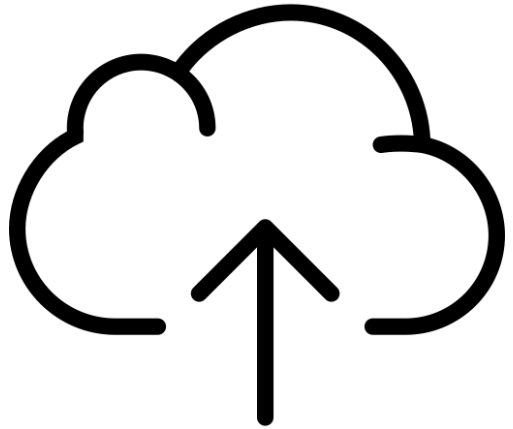


Filters

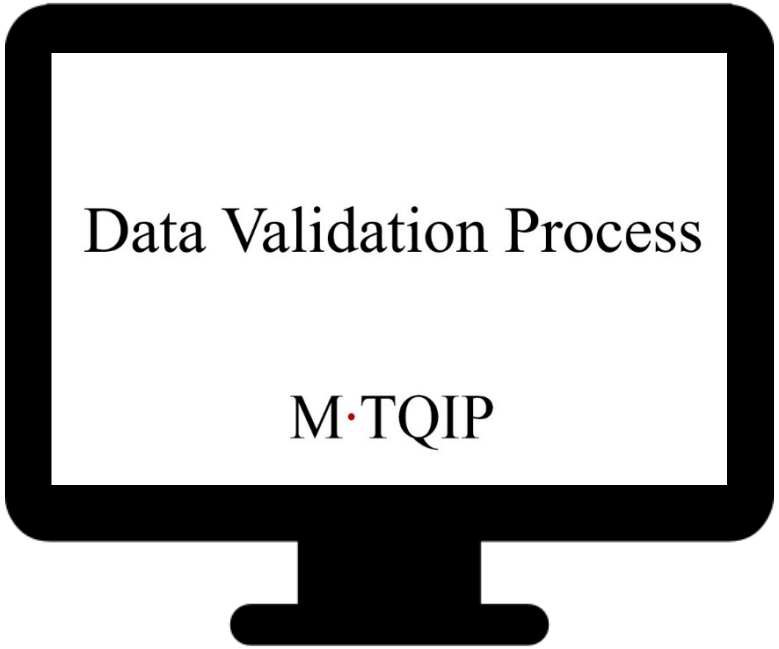
- **No filter application to MTQIP data submission**
- **Consistent collaborative cohort formation**
- **NTDS button is only for NTDS**

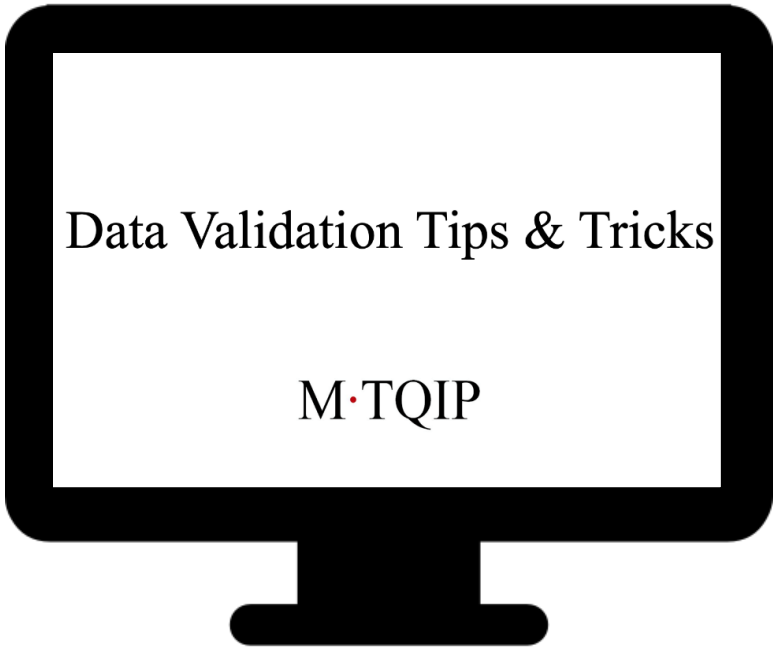
Performance index

- **Review head CT and open fracture lists**
- **Only able to provide credit for data received**



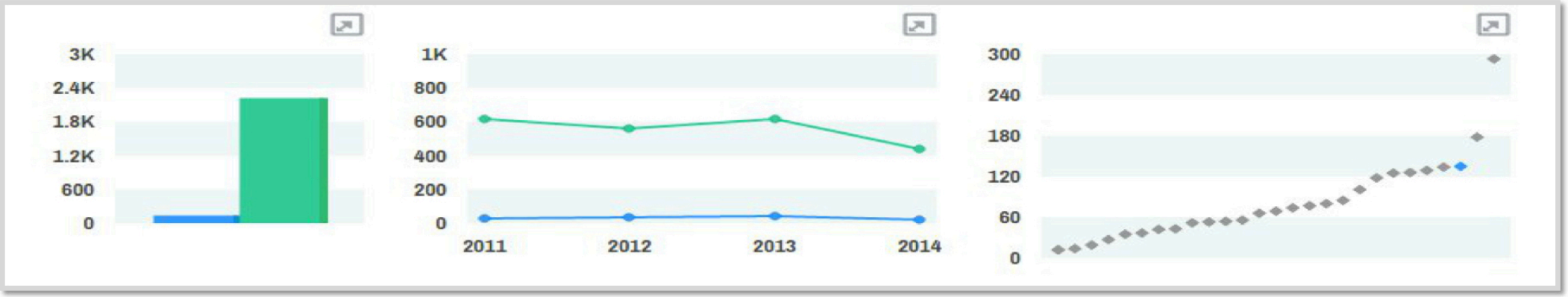
New Educational Videos





https://www.youtube.com/channel/UCJO9gOW0bSg1mrc_MUdJ4dQ

New Online Analytics – Open Fracture

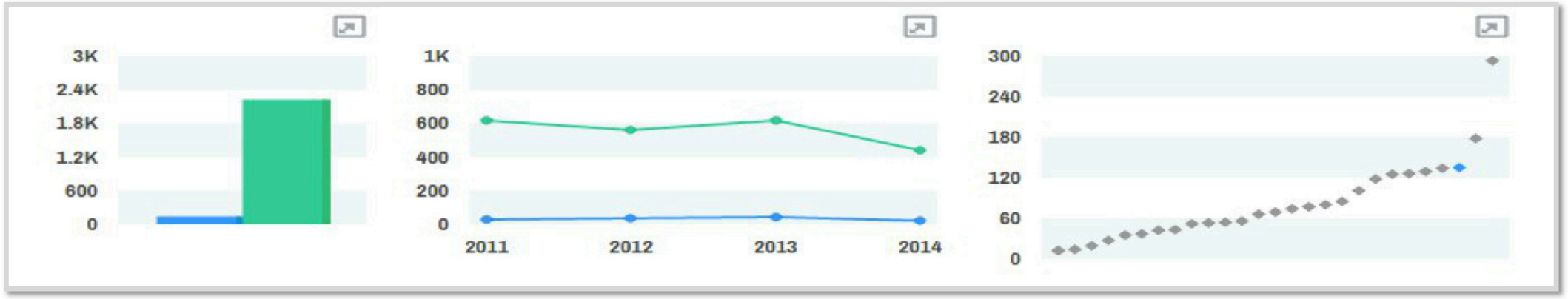


Practices > Open Fracture

Open Fracture Antibiotic Timing	Cases Numerator	Cases Demoninator	Hospital A - Unadj	MTQIP All - Unadj	P Value - Unadj
Missing Date or Time	N	N	#	#	
Time to Antibiotic Administration Mean Femur or Tibia (Hrs)	N	N	#	#	
Time to Antibiotic Administration Median Femur or Tibia (Hrs)	N	N	#	#	
<= 1 Hr Femur or Tibia (%)	N	N	#	#	
<= 1.5 Hr Femur or Tibia (%)	N	N	#	#	
<= 2 Hr Femur or Tibia (%)	N	N	#	#	
> 2 Hr Femur or Tibia (%)	N	N	#	#	
Time to Antibiotic Administration Mean Femur (Hrs)	N	N	#	#	
Time to Antibiotic Administration Median Femur (Hrs)	N	N	#	#	
<= 1 Hr Femur (%)	N	N	#	#	
<= 1.5 Hr Femur (%)	N	N	#	#	
<= 2 Hr Femur (%)	N	N	#	#	
> 2 Hr Femur (%)	N	N	#	#	
Time to Antibiotic Administration Mean Tibia (Hrs)	N	N	#	#	
Time to Antibiotic Administration Median Tibia (Hrs)	N	N	#	#	
<= 1 Hr Tibia (%)	N	N	#	#	
<= 1.5 Hr Tibia (%)	N	N	#	#	
<= 2 Hr Tibia (%)	N	N	#	#	
> 2 Hr Tibia (%)	N	N	#	#	

Status - UAT

New Online Analytics – Head/Brain CT



Practices > Head CT Metric

Head CT Timing - Traumatic Brain Injury on Anticoagulation	Cases Numerator	Cases Demoninator	Hospital A - Unadj	MTQIP All - Unadj	P Value - Unadj
Missing Date or Time	N	N	#	#	
Time to Head CT Scan in ED Mean (Hrs)	N	N	#	#	
Time to Head CT Scan in ED Median (Hrs)	N	N	#	#	
<= 0.5 Hr (%)	N	N	#	#	
<= 1 Hr (%)	N	N	#	#	
<= 1.5 Hr (%)	N	N	#	#	
<= 2 Hr (%)	N	N	#	#	
<= 4 Hr (%)	N	N	#	#	
> 4 Hr (%)	N	N	#	#	

Status - Development

MACS – Michigan Acute Care Surgery Project

MACS – Michigan Acute Care Surgery Project

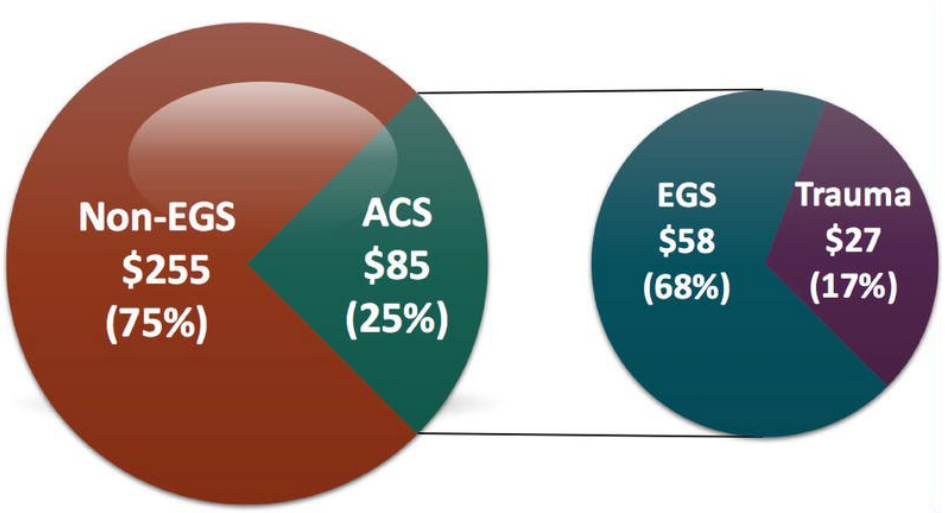
MSQC
Michigan Surgical Quality Collaborative

General Surgery – Operative	**ArborMetrix**

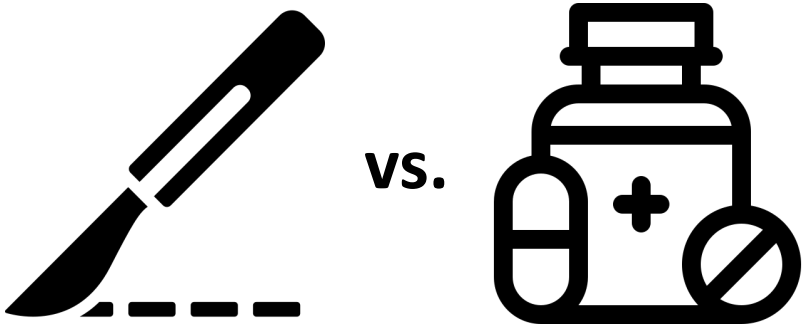
M·TQIP

Trauma	**Registry**
General Surgery – Non + Operative (appendicitis, gall bladder disease, SBO, ventral hernia, emergent ex lap)	**ArborMetrix + Qualtrics**

MACS – Michigan Acute Care Surgery Project



Appendicitis

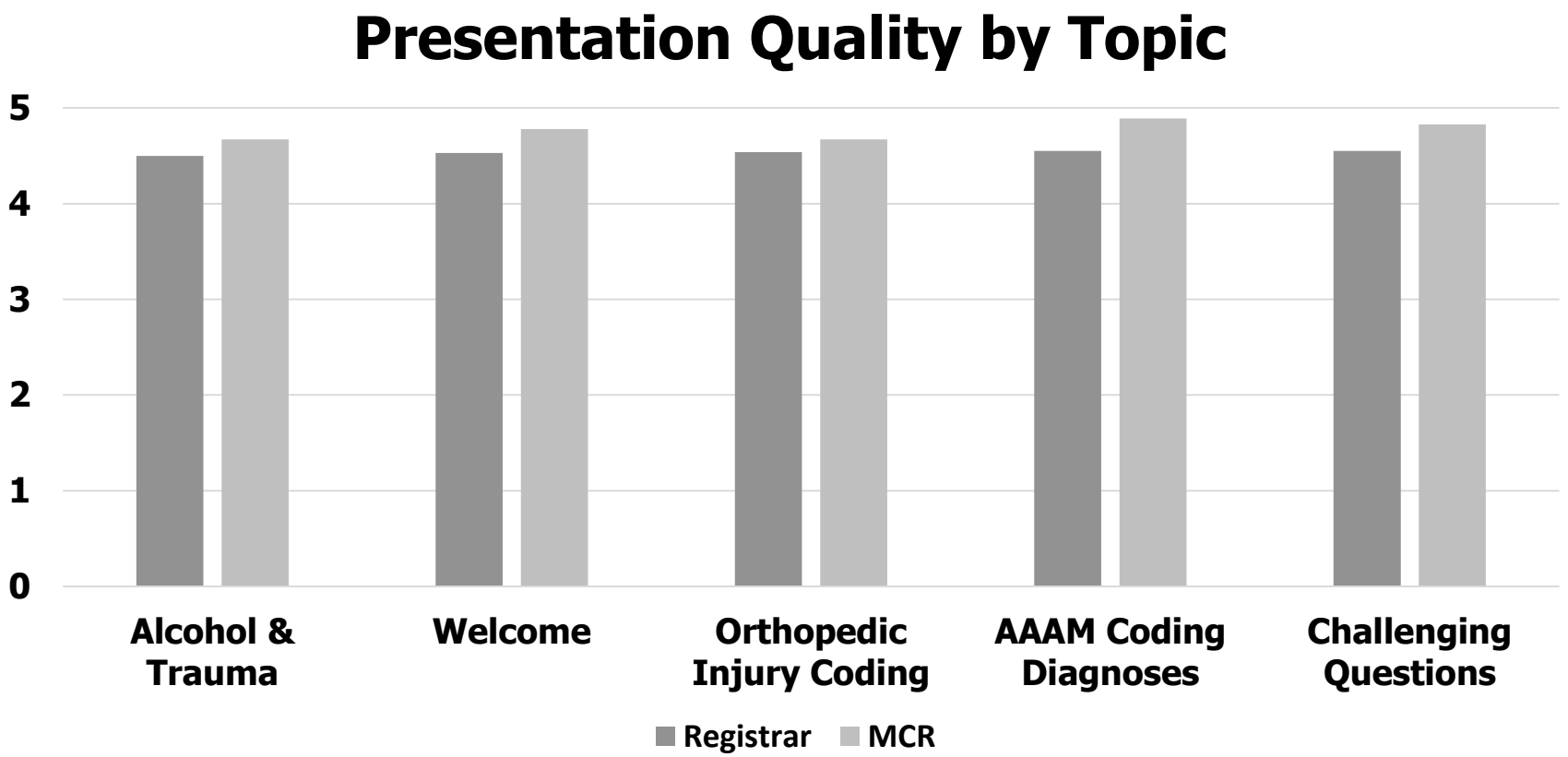


High Prevalence + High Cost + High Variability = OFI

Evaluations June 2018 Meeting

- **Thank you (n=56)**
- **Feedback-based changes implemented**

Evaluations

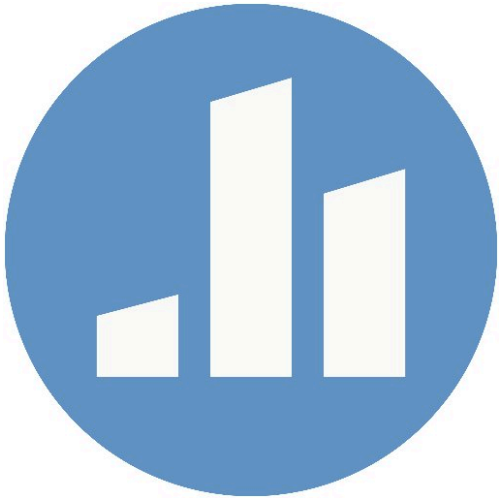


Solutions

Improve facility audio	Facility changed to Marriott
Missing info (Oct/May)	Slides online
Bigger slides	Format changed to 16:9
Talking makes me anxious	Collaborative learning, poll
Use data abstraction scenarios	Care withdrawal scenarios
Add interactive activity	Breakout activity

Test Poll

- Web browser (preferred)
  - PollEv.com/mtqip910
  - Enter your name
- PollEverywhere app
- Text
  - Number = 22333
  - Text = MTQIP910



What's the best restaurant in the state?

Where was the fortune cookie invented?

Beijing, China

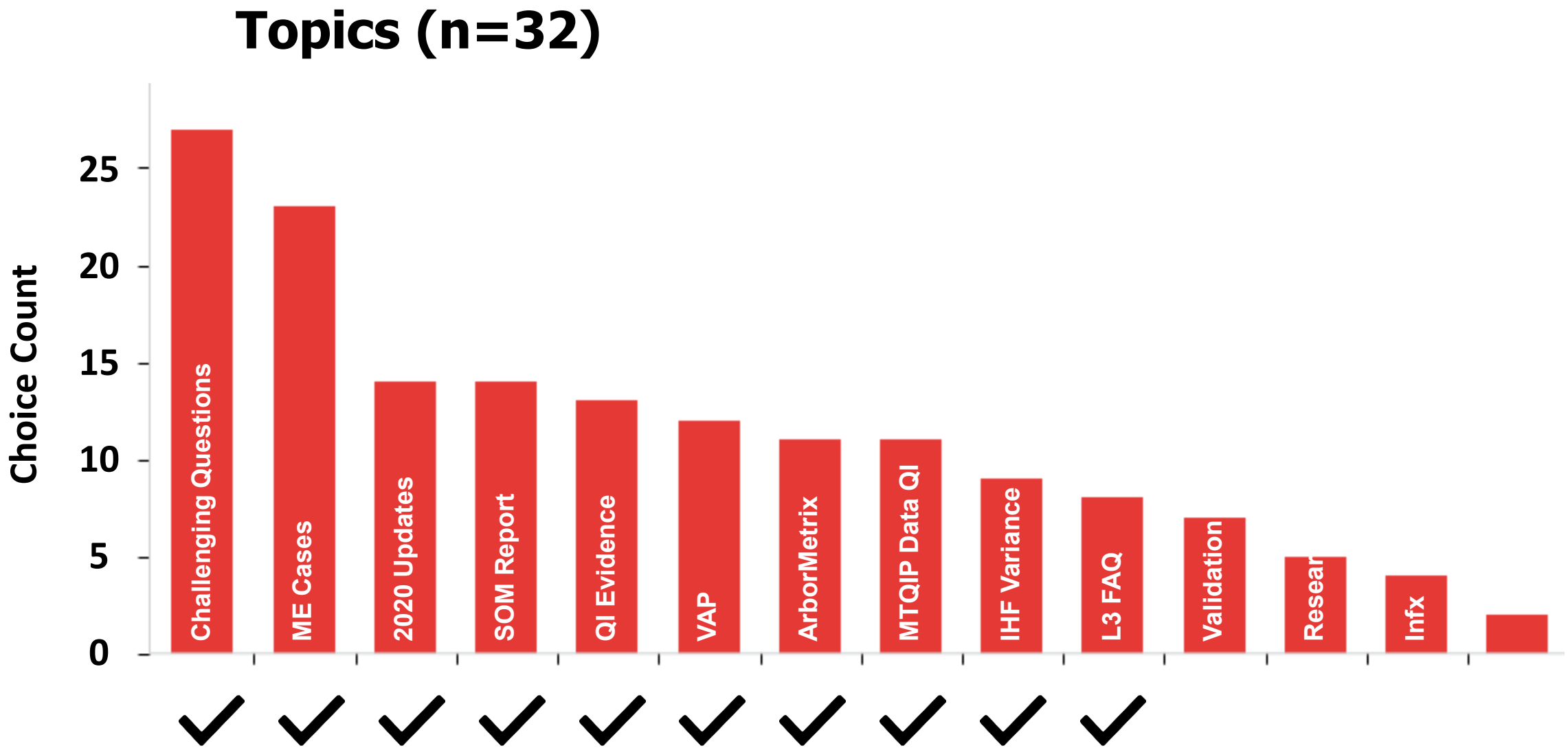
Shanghai, China

Taipei, Taiwan

California, USA

Survey June 2019 Meeting Planning

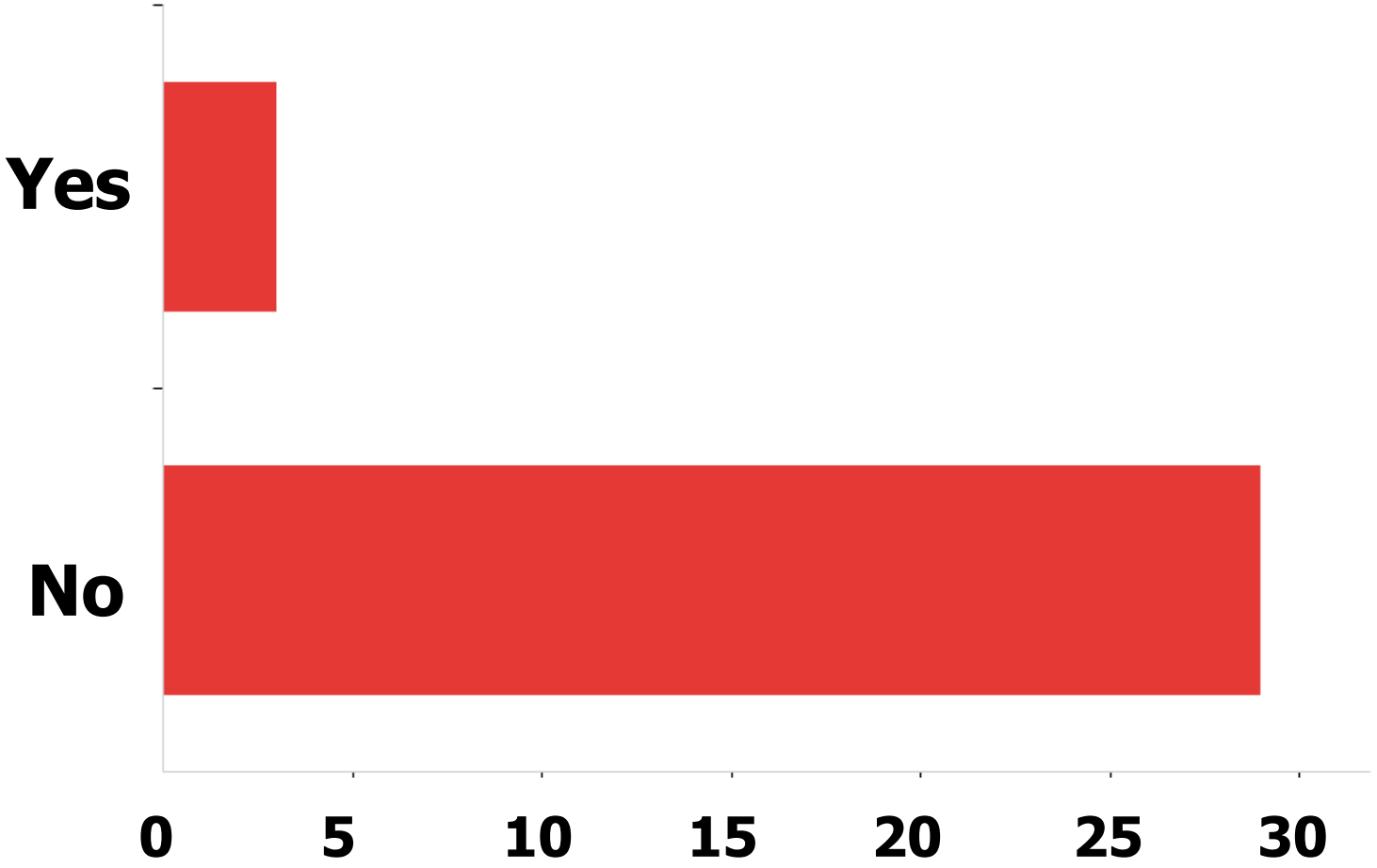
- **Thank you (n= 32)**
- **Feedback-based agenda**


Topics (n=32)
Choice Count
25
20
15
10
5
0
Challenging Questions
ME Cases
2020 Updates
SOM Report
QI Evidence
VAP
ArborMetrix
MTQIP Data QI
IHF Variance
L3 FAQ
Validation
Resear
Infx

Topics (n=32)

- **Variance TQIP/MTQIP** ✓
- **Withdrawal of life sustaining treatment** ✓
- **Open fracture measures** ✓
- **Challenging cases** ✓

Would you like to present? (n=32)



Research in Progress

Center	PI	Topic	Phase
Detroit Receiving	Oliphant	Not further specified: unclassified orthopedic injuries in trauma registries, cause for concern?	Presented Academic Surgical Congress (Feb 2019). Manuscript in progress.
Henry Ford	Johnson	EMS vs. private car effect on outcomes	Analysis
Michigan Medicine	Wang	Injury prevention in vunerable populations	Analysis
Michigan Medicine	Jakubus	Data validation in benchmark reporting and modeling	Resubmission
Michigan Medicine	Goulet	Resource, outcomes, and care variation in IHF	Methods
Providence Hospital	Lopez	TXA in trauma	Analysis
Providence Hospital, Spectrum Health, St. Joseph Mercy, Michigan Medicine	Iskander, Lopez, Jakubus, Wahl	Optimal timing head CT's for geriatric falls	Analysis
Spectrum Health	Chapman	Outcomes in operative fixation of rib fractures	Propensity analysis
St. Joseph Mercy	Hecht	VTE type for trauma patients	Analysis

Appreciation

We would like to recognize the following registrars for their dedication to data integrity by serving as MTQIP validators: Jeri Dihle, Susan Huehl, and Cecilia Roiter. We would like to thank the following vendors and staff for providing user support and creation of edit checks: ArborMetrix, Association for the Advancement of Automotive Medicine, Clinical Data Management, Digital Innovation, Inc., Sue Auerbach, Chris Birkmeyer, Zhaohui Fan, Caroline Israel, Dave Karres, John Kutcher, Alex Leaven, Tony Mignano, Cindy Ragland, Jody Summers, and Rob Tewey. The authors would like to acknowledge the following MTQIP Members for their commitment to improving patient care and data quality: John Fath, James Wagner, Cara Seguin, Tracey Stockinger, Sharon Morgan, and Gail Colton, of Beaumont Hospital – Dearborn; Allan Lamb, Kathy Franzen, Ramona Dinu, and Heather Payton, of Beaumont Hospital – Trenton; Michael Rebock, Barb Smith, Catherine Levinson, Corinna Azar, and Robin Lebeis, of Beaumont Hospital – Farmington Hills; Randy Janczyk, Michelle Schnedler, Holly Bair, and Shannon Zientek, of Beaumont Hospital – Royal Oak; Tom Rohs, Sally Ossewaarde, Sabrina Luke, and Jodie Vining, of Ascension Borgess Hospital; Scott Davidson, Rita Cox, Patricia Benoit, Krisann Woodley, Tonya King-Stratton, Loretta Farrell, Mary Loney, and Dominique Termaat, of Bronson Methodist Hospital; Sujal Patel, Debbie Falkenberg, Kenda Parker, Kristin Wolfgang, Julie Macdougall, and Deanne Krajkowski, of Covenant HealthCare; Anna Ledgerwood, Maidei Munemo, Lisa Salerno, La Toya Kimbrough, Greta Eagger, and Katherine Dhue, of Detroit Receiving Hospital; Brian Shapiro, Zachary Landers, Jennifer Sunderman, and Raquel Yapchai, of Genesys Regional Medical Center; Jeffrey Johnson, Beth Fasbinder, Andrea Nelson, Cheryl Church, and Velma Cuevas, of Henry Ford Hospital; Scott Barnes, Chris McEachin, Michelle Schwarb, and Rose Morrison, of Henry Ford Macomb Hospital; Leo Mercer, Mike McCann, Michelle Maxson, Gloria Lahoud, Shirley Ulmer, and Amber Dombrowski, of Hurley Medical Center; Nicholas Nunnally, Ashley Brown, Alisha Sholtis, and Erin Veit, of McLaren Lapeer Region; Mandip Atwal, Susan Schafer, Marita Vandenberg, Leslie Frezza, and April Pizzo, of McLaren Macomb; John Ketner, Courtney Berry, Megan Wright, and Carolyn Ivan, of McLaren Oakland; Thomas Veverka, Shari Meredith, Tom Wood, Michelle Abedrabo, Teresa Rollin, and Lori Coppola, of MidMichigan Health; Steven Slikkers, Shamarie Regenold, Tanya Jenkins, Allen Stout, and Jill Jean, of Munson Healthcare; Peter Lopez, Joann Burrington, Rebecca Steele, and Carly Callahan, of Providence Hospital; Marco Hoesel, Gwyneth Navas, Melissa Keller, Lisa Zanardelli, TiJuan Davis, Danielle Finn, and Patricia Danhoff, of Sinai-Grace Hospital; John Kepros, Penny Stevens, Kristen Jorae, Paige Harakas, Christopher Stimson, and Maria Maier, of Sparrow Health System; Gaby Iskander, Amy Koestner, Jennifer Haverkamp, Kathy Crystal, Elizabeth Delrue, Gayle Mack, Kristen Thornton, and Kelly Burns, of Spectrum Health; Wayne Vanderkolk, Sherri Veurink-Balicki, Kristi Diephouse, and Coleen Kelly, of Mercy Health Saint Mary's; Joseph Buck, Karrie Brown, Melissa Cunningham, Melissa Jeffrey, Marie Westfall, and Kathleen Waderlow, of St. John Hospital; Wendy Wahl, Mary-Margaret Brandt, Kathy Kemph, Donna Tommelein, Nancy Hofman, and Rebecca Peterson, of St. Joseph Mercy Ann Arbor; Alicia Kieninger, Carol Spinweber, Michele Hunt, and Ellen Noone-Eustice, of St. Joseph Mercy Oakland; Thomas Oweis, Rick Ricardi, Mikki Favor, Jessica Landry, and Ruth Vernacchia, of St. Mary Mercy Livonia Hospital; Samer Kais, Kerri Chernauckas, Kelly Bourdow, Erin Perdue, and Nancy Walter, of St. Mary's of Michigan; Cindy Wegryn, Chris Wagner, Sara Samborn, and Diane Tuttle-Smith, of Michigan Medicine; Larry Lewis, Tammy Luoma, Jodi McCollum, Sarah Sutter, and Lisa Taylor, of UP Health System Marquette.

Trauma and Forensic Medicine

Kristi Diephouse
10:20

MERCY HEALTH
SAINT MARY'S

Forensic Nursing and the Trauma Patient

Kristi Diephouse BSN, RN, EMT-P

6/7/2019

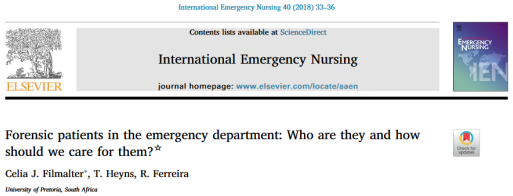
No Declarations

- However, my CV is available upon request

Common Responses

- That's so cool!
- That's SANE…..right?

Forensic Nursing from a Research Perspective


International Emergency Nursing 40 (2018) 33–36

Contents lists available at ScienceDirect

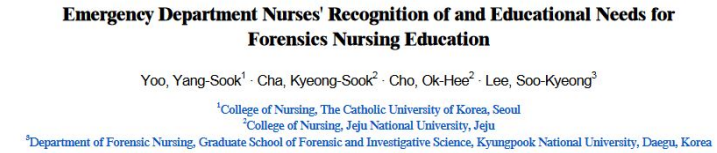
International Emergency Nursing

journal homepage: www.elsevier.com/locate/aaen

Forensic patients in the emergency department: Who are they and how should we care for them?☆

Celia J. Filmalter*, T. Heyns, R. Ferreira

University of Pretoria, South Africa


Emergency Department Nurses' Recognition of and Educational Needs for Forensics Nursing Education

Yoo, Yang-Sook[1] · Cha, Kyeong-Sook[2] · Cho, Ok-Hee[2] · Lee, Soo-Kyeong[3]

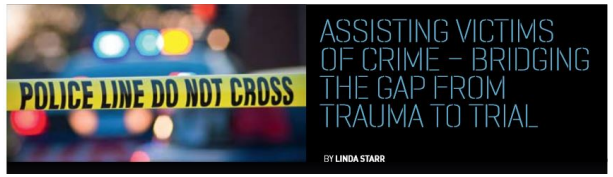
[1]College of Nursing, The Catholic University of Korea, Seoul
[2]College of Nursing, Jeju National University, Jeju
[3]Department of Forensic Nursing, Graduate School of Forensic and Investigative Science, Kyungpook National University, Daegu, Korea


Original Article

2.5 ANCC Contact Hours

Children in Foster Care: What Forensic Nurses Need to Know

Gail Hornor, DNP, CPNP, AFN, SANE-P




Available online at www.sciencedirect.com

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Procedia - Social and Behavioral Sciences 217 (2016) 1089 – 1097

Procedia Social and Behavioral Sciences

Future Academy®'s Multidisciplinary Conference

Knowledge Questionnaire over Forensics Nursing Practices

Madalena Cunha*, Rui Libório & Mauro Coelho


Original Article

Evidence-Based Practice in Forensic Mental Health Nursing: A Critical Review

Richard Byrt, RMN, RNLD, RGN, PhD, MA, BSc (Hons)[1,2,3],
Theresa A. Spencer-Stiles, BA (Hons), PGCE[4], and Ismail Ismail, RMN, BSc (Hons), DipHE[3]

Forensic Nursing is…..

- Integration of nursing care for those affected by violence
- Intersection of health care and legal needs
- Trained to assess, collect evidence, provide expert care
- Function as an expert in the legal system.

Forensic Nursing is…..

- SANE
- Emergency Management
- Disaster Assessment and Recovery
- Death Investigation
- Care of Vulnerable Populations

Recognition of Vulnerable Populations

- Recognition
- Documentation
- Resource Availability
- Coordination of Care

Vulnerable Populations and You

- Vulnerable populations are viewed by us every day
  - Geriatrics
  - Assault
  - Orthopedic Fractures
  - Traumatic Head Injuries
  - Head Bleeds
- Injuries are not just physical – but emotional, financial, social

MCR's and Registrar's Unique Role

- See whole picture
- Ability to see patterns of injuries and behavior
- Able to be aware
- Able to ask questions
- Ability to educate on the importance of documentation
- Do all the pieces fit?

The future of Forensic Nursing

- Joint position statement to help in the care of patients who experience…
  - IPV
  - Human Trafficking
  - Strangulation
  - Assault
  - SANE
  - Evidence collection in the ED

Thank You!

State of Michigan Reporting
Z-Scores Explained

Anne Cain-Nielsen
10:40

Level III Reports

Overview

- State of Michigan and University of Michigan
- Bi-annual reports (winter, summer)
- Data from participating Level III centers only
- Reports include:
  - **Comparison of admissions, transfers, patient characteristics**
  - **Risk-adjusted outcomes**
  - **Data from Jan 2016 onwards**

Michigan Level 3 Trauma Center Report
(Date Range 1/17 - 6/18)
(Site XZ compared to all sites)

Table 1. Comparison of admissions and transfers

	Site XZ	All Sites	P*
Total Patients			
Transfers in (%)			

Admissions	**Site XZ**	**All Sites**	**P***
Total Admitted (%)			
By ISS Category			
Admitted, ISS <5 (%)			
Admitted, ISS 5-15 (%)			
Admitted, ISS 16-25 (%)			
Admitted, ISS 26-35 (%)			
Admitted, ISS >35 (%)			
By Age Category			
Admitted, Age <16 (%)			
Admitted, Age 16-25 (%)			
Admitted, Age 26-45 (%)			
Admitted, Age 46-65 (%)			
Admitted, Age 66-75 (%)			
Admitted, Age >75 (%)			

Transfers out from ED	XZ	All Sites	P*
Total transfers out (%)			
By ISS category			
Transfer Out, ISS <5 (%)			
Transfer Out, ISS 5-15 (%)			
Transfer Out, ISS 16-25 (%)			
Transfer Out, ISS 26-35 (%)			
Transfer Out, ISS 35+ (%)			
By age category			
Transfer Out, Age <16 (%)			
Transfer Out, Age 16-25 (%)			
Transfer Out, Age 26-45 (%)			
Transfer Out, Age 46-65 (%)			
Transfer Out, Age 66-75 (%)			
Transfer Out, Age >75 (%)			
ED Dwell Time (Mean±SD)			
ED Dwell Time (Median, range)			

ED Mortality	XZ	All Sites	P*
Deaths in ED (%)			

* P-value

P <0.05 indicates a statistically significant difference when comparing your site to all sites.

Table 2. Transfers out

	Site XZ	All Sites
Total Patients		
Total Transfers Out		

Potentially eligible for transfer	**Site XZ**	**All Sites**	**P***
TBI with ICH (%)			
GCS <9 (%)			
Grade 3+ solid organ injury (%)			
> 5 rib fracture (%)			
Shock index > 0.8 (%)			
≥ 65 and admit (%)			

Actual transfers	**Site XZ**	**All Sites**	**P***
TBI with ICH (%)			
GCS <9 (%)			
Grade 3+ solid organ injury (%)			
> 5 rib fracture (%)			
Shock index > 0.8 (%)			
≥ 65 and admit (%)			

Transfers out with and without criteria	**Site XZ**	**All Sites**	**P***
Transfer out with 1+ criteria (%)			
Transfer out with no criteria (%)			

Table 3. Comparison of patient characteristics

	Site XZ	All Sites	P*
Total Patients			
Patient Characteristics			
Age (Mean±SD)			
Male (%)			
White (%)			
Blunt mechanism (%)			
Private insurance (%)			
ISS (%)			
<5			
5-15			
16-25			
26-35			
35+			
ED Heart Rate (%)			
51-120, bpm			
> 120			
0-50			
Missing			
ED Systolic Blood Pressure (%)			
>90, mmHg			
61-90			
≤ 60			
Missing			

Table 3. Comparison of patient characteristics

	Site XZ	All Sites	P*
Glasgow Coma Scale - Motor (%)			
6			
5-2			
1			
Missing			
AIS Head/neck >2 (%)			
AIS Chest > 2 (%)			
AIS Abdomen > 2 (%)			
AIS Extremity > 2 (%)			
Medical History/Comorbidities			
Congestive heart failure (%)			
Diabetes (%)			
Functionally dependent health status			
Hypertension (%)			
Liver disease (%)			
Smoker (%)			

* P-value

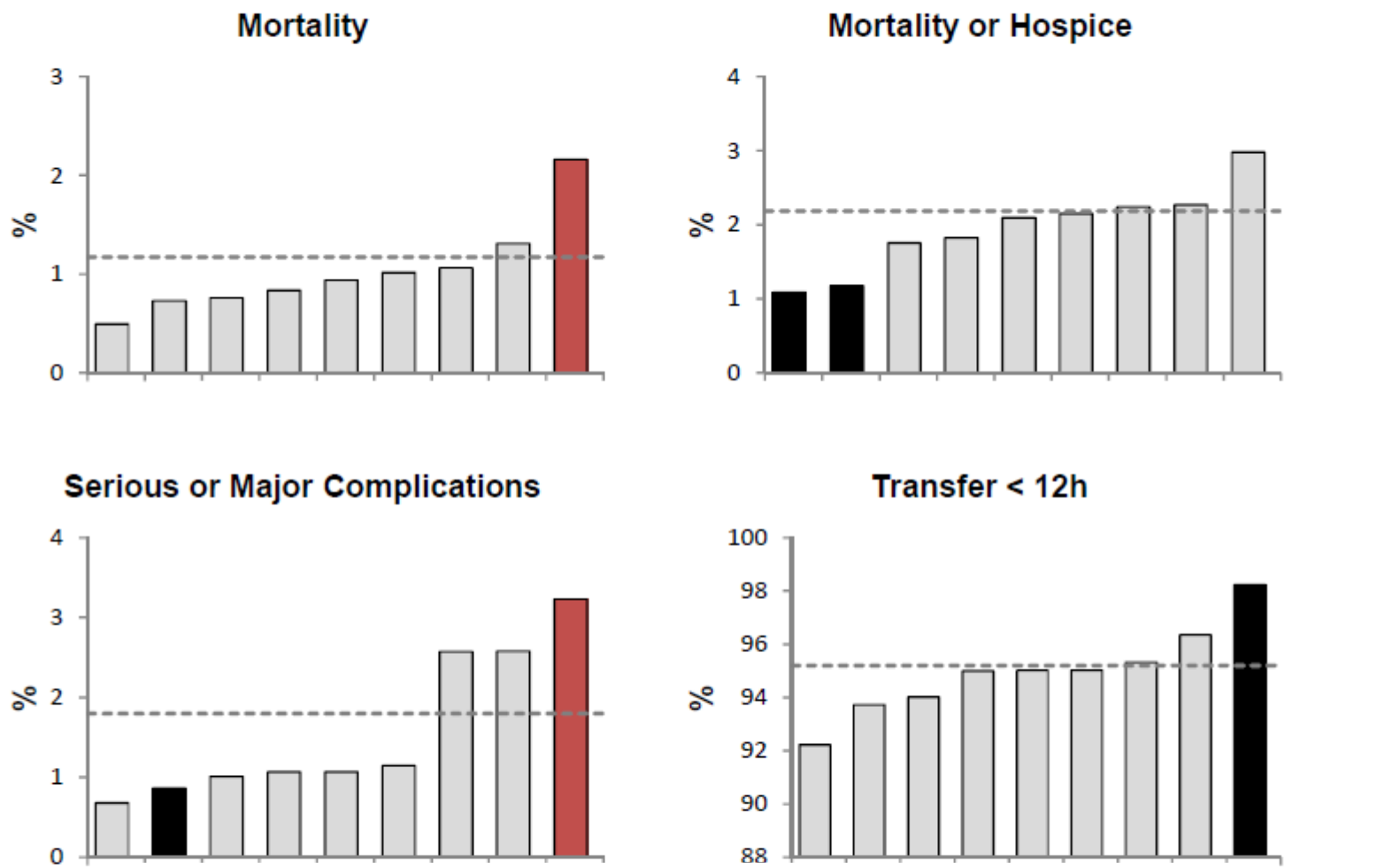
Table 4. Outcomes, all patients

All Patients					
	Site XZ				
Outcome: # (%)	**All time period 1/17-6/18**	**P***	**Prior 12 Months 7/17-6/18**	**P****	**All Sites 1/17-6/18**
Number of Cases					
Mortality					
Unadjusted					
Risk-Adjusted					
Mortality or Hospice					
Unadjusted					
Risk-Adjusted					
Serious or Major Complications					
Unadjusted					
Risk-Adjusted					
Transferred < 12h					
Unadjusted					
Risk-Adjusted					

* P-value comparing to All Sites

** P-value comparing to All Sites

Figure for Table 4. Risk adjusted outcomes, all patients



Risk-adjusted outcomes

- Outcomes:
  - Mortality
  - Mortality/Hospice
  - Serious or Major Complications
  - Transfer < 12 hours

- Cohorts:
  - All patients
  - Patients ≥ 65
  - Isolated hip fractures
  - All patients, excluding transfers out

Level I/II Reporting

- BCBSM, U of M, ArborMetrix
- Risk- and reliability-adjusted
  - Broad risk adjustment
- ISS 5+, age 16+
- ### reported outcomes
- Tri-annual Box reports
- 24/7 web access

Level III Reporting

- State of Michigan and U of M
- Risk- and reliability-adjusted
  - Basic risk adjustment
- Includes all ISS, all ages
- 4 reported outcomes
- Bi-annual Box reports
- No web access

Questions?

Z-scores Explained

Performance index measure

Michigan Trauma Quality Improvement Program (MTQIP) 2019 Performance Index January 1, 2019 to December 31, 2019			
Measure	**Weight**	**Measure Description**	**Points**
#7	10	**Serious Complication Rate-Trauma Service Admits (3 yr: 7/1/16-6/30/19)** Z-score: < -1 (major improvement) Z-score: -1 to 1 or serious complications low-outlier (average or better rate) Z-score: > 1 (rates of serious complications increased)	 10 7 5
#8	10	**Mortality Rate-Trauma Service Admits (3 yr: 7/1/16-6/30/19)** Z-score: < -1 (major improvement) Z-score: -1 to 1 or mortality low-outlier (average or better rate) Z-score: > 1 (rates of mortality increased)	 10 7 5

Goal

We want to answer the (important!) question:

Is my hospital improving over time?

Goal

We want to answer the (important!) question:

Is my hospital improving over time?

How would you answer this question?

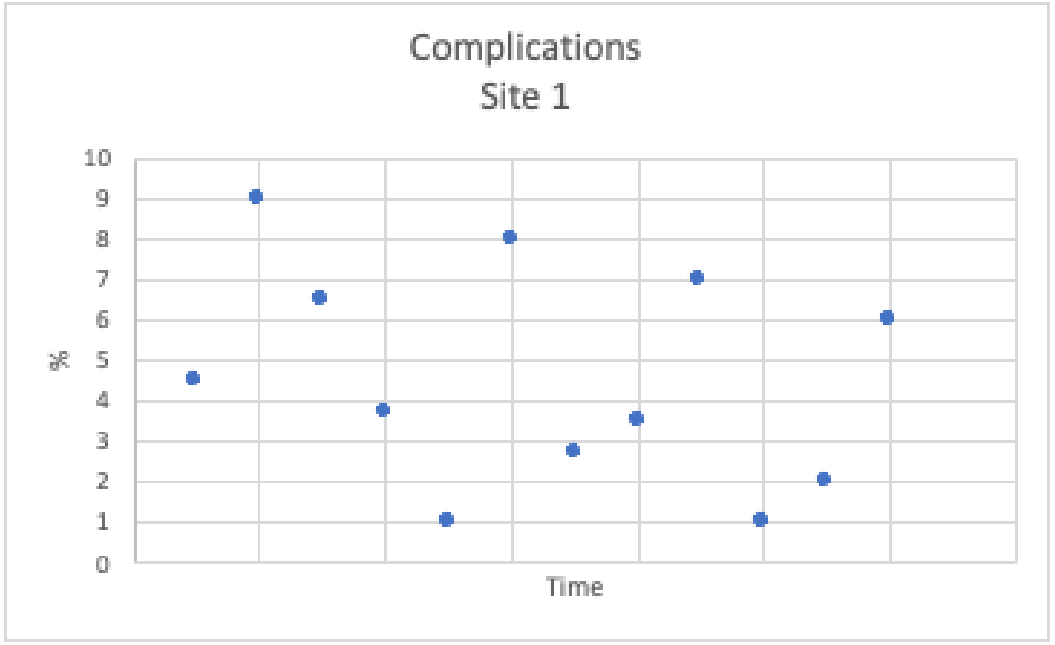
We are interested in *trends*.
The z-score tests whether a trend exists.

What does my trend look like?

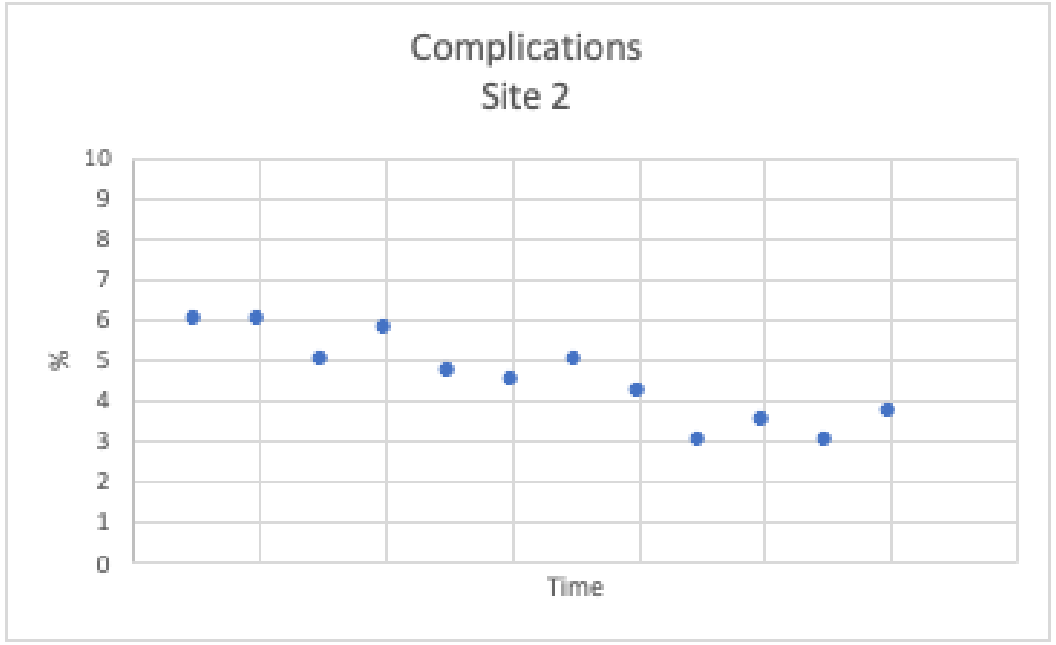
- Am I trending upwards, downwards, or flat?
- How do we know?
- Let’s try just looking at the data first.

Who is improving more?

Site #1



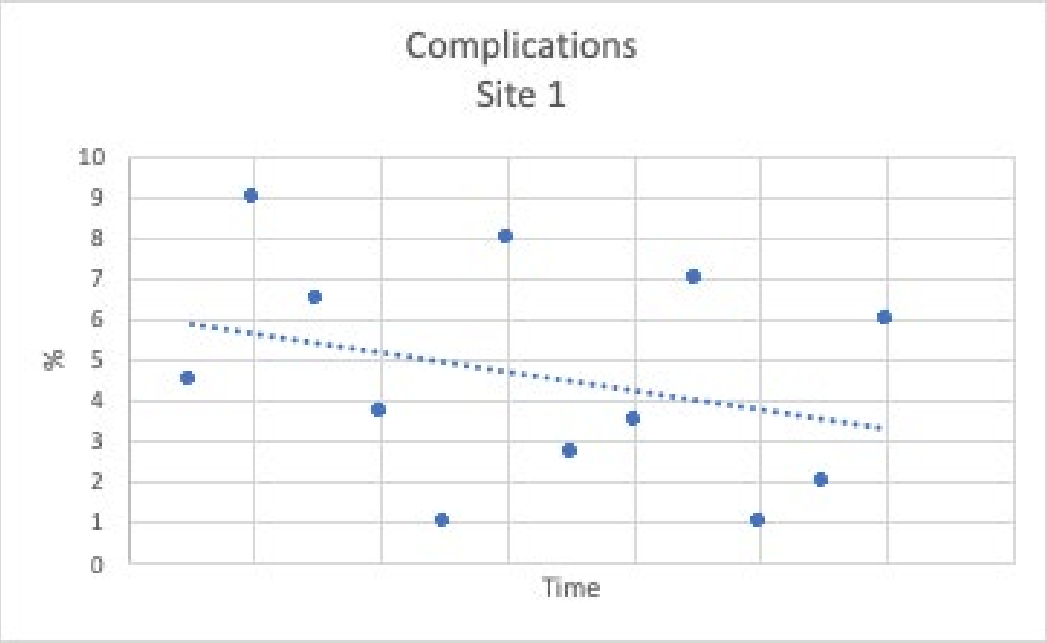
Site #2



Same slope, different variability

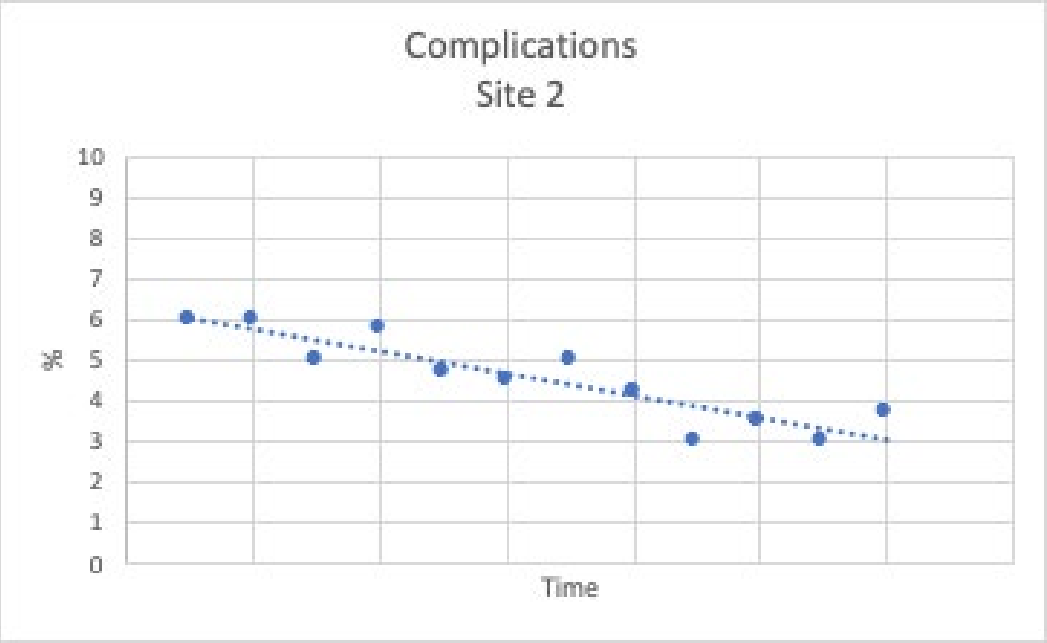
Site #1

High variability



Site #2

Low variability



Testing for trend

- Visual inspection only gets us so far.
- We can *test* whether our trend is actually going downwards (or upwards).
- We need:
  - Slope of the trend line
  - Measure of the variability around that trend line

Calculation

- Test for whether trend *over time* is flat.
- (Whether the slope of the line for time = 0).

Z = Slope / Variability around slope

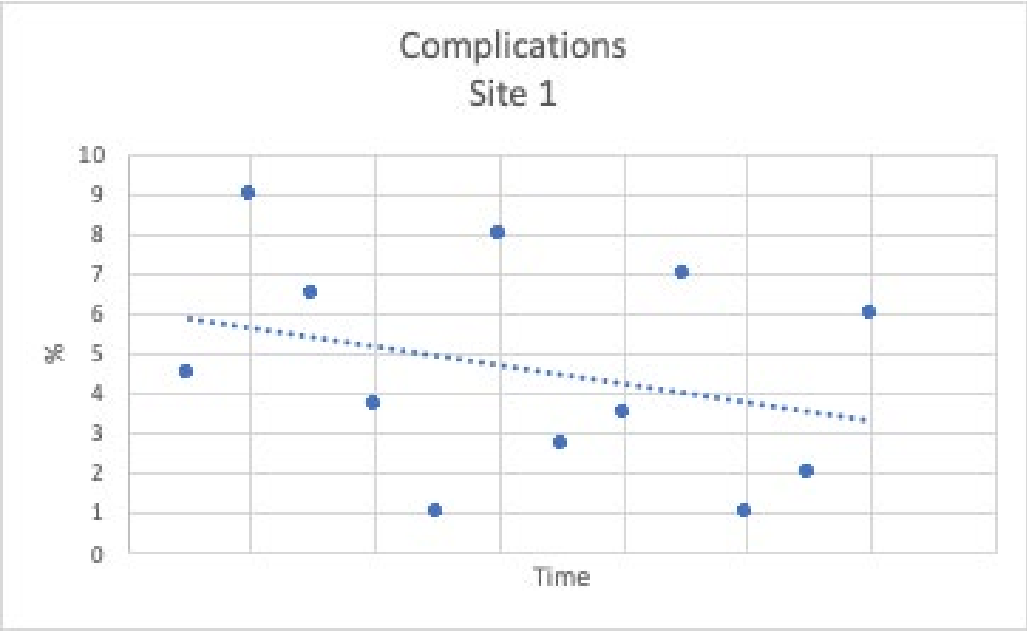
$Z = \beta_{time} \ / \ se(\beta_{time})$

*Note: Slope will be negative for downwards trends

*Note: Z will be bigger (farther from 0) if variability is small

Site #1

High variability



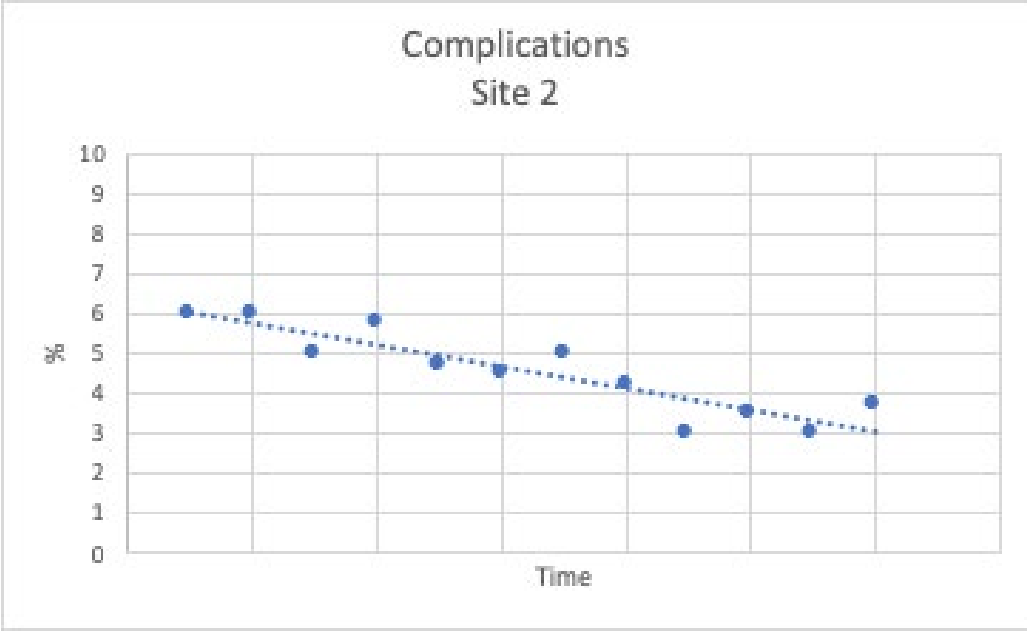
Z = slope / standard error of slope

Z= -0.25 / 0.3

Z = -0.83

Site #2

Low variability

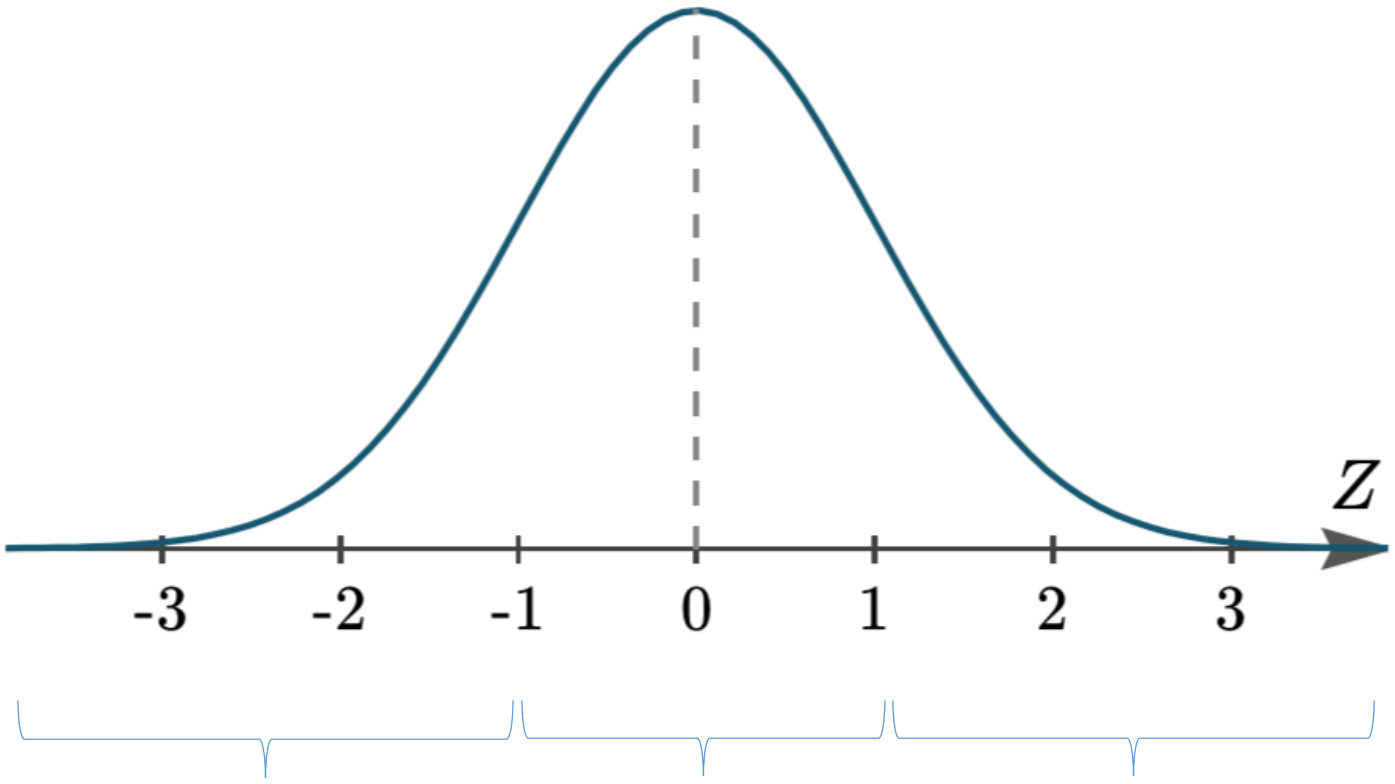


Z = slope / standard error of slope

Z= -0.25 / 0.05

Z = -5.0

Z-score follows a normal distribution



Me vs Me

- Calculations use ***your hospital's data only***
- Adjusts for ***your patients'*** injury severity, ED vitals, comorbidity burden, demographics

Top 5 Most Difficult Complications

Melissa Cunningham
11:00

Uncomplicating Complications

Melissa Cunningham, MSN, RN, CEN, TCRN
Lauren Paselk, RN, BSN

MTQIP Clinical Reviewers
Ascension St. John Hospital

Ascension

To be honest….

We are not experts, we just play them on TV

Please always refer to the dictionaries for the definitions and inclusion criteria.

Hospital Events

- Where do I start?
- How do I know?
- Where do I look?
- Tips and Tricks
- Just because someone says it is, it doesn't mean it is

Hospital Events

Revision 2/12/19

HOSPITAL EVENTS

GENERAL

Any medical complication that occurred during the patient's stay at your hospital.

- The patient's stay begins on arrival to the emergency department.
- Do not include reported complications that are present prior to arrival. For example, a patient arrives with a urinary tract infection as indicated by symptoms present in documentation obtained on arrival and a culture obtained on arrival.
- Do not report contaminants that did not require treatment for infectious events. For example, a patient has a BAL or blood culture that demonstrates contaminant and therapy is not provided. If a provider documents a contaminant, but treatment is provided the event is reported.
- The null value "Not Applicable" should be used for patients with no complications.
- Check all that apply.

COMPLICATION CODE

Enter all corresponding codes provided below for complications. Retired NTDS variable codes are indicated below the variable for variables that the collaborative continues to report.

Def. Source: MTQIP

Hospital Events

Revision 2/12/19

HOSPITAL EVENTS

GENERAL

Any medical complication that occurred during the patient's stay at your hospital.

- The patient's stay begins on arrival to the emergency department.
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- Check all that apply.

COMPLICATION CODE

Enter all corresponding codes provided below for complications. Retired NTDS variable codes are indicated below the variable for variables that the collaborative continues to report.

Def. Source: MTQIP

Top Five Errors in Validation Visits

M·TQIP

- Pneumonia 6.1%
- Unplanned Intubation 4.9%
- Pressure Ulcer 3.3%
- Unplanned admit to the ICU 1.9%
- Catheter-associated Urinary Tract Infection (CAUTI) 1.6%
  - CAUTI is overcaptured significantly more than undercaptured

Pneumonia

PNEUMONIA
Patients with evidence of pneumonia that develops during hospitalization. Patients with pneumonia must meet at least one of the following three criteria:

Criterion 1:
Rales or dullness to percussion on physical examination of chest **AND** any of the following:

a. New onset of purulent sputum or change in character of sputum
b. Organism isolated from blood culture
c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy

OR

Criterion 2:
Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitation, or pleural effusion **AND** any of the following:

a. New onset of purulent sputum or change in character of sputum
b. Organism isolated from blood culture
c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy
d. Isolation of virus or detection of viral antigen in respiratory secretions
e. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgG) for pathogen
f. Histopathologic evidence of pneumonia

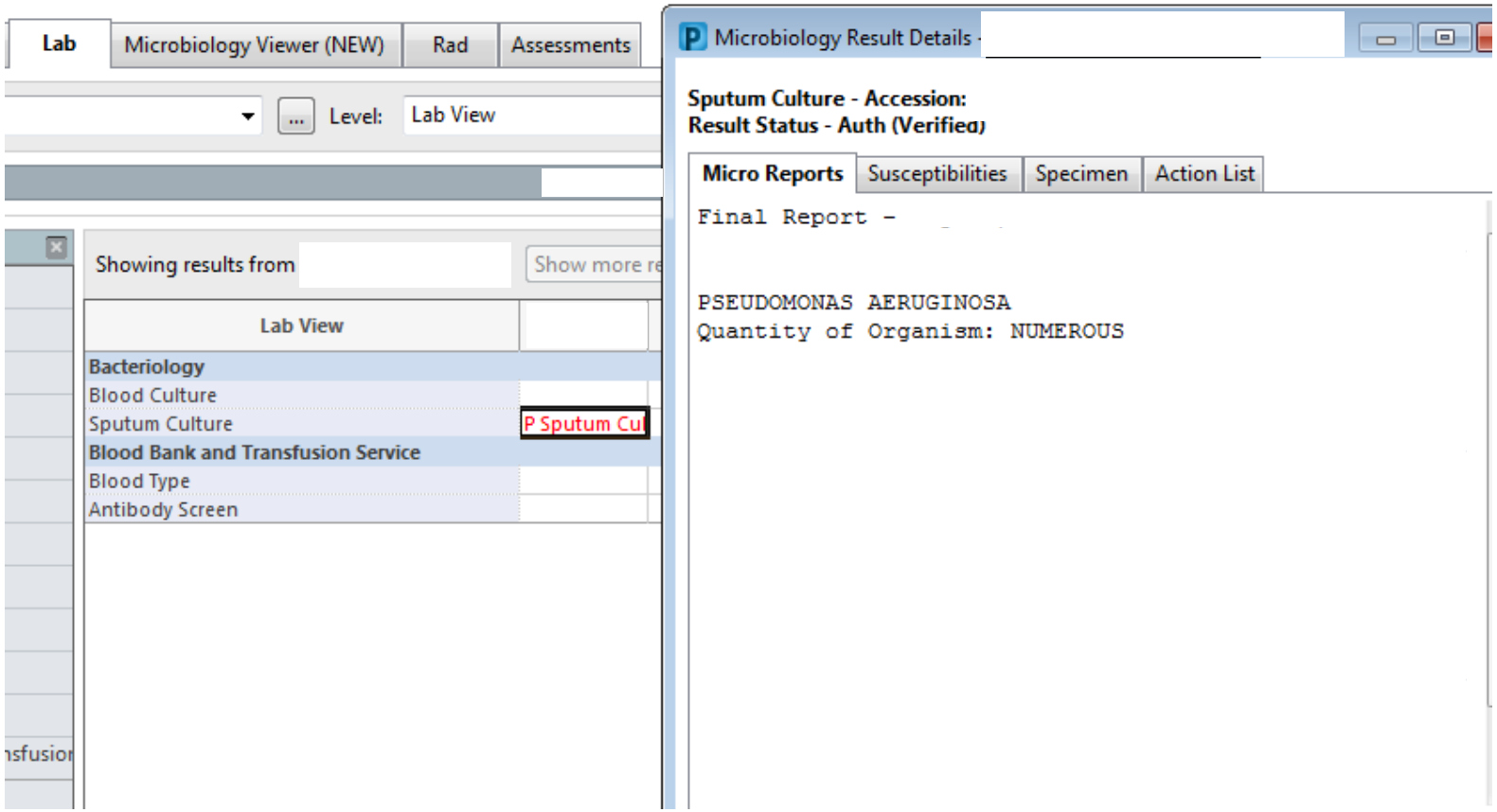
Criterion 3:
Patient meets criteria for Ventilator-Associated Pneumonia (report under both VAP and Pneumonia).

Def. Source: NSQIP, NTDS

Pneumonia (NTDS 20)

Pneumonia

- Is there a positive culture?
  - Blood or sputum (transtracheal aspirate)



Pneumonia

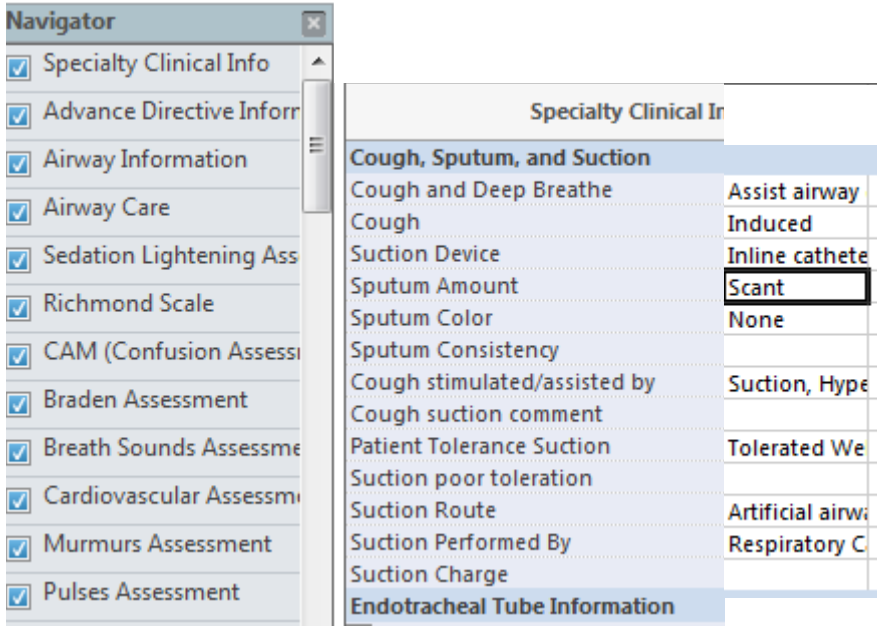
- But wait……

• Do not report contaminants that did not require treatment for infectious events. For example, a patient has a BAL or blood culture that demonstrates contaminant and therapy is not provided. If a provider documents a contaminant, but treatment is provided the event is reported.

- You must look deeper to investigate if it is a contaminant
  - Ask those questions
  - Look at the MAR to see if therapy is provided (Abx days)

Pneumonia

- Are there changes in sputum?
  - New onset purulent sputum
  - Change in character
    - Infectious Disease Consult/Progress Notes



Pneumonia

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OR

Criterion 2:
Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitation, or pleural effusion **AND** any of the following:

a. New onset of purulent sputum or change in character of sputum
b. Organism isolated from blood culture
c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy
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Criterion 3:
Patient meets criteria for Ventilator-Associated Pneumonia (report under both VAP and Pneumonia).

Def. Source: NSQIP, NTDS

Pneumonia (NTDS 20)

Pneumonia

Criterion 1:

Rales or dullness to … examination of chest … ng:

a. New … change in character of sputum
b. Org… d …
c. Iso… nogen fr… …ined by transtracheal aspirate, …ushing, or biopsy

- Progr… …ult Notes
- Asses… …wsheets
  - R… …Assessment

Pulmonar… …Adult

Breath Sounds

- ○ Clear, Well Aerated (0)
- ◉ Decreased at Bases (1)
- ○ Rales and/or Ronchi Slight Whee…
- ○ Moderate Wheezing or Generally Decrease…
- ○ Tight Wheezing or Severely Decreased (4)

Pneumonia

Criterion 2:
Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitation, or pleural effusion **AND** any of the following:

```
Stable to slightly more pronounced basilar opacities in the medial aspect of
the right lower lobe and left retrocardiac region which represent atelectasis
and or infiltrates.
```

```
IMPRESSION:
1. Increasing left pleural effusion and associated airspace disease at the
left lung base.
```

```
The right IJ central venous catheter is grossly stable in position. The
cardiac silhouette is unchanged in size. There is redemonstration of layering
bilateral pleural effusions, right greater than left with associated
atelectasis or pneumonia. There is persistent pulmonary vascular congestion
with superimposed interstitial edema. There is no pneumothorax.
```

Pneumonia

Criterion 3:
Patient meets criteria for Ventilator-Associated Pneumonia (report under both VAP and Pneumonia).

Def. Source: NSQIP, NTDS

Pneumonia (NTDS 20)

- If the patient meets for VAP collect for pneumonia too!!!!!

- **Patients may meet for pneumonia but not VAP**
  - Just because they are intubated does not = VAP

If they have a VAP they have pneumonia

POP QUIZ

- A patient with multiple injuries gets intubated in the ICU for increased agitation/impending DTs. The patient goes to the OR the same day for operative repair of a fracture. He requires re-intubation post operatively within 12 hours of the OR for respiratory distress. Would this be collected as an unplanned intubation?

YES!

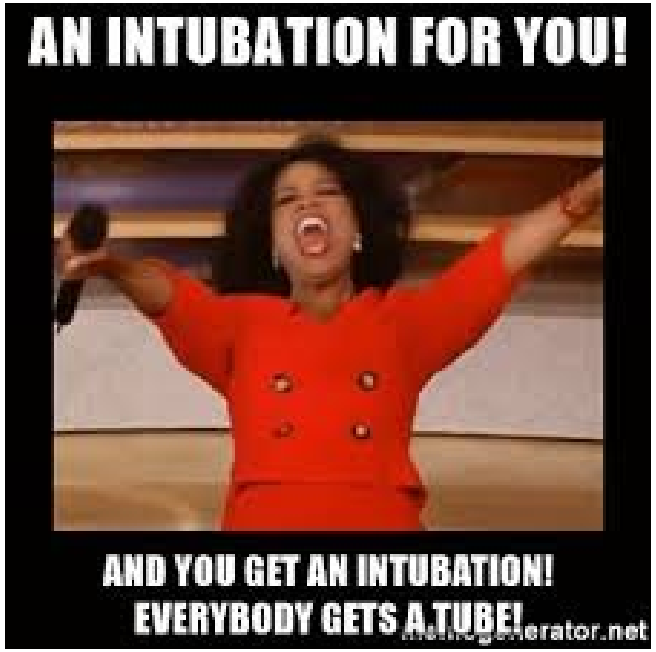
Unplanned intubation

UNPLANNED INTUBATION
Patient requires placement of an endotracheal tube and mechanical or assisted ventilation manifested by severe respiratory distress, hypoxia, hypercarbia, or respiratory acidosis. In patients who were intubated in the field, emergency department, or those intubated for surgery, unplanned intubation occurs if they require reintubation >24 hours after extubation.

Def. Source: CDC, NTDS

Unplanned Intubation (NTDS 25)

- Are they intubated?
- Why?
- Where?
- When?
  - Progress Notes
  - Respiratory Notes
  - Vital Signs
  - CXRs
- CPR



Pop Quiz

- A patient is intubated by EMS and is extubated in the SICU approximately 6 hours later. She quickly becomes hypoxic and is in respiratory distress. She is re-intubated after failing a bi-pap trial approximately 12 hours after arrival. Would this be collected as unplanned intubation?

Pop Quiz

- A trauma patient is intubated in the ED. He is taken to the SICU with multisystem traumatic injuries. He is extubated the next day. 3 days after arrival, his pulmonary contusions blossom and he is intubated for respiratory distress. Would this be collected as unplanned intubation?

YES!

Pressure Ulcer

PRESSURE ULCER
A localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated. Equivalent to NPUAP Stages II-IV, Unstageable/Unclassified, and Suspected Deep Tissue Injury. Excludes intact skin with non-blanching redness (NPUAP Stage I), which is considered reversible tissue injury.

Def. Source: NTDS, NPUAP

- High risk?
  - Immobile
  - Altered
  - Pre-existing conditions
  - Braden Scale
- Use your resources!

NATIONAL PRESSURE ULCER ADVISORY PANEL

Pressure Ulcers

- Wound Care RN
- Skin assessments
- Consult notes
- Progress Notes
- Quality Department
- Pressure Ulcer Champion/Workgroup
- Unit leadership

Coccyx intact, purplish blistered area measures 1x1cm. Per patient, "It hurts right there."
A- Coccyx Deep Tissue Injury
P- Suggest local care with Allevyn foam to protect.

Right ischium with a stage 2 pressure injury that measures 1cmx0.5cm, wound base is shallow and pink with a scant amount of serosang drainage. Periwound skin with a pink blanchable coloration, no drainage noted from wound base during assessment.
Recommend to cover with an allevyn bordered foam dressing to protect and promote healing.

Unplanned Admission to ICU

UNPLANNED ADMISSION TO ICU
INCLUDE:
• Patients admitted to the ICU after initial transfer to the floor.
• Patients with an unplanned return to the ICU after initial ICU discharge.

EXCLUDE:
• Patients in which ICU care was required for postoperative care of a planned surgical procedure.

Def. Source: NTDS

Unplanned Admission to ICU (NTDS 31)

- Registration software
  - Program that tracks patient location
- Consult notes
- Progress notes
- Surgical Report

Unplanned admission to the ICU???

Eff Dte/Tm	Loc	Room-Bd	Ac	Pt	Srv
		N730-01	Z	IA	MED
		N730-01	Z	IA	MED
		SIC6-01	C	IA	MED
		SIC6-01	C	IA	MED
		N718-01	Z	IA	MED
		N718-01	OC	E	EMR
			9	E	EMR
			9	E	EMR
			9	E	EMR
			9	E	ERQ

Unplanned Admission to the ICU ?

Eff Dte/Tm	Loc	Room-Bd	Ac	Pt	Srv
		SIC8-01	C	IA	MED
		SIC8-01	C	IA	MED
		235 -01	S	IA	MED
		SI13-01	C	IA	MED
		ECRM-03	W	IA	MED
			9	E	EMR
			9	E	ERQ
			9	E	ERQ

Catheter-associated urinary tract infection

CAUTI Criterion SUTI 1a:

Patient must meet 1, 2, and 3 below:

1. Patient has an indwelling urinary catheter in place for the entire day on the date of event and such catheter had been in place for >2 calendar days, on that date (day of device placement = Day 1) AND was either:
   - Present for any portion of the calendar day on the date of event, OR
   - Removed the day before the date of event
2. Patient has at least one of the following signs or symptoms:
   - Fever (>38C)
   - Suprapubic tenderness with no other recognized cause
   - Costovertebral angle pain or tenderness with no other recognized cause
3. Patient has a urine culture with no more than two species of organisms, at least one of which is bacteria $>10^5$ CFU/ml.

Def. Source: CDC, NTDS

Catheter-Associated Urinary Tract Infection (NTDS 33)

Catheter-associated urinary tract infection

3. Patient has a urine culture with no more than two species of organisms, at least one of which is bacteria >10^5 CFU/ml.

NO CULTURE=NO CAUTI!!!!!

Urine Culture - Accession
Result Status - Auth (Verified)

Micro Reports | Susceptibilities | Specimen | Comments | Actio

```
Final Report -
CORYNEBACTERIUM AMYCOLATUM
Colony Count: >100,000 COLONIES/ML
```

Urine Culture - Accessi
Result Status - Auth (Verified)

Micro Reports | Susceptibilities | Specimen | Action List

```
Final Report -

CITROBACTER KOSERI
Colony Count: 1000-10,000 COLONIES/ML
```

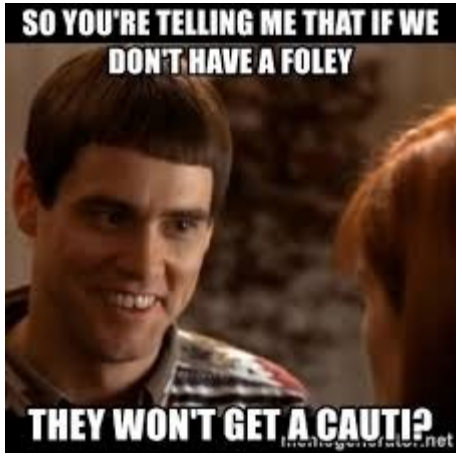
Catheter-associated urinary tract infection

- If they have a positive culture that meets the definition….

2. Patient has at least one of the following signs or symptoms:
   - Fever (>38C)
   - Suprapubic tenderness with no other recognized cause
   - Costovertebral angle pain or tenderness with no other recognized cause

Catheter-associated urinary tract infection

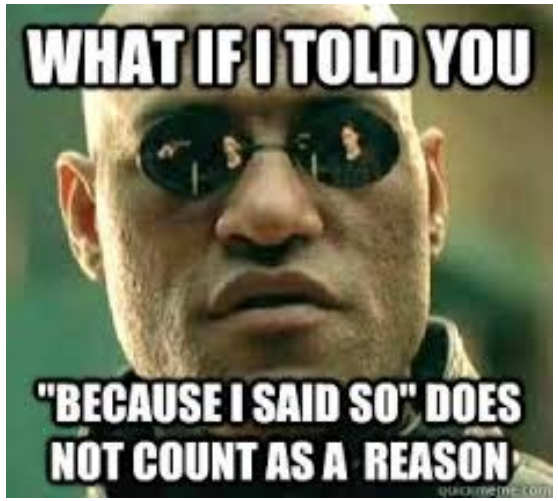
- Do they have an indwelling catheter?
  - When was it put in
    - Nursing assessment
    - I&O
    - Progress notes



- Day of placement = Day 1
  - Has to be in place >2 days
  - Or removed the day before the date of the event (positive culture)

Remember….

- Follow the NTDB and MTQIP data dictionaries
- Ask questions
- Different collection criteria for different organizations
  - Quality, ICU, OR, ID, etc. may have different collection criteria
    - Not always apples to apples (CAUTI, VAP, Pneumonia)
- Look at the whole picture
- Just because someone says it is, doesn't mean it is



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- https://www.cdc.gov/hai/vap/vap.html
- https://www.cdc.gov/infectioncontrol/guidelines/cauti/

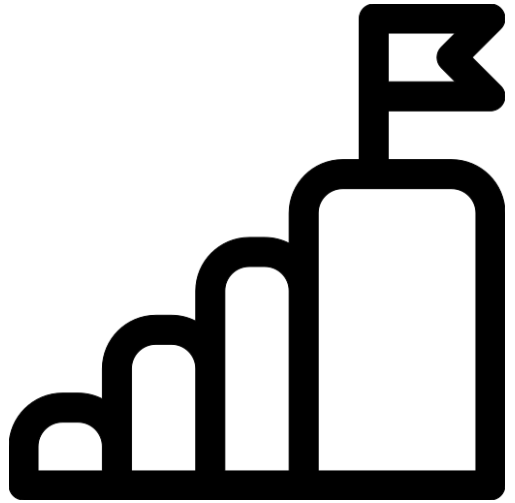
Questions???

Withdrawal of Life Supporting Treatment Case Studies

Jill Jakubus
11:30

Objectives

- Review the definition
- Clues
- Example of the withdrawal process
- Cases



Definition

WITHDRAWAL OF LIFE SUPPORTING TREATMENT

Treatment was withdrawn based on a decision to either remove or withhold further life sustaining intervention. This decision must be documented in the medical record and is often, but not always associated with a discussion with the legal next of kin.

- DNR not a requirement.
- A note to limit escalation of treatment qualifies as a withdrawal of life supporting treatment. These interventions are limited to: ventilator support
  (with or without extubation), dialysis or other forms of renal support, institution of medications to support blood pressure or cardiac function, or a specific surgical, interventional or radiological procedure (e.g. decompressive craniectomy, operation for hemorrhage control, angiography). Note that this definition provides equal weight to the withdrawal of an intervention already in place (e.g. extubation) and a decision not to proceed with a life-saving intervention (e.g. intubation).
- Excludes the discontinuation of CPR and typically involves prior planning.
- DNR order is not the same as withdrawal of care.
- The field value 'No' should be reported for patients whose time of death, according to your hospital's definition, was prio to the removal of any interventions or escalation of care.
- Includes brain dead patients where care is withdrawn in coordination with Gift of Life
- Includes patients changed to comfort care status, which may be documented in notes or orders

Clues

- **Death – All, brain, extubation > death**
- **Comfort care status**
- **Gift of Life**
- **Palliative care consult**

What clues does the literature offer?

Am J Hosp Palliat Care. 2018 Aug;35(8):1063-1068. doi: 10.1177/1049909117752670. Epub 2018 Jan 24.

End-of-Life Decision-Making for Patients With Geriatric Trauma Cared for in a Trauma Intensive Care Unit.

Wooster M[1], Stassi A[2], Hill J[3], Kurtz J[4], Bonta M[5], Spalding MC[3,4].

Author information

Abstract

BACKGROUND: The geriatric trauma population is growing and fraught with poor physiological response to injury and high mortality rates. Our primary hypothesis analyzed how prehospital and in-hospital characteristics affect decision-making regarding continued life support (CLS) versus withdrawal of care (WOC). Our secondary hypothesis analyzed adherence to end-of-life decisions regarding code status, living wills, and advanced directives.

MATERIALS AND METHODS: We performed a retrospective review of patients with geriatric trauma at a level I and level II trauma center from January 1, 2007, to December 31, 2014. Two hundred seventy-four patients met inclusion criteria with 144 patients undergoing CLS and 130 WOC.

RESULTS: A total of 13 269 patients with geriatric trauma were analyzed. Insurance type and injury severity score (ISS) were found to be significant predictors of WOC (P = .013/.045). Withdrawal of care patients had shorter time to palliative consultation and those with geriatrics consultation were 16.1 times more likely to undergo CLS (P = .026). Twenty-seven (33%) patients who underwent CLS and 31 (24%) patients who underwent WOC had a living will, advanced directive, or DNR order (P = .93).

CONCLUSIONS: Of the many hypothesized predictors of WOC, ISS was the only tangible independent predictor of WOC. We observed an apparent disconnect between the patient's wishes via living wills or advanced directives "in a terminal condition" and fulfillment during EOL decision-making that speaks to the complex nature of EOL decisions and further supports the need for a multidisciplinary approach.

KEYWORDS: advanced directives; critical care; end of life; geriatric; palliative care; trauma

PMID: 29366336 DOI: 10.1177/1049909117752670

- **High ISS is a predictor of withdrawal of care**
- **DNR options in Ohio: 1) DNR: comfort care arrest 2) DNR: comfort care**
- **Palliative care consult were 12.4 times more likely to undergo withdrawal of care**
- **Geriatric consult 16.1 times more likely to undergo continued care**

J Trauma Acute Care Surg. 2019 May;86(5):864-870. doi: 10.1097/TA.0000000000002205.

The why and how our trauma patients die: A prospective Multicenter Western Trauma Association study.

Callcut RA[1], Kornblith LZ, Conroy AS, Robles AJ, Meizoso JP, Namias N, Meyer DE, Haymaker A, Truitt MS, Agrawal V, Haan JM, Lightwine KL, Porter JM, San Roman JL, Biffl WL, Hayashi MS, Sise MJ, Badiee J, Recinos G, Inaba K, Schroeppel TJ, Callaghan E, Dunn JA, Godin S, McIntyre RC Jr, Peltz ED, O'Neill PJ, Diven CF, Scifres AM, Switzer EE, West MA, Storrs S, Cullinane DC, Cordova JF, Moore EE, Moore HB, Privette AR, Eriksson EA, Cohen MJ; Western Trauma Association Multicenter Study Group.

⊕ Author information

Abstract

BACKGROUND: Historically, hemorrhage has been attributed as the leading cause (40%) of early death. However, a rigorous, real-time classification of the cause of death (COD) has not been performed. This study sought to prospectively adjudicate and classify COD to determine the epidemiology of trauma mortality.

METHODS: Eighteen trauma centers prospectively enrolled all adult trauma patients at the time of death during December 2015 to August 2017. Immediately following death, attending providers adjudicated the primary and contributing secondary COD using standardized definitions. Data were confirmed by autopsies, if performed.

RESULTS: One thousand five hundred thirty-six patients were enrolled with a median age of 55 years (interquartile range, 32-75 years), 74.5% were male. Penetrating mechanism (n = 412) patients were younger (32 vs. 64, $p < 0.0001$) and more likely to be male (86.7% vs. 69.9%, $p < 0.0001$). Falls were the most common mechanism of injury (26.6%), with gunshot wounds second (24.3%). The most common overall primary COD was traumatic brain injury (TBI) (45%), followed by exsanguination (23%). Traumatic brain injury was nonsurvivable in 82.2% of cases. Blunt patients were more likely to have TBI (47.8% vs. 37.4%, $p < 0.0001$) and penetrating patients exsanguination (51.7% vs. 12.5%, $p < 0.0001$) as the primary COD. Exsanguination was the predominant prehospital (44.7%) and early COD (39.1%) with TBI as the most common later. Penetrating mechanism patients died earlier with 80.1% on day 0 (vs. 38.5%, $p < 0.0001$). Most deaths were deemed disease-related (69.3%), rather than by limitation of further aggressive care (30.7%). Hemorrhage was a contributing cause to 38.8% of deaths that occurred due to withdrawal of care.

CONCLUSION: Exsanguination remains the predominant early primary COD with TBI accounting for most deaths at later time points. Timing and primary COD vary significantly by mechanism. Contemporaneous adjudication of COD is essential to elucidate the true understanding of patient outcome, center performance, and future research.

LEVEL OF EVIDENCE: Epidemiologic, level II.

- **Hemorrhage was a contributing cause to 38.8% of deaths that occurred due to withdrawal of care**

How does DNR differ from withdrawal of life supporting treatment?

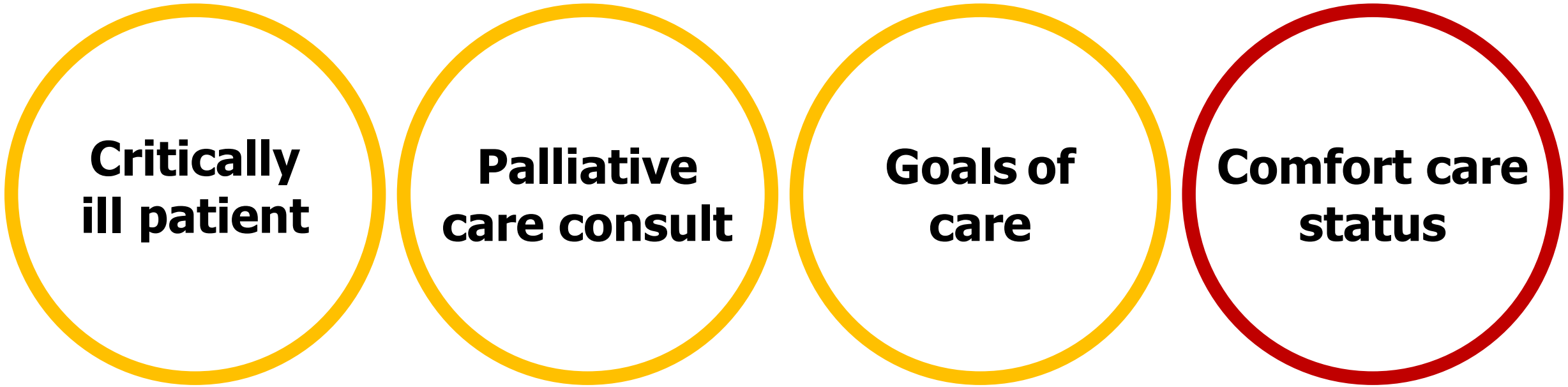
DNR

- Code status
- Provides instruction on how to react if the patient stops breathing or heart stops beating
- Communicated as an order
- Often present regardless of disease acuity

Withdrawal of Life Supporting Treatment

- Care status
- Reflects actual care or lack of care being provided to the patient
- Communicated in orders, notes, or treatment
- Often present when care is futile

Example Process



Comfort Care Status

Comfort Management

- Anxiety
- Bowel obstruction
- Gastroparesis
- Increased ICP
- Pain

Pre-Medicated

- Anti-anxiety
- Antisialogogue
- Opioids

Withdrawal

- Pressors
- Extubation
- Chaplain

Insights from personal or professional experience?

Case 1

Elderly female status post fall from bed. Presented with low GCS. Found to have sustained a SAH and myocardial infarction. On HD 1, patient arrests without ROSC. Patient expires.

Withdrawal of life supporting treatment? Y/N

Case 2

Elderly male status post hanging. Required pre-hospital CPR by EMS with ROSC. Found to have sustained anoxic brain injury. On HD 3, patient's code status is changed to DNR and part 1 of brain death exam completed. On HD 4, patient arrests no CPR is performed. Patient expires. Part 2 of brain death exam is unable to be completed.

Withdrawal of life supporting treatment? Y/N

Case 3

Elderly female status post fall. Found to have sustained PTX, rib fractures, T-spine fracture. On HD 3, patient develops altered mental status, ileus, and worsened respiratory status. Code status changed to DNR. On HD 6, patient arrests no CPR is performed. Patient expires.

Withdrawal of life supporting treatment? Y/N

Case 4

Elderly male status post fall. Found to have sustained IVH, PTX, rib fractures, scapula fracture. On HD 2, patient develops delirium. Code status changed to DNR. Discussion with family held. Decision was made not to pursue aggressive care and patient was made comfortable. Pressors are stopped. On HD 3, patient arrests no CPR is performed. Patient expires.

Withdrawal of life supporting treatment? Y/N

Case 5

Elderly male status post fall. Found to have sustained PTX, rib fractures. Patient develops worsening PTX. Chest tube placed and later removed. Patient develops altered mental status. Stat head CT is done and transferred to ICU. Patient improves and is transferred to the floor. All recommended care provided. For disposition, family elects to pursue home hospice.

Withdrawal of life supporting treatment? Y/N

Case 6

Elderly male status post fall. Found to have sustained c-spine fractures and forehead hematoma. EP turned ICD off for MRI. Injury managed non-operatively. Aspirating due to collar. NPO/TF started. Worsened delirium. Code status changed to DNR. EP called to turn ICD off. EP on evaluation notes already off. Patient arrests. No CPR is performed. Patient expires.

Withdrawal of life supporting treatment? Y/N

Case 7

Elderly female status post choking on food and fall. Pre-hospital arrest requiring CPR. Found to have sustained SAH, SDH, and skull fractures. Artic sun cooling performed. HD 2 exam reveals blown pupil. Progress note indicates extended family elected to withdraw from ventilator following decreased neurologic status. ETT removed following change in medications to comply with end of life goals. Patient arrests and expires.

Withdrawal of life supporting treatment? Y/N

Case 8

Elderly female status post fall. Found to have sustained SDH, facial fractures, and rib fractures. ICP monitor placed. Injury worsens. Neurosurgery discusses with family that this will not be a recoverable injury. Family plans to move to comfort measures in the next 24 hours. The next day extubate order placed. ETT removed. Patient arrests and expires.

Withdrawal of life supporting treatment? Y/N

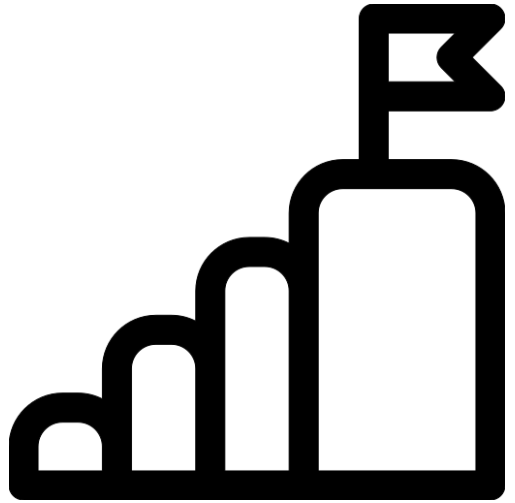
Case 9

Elderly female status post motorcycle crash. Found to ICH, hemopneumothorax, liver laceration. Craniectomy performed and ventriculostomy placed. Develops CVA secondary to progression TBI. Findings discussed with family. Family decided to change her to comfort care. Palliative extubation performed. Patient arrests and expires.

Withdrawal of life supporting treatment? Y/N

Summary

- **Withdrawal of life supporting treatment is a decision to either remove or not escalate care of a life supporting treatment**
- **Clues can include: comfort care, death, or palliative care involvement**



Lunch

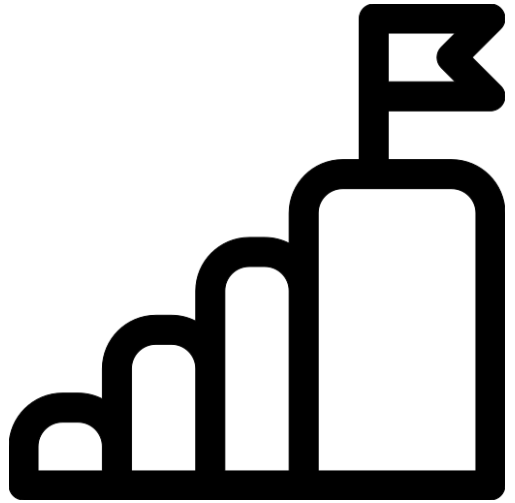
Jennifer O'Gorman
12:00

Challenging Questions 2.0

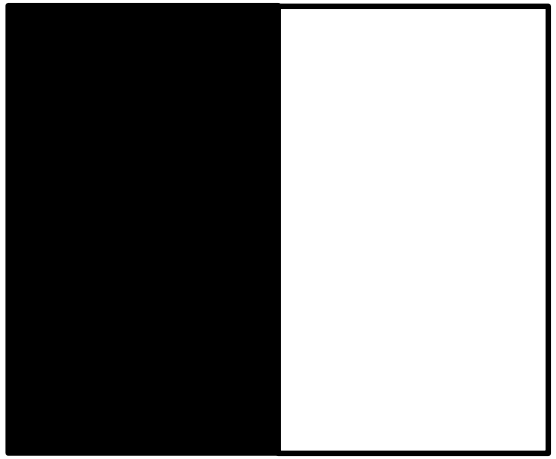
Jill Jakubus
12:45

Instructions

- Show questions submitted to MTQIP
- Definition
- Your response
- Provided response
- Commentary



Challenges



Question 1

For the variable Hospital Discharge Disposition, if a patient lives in a group home prior to injury and then is discharged back to that same address group home with home hospice what is the discharge disposition?

- **Home**
- **Hospice care**
- **Home under care of organized home health service**

Definition

HOSPITAL DISCHARGE DISPOSITION
The disposition of the patient when discharged from the hospital.

- Field value = 6, "home" refers to the patient's current place of residence (e.g., prison, Child Protective Services etc.)
- Field values based upon UB-04 disposition coding.
- Disposition to any other non-medical facility should be coded as 6.
- Disposition to any other medical facility should be coded as 14.
- The null value "Not Applicable" is reported if ED Discharge Disposition = 5 (Deceased/expired).
- The null value "Not Applicable" is reported if ED Discharge Disposition = 4,6,9,10, or 11.
- Hospital Discharge Dispositions which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Hospital Discharge Dispositions.

(1) Discharged/Transferred to a short-term general hospital for inpatient care
(2) Discharged/Transferred to an Intermediate Care Facility (ICF)
(3) Discharged/Transferred to home under care of organized home health service
(4) Left against medical advice or discontinued care
(5) Deceased/Expired
(6) Discharged home with no home services (routine discharge)
(7) Discharged/Transferred to Skilled Nursing Facility (SNF)
(8) Discharged/Transferred to hospice care (home hospice or hospice facility)
(10) Discharged/Transferred to court/law enforcement
(11) Discharged/Transferred to inpatient rehab or designated unit (acute rehabilitation or subacute rehabilitation)
(12) Discharged/Transferred to Long Term Care Hospital (LTCH, LTAC or Select Specialty)
(13) Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital
(14) Discharged/Transferred to another type of institution not defined elsewhere

Def. Source: NTDS

TQIP Response

To answer your question, if your patient came from a "group home" and was "discharged back to that same address group home with home hospice" you should report their Hospital Discharge Disposition to TQIP as Field Value "8. Discharged/Transferred to hospice care." The reason why is this is no longer a routine discharge as the patient is now returning to their previous place of residence but under the care of hospice.

Question 2

For GCS and GCS-40 Eye, if the only documentation available for capture is the verbiage “eyes open spontaneously” from the physical examination does this get entered under GCS Eye or GCS-40 Eye?

The definition indicates only one of these variables should be populated.

Definition

INITIAL FIELD GCS 40 - EYE

First recorded Glasgow Coma Score 40 (Eye) measured at the scene of injury.

- The null value "Not Known/Not Recorded" is reported if the patient is transferred to your facility with no EMS Run Report from the scene of injury.
- If a patient does not have a numeric GCS score recorded, but written documentation closely (or directly) relates to verbiage describing a specific level of functioning within the GCS 40 scale, the appropriate numeric score may be listed. E.g. the chart indicates: "patient's eyes open spontaneously," an Eye GCS 40 of 4 may be recorded, IF there is no other contradicting documentation.
- The null value "Not Applicable" is reported for patients who arrive by "4. Private/Public Vehicle/Walk-in".
- Report Field Value "0. Not Testable" if unable to assess (e.g. swelling to eye(s)).
- The null value "Not Known/Not Recorded" is reported if the patient's first recorded initial field GCS 40 – Eye was NOT measured at the scene of injury.
- The null value "Not Known/Not Recorded" is reported if Initial Field GCS – Eye is reported.

(1) None
(2) To Pressure
(3) To Sound
(4) Spontaneous
(0) Not Testable

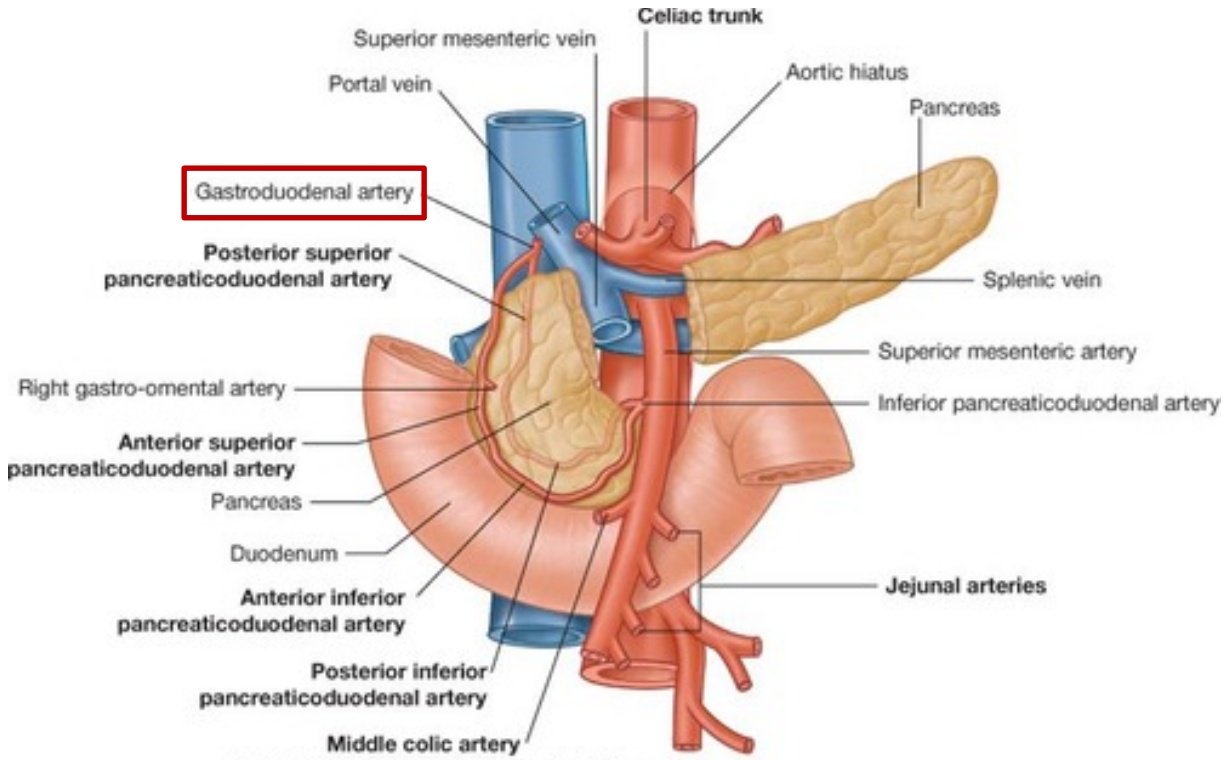
TQIP Response

If providers were using the "old" GCS to assess patients, for data consistency and quality purposes, report the values for the Initial ED/Hospital GCS - Eye.

If the providers were using the GCS 40 criteria to assess patients, then report the appropriate values for the Initial ED/Hospital GCS 40 - Eye.

Question 3

For Embolization Site, what pick list option should be chosen for a gastroduodenal artery embolization?



Definition

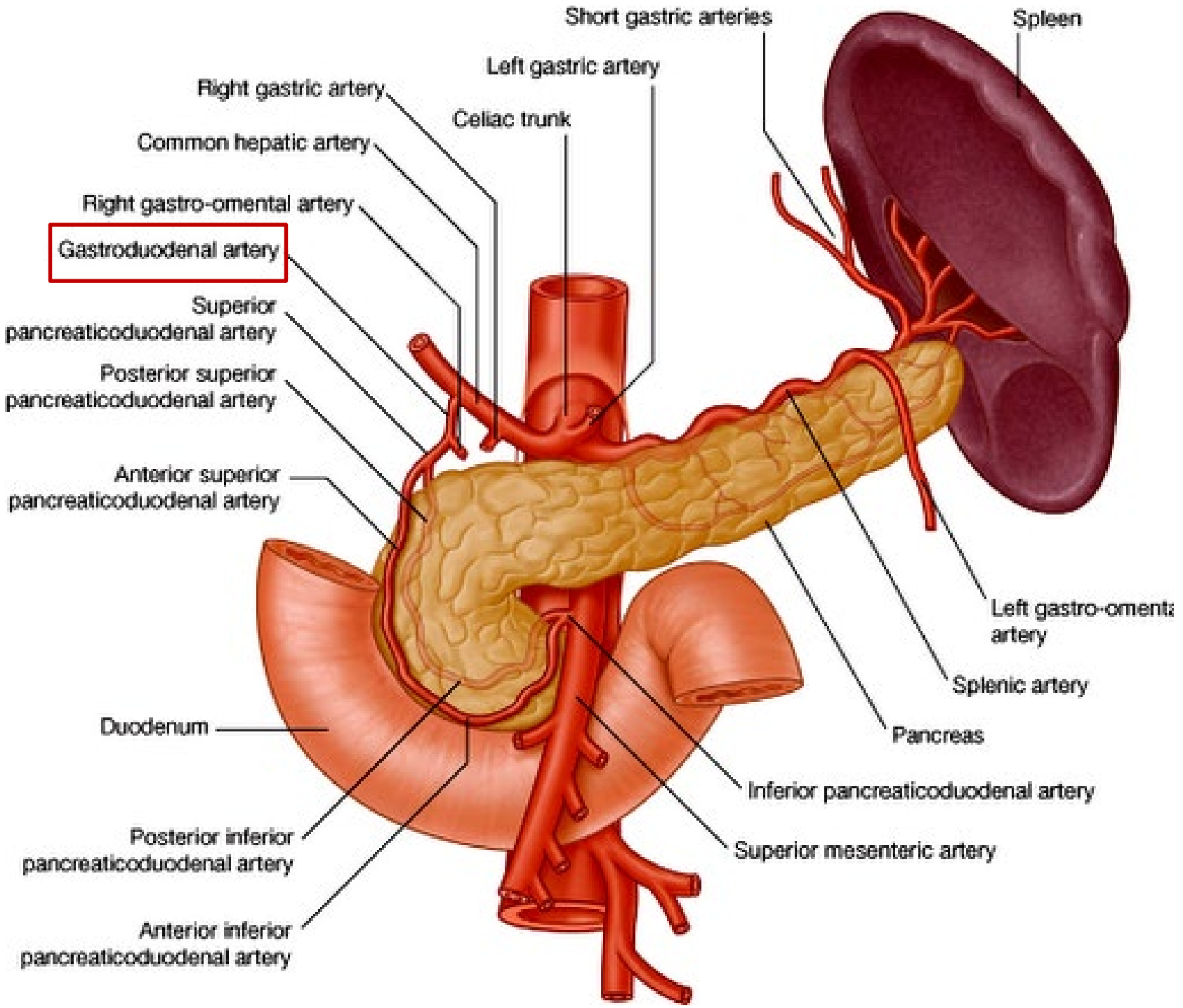
EMBOLIZATION SITE

Organ / site of embolization for hemorrhage control.

- The null value "Not Applicable" is reported if the data field ANGIOGRAPHY = "1 None" or "2 Angiogram Only".
- The null value "Not Applicable" is reported for patients that do not meet the collection criterion.
- Report all that apply.

(1) Liver
(2) Spleen
(3) Kidneys
(4) Pelvic (iliac, gluteal, obturator)
(5) Retroperitoneum (lumbar, sacral)
(6) Peripheral vascular (neck, extremities)
(7) Aorta (thoracic or abdominal)
(8) Other

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival.



Gastroduodenal Artery

In anatomy, the gastroduodenal artery is a small blood vessel in the abdomen. It supplies blood directly to the pylorus (distal part of the stomach) and proximal part of the duodenum, and indirectly to the pancreatic head (via the anterior and posterior superior pancreaticoduodenal arteries).

TQIP Response

If the patient had a gastroduodenal artery embolization performed for hemorrhage control, then Field Value "8. Other" should be reported to TQIP for the Embolization Site data element. The reason why is that the gastroduodenal artery does not fall under any of the other listed Field Values, so "8. Other" is the appropriate value to report.

Question 4

For Pupillary Response, patient has a subarachnoid bleed and the physician writes that the CN III, CN IV, and CN V are intact can I use that for my pupillary response within 30 min?

Definition

INITIAL ED/HOSPITAL PUPILLARY RESPONSE

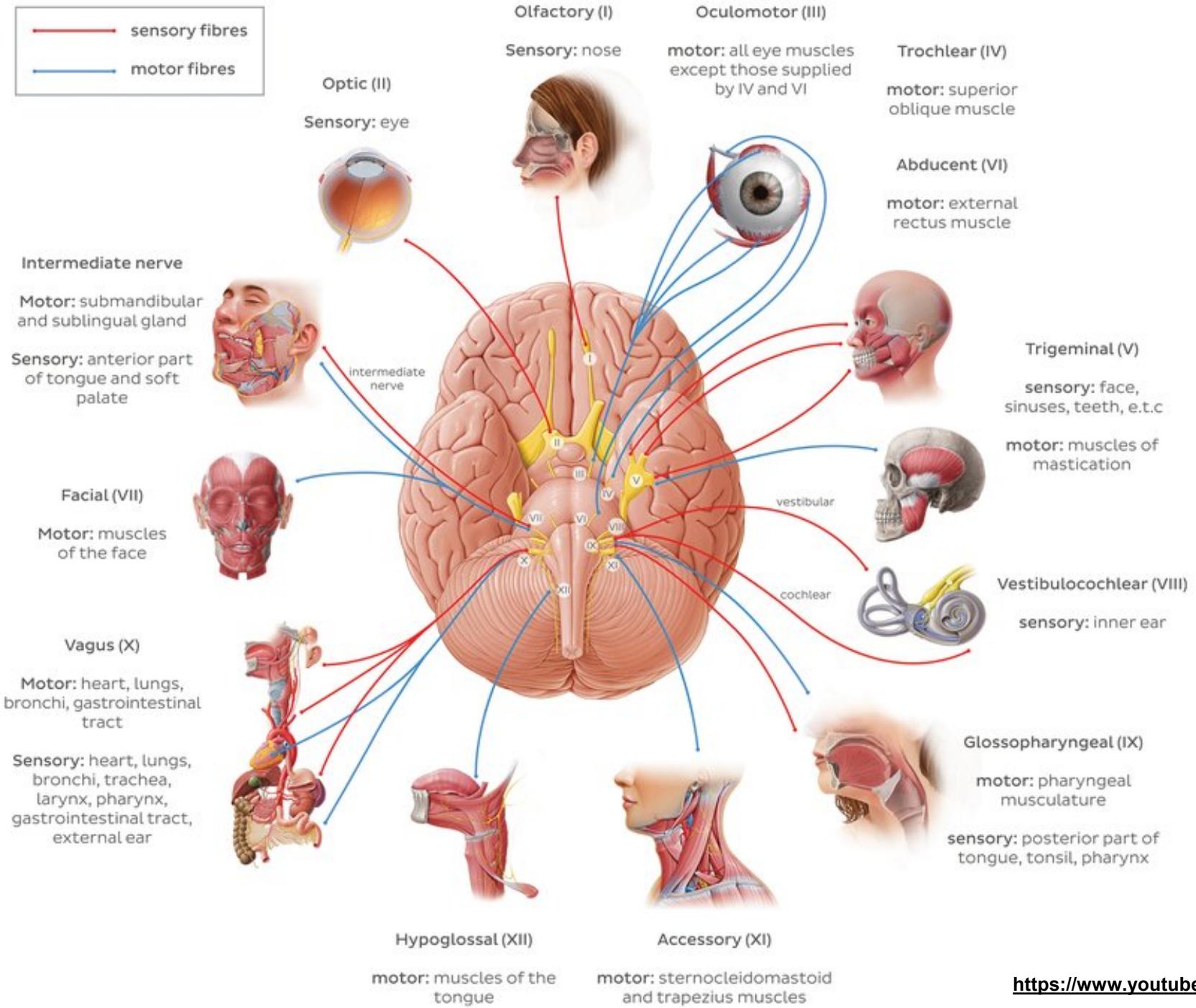
Physiological response of the pupil size within 30 minutes or less of ED/hospital arrival.

- Please note that the first recorded hospital vitals do not need to be from the same assessment.
- If a patient does not have a listed field value recorded, but there is documentation related to their pupillary response such as PERRL “Pupils Equal Round Reactive to Light” submit field value 1. Both reactive IF there is no other contradicting documentation.
- The null value “Not Known/Not Recorded” should be reported if this information is not documented or if assessment is unable to be obtained due to facial trauma and/or foreign object in the eye.
- Field value 2. One reactive should be reported for patients who have a prosthetic eye.
- The null value “Not Applicable” is reported for patients who do not meet the collection criterion.

MTQIP Response

Definition does allow for capture via verbiage. For pupils to be captured as reactive, the cranial nerve examination would need to have that BOTH cranial nerve 2 and 3 are intact. This is commonly written as CN II and III, or CN II-VII are intact with a time stamp within 30 min.

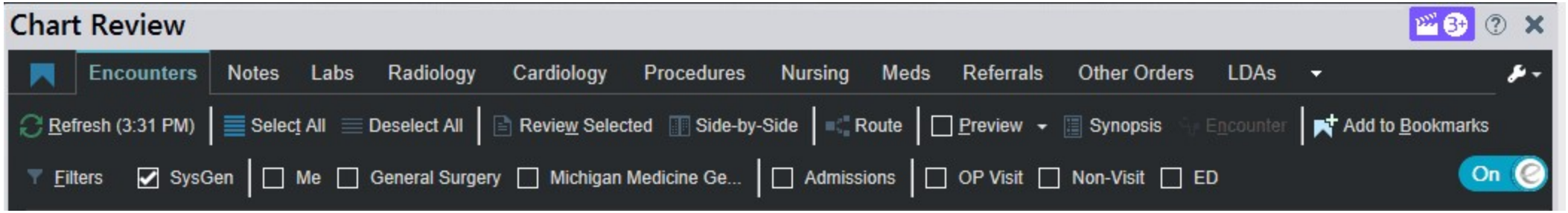
The provided email is missing cranial nerve 2 (CN II).



https://www.youtube.com/watch?v=Hy7B6fFv2gE

Question 5

Is it acceptable for me to use the "Care Everywhere" information to obtain data? This tab shows patient information (i.e. medical history, medications) at the different hospitals the patient received treatment.



MTQIP Response

Yes, Care Everywhere is within the EMR.

For validation, please be sure our access includes Care Everywhere.

Question 6

I have a patient that was diagnosed on CT with a nondisplaced acetabulum fracture. Ortho consult placed and upon consult note physician states that there is no acetabulum fracture. Who is right in this situation or more over who should be used as the deciding factor on whether I collect the injury?

Definition

DG_01

ICD-10 INJURY DIAGNOSES

Definition
Diagnoses related to all identified injuries.

Field Values
- Injury diagnoses as defined by ICD-10-CM code range S00-S99, T07, T14, T20-T28 and T30-T32.
- The maximum number of diagnoses that may be reported for an individual patient is 50.

Additional Information
- ICD-10-CM codes pertaining to other medical conditions (e.g., CVA, MI, co-morbidities, etc.) may also be included in this field.

Data Source Hierarchy Guide
1. Autopsy/Medical Examiner Report
2. Operative Reports
3. Radiology Reports
4. Physician's Notes
5. Trauma Flow Sheet
6. History & Physical
7. Nursing Notes/Flow Sheet
8. Progress Notes
9. Discharge Summary

DG_02

AIS PREDOT CODE

Definition
The Abbreviated Injury Scale (AIS) pre-dot codes that reflect the patient's injuries.

Field Values
- The pre-dot code is the 6 digits preceding the decimal point in an associated AIS code

Additional Information

Data Source Hierarchy Guide
1. AIS Coding Manual

Associated Edit Checks

Rule ID	Level	Message
7001	1	Invalid value
7004	2	AIS codes submitted are not valid AIS 05, Update 08, or AIS 2015 codes
7007	2	Field cannot be blank
7008	2	Field cannot be “Not Applicable”
7050	1	Multiple Entry Max exceeded

MTQIP Response

We refer all coding questions to AAAM for consistency.

Their email address is AIS@AAAM1.org. I've also copied them on this message.

AAAM Response

We teach in AIS class that when you have a discrepancy such as this, you code based on what the physician caring for the patient documents. In this case, we would NOT code the acetabular fracture if that is the only documents you have to base a decision.

Follow-up email sent to AAAM 6/5/19 11:21 AM re: AIS coding hierarchy resource. Response pending at time of this publication, but this slide can be updated upon receipt.

Question 7

For Operation, patient had kyphoplasty surgery performed in the Interventional Radiology. Is this considered an operation?

Definition

OPERATION

Surgical procedure performed in the operating room. Also answer “YES” if the patient had a procedure performed elsewhere that is normally performed in the OR (e.g. bedside tracheostomy or IR PEG placement). Abstractors may use presence of an operative note as guide to determine if the case was an operation for cases performed outside of OR. Do not include simple laceration repairs, closed reductions performed under GETA, or cath lab procedures.

(1) Yes
(2) No

Def. Source: MTQIP

MTQIP Response

Yes, please capture IR performed kyphoplasty as "Y" for operation. This surgery is normally performed in the operating room.

Question 8

For VTE Prophylaxis Time, case was a GSW (246 lbs.) taken to the OR for SFA exploration with reconstruction of femoral vein and artery. The operative note indicates heparin 2500 units was administered IV in the OR prior to a Fogarty catheter being passed. Four hours later heparin 5000 units SQ was administered. Which is the first dose administered?

Definition – Part 1

VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE
Type of first dose of VTE prophylaxis or treatment administered to patient at your hospital.

- Must be given, not just ordered.
- Report heparin, LMWH, direct thrombin inhibitor and Xa inhibitor class agents regardless of the indication when it is administered first.
- Report Coumadin and 'other' agents when the indication of VTE prevention is identified in the medical record documentation.
- Do not include non-prophylactic dosing of agents, such as heparin administered for line clearance purposes.
- Please see drug reference for agents and dosing outside these parameters to determine class and/or indicated use.
- Venous Thromboembolism Prophylaxis Types which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Venous Thromboembolism Prophylaxis Types.
- Exclude sequential compression devices

(1) ~~Heparin~~
(6) LMWH (Dalteparin, Enoxaparin, etc.)
(7) Direct Thrombin Inhibitor (Dabigatran, etc.)
(8) Xa Inhibitor (Rivaroxaban, etc.)
(9) Coumadin
(10) Other
(11) Unfractionated Heparin (UH)
(5) None

Definition – Part 2

VENOUS THROMBOEMBOLISM PROPHYLAXIS TIME
Time of administration to patient of first prophylactic dose of heparin or other anticoagulants at your hospital.

- Collected as HH:MM military time.
- Refers to time at which patient first received the prophylactic agent indicated in VTE TYPE field.
- The null value "Not Applicable" is reported if VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE = "5 None".

Collection Criterion: Collect on all patients

Def. Source: TQIP

MTQIP Response

Capture the ICU dose.

Based on the patient's weight this is non-prophylactic dosing (bullet 4 in the definition) since the drug was dosed at 22.3 units/kg.

IV dosing for heparin for VTE tx is 80 units/kg IV x 1. Alt 5000 units IV x 1, then 1000 units/hr IV. Prophylactic is SQ.

There are other treatment indications which do have lower units/kg options, but the patient does not appear to be treated for STEMI/NSTEMI/PCI with prior anticoag tx. Usually this is also a bolus followed by gtt.

Question 9

For Mental/Personality Disorder, does documentation have to include "disorder" when the provider is listing the patient's comorbidities? Or does "bipolar" meet the criteria for capture?

Definition

MENTAL/PERSONALITY DISORDER
Documentation of the presence of pre-injury depressive disorder, bipolar disorder, schizophrenia, anxiety/panic disorder, borderline or antisocial personality disorder, and/or adjustment disorder/post-traumatic stress disorder.

- ICD-9 CM Code Range: 295.00-297.9, 300.0-300.09,301.0-301.7, 301.83, 309.81,311, V11.0-V11.2, V11.4-V11.8
- ICD-10 CM Code Range: F20.0 – F29 (Schizophrenia and non-mood psychotic disorders) F30.0 – F39 (Mood [affective] disorders) F44.0 – F44.9 (Dissociative and conversion disorders) F60.0 (Paranoid personality disorder) F60.1 (Schizoid personality disorder) F60.2 (Anti-social personality disorder) F60.3 (Borderline personality disorder) F60.4 (Histrionic personality disorder) F60.5 (Obsessive-compulsive disorder) F60.7 (Dependent personality disorder) F43.10 – F43.12 (PTSD) Z86.51(PH of combat and operational stress reaction) Z86.59 (PH of other mental & behavioral disorders)

Mental/Personality Disorder (NTDS 33)

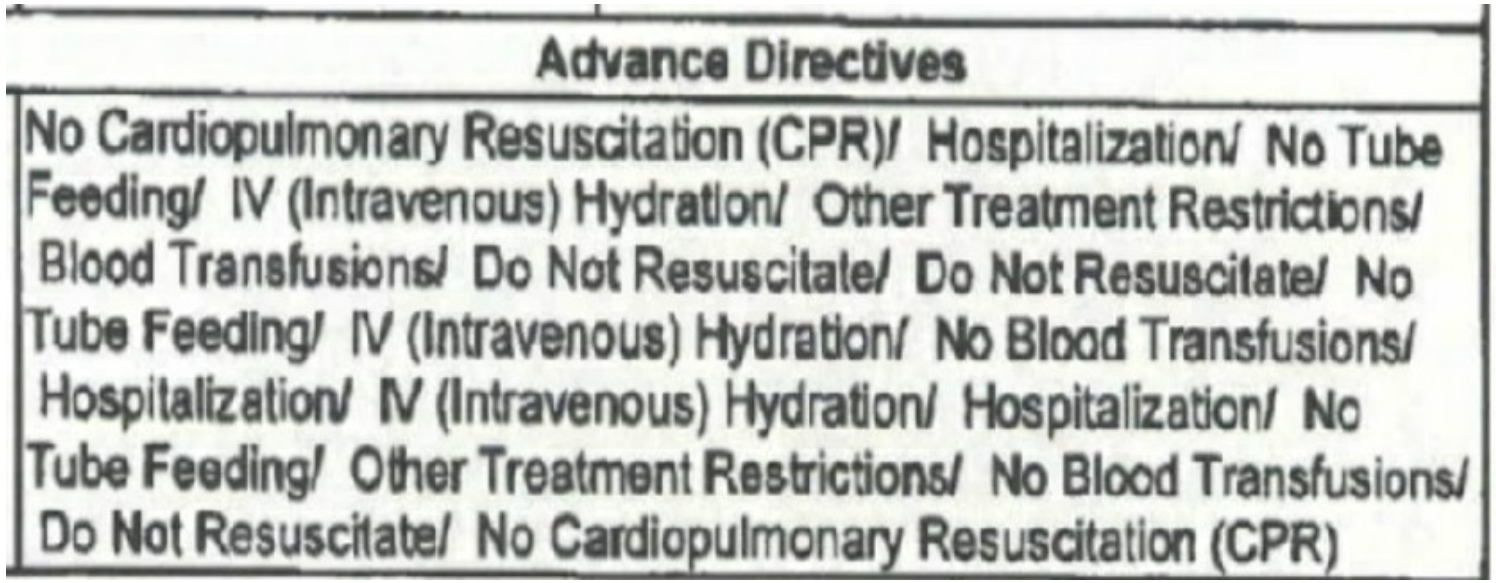
MTQIP Response

Providers use the verbiage bipolar and bipolar disorder when referring to medical history interchangeably.

A history of bipolar, anxiety, depression, etc. are sufficient when referring to a comorbidity. We know a new interpretation was offered on a recent webinar. We will add to June meeting and 2020 updates. To ensure, data reflects actual disease state.

Question 10

For Advanced Directive Limiting Care, the below image is scanned into our EMR from the nursing home where a patient resided prior to arrival. Can we use this to meet capture?



Advance Directives
No Cardiopulmonary Resuscitation (CPR)/ Hospitalization/ No Tube Feeding/ IV (Intravenous) Hydration/ Other Treatment Restrictions/ Blood Transfusions/ Do Not Resuscitate/ Do Not Resuscitate/ No Tube Feeding/ IV (Intravenous) Hydration/ No Blood Transfusions/ Hospitalization/ IV (Intravenous) Hydration/ Hospitalization/ No Tube Feeding/ Other Treatment Restrictions/ No Blood Transfusions/ Do Not Resuscitate/ No Cardiopulmonary Resuscitation (CPR)

Definition

ADVANCED DIRECTIVE LIMITING CARE

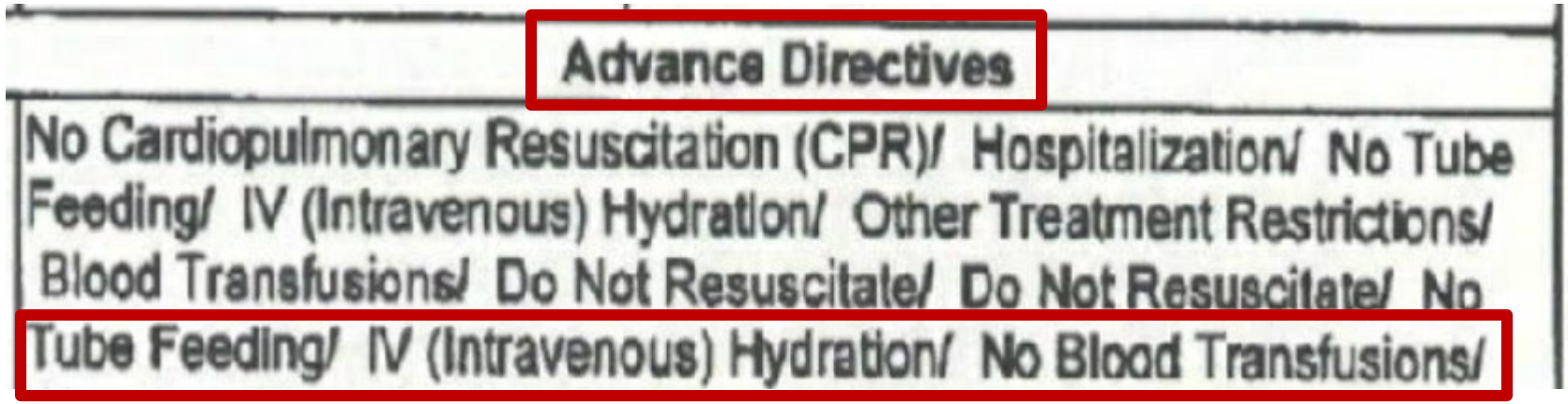
The patient had a written request limiting life sustaining therapy, or similar advanced directive, present prior to arrival at your center. This includes documentation that indicates to withhold life sustaining measures when a specified set of parameters are present (i.e. a documentation indicating to withhold life sustaining measures if a persistent vegetative state or other circumstances occur).

The verbiage “present prior to arrival at your center” is not limited to documentation in hand or scanned from a previous admission. “Present prior to arrival at your center” is defined as the medical record indicates the patient has an advanced directive that limits care completed prior to arrival at your center.

Advanced Directive Limiting Care (NTDS 13)

MTQIP Response

From the screenshot that was shared, the box is labeled "Advanced Directives" and it indicates the limiters for hospitalization of no tube feeds, hydration or blood transfusion. Finally, you had shared that this was from the patient's current living facility where the patient resided or prior to arrival.



Question 11

For Surgery for Hemorrhage Control Type, case was a GSW. Patient received 2 units PRBC in resus room. Initially hypotensive but improve upon leaving resus for OR. FAST +. In the OR, ex lap revealed liver laceration requiring repair with four 2-0 vicryl and fibrin. 500cc was EBL.

There is no mention if the liver was actively bleeding in the operative report.

Per the definition it says that we can consult the surgeon to ask if it was hemorrhage control. He indicated that it was verbally. Therefore, we would count this as a hemorrhage control surgery. We just need to know that this is ok with using his verbal indication that it is a hemorrhage control laparotomy. We're working on data accuracy and want to ensure consistency for data validation.

Definition

SURGERY FOR HEMORRHAGE CONTROL TYPE

First type of surgery for hemorrhage control within the first 24 hours of ED/hospital arrival.

- If unclear if surgery was for hemorrhage control, then consult TMD or operating/consulting/relevant surgeon.
- The null value "Not Applicable" is reported for patients that do not meet the collection criterion.
- Field Value “1. None” is reported if Surgery for Hemorrhage Control Type is not a listed Field Value option.

(1) None
(2) Laparotomy
(3) Thoracotomy
(4) Sternotomy
(5) Extremity
(6) Neck
(7) Mangled extremity/traumatic amputation
(8) Other skin/soft tissue
(9) Extraperitoneal Pelvic Packing

MTQIP Response

Completely agree with capture of Surgery for Hemorrhage Control Type.

If you do see something that you or the registrars think looks tricky, you could have the provider or yourself drop a one-liner in the chart. That would make it worry free and very transparent.

Hemorrhage

For Surgery for Hemorrhage Control Type, case was a GSW. Patient received 2 units PRBC in resus room. Initially hypotensive but improve upon leaving resus for OR. FAST +. In the OR, ex lap revealed liver laceration requiring repair with four 2-0 vicryl and fibrin. 500cc was EBL.

There is no mention if the liver was actively bleeding in the operative report.

Per the definition it says that we can consult the surgeon to ask if it was hemorrhage control. He indicated that it was verbally. Therefore, we would count this as a hemorrhage control surgery. We just need to know that this is ok with using his verbal indication that it is a hemorrhage control laparotomy. We're working on data accuracy and want to ensure consistency for data validation.

Question 12

For Antibiotic Type 2, I have a patient with an open fracture who received Ancef IV in ED, however in OR (approx. 4 hrs. after Ancef administration) he had vancomycin powder placed into the wound.

Should vancomycin powder be captured as Antibiotic Type 2?

Definition

ANTIBIOTIC 2 TYPE

- Report the second antibiotic class administered to patient at your hospital for patient's receiving combination therapy.
- Must be given, not just ordered.
- Antibiotic reference available at www.mtqip.org > Resources > Education > Antibiotic Reference

0. None
1. Penicillin
2. Monobactam
3. Carbapenem
4. Macrolide
5. Lincosamide
6. Aminoglycoside
7. Quinolone
8. Sulfonamide
9. Tetracycline
10. Cephalosporin
11. Other

Collection Criterion: Collect on all patients with open fractures.

MTQIP Response

You are correct non-systemic medications should be excluded.

Question 13

For antibiotic administration for open fracture, is an error generated on validation if an antibiotic type, date, or time are entered, but no coded open fracture is entered?

Definition

ANTIBIOTIC 1 TYPE

- Report the first antibiotic class administered to patient at your hospital.
- Must be given, not just ordered.
- Antibiotic reference available at www.mtqip.org > Resources > Education > Antibiotic Reference

0. None
1. Penicillin
2. Monobactam
3. Carbapenem
4. Macrolide
5. Lincosamide
6. Aminoglycoside
7. Quinolone
8. Sulfonamide
9. Tetracycline
10. Cephalosporin
11. Other

Collection Criterion: Collect on all patients with open fractures.

Def. Source: Orange Book

Data Base Column Name: MTQIP_ABX_TYPE1
Type of Field: Custom, Character (Numeric Output)
Vendor Mapping: Values 1-11 map to NTDS field value (1) Yes for Antibiotic Therapy for NTDS data submission if within 24 hours of arrival.
Length: 2

MTQIP Response

On data validation, if a variable does not meet inclusion criteria the field is not validated.

We do usually verbally feed this back as a time saving measure if we see fields populated that do not meet criteria that are entered.

Question 14

For IV Fluids, I know we do not include fluids given for medication administration. However, what if the fluids were given in conjunction with blood to clear the line (e.g., 0.9NS IVPB 100 mL).

Definition

IV FLUID LITERS PRE-HOSPITAL and FIRST 4 HOURS (0-4 HOURS)

Enter the total number of liters of IV fluid administered starting from the time of injury through 4 hours after documented arrival time of first ED. Count all bags spiked and hung, even if not completely given. Exclude fluids provided for medication administration.

Calculation steps

1. Combine similar fluid types together (i.e. albumin combined with starch, and NS combined with LR)
2. Add the total mL administered for each fluid type over 4 hours
3. Round each total to the nearest one hundred
4. Covert mL to L (see table below)
5. Add the rounded total of each fluid type together to obtain final total volume for all fluids given

Crystalloid: Crystalloid IV fluids are solutions of mineral salts or other water-soluble molecules. Common crystalloid IV fluids include: normal saline and Lactated Ringer's, D5LR, D5W and PlasmaLyte. Examples provided in table below for rounding to the nearest 1,000.

Colloid: Colloid IV fluids contain insoluble molecules. Common colloids include: albumin, hydroxyethyl starch (Hespan, Voluven), gelofusine. Examples provided in table below for rounding.

MTQIP Response

The intent of the definition is to capture IV fluids administered for volume expansion. We would recommend not including the fluids used for line clearance.

Question 15

I am reviewing a case for a superficial surgical site infection. The case meets definition. However, the patient had a surgical procedure at an outside hospital then transferred to us. Would this infection still count as a complication for our facility?

Definition

SUPERFICIAL INCISIONAL SURGICAL SITE INFECTION

Infection occurs within 30 days after any NHSN operative procedure (where day 1 = the procedure date)

AND

Involves only skin and subcutaneous tissue of the incision

AND

Patient has at least one of the following:

a. Purulent drainage from the superficial incision.

b. Organisms identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST).

c. Superficial incision that is deliberately opened by a surgeon, attending physician** or other designee and culture or non-culture based testing is not performed.

AND patient has at least one of the following signs or symptoms: pain or tenderness; localized swelling; erythema; or heat. A culture or non-culture based test that has a negative finding does not meet this criterion.

d. diagnosis of a superficial incisional SSI by the surgeon or attending physician** or other designee.

http://www.cdc.gov/nhsn/xls/icd10-pcs-pcm-nhsn-opc.xlsx
http://www.cdc.gov/nhsn/xls/cpt-pcm-nhsn.xlsx

Def. Source: NTDS, CDC

MTQIP Response

Short answer: Do not include if the associated procedure is not done at your facility.

Long answer: The CDC definition (first bullet on page 9-2) does not attribute the infection to the center recording but that did not perform it. Of note, the CDC does have a way of capturing this (second center enters with the first center's ID number noted).

- An SSI event is attributed to the facility in which the NHSN operative procedure was performed.

MTQIP Audience Feedback

Would you like us to add CDC links to all applicable definitions for 2020 dictionary?

We could have a supporting links section after sources to make these tools easy to find.

Per poll results, links will be added for 2020 dictionary.

Question 16

The lowest documented systolic blood pressure was 38 mmHg per blood pressure cuff; however, there is an arterial line in the patient and the arterial line SBP at the exact same time was 107 mmHg. In clinical practice, we would go by the arterial line as it is felt to be more accurate. Should 38 mmHg or 107 mmHg be captured?

Definition

LOWEST ED SBP

Lowest systolic blood pressure measured within the first hour of ED/hospital arrival.

- Refers to lowest SBP in the ED/hospital of the index hospital where index hospital is the hospital abstracting the data.
- The null value "Not Applicable" is reported for patients that do not meet the collection criterion.

Collection Criterion: Collect on all patients with transfused with packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: TQIP

MTQIP Response

Let’s reach out to TQIP.

A functioning arterial line is the more accurate reading, but the definition was recently updated by TQIP removing the verbiage intended to weed out erroneous values since that verbiage was creating data inconsistency.

Maybe they have a solution or clarification.

TQIP Response

If "38" was the lowest systolic blood pressure measured within the first hour of the patient's ED/hospital arrival, then that is the correct value to report to TQIP.

If you feel as though the NTDS definition could be clarified to exclude different types of blood pressure measurements, please feel free to submit your suggestion to the Data Dictionary Revision Site: https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb/ntds.

MTQIP Response

Submitted.

	ID	Version	Chapter	Field	Definition	Submission Date	Status
Edit / Delete	114	2019 NTDS Data Dictionary	MEASURES FOR PROCESS OF CARE	LOWEST ED/HOSPITAL SYSTOLIC BLOOD PRESSURE	Please consider adding verbiage to account for conflicting values. For example, we have a case where a functioning arterial line indicated SBP of 107, but the blood pressure cuff was 38. Both values were obtained at the same time.	5/30/2019	Received

Evidence-Based Quality Improvement

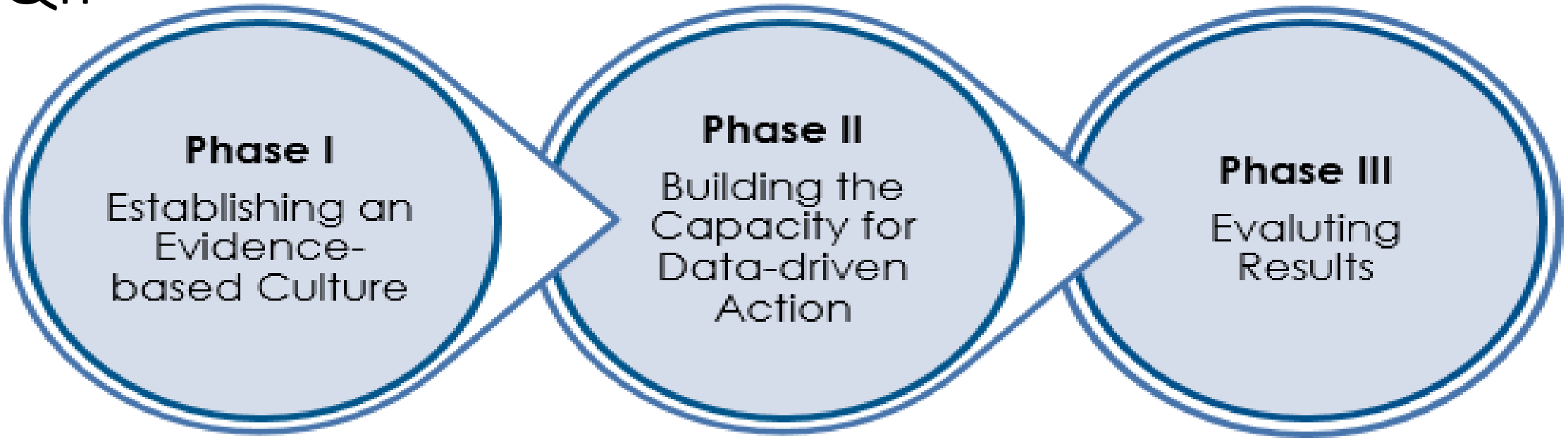
Judy Mikhail
1:10

MTQIP
Evidenced Based Quality Improvement

Judy Mikhail, PhD, MBA, RN

Evidence - Based Decision Making

MTQIP



Clinician Driven
Literature Based
Validated Data
Risk Adjusted
Research Opportunities

Neutral Platform
Meetings-Website-Help
BCBSM no influence
No Favoritism:
- -Tr Center Location
- -Tr Center Size
- -Tr Center Level
- -Tr Center Personalities

Benchmarking Results
Audit & Feedback
Stages of Grief
Self Correction
Sharing - Learning
Lift All Boats
MTQIP – Provides Context

Influence (*Tells MTQIP What to Do*)

BCBSM (Level I & II's)

- None
- $ Support
  - New & challenging measures
  - One collaborative wide

State of Michigan (Level III's)

- None
- $ Support
  - Reports, meetings
  - Data Validation

Why is this important? Avoid industry sponsor- taint

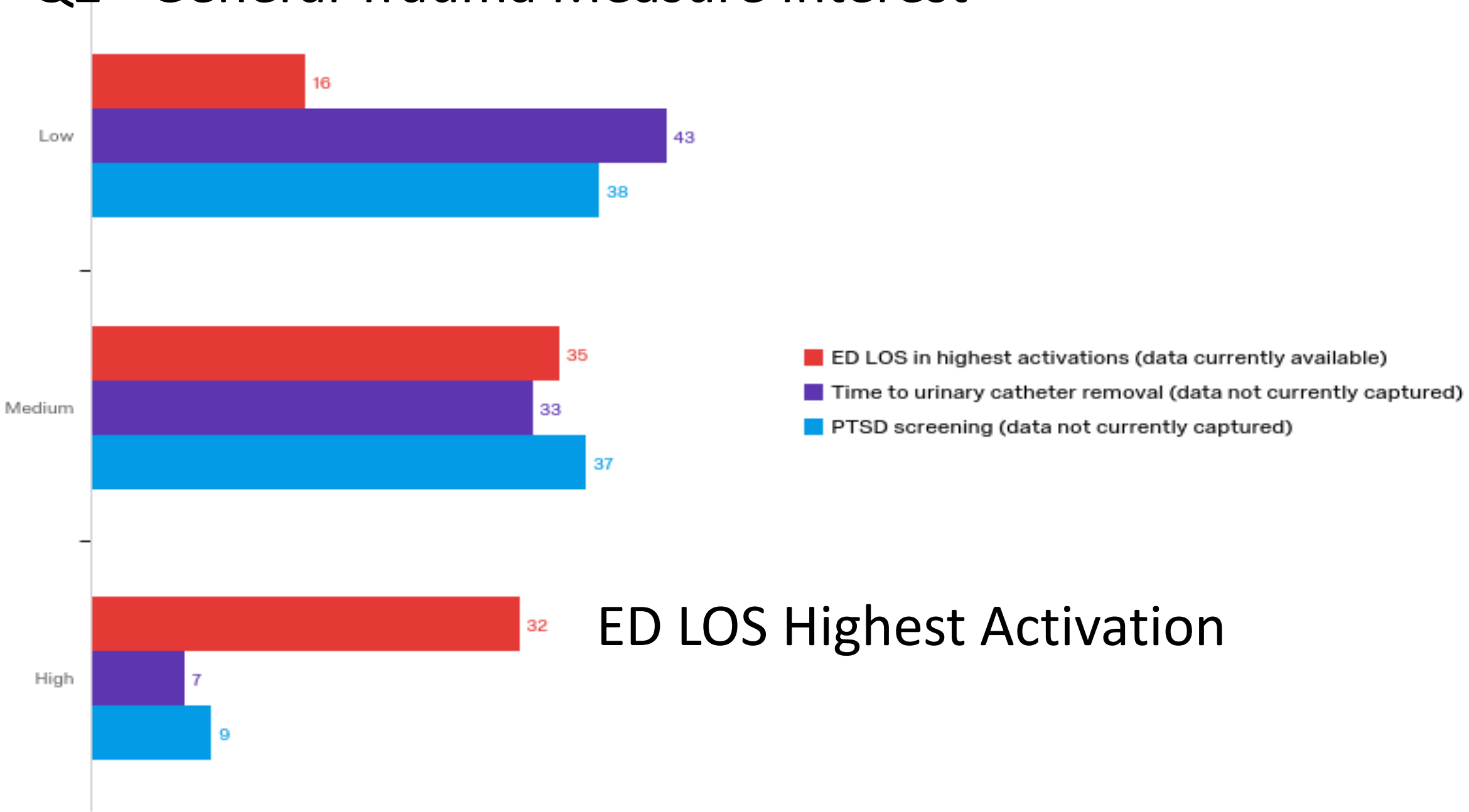
Future Measures Survey

Q1 - Please indicate your discipline:

N=84

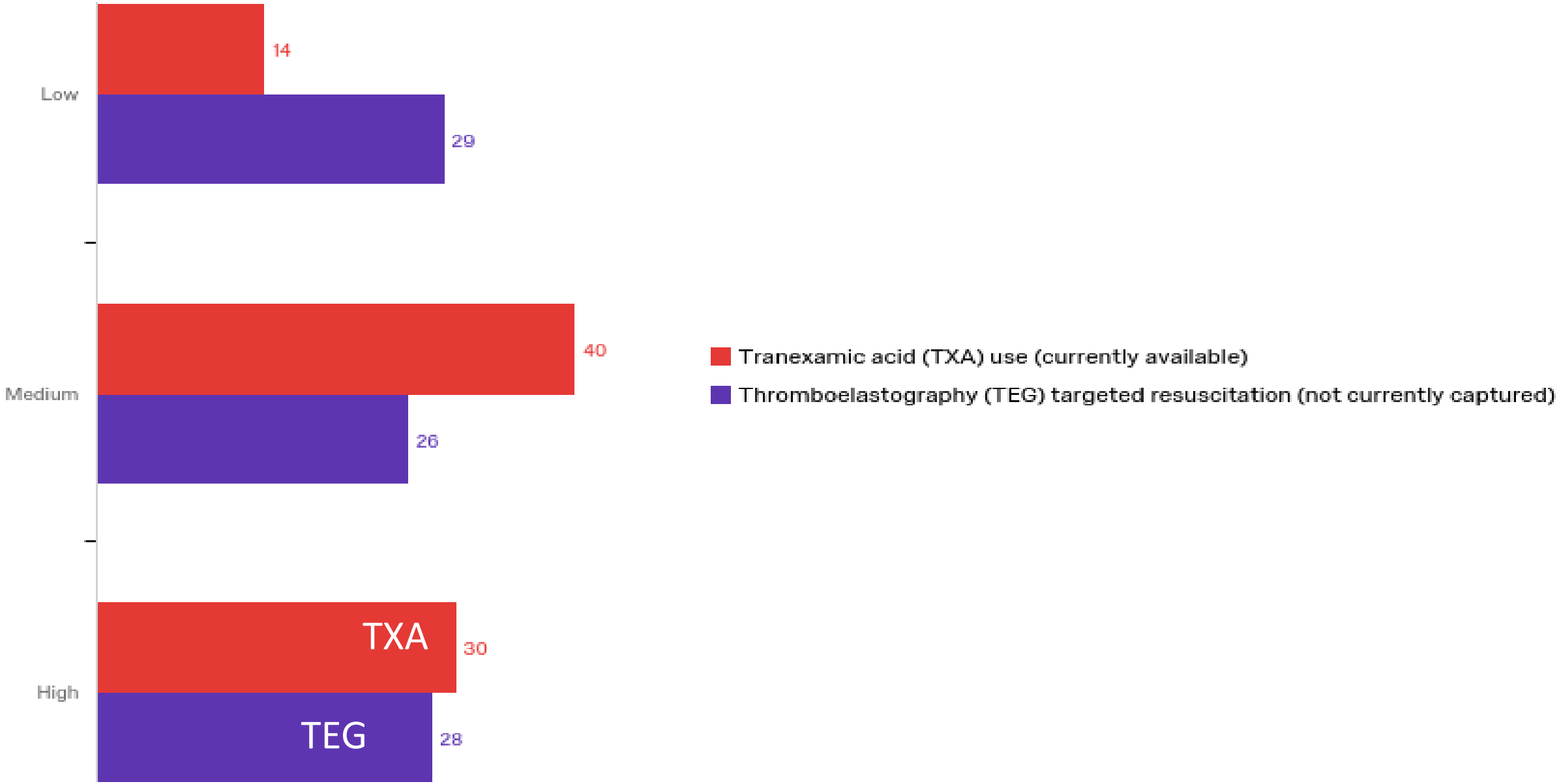
84/240=35%

Q2 - General Trauma Measure Interest

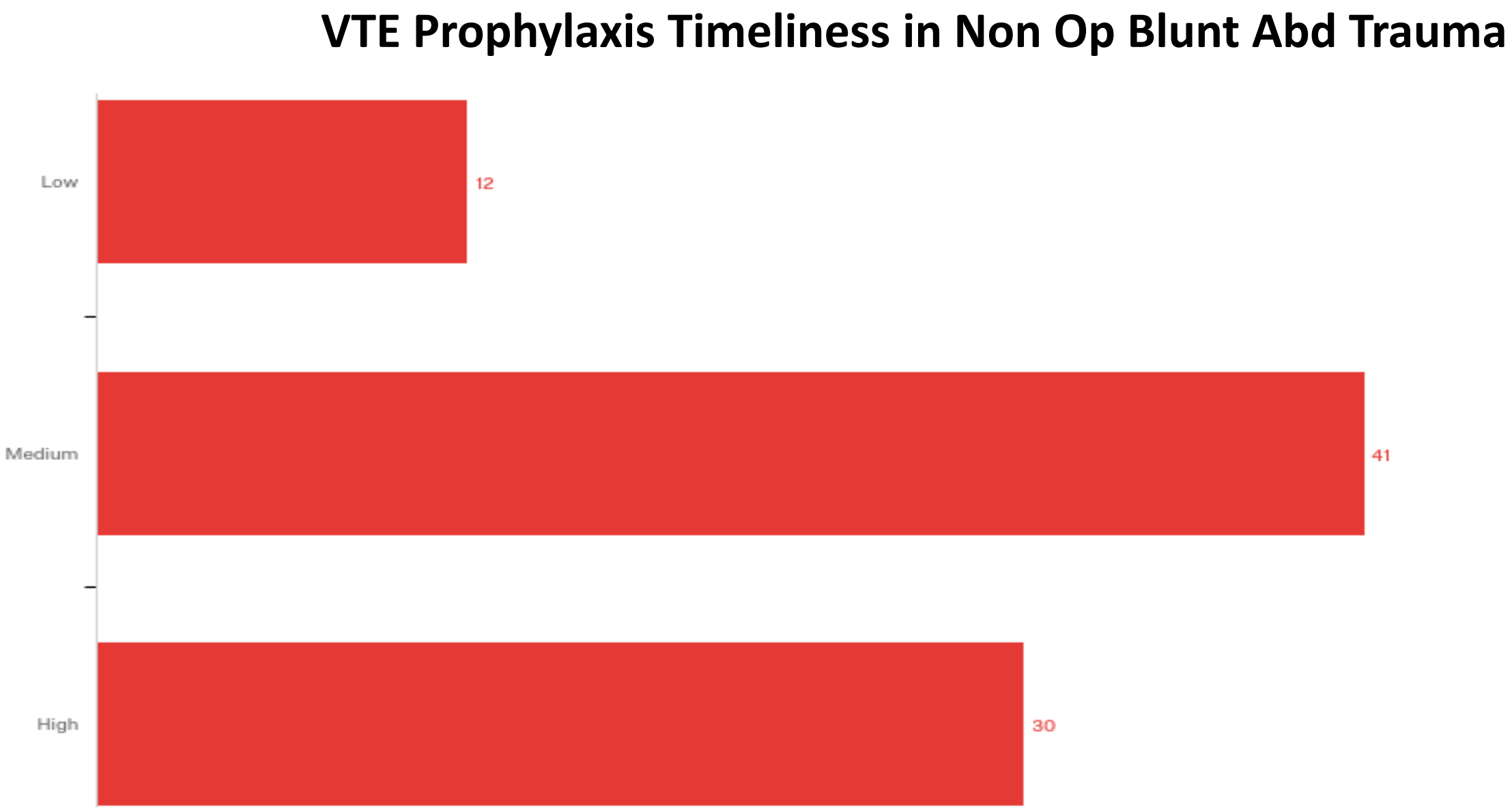


ED LOS Highest Activation

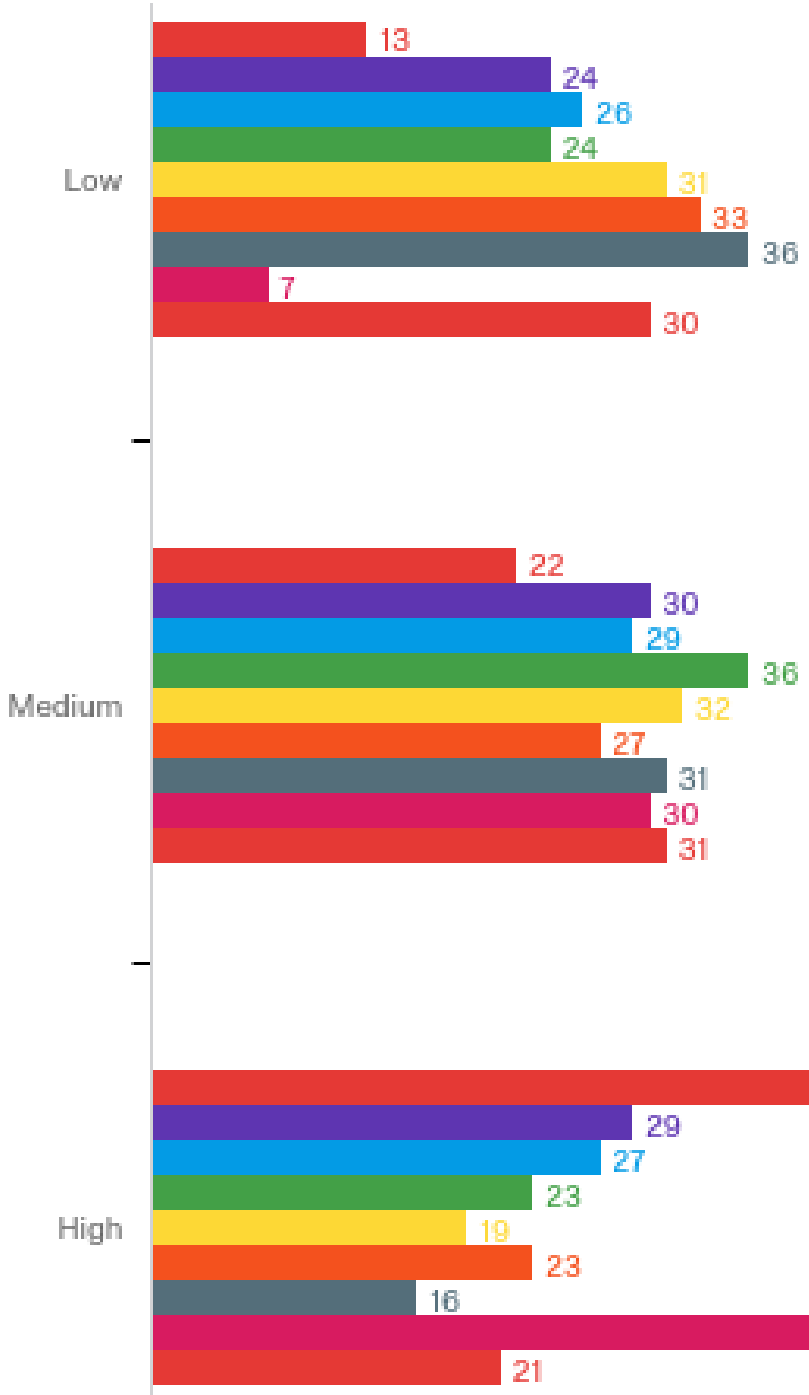
Q3 - Shock Measure Interest



Q4 - Abdominal Trauma Measure Interest



Q5 - Geriatric Hip Fracture Measure Interest

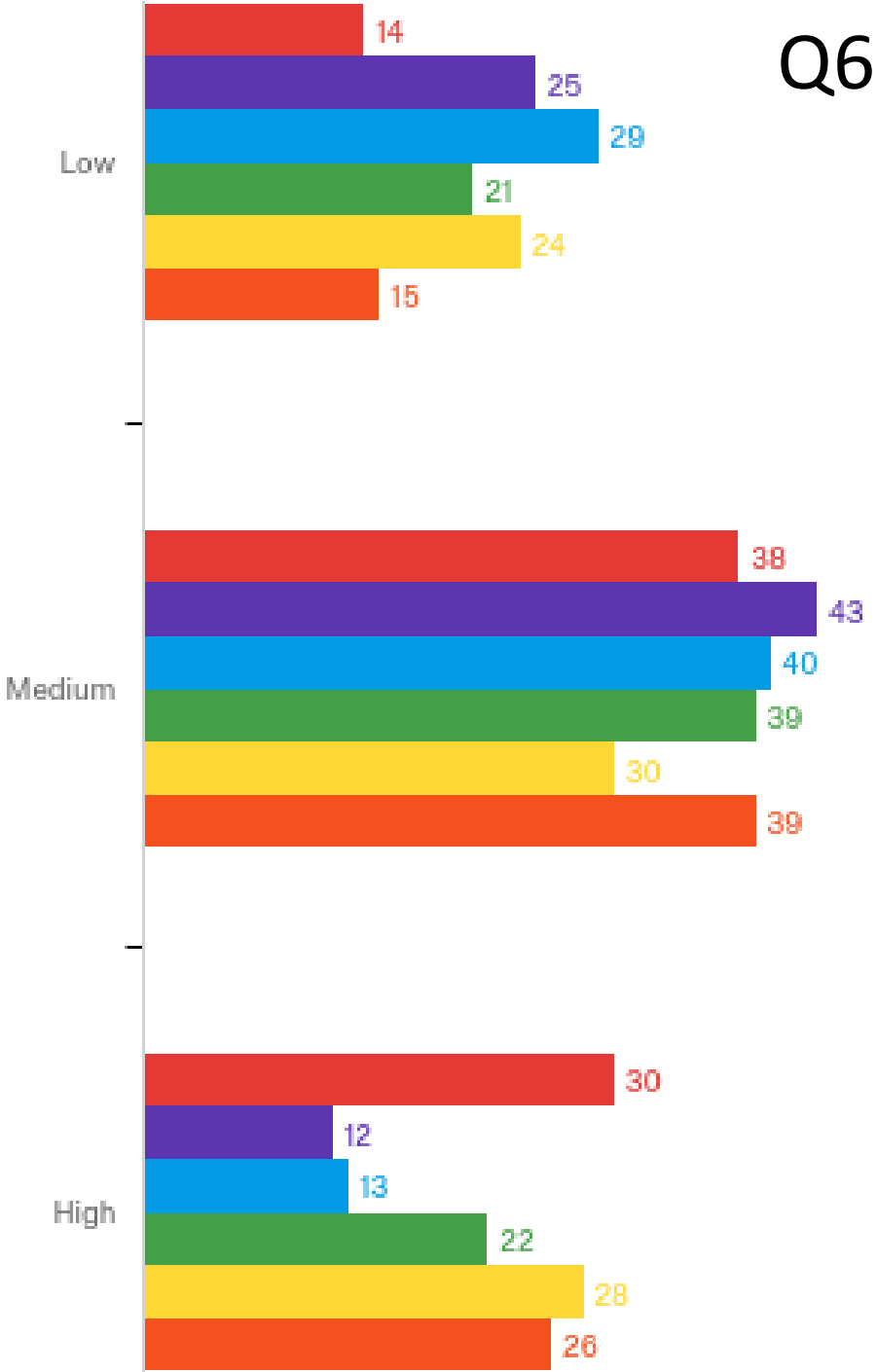


- Geriatric trauma triage criteria (likely available-depends on criteria sele...
- Frailty scoring (not currently captured)
- ED LOS (currently available)
- Time to orthopedic consult (not currently captured)
- Time to medical clearance (not currently captured)
- Regional anesthesia (nerve block) use (not currently captured)
- Regional anesthesia (nerve block) timeliness (not currently captured)
- Time to surgery (currently available)
- Post op delirium screening (not currently captured)

Geriatric trauma triage

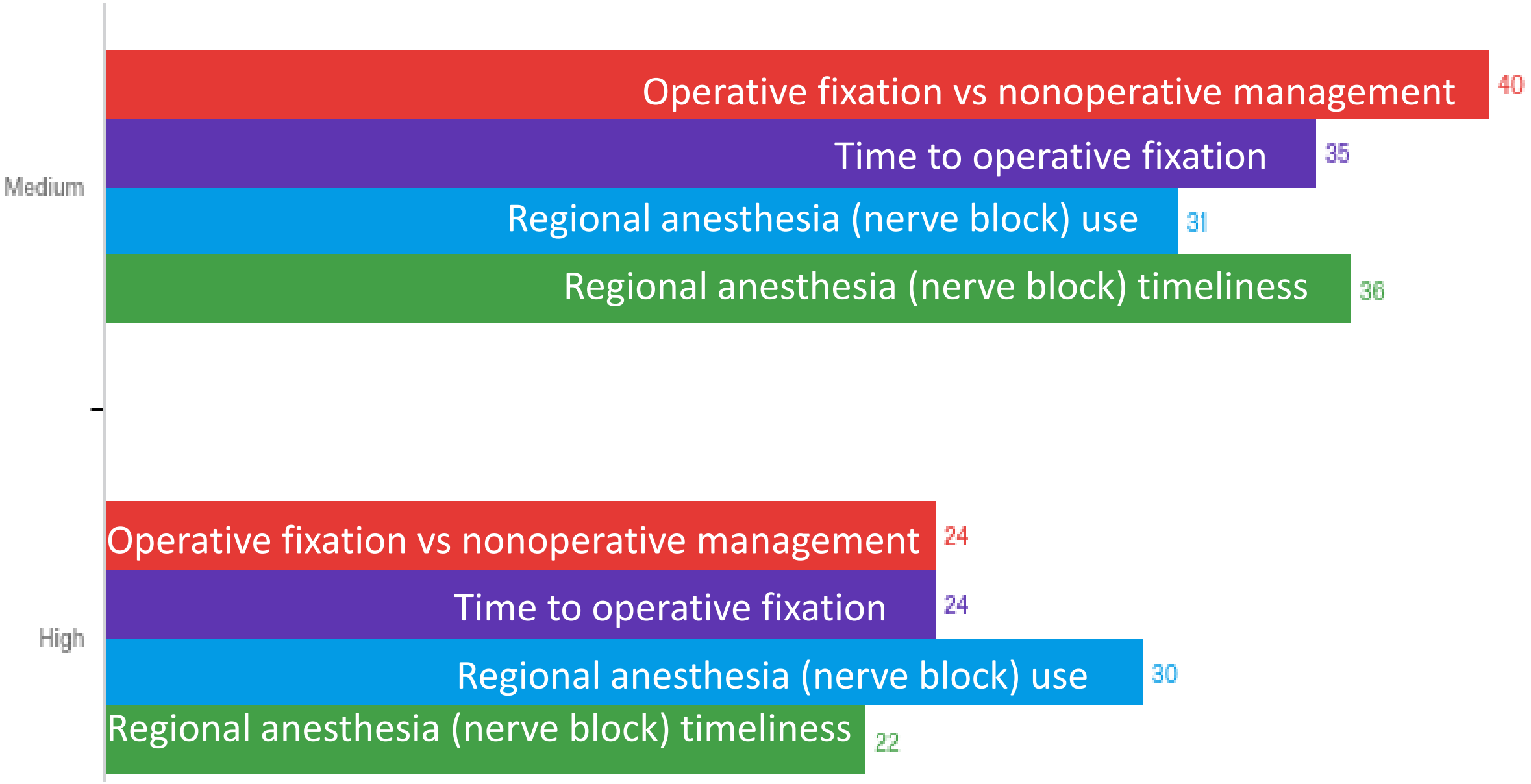
Time to hip fx fixation

Q6 - Traumatic Brain Injury Measure Interest

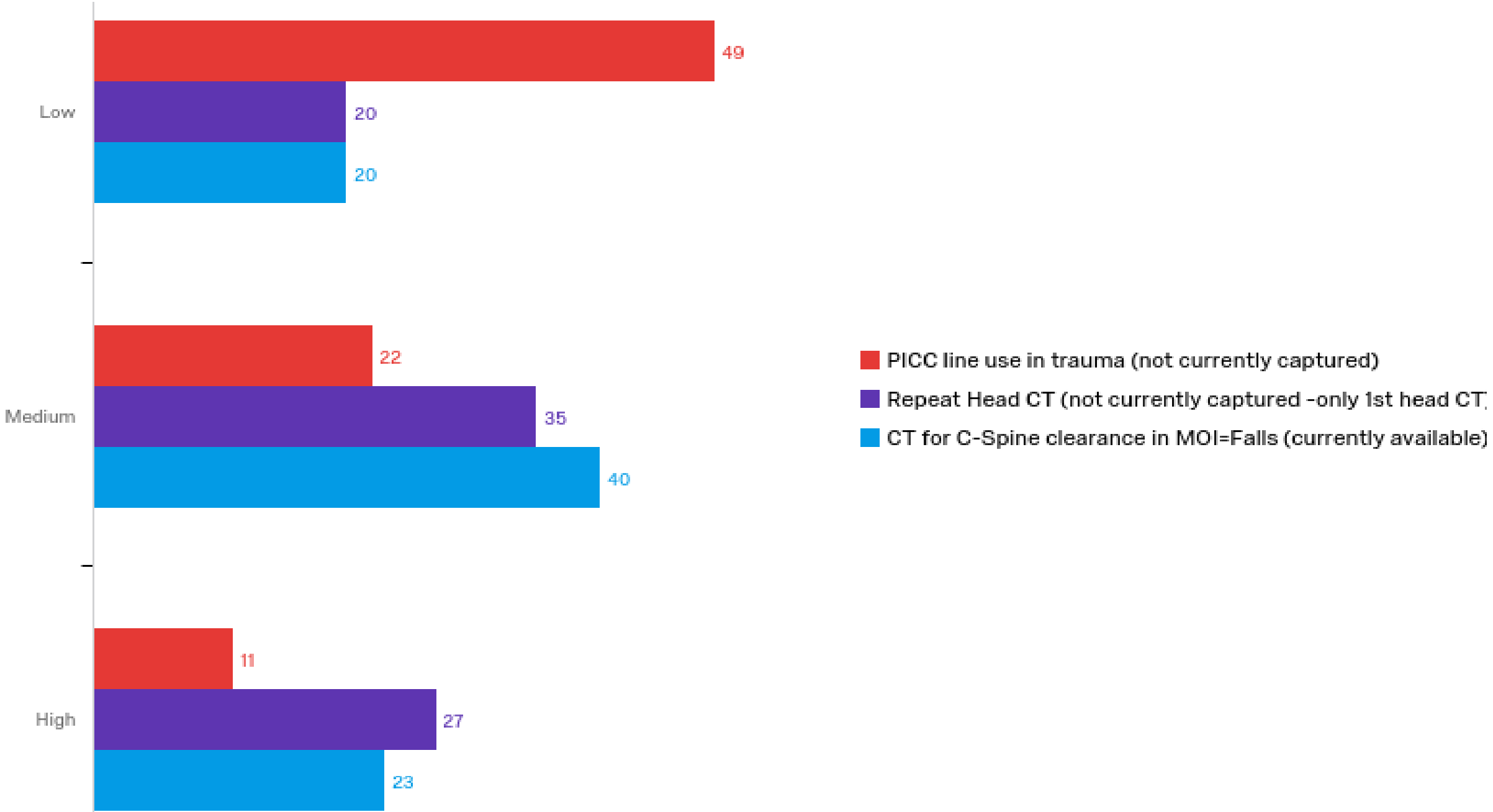


- NOACS vs LMWH in VTE (currently available)
- Beta blocker use (currently available)
- Tracheostomy timing (currently available)
- Time to INR normalization in anticoagulated (not currently captured)
- Prothrombin complex concentrate (PCC) use in anticoagulated (currently avai...
- Activation criteria in anticoagulated (likely available-depends on criteria...

Q7 - Rib Fracture Measure Interest



Q8 - Overuse Measure Interest



Suggestion

- Non surgical admissions with ISS≥10

Performance Measure Selection

- Pipeline planning
- Evidence based
- Valid data collection
- Clinically relevant
- Feasible
- Volume sensitive
- Fair but challenging
- Assist with verification

Performance Measures→→

Outcome Measures (context sensitive)

- Hemorrhage Mortality →
- VTE Rate →
- Readmission rate
- Return to ICU

Process Measures (non context sensitive)

- Blood to Plasma Ratios
- Prophy agent, timeliness
- ?
- ?

<u>MTQIP Outcome Measure Compromise</u>:

- Serious Complications: Z Score Trend
- Mortality: Z Score Trend

DRAFT

Proposed 2020 Performance Index

Pending BCBSM Approval

Michigan Trauma Quality Improvement Program (MTQIP) 2020 Performance Index
January 1, 2020 to December 31, 2020

Measure	Weight	Measure Description	Points	
#1	10	**Data Submission** Partial incomplete submissions will receive 0 On time and complete 3 of 3 times On time and complete 2 of 3 times On time and complete 1 of 3 times	10 5 0	PARTICIPATION (30%)
#2	10	**Meeting Participation** Surgeon 1 center only, alternate must be attending level Surgeon and (TPM and/or MCR) participate in 3 of 3 Collaborative meetings (9 pt) Surgeon and (TPM and/or MCR) participate in 2 of 3 Collaborative meetings (6 pt) Surgeon and (TPM and/or MCR) participate in 1 of 3 Collaborative meetings (3 pt) Surgeon and (TPM and/or MCR) participate in 0 of 3 Collaborative meetings (0 pt) Registrar and/or MCR participate in the Annual June Data Abstractor meeting (1 pt)	0-10	
#3	10	Data Validation Centers not selected receive full points 0-4.0% Center's that are selected, but do not schedule visit will receive 0 4.1-5.0% 5.1-6.0% 6.1-7.0% > 7.0%	10 8 5 3 0	

Combination of LMWH & Timeliness

#4	10	**Timely LMWH VTE Prophylaxis in Trauma Service Admits** (18 mo: 1/1/19-6/30/20) ≥ 50% of patients (≤ 48 hr) ≥ 45% of patients (≤ 48 hr) ≥ 40% of patients (≤ 48 hr) < 40% of patients (≤ 48 hr)	 10 8 5 0

NEW Hip Fx's Timely OR

#5	10	**Timely Surgical Repair in Geriatric (Age ≥ 65) Isolated Hip Fxs** (12 mo: 7/1/19-6/30/20) ≥ 90% of patients (≤ 48 hr) ≥ 85% of patients (≤ 48 hr) ≥ 80% of patients (≤ 48 hr) < 80% of patients (≤ 48 hr) Not all patients get an operation. This is accounted for in the 10%.	10 8 5 0

The Same…

#6	10	**RBC to Plasma Ratio in Massive Transfusion** (18 mo: 1/1/19-6/30/20) Weighted Mean Points in Patients Transfused ≥ 5 Units 1st 4 hr	0-10

Step 1: Assign (weight) to each individual patient's 4 hr PRBC/FPP ratio to designated tier/points using chart below
Step 2: Add the points and divide by number of patients (weighted average) See example below:

Step One		
PRBC to Plasma Ratio	Tier	Points
≤1.5	1	10
1.6 – 2.0	2	10
2.1 – 2.5	3	5
>2.5	4	0

Step Two (Example)					
Patient	PRBC	FFP	PRBC/FFP	Tier	Points
1	10	10	1.0	1	10
2	5	2	2.5	3	5
3	9	2	4.5	4	0
					Total 15
Total Points/Total #Patients = 15/3 = 5 points earned					

The Same…

#7	10	**Serious Complication Z-Score Trend in Trauma Service Admits** (3 yr: 7/1/17-6/30/20) < -1 (major improvement) -1 to 1 or serious complications low-outlier (average or better rate) > 1 (rates of serious complications increased)	10 7 5
#8	10	**Mortality Z-Score Trend in Trauma Service Admits** (3 yr: 7/1/17-6/30/20) < -1 (major improvement) -1 to 1 or mortality low-outlier (average or better) > 1 (rates of mortality increased)	10 7 5

Advancement of previous Head CT Measure from data collection to timeliness.

#9	10	**Timely Head CT in TBI Patients on Anticoagulation Pre-Injury** (12 mo: 7/1/19-6/30/20) ≥ 90% patients (≤ 120 min) ≥ 80% patients (≤ 120 min) ≥ 70% patients (≤ 120 min) < 70% patients (≤ 120 min)	 10 7 5 0

We will focus on anticoagulation for now and not include antiplatelet agents.

Will likely advance to include antiplatelet's at a future time.

Advancement of Antibiotic Open Fx Timeliness

#10	10	**Timely Antibiotic in Femur/Tibia Open Fractures - Collaborative Wide** (12 mo: 7/1/19-6/30/20) ≥ 85% patients (≤ 120 min) < 85% patients (≤ 120 min) Points awarded based on total collaborative result, not individual hospital result	 10 0

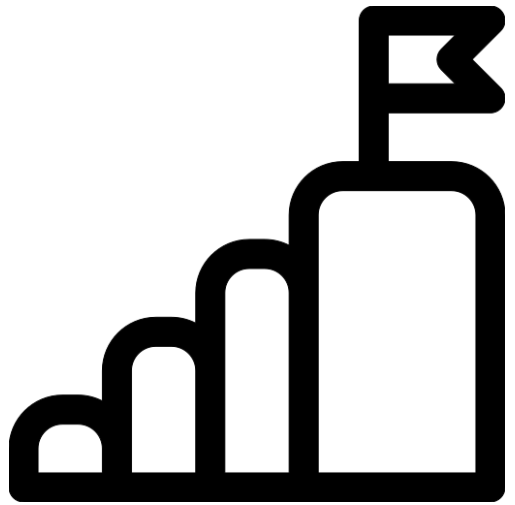

Thank You for All That You Do
To Improve Trauma Care in Michigan!

VAP

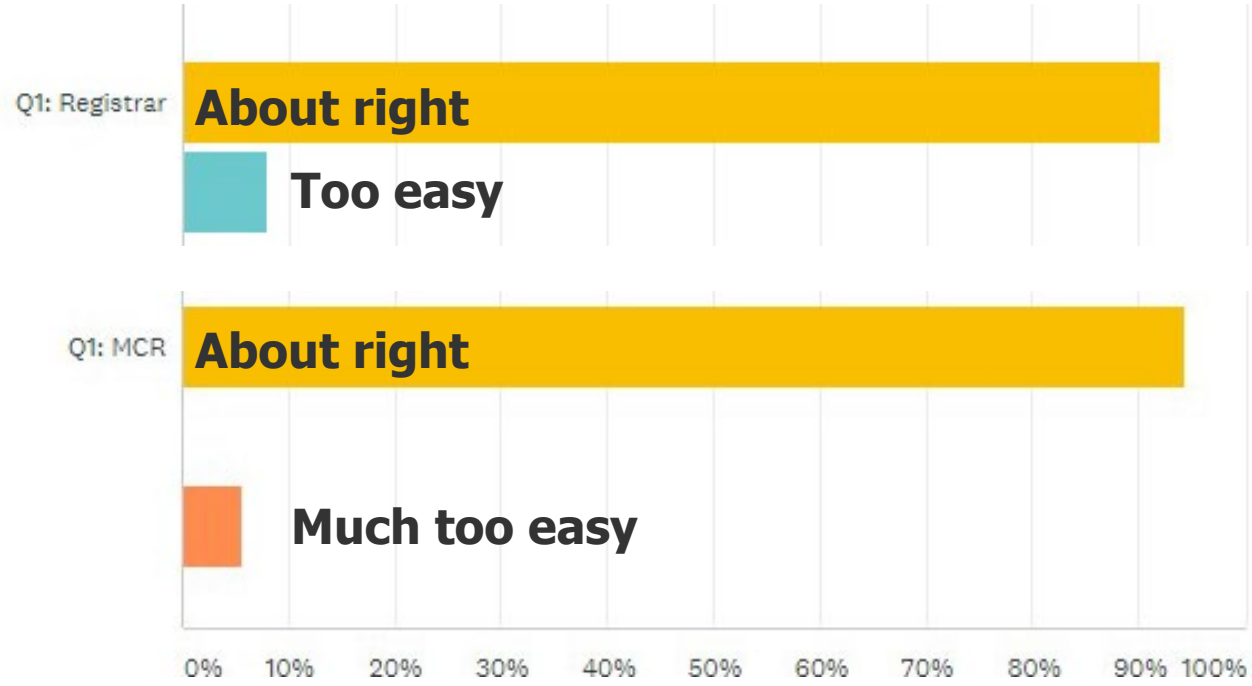
Jill Jakubus
1:35

Objectives

- Polling competition
- Opportunities for improvement
- Solutions
- VAP visual
- Box breakdown
- Training links



Was the June 2018 meeting content too easy?



	MUCH TOO CHALLENGING	TOO CHALLENGING	ABOUT RIGHT	TOO EASY	MUCH TOO EASY	TOTAL
Q1: Registrar	0.00% 0	0.00% 0	92.11% 35	7.89% 3	0.00% 0	67.86% 38
Q1: MCR	0.00% 0	0.00% 0	94.44% 17	0.00% 0	5.56% 1	32.14% 18
Total Respondents	0	0	52	3	1	56

VAP

Get ready to compete!

Which of the following pathogens are excluded from VAP capture per the CDC 2019 (PNU 2)?

Which of the following pathogens are excluded from VAP capture per the CDC 2019 (PNU 2)?

- Many yeast isolated
- Candida species
- Coagulase-negative Staphylococcus
- Enterococcus faecalis
- All of the above
- A and B

Which of the following aspirate types can be used to capture per the CDC?

Which of the following aspirate types can be used to capture per the CDC?

- BAL
- Protected specimen brushing
- Endotracheal aspirate
- Only A & B
- All the above

An aspirate through a tracheostomy tube in a ventilated patient is eligible to meet the laboratory criteria for VAP per the CDC?

An aspirate through a tracheostomy tube in a ventilated patient is eligible to meet the laboratory criteria for VAP per the CDC?

- True
- False
- Make the pain stop

Per the CDC, pneumonia due to gross aspiration (for example in the operating room) that meets VAP definition is excluded?

Per the CDC, pneumonia due to gross aspiration (for example in the operating room) that meets VAP definition is excluded?

True

False

What does the abbreviation "LRT" stand for in the VAP definition?

What does the abbreviation "LRT" stand for in the VAP definition?

- Laryngeal reaction time
- Lateral reticular nucleus
- Laryngeal respiratory trial
- Lower respiratory tract
- Local radiation therapy

What do these numbers mean in the TQIP VAP definition?

What do these numbers mean in the TQIP VAP definition?

VAP Algorithm (PNU3 Immunocompromised Patients):

IMAGING TEST EVIDENCE	SIGNS/SYMPTOMS	LABORATORY
Two or more serial chest imaging test results with at least **one** of the following:	Patient who is immunocompromised has at least ***one*** of the following:	At least **one** of the following:
• New or progressive **and** persistent infiltrate	• Fever (>38°C or >100.4°F)	• Identification of matching *Candida* spp. from blood and sputum, endotracheal aspirate, BAL or protected specimen brushing 11,12,13
	• New onset of purulent sputum3, or change in character ofsputum4, or increased respiratory secretions, or increased suctioning requirements	
• Cavitation	• New onset or worsening cough, or dyspnea, or tachypnea5	
	• Rales6 or bronchial breath sounds	

DNA sequencing found in the PCR report

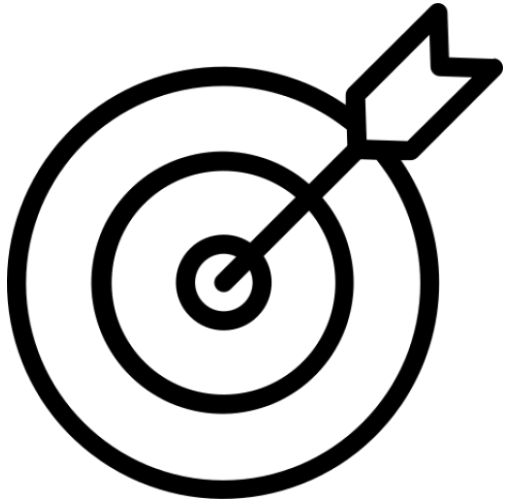
Footnotes from the CDC definition

Simply typos with no meaning

Footnotes with links lower in TQIP definition

How did we do?

- **Variability**
- **Opportunity for improvement**
- **Drill in**

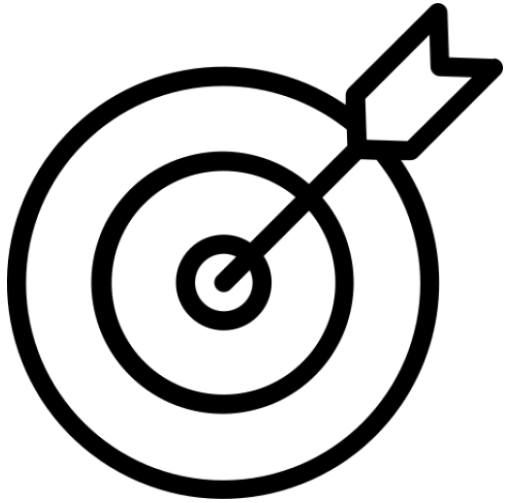


Limitations

- **TQIP CDC VAP 2016**
- **TQIP missing CDC links**
- **CDC 2016 links listed as not available**
- **TQIP CDC VAP PNEU 2 & 3 only**

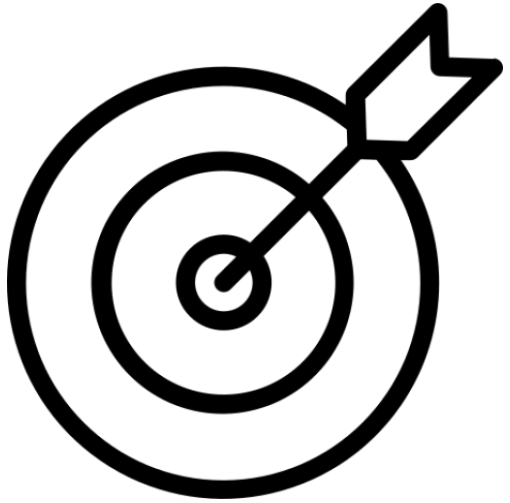
Additional Information

- Must have occurred during the patient's initial stay at your hospital.
- A diagnosis of pneumonia must be documented in the patient's medical record.
- Consistent with the January 2016 CDC defined VAP.

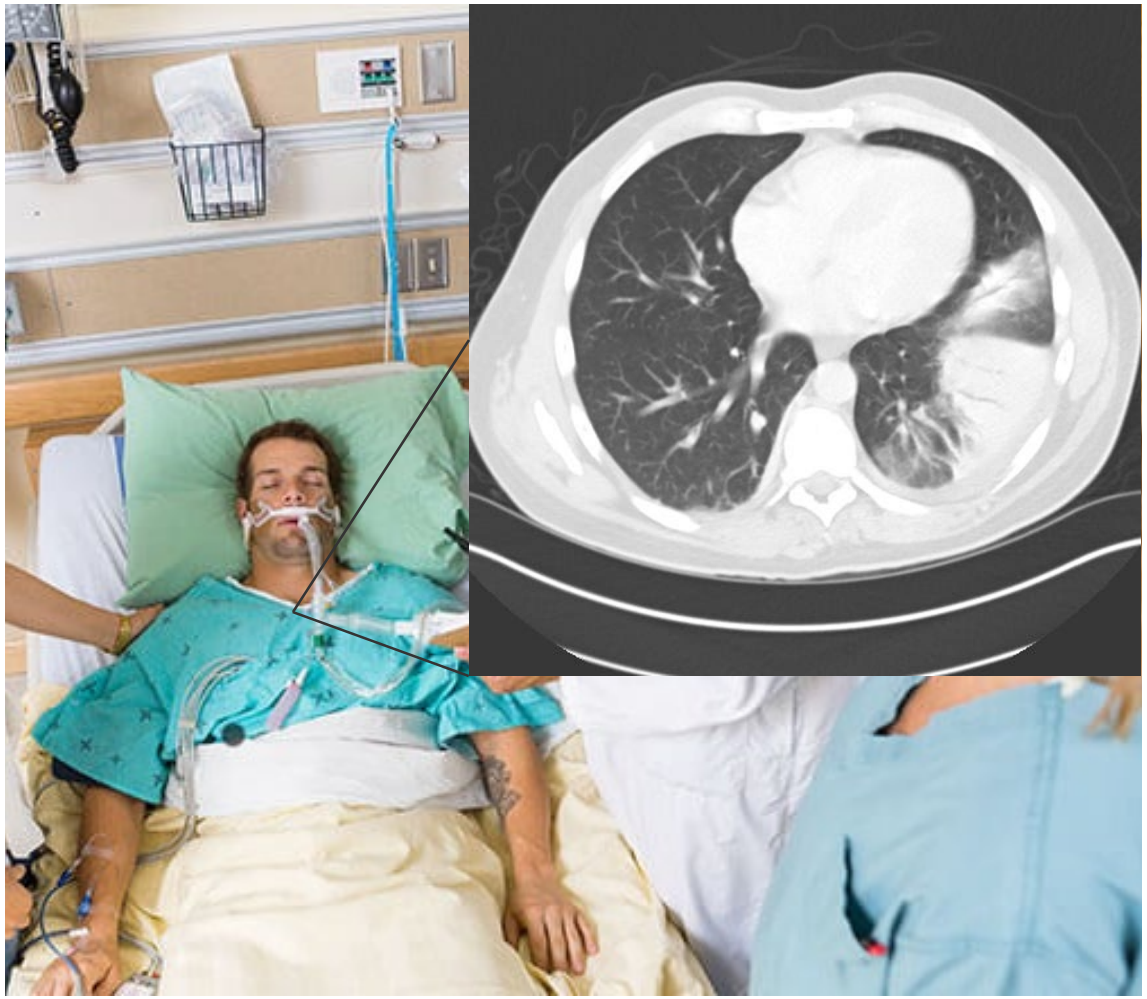


Solutions

- **MTQIP CDC VAP 2019**
- **CDC link automatically updates Jan**
- **Single source link 2020**
- **Consider addition PNEU 1 2020**



Visual VAP



Symptoms
- **Dyspnea**
- **Nonverbal**

Signs
- **Fever**
- **Tachypnea**
- **Purulent or increased secretions**
- **Rales/crackles**

Ventilatory
- **Tidal volume reduced**
- **Inspiratory pressures increased**

Laboratory
- **ABG - Hypoxemia**
- **WBC – Leukocytosis or leukopenia**

Imaging
- **New or progressive infiltrate**

Box Breakdown

CDC secrets are found here

VENTILATOR-ASSOCIATED PNEUMONIA
(Consistent with the CDC defined VAP. Definition provided by the CDC.)

A pneumonia where the patient is on mechanical ventilation for > 2 calendar days on the date of event, with day of ventilator placement being Day 1,
AND
The ventilator was in place on the date of event or the day before. If the patient is admitted or transferred into a facility on a ventilator, the day of admission is considered Day 1.

Box Breakdown

No cultures in PNU1

Table 1: Specific Site Algorithms for Clinically Defined Pneumonia (PNU1)

Imaging Test Evidence	Signs/Symptoms/Laboratory

Table 2: Specific Site Algorithms for Pneumonia with Common Bacterial or Filamentous Fungal Pathogens and Specific Laboratory Findings (PNU2)

Imaging Test Evidence	Signs/Symptoms	Laboratory

Table 3: Specific Site Algorithms for Viral, Legionella, and other Bacterial Pneumonias with Definitive Laboratory Findings (PNU2)

Imaging Test Evidence	Signs/Symptoms	Laboratory

Table 4: Specific Site Algorithm for Pneumonia in Immunocompromised Patients (PNU3)

Imaging Test Evidence	Signs/Symptoms	Laboratory

Box Breakdown

Table 2: Specific Site Algorithms for Pneumonia with Common Bacterial or Filamentous Fungal Pathogens and Specific Laboratory Findings (PNU2)

Imaging Test Evidence	Signs/Symptoms	Laboratory

Table 3: Specific Site Algorithms for Viral, Legionella, and other Bacterial Pneumonias with Definitive Laboratory Findings (PNU2)

Imaging Test Evidence	Signs/Symptoms	Laboratory

Table 4: Specific Site Algorithm for Pneumonia in Immunocompromised Patients (PNU3)

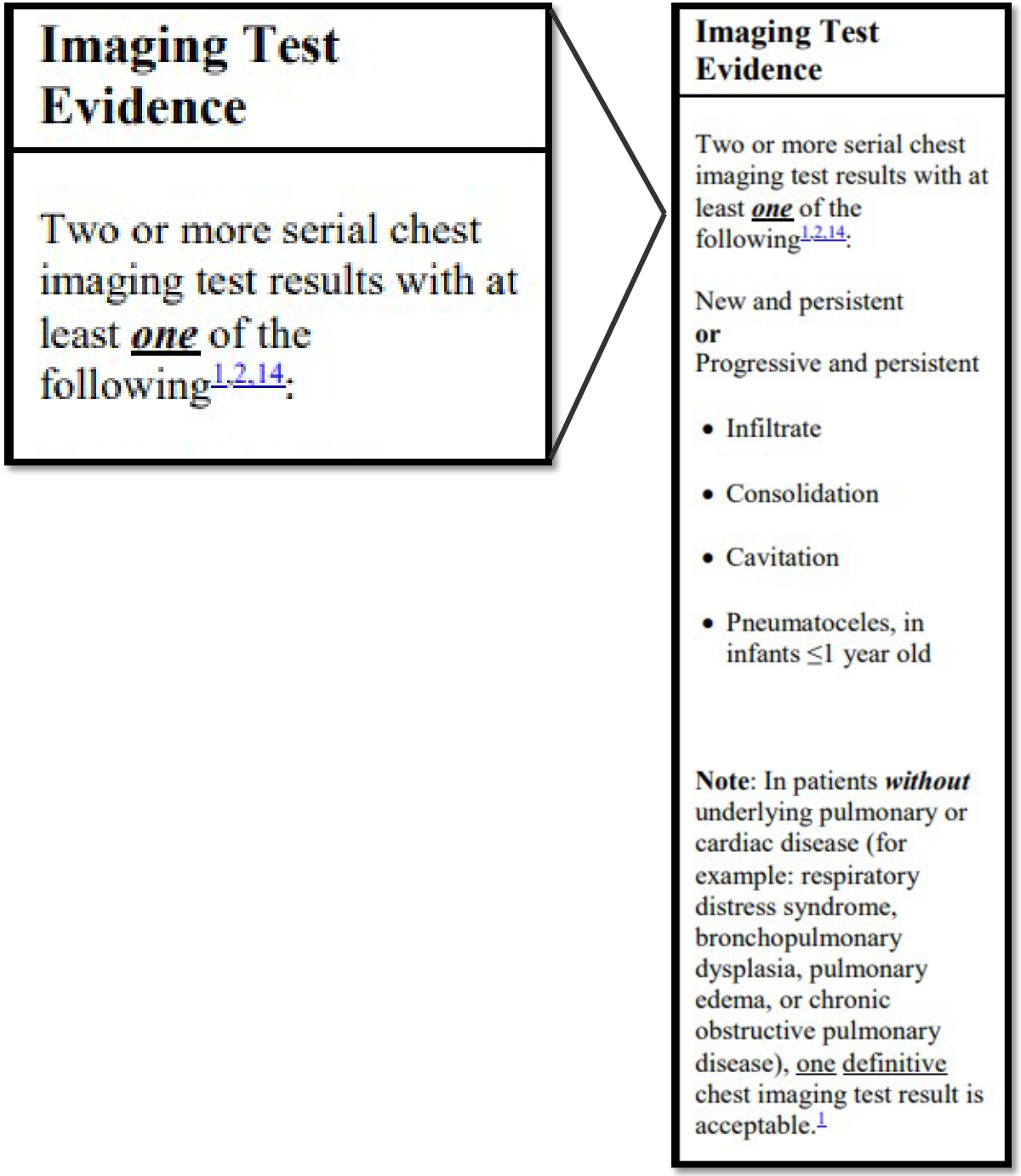
Imaging Test Evidence	Signs/Symptoms	Laboratory

A case can meet criteria in two tables during the 7-day infection window. Only report one.

Box Breakdown

How is persistence defined?

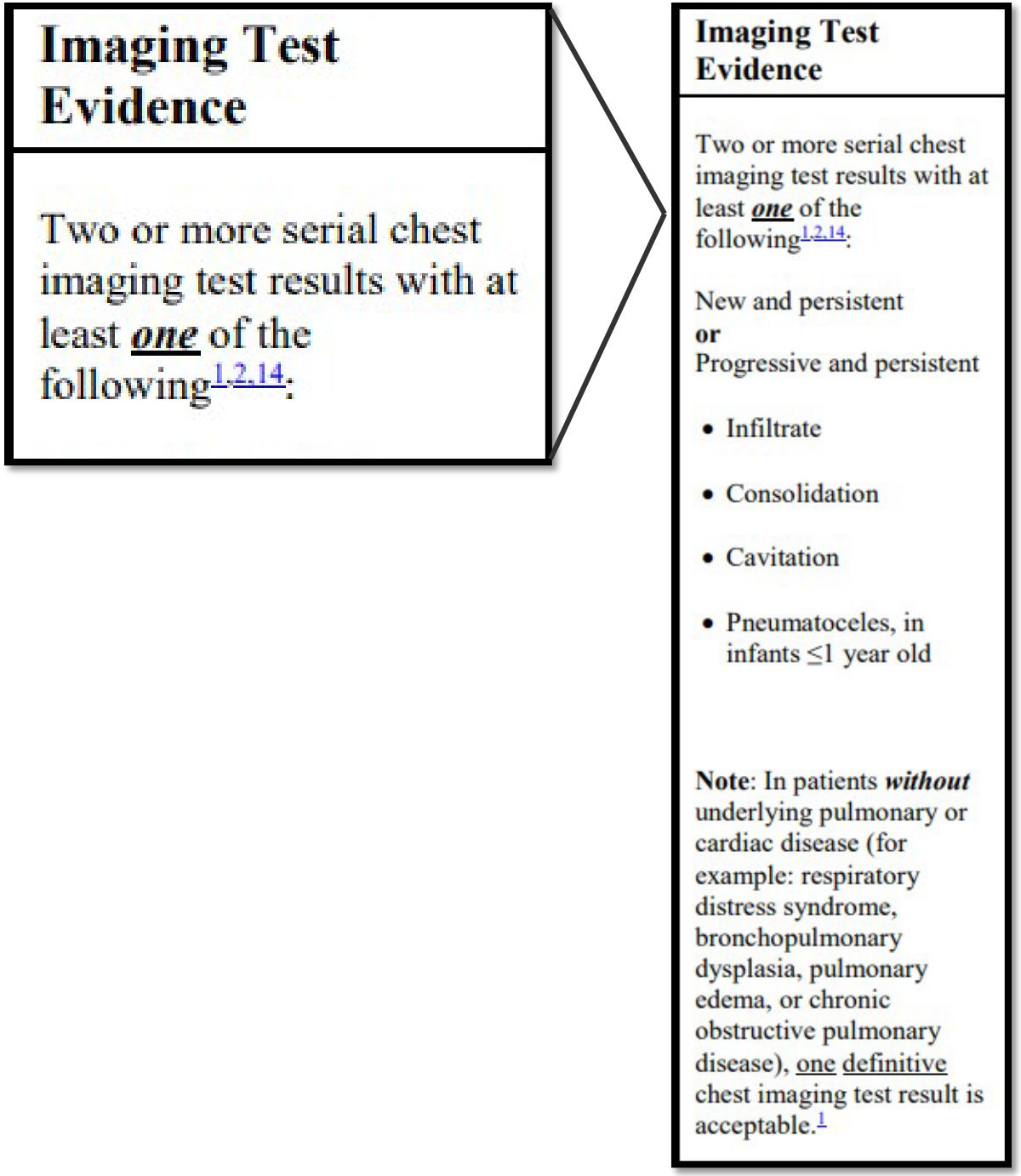
1. Imaging test evidence of pneumonia will persist. Rapid imaging resolution suggests that the patient does not have pneumonia, but rather a non-infectious process such as atelectasis or congestive heart failure. In patients without underlying disease if more than one imaging test is available serial imaging test results must also be evaluated and demonstrate persistence.



Box Breakdown

What if the radiologist uses different words?

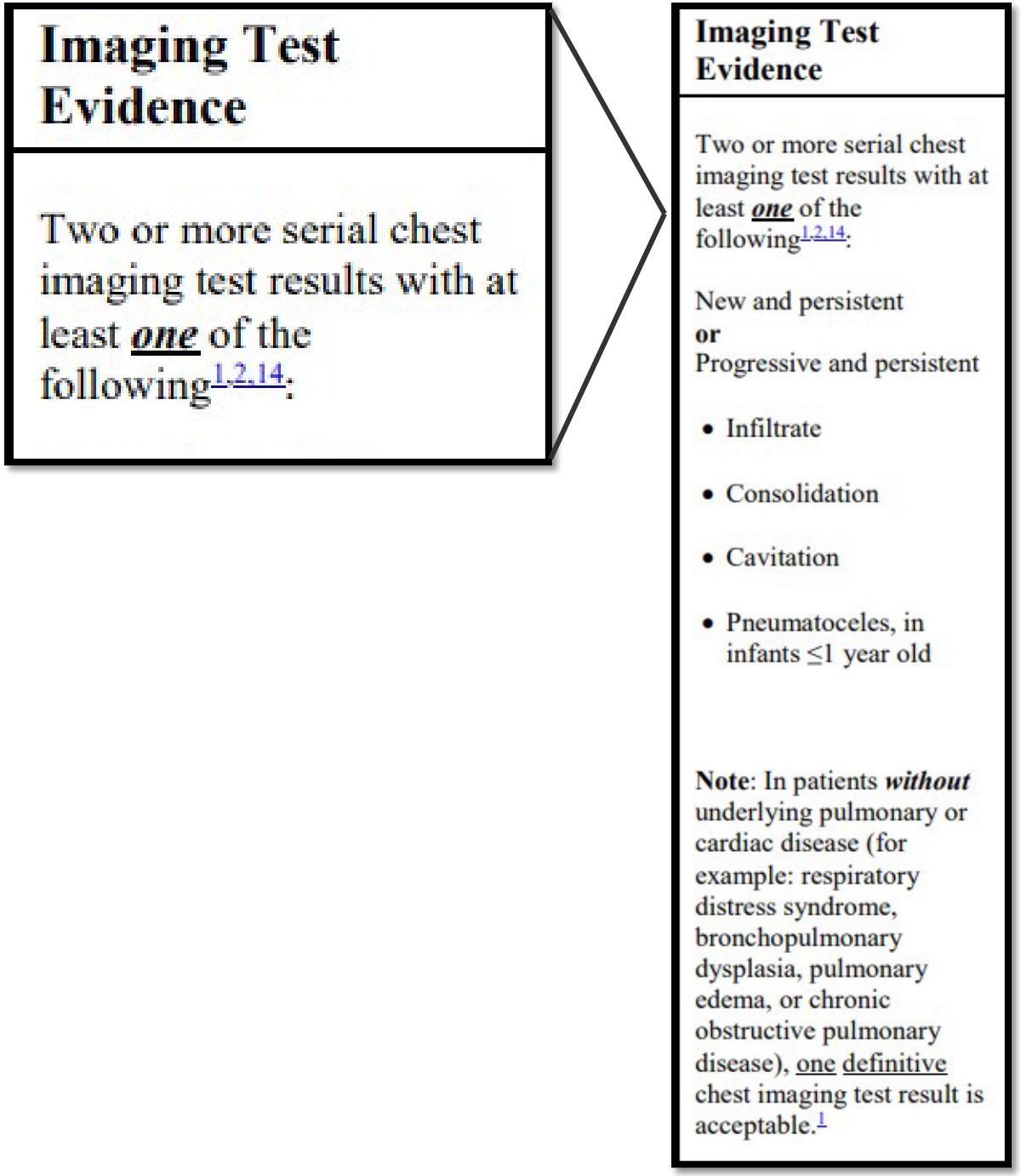
2. Note that there are many ways of describing the imaging appearance of pneumonia. Examples include, but are not limited to, "air-space disease", "focal opacification", "patchy areas of increased density". Although perhaps not specifically delineated as pneumonia by the radiologist, in the appropriate clinical setting these alternative descriptive wordings should be seriously considered as potentially positive findings. If provided and the findings are not documented as attributed to another issue (for example pulmonary edema, chronic lung disease) they are eligible for meeting imaging test evidence of pneumonia.



Box Breakdown

What if the chest x-ray is equivocal?

14. Note If the imaging test result is equivocal for pneumonia, check to see if subsequent imaging tests are definitive. For example, if a chest imaging test result states infiltrate vs. atelectasis and a subsequent imaging test result is definitive for infiltrate—the initial imaging test would be eligible for use. In the absence of finding a subsequent imaging result that clarifies the equivocal finding, if there is clinical correlation then the equivocal imaging test is eligible for use.



Box Breakdown

How is change in sputum character defined?

4. Change in character of sputum refers to the color, consistency, odor and quantity.

And at least ***one*** of the following:

- New onset of purulent sputum[3] or change in character of sputum[4], or increased respiratory secretions, or increased suctioning requirements
- New onset or worsening cough, or dyspnea or tachypnea[5]
- Rales[6] or bronchial breath sounds
- Worsening gas exchange (for example: O_2 desaturations [for example: $PaO_2/FiO_2 \leq 240$][7], increased oxygen requirements, or increased ventilator demand)

Signs/Symptoms

At least ***one*** of the following:

- Fever (>38.0°C or >100.4°F)
- Leukopenia (≤4000 WBC/mm^3) or leukocytosis (≥12,000 WBC/mm^3)
- For adults ≥70 years old, altered mental status with no other recognized cause

And at least ***one*** of the following:

- New onset of purulent sputum[3] or change in character of sputum[4], or increased respiratory secretions, or increased suctioning requirements
- New onset or worsening cough, or dyspnea or tachypnea[5]
- Rales[6] or bronchial breath sounds
- Worsening gas exchange (for example: O_2 desaturations [for example: $PaO_2/FiO_2 \leq 240$][7], increased oxygen requirements, or increased ventilator demand)

Box Breakdown

How is tachypnea defined?

5. > 25 breaths per minute (adults)

And at least ***one*** of the following:

- New onset of purulent sputum[3] or change in character of sputum[4], or increased respiratory secretions, or increased suctioning requirements
- New onset or worsening cough, or dyspnea or tachypnea[5]
- Rales[6] or bronchial breath sounds
- Worsening gas exchange (for example: O_2 desaturations [for example: $PaO_2/FiO_2 \leq 240$][7], increased oxygen requirements, or increased ventilator demand)

Signs/Symptoms

At least ***one*** of the following:

- Fever (>38.0°C or >100.4°F)
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- Rales[6] or bronchial breath sounds
- Worsening gas exchange (for example: O_2 desaturations [for example: $PaO_2/FiO_2 \leq 240$][7], increased oxygen requirements, or increased ventilator demand)

Box Breakdown

Can documentation of crackles be used for capture of rales?

6. Yes

And at least ***one*** of the following:

- New onset of purulent sputum[3] or change in character of sputum[4], or increased respiratory secretions, or increased suctioning requirements
- New onset or worsening cough, or dyspnea or tachypnea[5]
- Rales[6] or bronchial breath sounds
- Worsening gas exchange (for example: O_2 desaturations [for example: $PaO_2/FiO_2 \leq 240$][7], increased oxygen requirements, or increased ventilator demand)

Signs/Symptoms

At least ***one*** of the following:

- Fever (>38.0°C or >100.4°F)
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- For adults ≥70 years old, altered mental status with no other recognized cause

And at least ***one*** of the following:

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- Rales[6] or bronchial breath sounds
- Worsening gas exchange (for example: O_2 desaturations [for example: $PaO_2/FiO_2 \leq 240$][7], increased oxygen requirements, or increased ventilator demand)

Box Breakdown

What are the excluded organisms?

8. Commensal flora are excluded

- **Coagulase-negative Staph**
- **Enterococcus species**
- **Candida species**
- **Yeast not otherwise specified**

At least ***one*** of the following:

- Organism identified from blood[8,13]
- Organism identified from pleural fluid[9,13]
- Positive quantitative culture or corresponding semi-quantitative culture result[9] from minimally-contaminated LRT specimen (specifically, BAL, protected specimen brushing or endotracheal aspirate)
- ≥5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (for example: Gram's stain)
- Positive quantitative culture or corresponding semi-quantitative culture result [9]of lung tissue

Laboratory

At least ***one*** of the following:

- Organism identified from blood[8,13]
- Organism identified from pleural fluid[9,13]
- Positive quantitative culture or corresponding semi-quantitative culture result[9] from minimally-contaminated LRT specimen (specifically, BAL, protected specimen brushing or endotracheal aspirate)
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- Histopathologic exam shows at least ***one*** of the following evidences of pneumonia:
  - Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and alveoli
  - Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae

Box Breakdown

What are the excluded organisms?

8. Commensal flora are excluded

- **Coagulase-negative Staph**
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Wait a SEC!

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Box Breakdown

What are the excluded organisms?

8. Commensal flora are excluded

- **Coagulase-negative Staph**
- **Enterococcus species**
- **Candida species**
- **Yeast not otherwise specified**

Exceptions

- **When obtained from pleural fluid or chest tube placement.**
- **Candida spp. in immunocompromised**

At least ***one*** of the following:

- Organism identified from blood[8,13]
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Box Breakdown

What culture types are accepted?

9. A specimen that is not obtained through an artificial airway (specifically endotracheal tube or tracheostomy) from a ventilated patient is not considered minimally contaminated and is not eligible for use in meeting the laboratory criteria for PNU2. Sputum or tracheal secretions collected from a non-ventilated patient are not minimally-contaminated specimens.

Exceptions for immunocompromised patients see footnote 12

At least ***one*** of the following:

- Organism identified from blood[8,13]
- Organism identified from pleural fluid[9,13]
- Positive quantitative culture or corresponding semi-quantitative culture result[9] from minimally-contaminated LRT specimen (specifically, BAL, protected specimen brushing or endotracheal aspirate)
- ≥5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (for example: Gram's stain)
- Positive quantitative culture or corresponding semi-quantitative culture result [9]of lung tissue

LRT = Lower Respiratory Tract

Laboratory

At least ***one*** of the following:

- Organism identified from blood[8,13]
- Organism identified from pleural fluid[9,13]
- Positive quantitative culture or corresponding semi-quantitative culture result[9] from minimally-contaminated LRT specimen (specifically, BAL, protected specimen brushing or endotracheal aspirate)
- ≥5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (for example: Gram's stain)
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  - Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and alveoli
  - Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae

Box Breakdown

How is immunocompromised defined?

10. These include:

- **WBC < 500/mm^3**
- **Leukemia, lymphoma, or HIV with CD4 < 200**
- **Status post splenectomy**
- **Solid organ or stem cell TXP**
- **Cytotoxic chemotherapy**
- **Systemic steroids daily > 2 weeks on the date of event**

At least ***one*** of the following:

- Organism identified from blood[8,13]
- Organism identified from pleural fluid[9,13]
- Positive quantitative culture or corresponding semi-quantitative culture result[9] from minimally-contaminated LRT specimen (specifically, BAL, protected specimen brushing or endotracheal aspirate)
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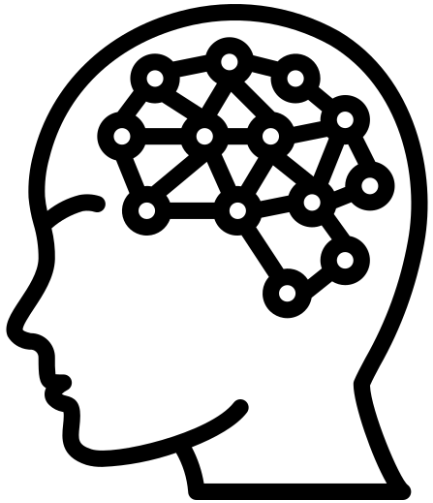
Training & Education

- **MTQIP Data Dictionary link**
- **CDC FAQ**
- **CDC Training**

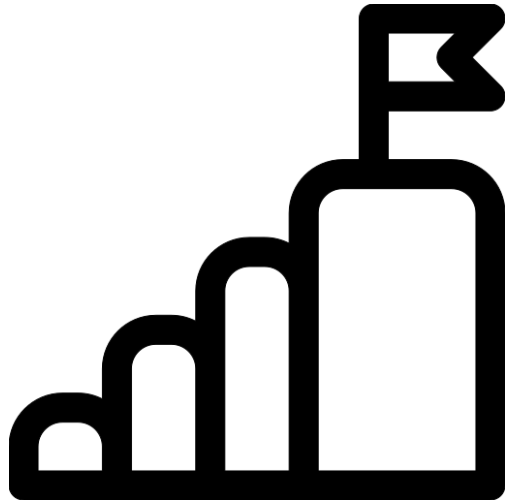
Don’t forget about the front matter of this document that includes general comments like inclusion of aspiration pneumonia if PNU criteria met



https://www.cdc.gov/nhsn/training/

Summary

- **Highlighted presence of variability**
- **Footnotes and FAQ for consistency**
- **Video training links**



Break Out
Level I/II Centers

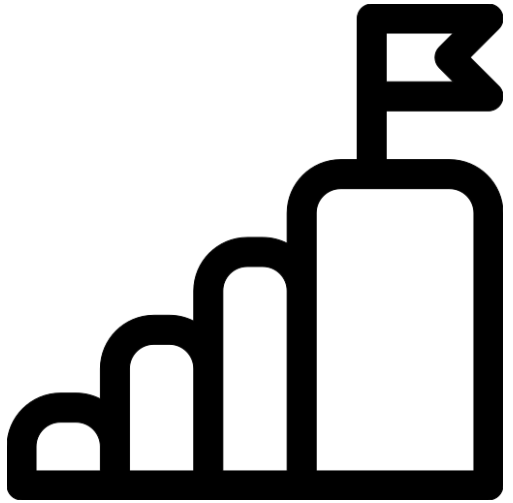
2:00

Collaborative Validation

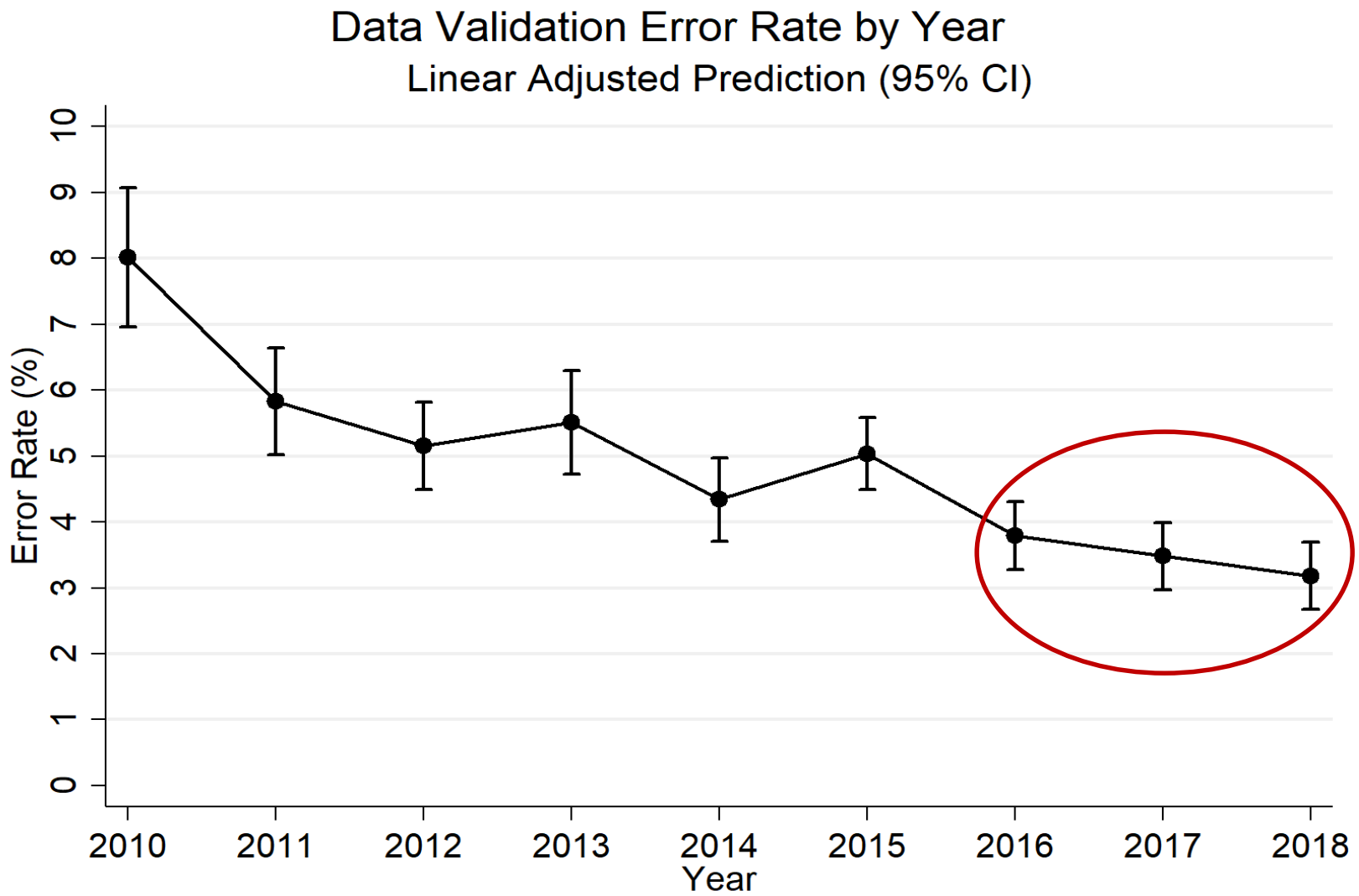
Jill Jakubus
2:05

Objectives

- **Validation progress over time**
- **Potential new approach**
- **Logistics**
- **Feedback**



Validation Progress Over Time



n = 166 visits

What if we used each other's errors make us better?

The Future of Validation

CC - XXF fall transferring from recliner to WC > C1, C2 fx, forehead hematoma > non-op collar > aspirating > NPO/TF > change code status > ICD turned off > expired

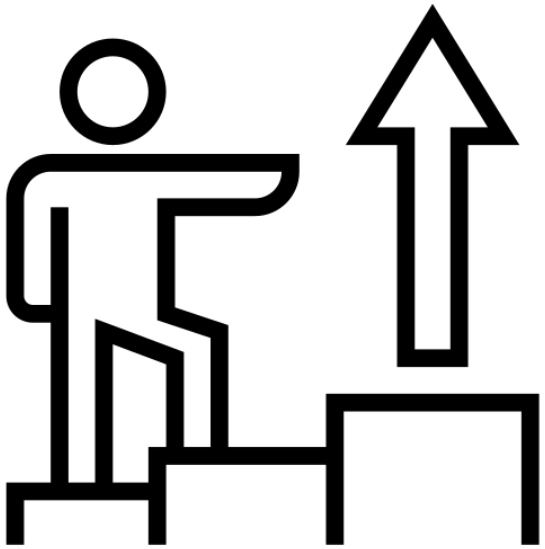
Case Number		
Trauma Center		
Patient Reference		
ED Arrival		
Hospital Discharge		
Chart Selection Criteria	1	

M·TQIP

Review 1	SD
Review 2	JJ
Error Check	9

Activation Level	Consult	0	Consult
First ED Temperature	97.5	0	97.5
First ED HR	80	0	80
First ED SBP	157	0	157
Intubation Location	Never	0	Never
First ED GCS Eye	4	0	4
First ED GCS Verbal	5	0	5
First ED GCS Motor	6	0	6
ED/Hospital GCS Total	15	0	15
Admit Service	Trauma	0	Trauma
ED Disposition	ICU	2	Tele
ED Discharge Date	HD #1	0	HD #1
ED Discharge Time	AT + 45	0	AT +45
Trauma Surgeon NPI (Full and Partial Only)			
Provider Arrival Date (2017 Full Only)			.
Provider Arrival Time (2017 Full Only)			.

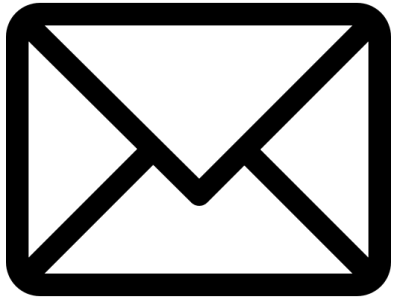
Value Proposition



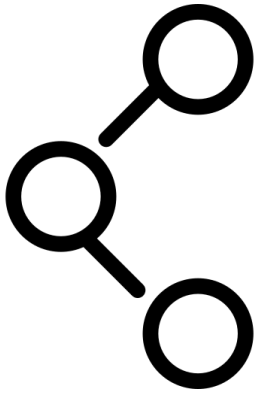
Obliterate the learning curve

Validation transparency

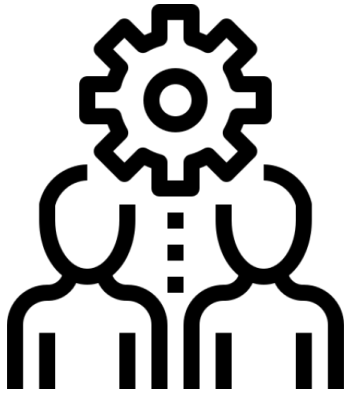
Logistics



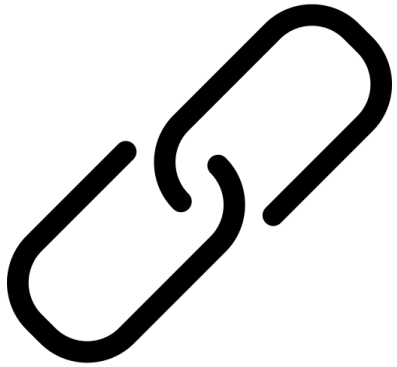
Email MTQIP with names if interested



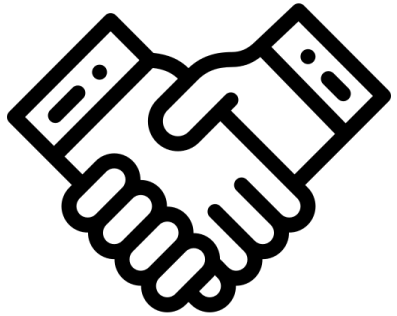
Start small



Give to get



Validation
Monday links



Link private
Avoid sharing
Meeting lock
Audience muted
Email questions

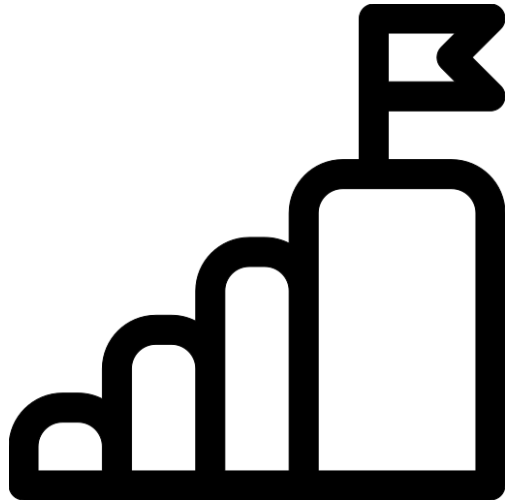
Feedback/Questions

MTQIP/TQIP Variability

Jill Jakubus

Objectives

- **Inquiry**
- **MTQIP membership**
- **Variation management**
- **Audience solutions**



Inquiry 1

Variance between TQIP data dictionary capture and MTQIP data dictionary capture. When data collection is different, which do we collect?

Inquiry 2

Some of the data definitions vary between MTQIP and NTDS, being the data is placed into one registry for both, what is the best way to handle when the data definitions are different. Should the registrars use MTQIP definitions or NTDS definitions?

MTQIP Membership

Data Sharing and Use Agreement

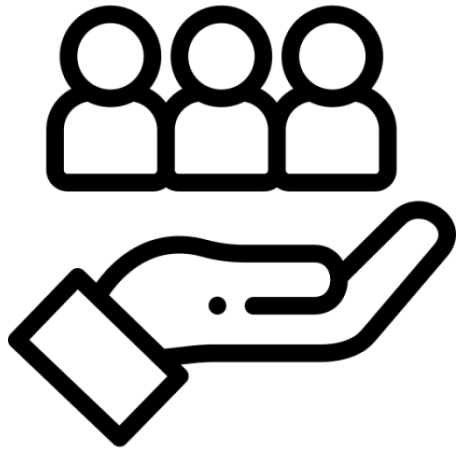
Michigan Trauma Quality Improvement Program (MTQIP)

Attachment A

d. Participating Trauma Surgery Programs

Trauma centers in the state of Michigan will participate in the MTQIP. Each site agrees to:

- Collect and submit data to the MTQIP clinical registry according to MTQIP standards, definitions, and policies to ensure timely and high-quality data capture



Data Use Agreement Attachment A

Support

Variation Management

M·TQIP

Data Standardization Process

Framework

MTQIP will use the following criteria to guide decisions regarding data succession where variables that may deviate from an outside entity.

1. Data is being used in MTQIP reporting or analytics to drive quality improvement
2. Data reflects actual care being delivered to the patient
3. Data definition is objective and promotes data integrity

Variables or definitions that possess an affirmative answer to any of the above may deviate from an outside entity's and will be identified in blue font in the data dictionary.

VENTILATOR-ASSOCIATED PNEUMONIA

(Consistent with the CDC defined VAP. Definition provided by the CDC.)

A pneumonia where the patient is on mechanical ventilation for > 2 calendar days on the date of event, with day of ventilator placement being Day 1,

AND

The ventilator was in place on the date of event or the day before. If the patient is admitted or transferred into a facility on a ventilator, the day of admission is considered Day 1.

Variation Framework

Variation Identification (clarification or variance)

Rational

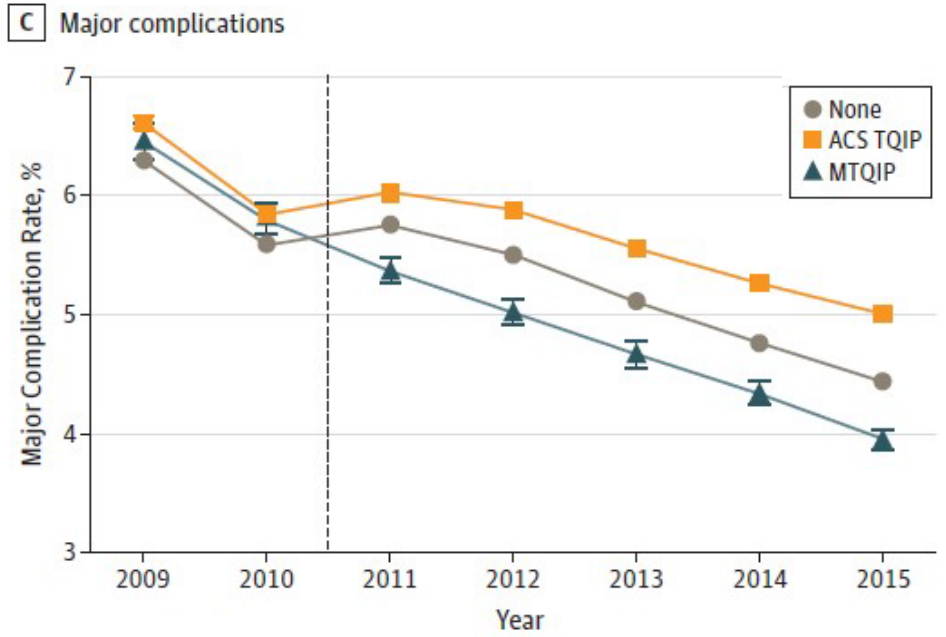
JAMA Surgery | Original Investigation

Association of Hospital Participation in a Regional Trauma Quality Improvement Collaborative With Patient Outcomes

Mark R. Hemmila, MD; Anne H. Cain-Nielsen, MS; Jill L. Jakubus, PA-C, MHSA, MS; Judy N. Mikhail, RN, PhD; Justin B. Dimick, MD, MPH

CONCLUSIONS AND RELEVANCE This study demonstrates that hospital participation in a regional collaborative quality improvement program is associated with improved patient outcomes beyond benchmark reporting alone while promoting compliance with processes of care.

Figure 2. Adjusted Rates of Outcomes



Actionable Evidence-Based Practices

Risk Adjustment Model Discrimination & Calibration

Let’s Try An Example - Modeling Made Easy

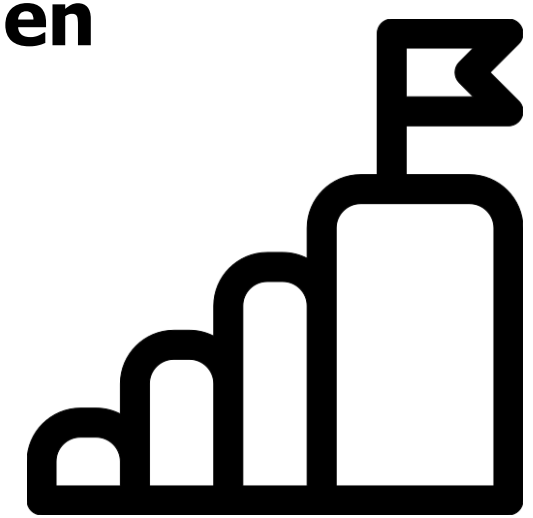
Your turn. . .
Predict Penetrating Mortality

- Age
- ED BP
- ED GCS Motor
- ISS
- Severity >= 3 Regions (head, abdomen)
- Male
- Fall or Firearm
- Alcoholism
- Cancer
- Hypertension
- Pre-Hospital CPR

Audience Solutions

Summary

- **MTQIP data dictionary primary source**
- **MTQIP data is used to promote actionable evidence-based practices**
- **Strive for capture that reflects actual care**
- **Open to solutions to decrease burden**

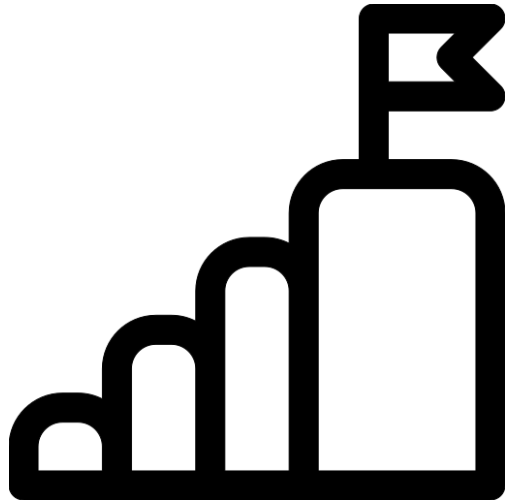


2020 MTQIP Data Dictionary Updates

Jill Jakubus

Projected Changes

- **Clarifications from meeting**
- **TQIP updates**
- **Blocks**



Block Example Note

Ultrasound Procedure *ED

Patient: **MRN: (aac)-** **FIN:**
Age: : **Female** DOB:
Associated Diagnoses: **None**
Author:

Procedure

Procedure notes:

Ultrasound guidance for needle placement of femoral nerve block

After chlorhexadine prep and sterile technique, high frequency linear probe with sterile cover was used to visualize the anatomy of the femoral nerve, artery and vein and guide precise needle placement for the procedure. Digital images were saved. 30cc mix of 5ml 1%lidocaine with epi, 15cc of ropivicane and 10cc of sterile saline were injected to hydrodissect the femoral nerve. Patient tolerated the procedure well without immediate complication.

-

Addendum by

Attending/Procedure Note:I have performed a history and physical examination of the patient and discussed the management of the patient with the resident. I have reviewed the resident's note and agree with the documented findings and plan of care. I was personally present for, observed and participated in the critical portion of the following procedure(s): femoral nerve block with ultrasound guidance. Chart electronically signed by Dr.

Block Feedback

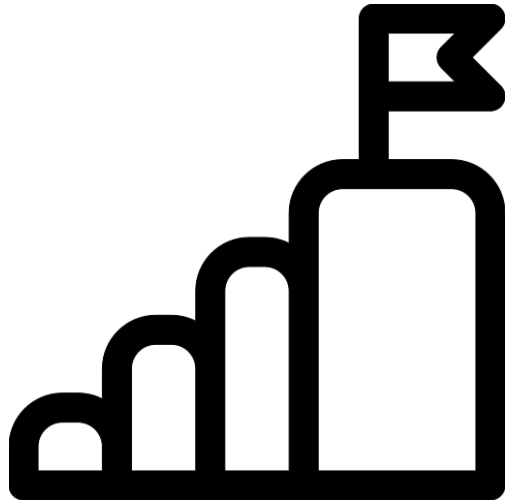
- Are your patients receiving neuraxial blocks?
- How are these blocks documented?
- Are these being entered under Procedures?
- Coding cheat sheet?

Isolated Hip Fracture Disposition Variability

Jill Jakubus

Objectives

- **Email**
- **Definition**
- **Data**
- **Dialogue**



Email

Hi Jill,
Is there any way to get a definition clarification included in the next MTQIP Registrar's meeting in June?

The definition I'd like to see clarified is Discharge Disposition.

Our center is consistently different than the rest of MTQIP, and every time a MTQIP or TQIP report comes out, and I have a discussion about this data point.
We believe that we are interpreting and collecting this field correctly. But, I will admit my error if someone can tell me what we are doing wrong! ☺

Can it be added to the agenda somehow?

Thanks for your consideration,

HOSPITAL DISCHARGE DISPOSITION
The disposition of the patient when discharged from the hospital.

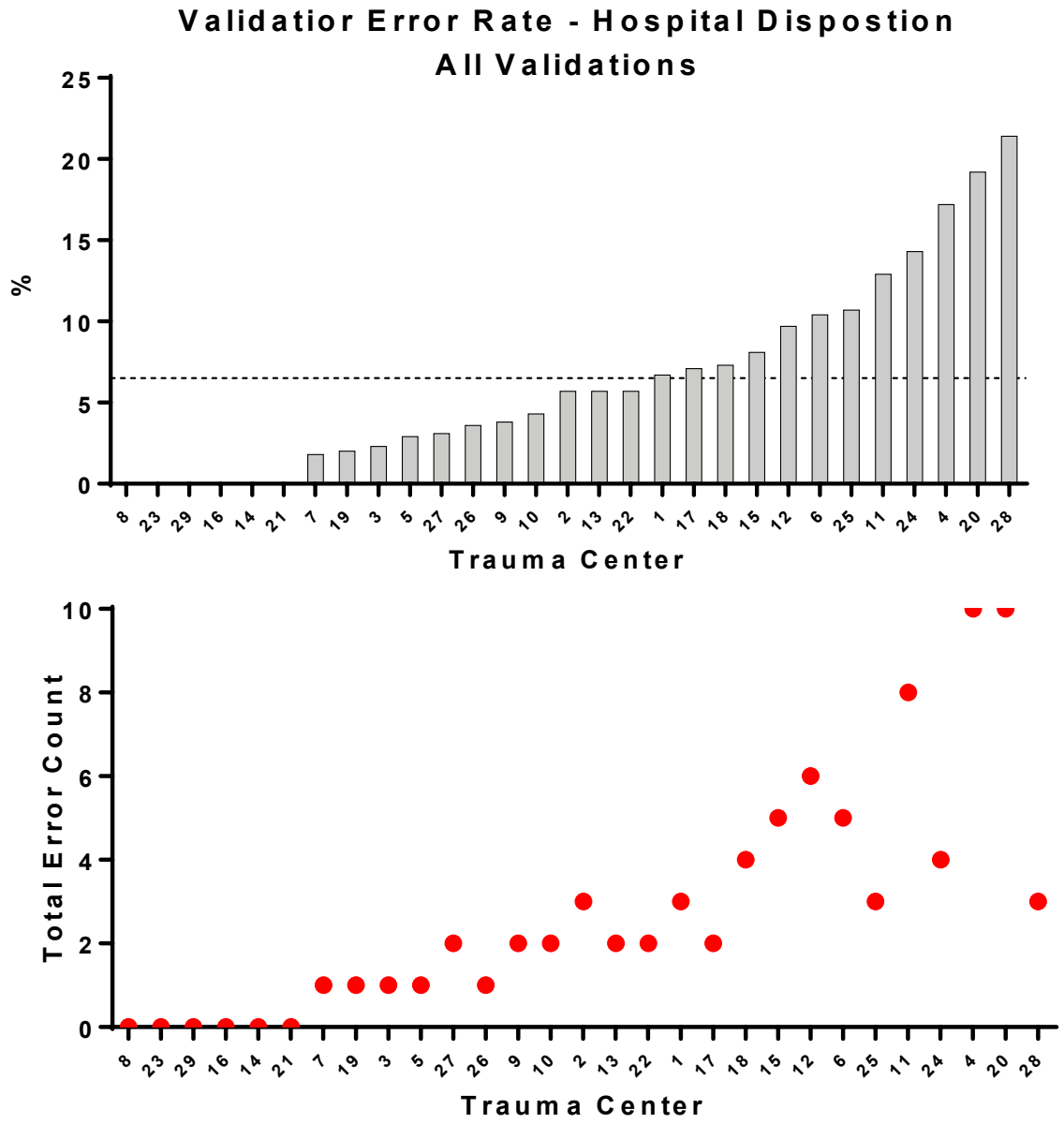
- Field value = 6, "home" refers to the patient's current place of residence (e.g., prison, Child Protective Services etc.)
- Field values based upon UB-04 disposition coding.
- Disposition to any other non-medical facility should be coded as 6.
- Disposition to any other medical facility should be coded as 14.
- The null value "Not Applicable" is reported if ED Discharge Disposition = 5 (Deceased/expired).
- The null value "Not Applicable" is reported if ED Discharge Disposition = 4,6,9,10, or 11.
- Hospital Discharge Dispositions which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Hospital Discharge Dispositions.

(1) Discharged/Transferred to a short-term general hospital for inpatient care
(2) Discharged/Transferred to an Intermediate Care Facility (ICF)
(3) Discharged/Transferred to home under care of organized home health service
(4) Left against medical advice or discontinued care
(5) Deceased/Expired
(6) Discharged home with no home services (routine discharge)
(7) Discharged/Transferred to Skilled Nursing Facility (SNF)
(8) Discharged/Transferred to hospice care (home hospice or hospice facility)
(10) Discharged/Transferred to court/law enforcement
(11) Discharged/Transferred to inpatient rehab or designated unit (acute rehabilitation or subacute rehabilitation)
(12) Discharged/Transferred to Long Term Care Hospital (LTCH, LTAC or Select Specialty)
(13) Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital
(14) Discharged/Transferred to another type of institution not defined elsewhere

Def. Source: NTDS

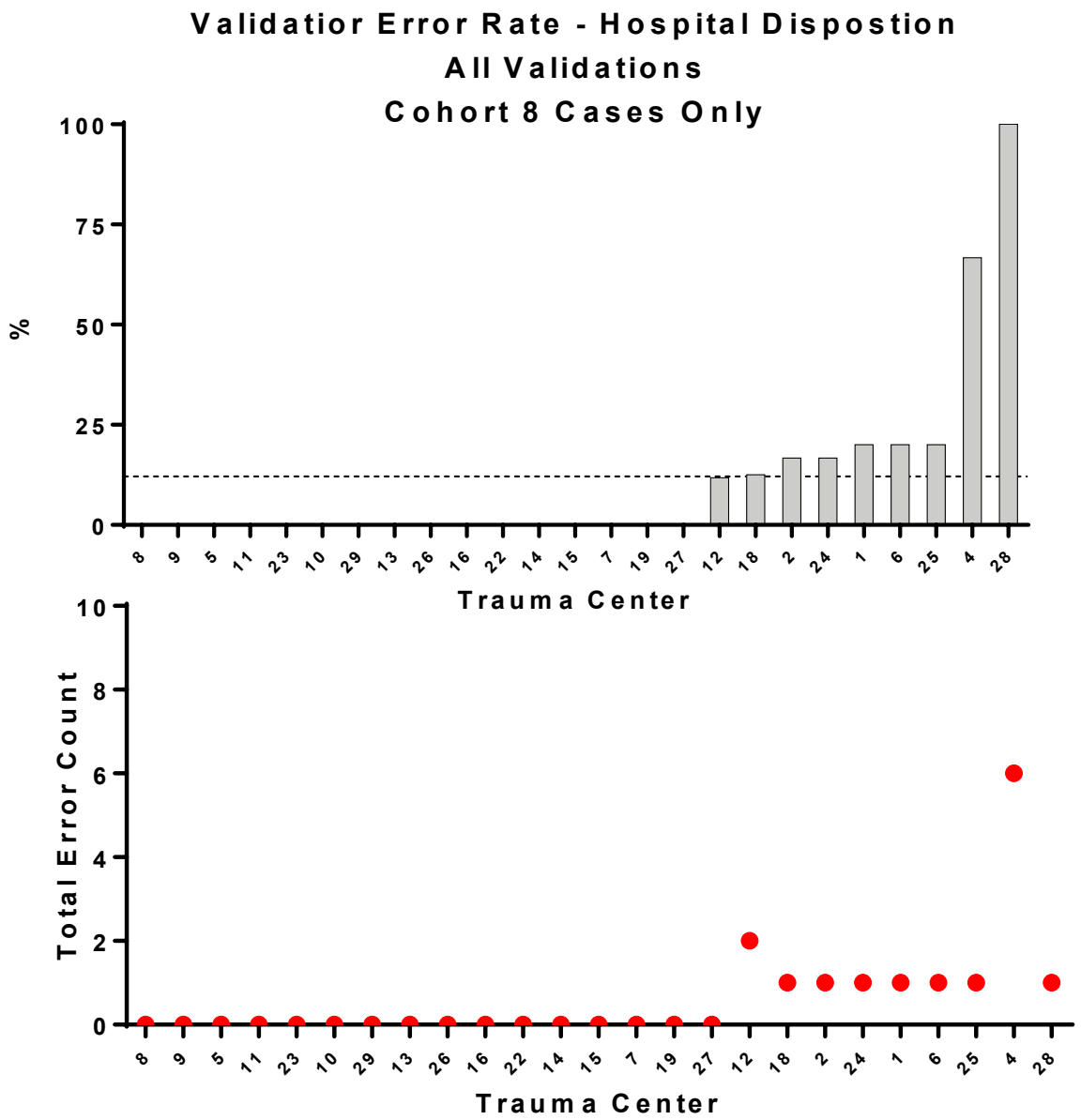
Data Validation

- **Do we have a data definition or capture problem?**


Validatior Error Rate - Hospital Dispostion
All Validations
%
25
20
15
10
5
0
8 23 29 16 14 21 7 19 3 5 27 26 9 10 2 13 22 1 17 18 15 12 6 25 11 24 4 20 28
Trauma Center
Total Error Count
10
8
6
4
2
0
8 23 29 16 14 21 7 19 3 5 27 26 9 10 2 13 22 1 17 18 15 12 6 25 11 24 4 20 28
Trauma Center

Data Validation

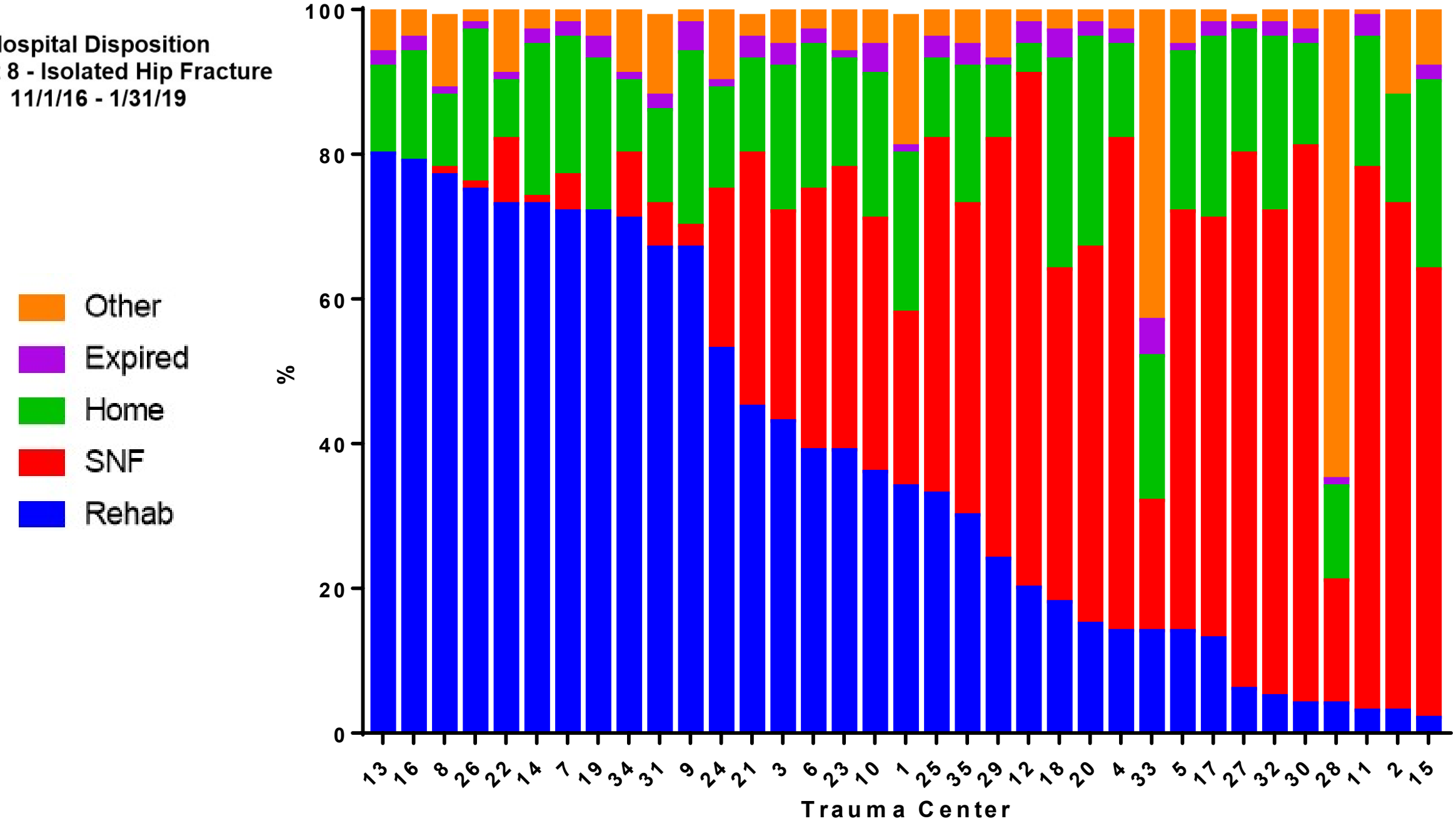
- **What does data quality look like for a cohort 8 – isolated hip fracture?**


Validatior Error Rate - Hospital Dispostion
All Validations
Cohort 8 Cases Only
100
75
50
25
0
%
8 9 5 11 23 10 29 13 26 16 22 14 15 7 19 27 12 18 2 24 1 6 25 4 28
Trauma Center
10
8
6
4
2
0
Total Error Count
8 9 5 11 23 10 29 13 26 16 22 14 15 7 19 27 12 18 2 24 1 6 25 4 28
Trauma Center

Data Validation

- **What does the variability of hospital disposition across centers look like?**

Hospital Disposition
Cohort 8 - Isolated Hip Fracture
11/1/16 - 1/31/19



HealthAffairs

Spending On Care After Surgery Driven By Choice Of Care Settings Instead Of Intensity Of Services

Lena M. Chen, Edward C. Norton, Mousumi Banerjee, Scott E. Regenbogen, ... See all authors

AFFILIATIONS

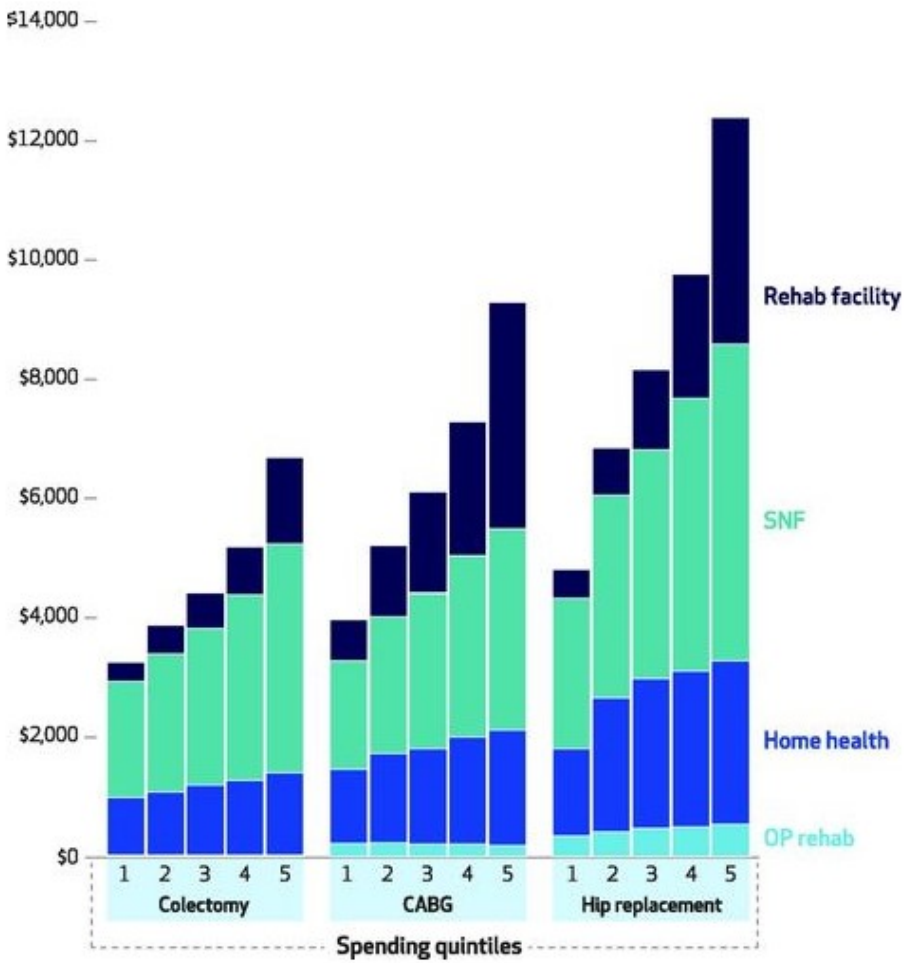
PUBLISHED: JANUARY 2017 Full Access https://doi.org/10.1377/hlthaff.2016.0668

ABSTRACT

The rising popularity of episode-based payment models for surgery underscores the need to better understand the drivers of variability in spending on postacute care. Examining postacute care spending for fee-for-service Medicare beneficiaries after three common surgical procedures in the period 2009–12, we found that it varied widely between hospitals in the lowest versus highest spending quintiles for postacute care, with differences of 129 percent for total hip replacement, 103 percent for coronary artery bypass grafting (CABG), and 82 percent for colectomy. Wide variation persisted after we adjusted for the intensity of postacute care. However, the variation diminished considerably after we adjusted instead for postacute care setting (home health care, outpatient rehabilitation, skilled nursing facility, or inpatient rehabilitation facility): It decreased to 16 percent for hip replacement, 4 percent for CABG, and 21 percent for colectomy. Health systems seeking to improve surgical episode efficiency should collaborate with patients to choose the highest-value postacute care setting.

HealthAffairs

Exhibit 2 Components of average total spending for 90-day postacute care for colectomy, coronary artery bypass grafting (CABG), and total hip replacement, by quintile of spending, 2009–12



SOURCE Authors' analysis of data from Medicare. NOTES Hospitals were placed into risk-adjusted quintiles based on their condition-specific, price-standardized total spending on postacute care, with quintile 1 (Q1) having the lowest spending and quintile 5 (Q5) the highest. "OP rehab" is outpatient rehabilitation. "Home health" is home health care. "Rehab facility" is inpatient rehabilitation facility. SNF is skilled nursing facility.

Dialogue

Break Out
Level III Centers

2:00

Level III Breakout Session

Sara Samborn, MSN, RN
Amy Bohner, MS
June 4, 2019

M·TQIP

State of Michigan

Clarifications regarding the upcoming data submission:

- **Direct Data Entry into ImageTrend:**
  - If you directly enter your cases into ImageTrend and do not use any other software vendors, the are no changes to the state quarterly data submission, please submit as usual.
- **Collect data in software and have Vendor Aggregator:**
  - If you use a software vendor other than ImageTrend AND currently have access to the Vendor Aggregator (our understanding is this is made available after the facility signs a user agreement), please submit the file that is exported out of the Vendor Aggregator to the state trauma registry by June 15.

State of Michigan

Clarifications regarding the upcoming data submission:

- **Collect data in software and do not yet have permissions (signed user agreement) to access Vendor Aggregator:**
  - If you use a software vendor other than ImageTrend and do NOT have access to the Vendor Aggregator, the state is currently still accepting files from your software vendor for the June 15 deadline.

State of Michigan

Contact Information

- **Amy Bohner**
  - **Trauma Registrar and Epidemiologist**
  - **StateTraumaRegistrar@michigan.gov**

SOM/MTQIP FAQs

Is participation in the SOM/MTQIP project required?

- In short, no. It is still voluntary.
- It fulfills the benchmarking requirement for designation.
- Currently 16 centers are participating.

SOM/MTQIP FAQs

Is there a penalty for late or missed data submissions?

- No, your center simply will not receive a site specific report for that time period.
- Please note: there is no grace period for MTQIP data submission deadlines.

SOM/MTQIP FAQs

What data should I submit?

- NTDS type data. Level III centers are not required to capture MTQIP specific variables.
- If your center is collecting MTQIP variables, you are welcome to submit that data.

SOM/MTQIP FAQs

MTQIP has several meetings on the calendar. What meetings should I attend?

- The June Abstraction Staff meeting in Ann Arbor.
- Interest in other meetings?

SOM/MTQIP FAQs

Any other questions??

Closing Comments
Thank you

Jill Jakubus
2:55

Hidden Hints – Medication list secrets

While not all comorbidities require a medication for capture, the medication list may offer hidden hints of associated comorbidities.

Medication: donepezil (Aricept)

Comorbidity: Dementia

Hidden Hints – Medication list secrets

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Medication: arpiprazole (Abilify)

Comorbidity: Mental/Personality Disorder

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Medication: prednisone (Deltasone)

Comorbidity: Steroid Use

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Medication: metoprolol succinate (Toprol-XL)

Comorbidity: Hypertension
Beta Blocker

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Medication: bosutinib (Bosulif)

Comorbidity: Chemotherapy for Cancer

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Medication: rivastigmine (Exelon)

Comorbidity: Dementia

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Medication: sevelamer hydrochloride (Renagel)

Comorbidity: Chronic Renal Failure

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Medication: apixaban (Eliquis)

Comorbidity: Anticoagulation Therapy
Factor Xa Inhibitor

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Medication: galantamine (Razadyne)

Comorbidity: Dementia

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Medication: paliperidone (Invega)

Comorbidity: Mental/Personality Disorder

Hidden Hints – Medication list secrets

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Medication: ruxolitinib (Jakafi)

Comorbidity: Chemotherapy for Cancer