#### Let's Huddle about Huddling!

Presenting: Elliot Melendez, MD, Chief, Pediatric Critical Care Adith Velavan, QI and Clinical Research Assistant



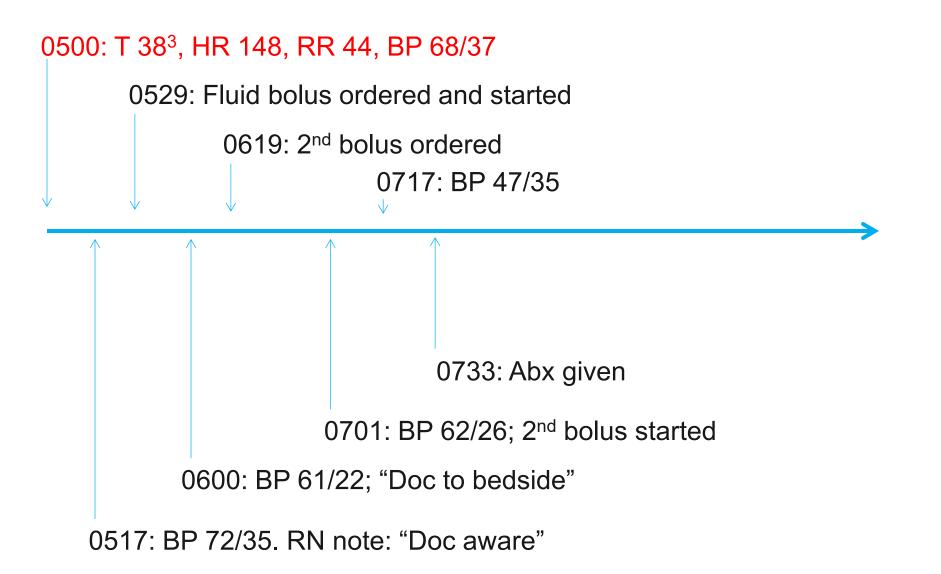
## No conflicts of interest or financial disclosures

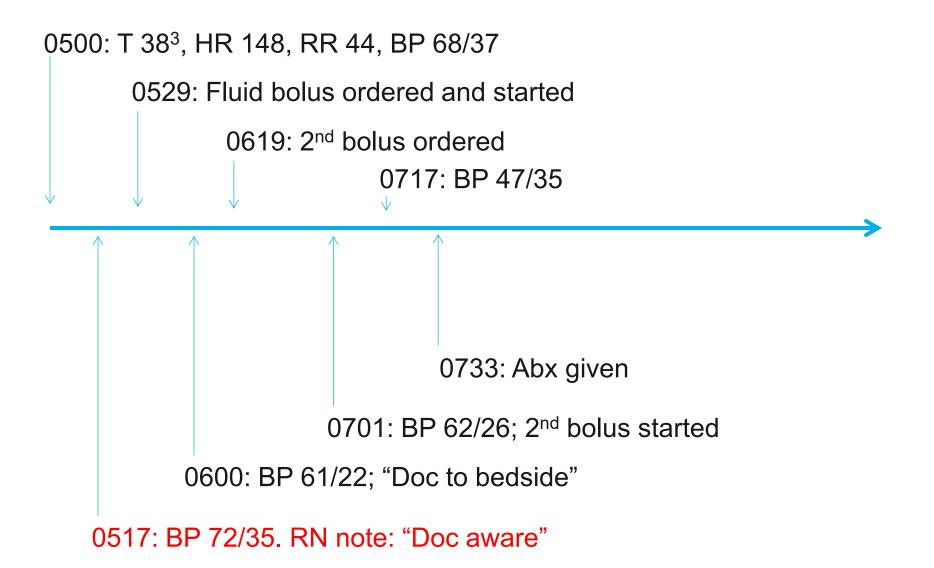




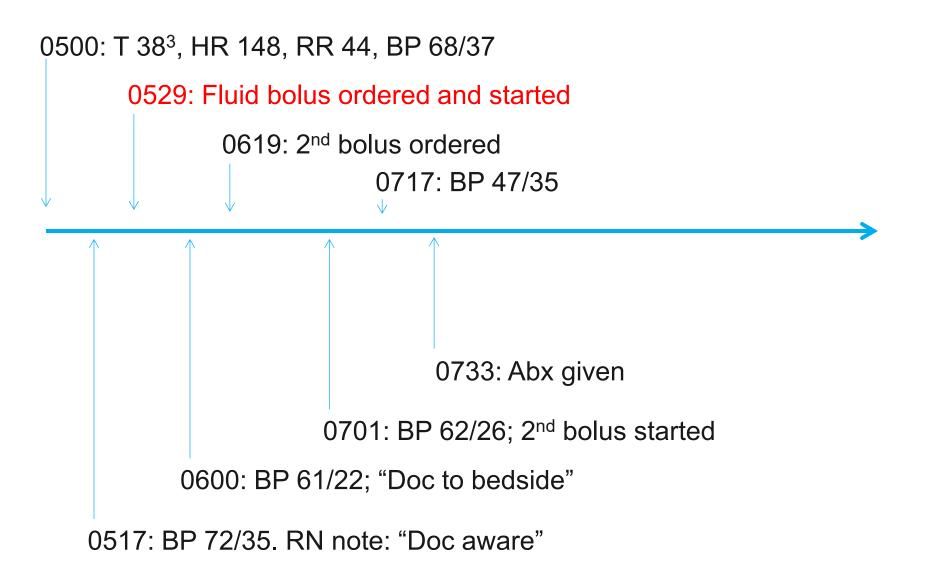
- Start with sepsis story
- Review the QI journey towards a sepsis huddle
- Review the why of a sepsis huddle

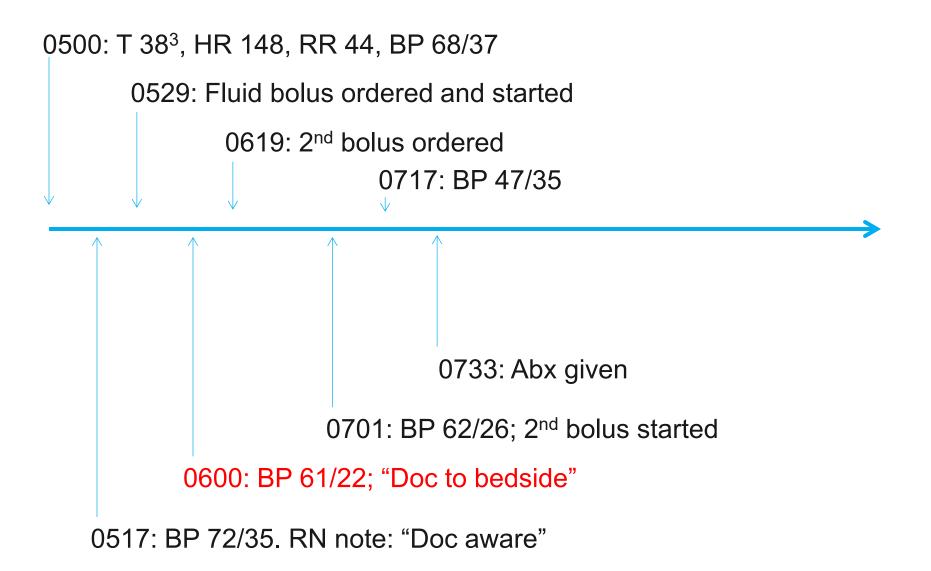


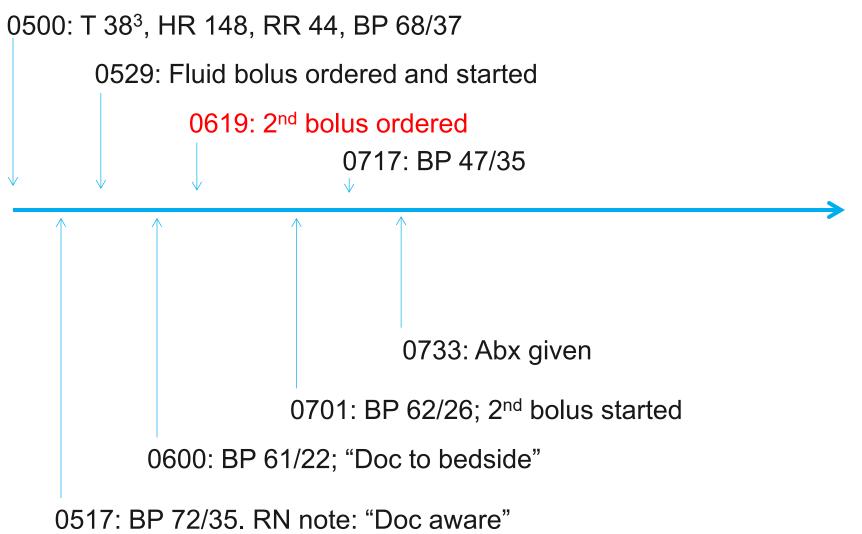


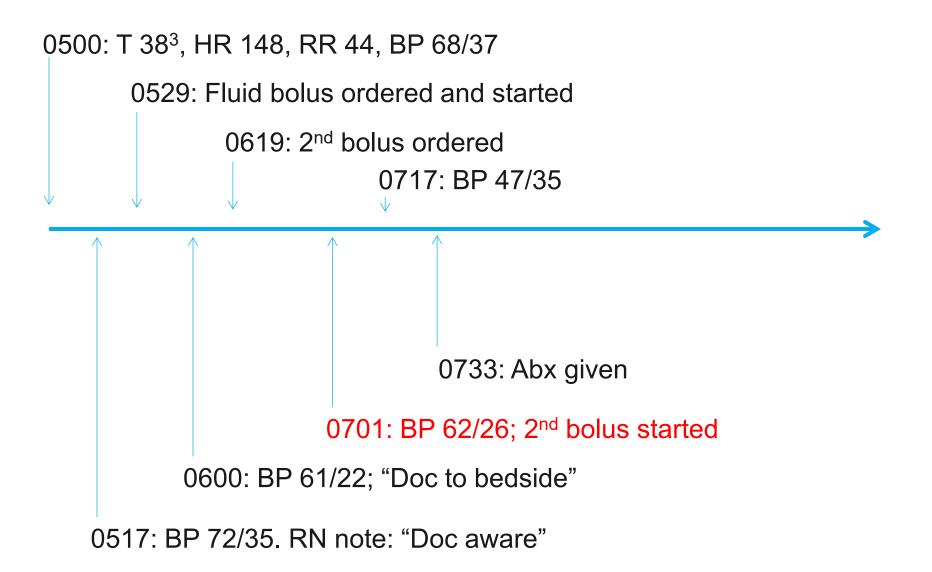


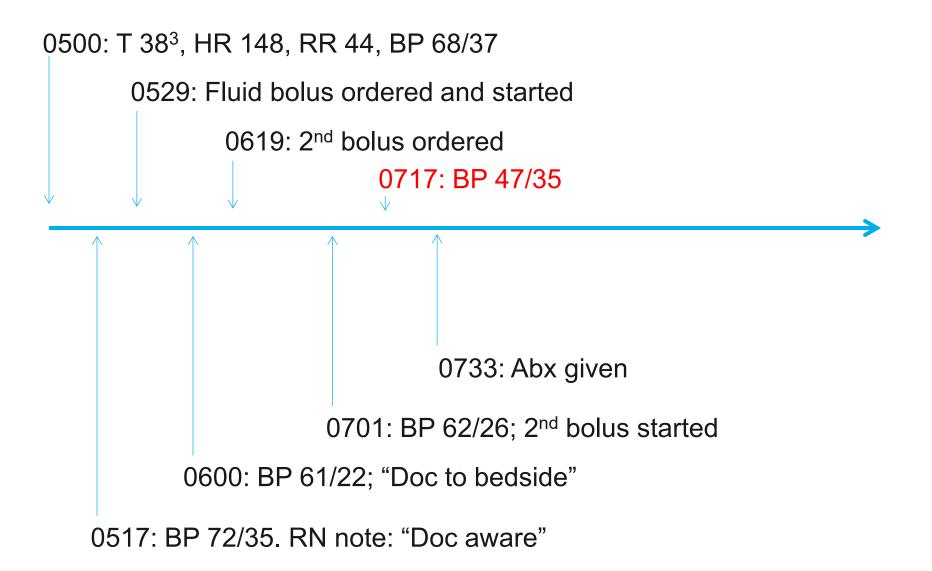


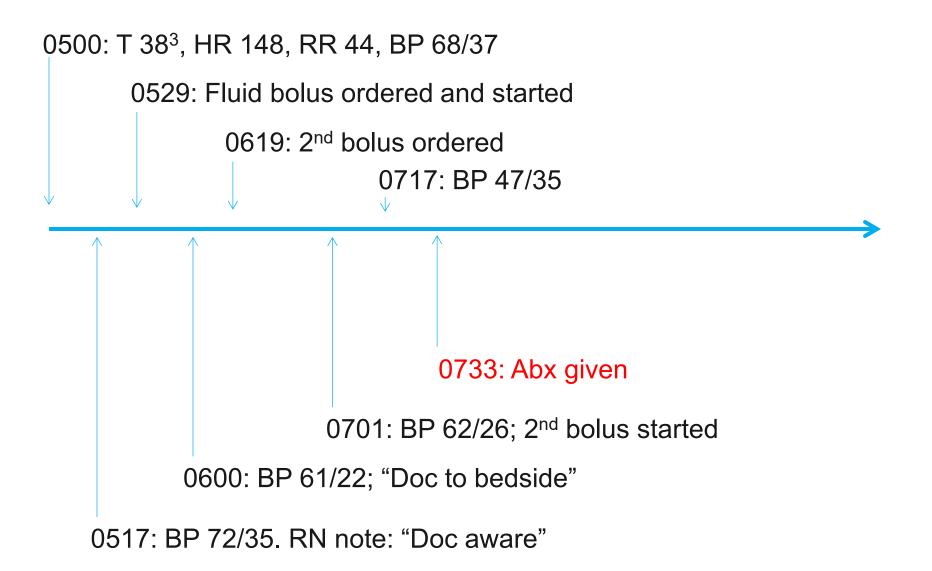












### We Sought Feedback to Understand



• "I wasn't sure if sepsis. I ordered the bolus to be given and later went to check and the bolus was on a pump. I informed the bedside nurse to use the pressure bag and they did."

• "The antibiotic was ordered and available but only had 1 IV"

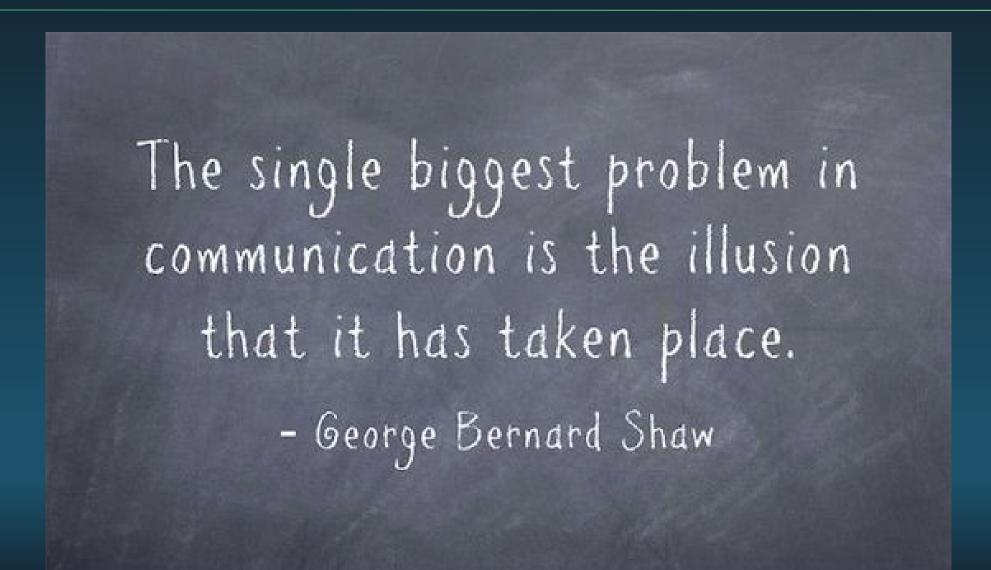


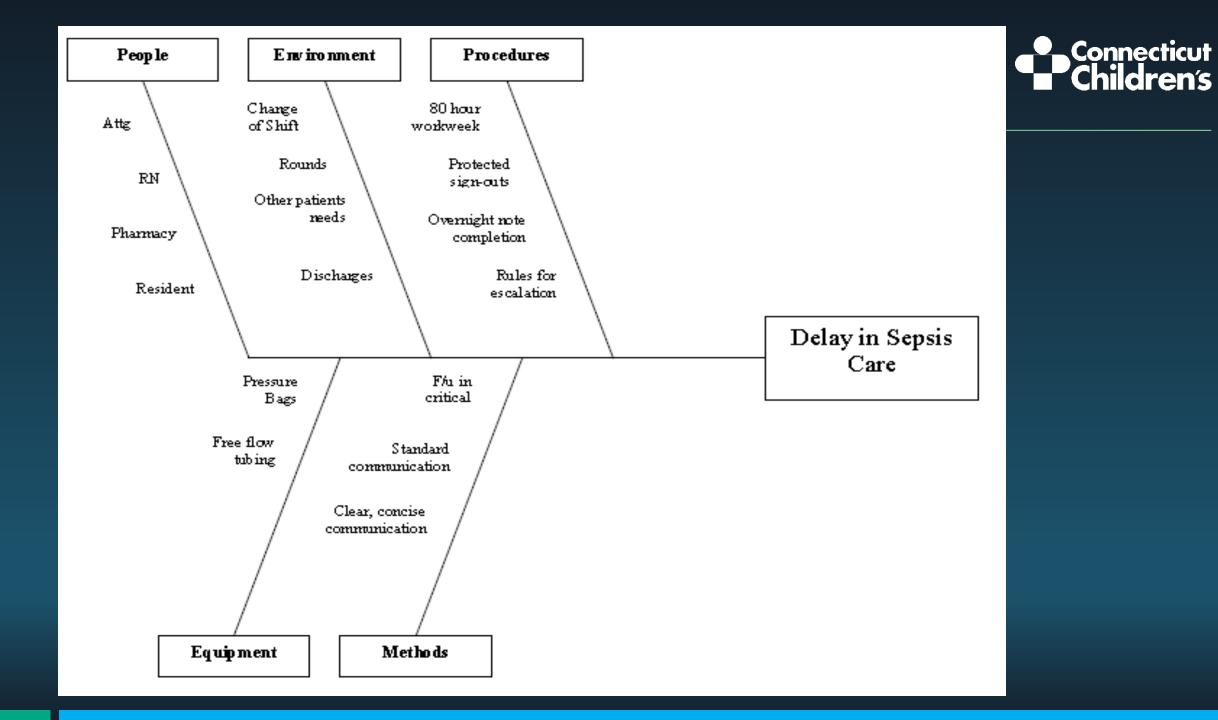


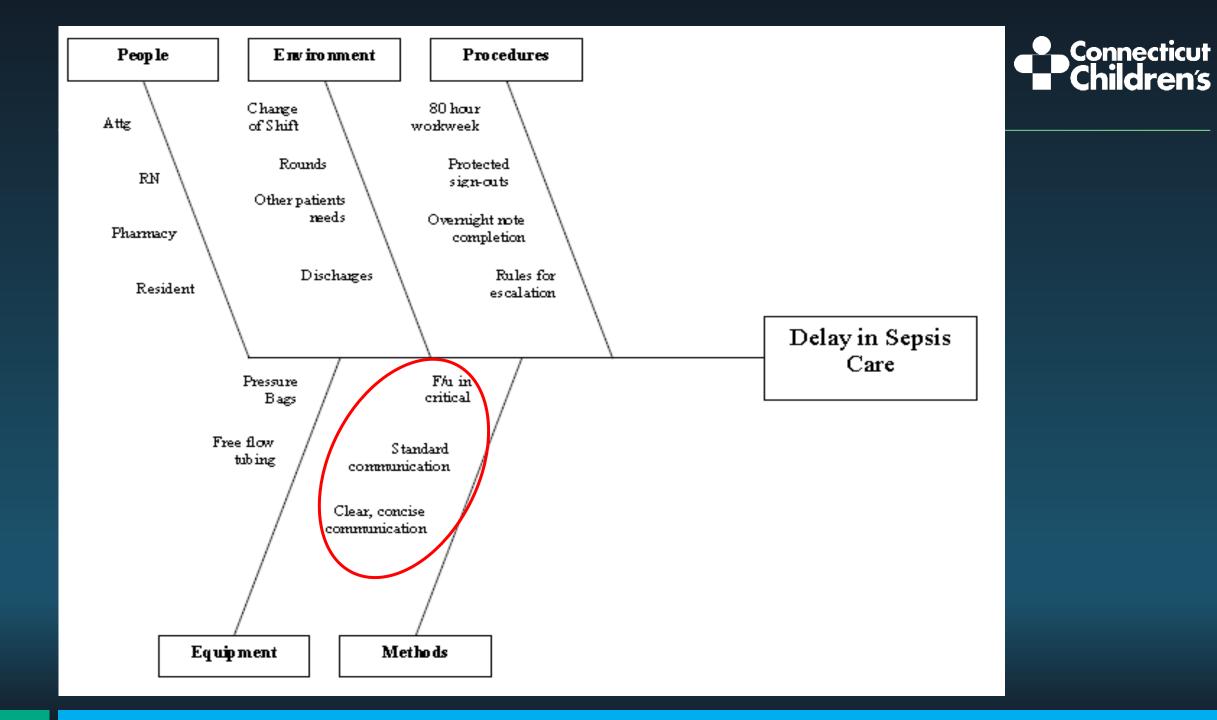
• When did all the team members know there was a concern for sepsis?

• When did all the team know what were the goals of care and the expectation for timeliness?





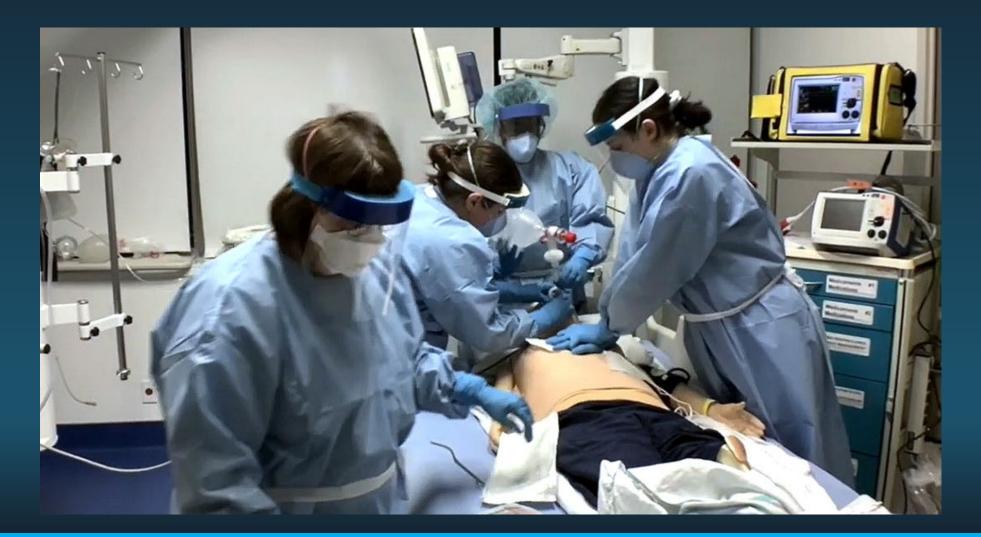




### In a Cardiac Arrest

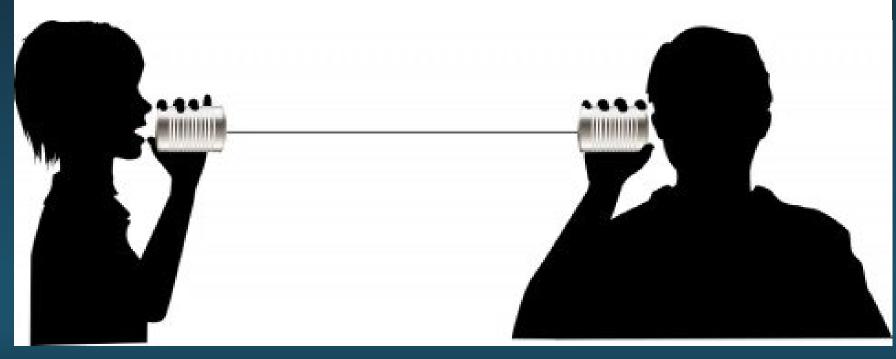


Everyone knows this is an emergency!



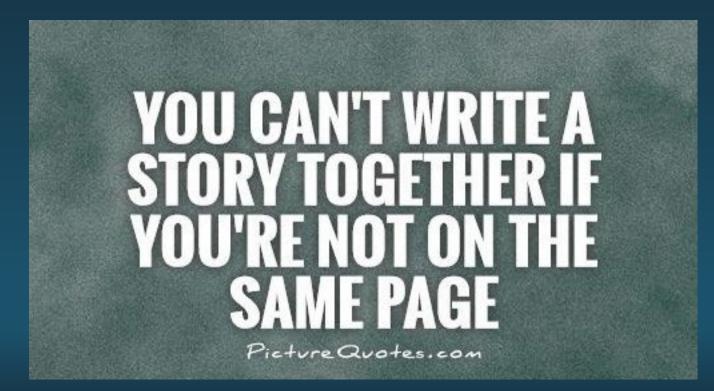


## And we've learned how to use effective communication skills in a code

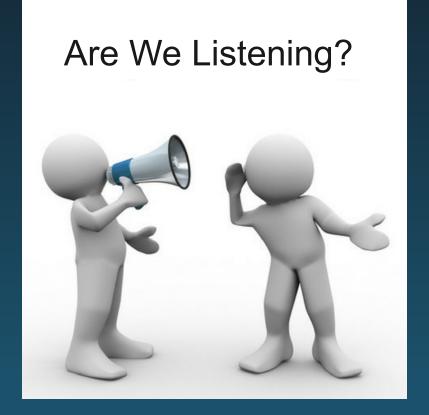




# However, in considering sepsis, maybe not being on the same page is common!



## So how can we improve communication?





#### Why a Huddle?

- Sepsis management should be a PDSA Cycle
   Thus, a Sepsis Huddle should occur as part of the planning
- Main goal of huddle → get the team on the same page!

   ○Evaluate and confirm if sepsis is present
   ○Acknowledge that <u>SEPSIS IS AN EMERGENCY</u>!!!
   ○Define actions and who owns the action
- But does it really matter?

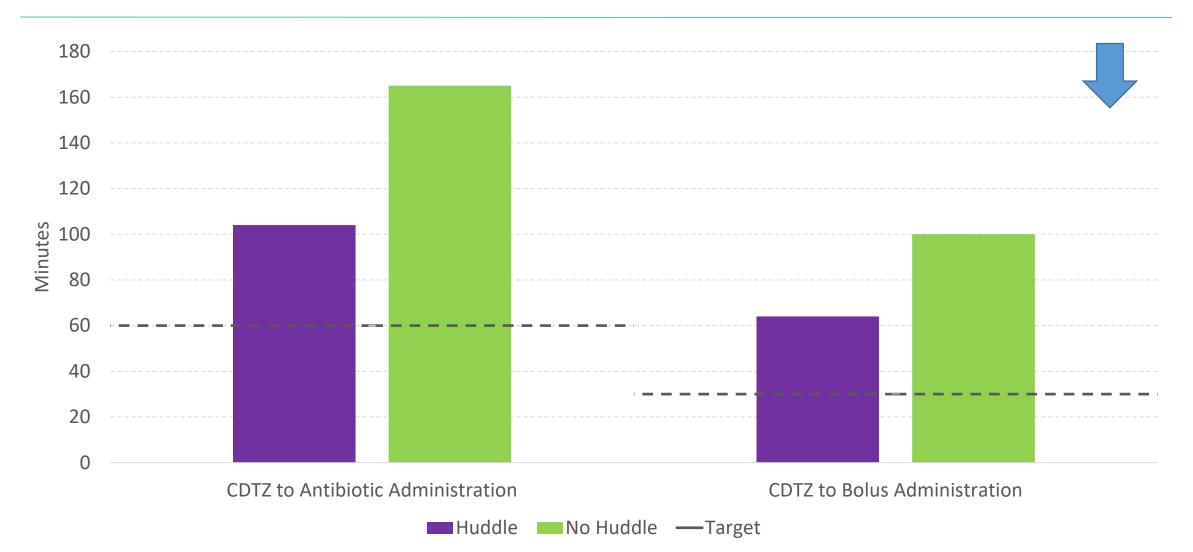
#### Prior Org Result of ED Huddles



• Time to Huddle = 4 minutes

	Huddle	No Huddle
Screen to abx order	55 min	68 min
Screen to abx admin	77 min	108 min

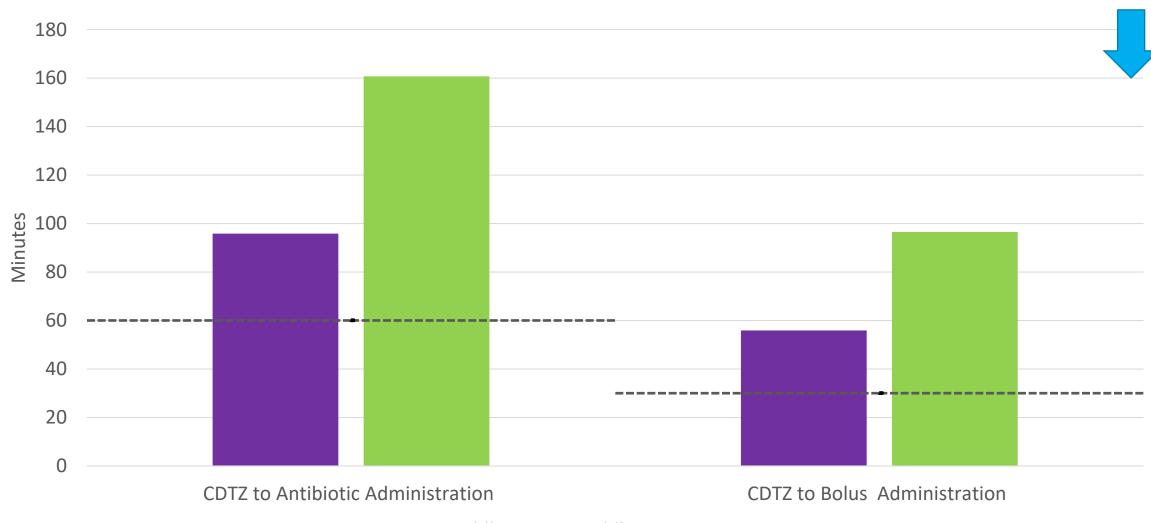
#### Huddle vs No Huddle Mean Time from CDTZ to Intervention Overall



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#### Huddle vs No Huddle Mean Time from CDTZ to Intervention the ED



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■ Huddle ■ No Huddle • Target

#### Pause for Questions/Thoughts?

#### So we decided to look at what is happening in PICU!

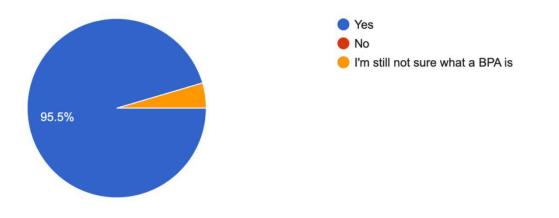
And doing something about it

Responses from a survey provided to all Residents to understand current state regarding responsiveness to and understanding of Sepsis BPA

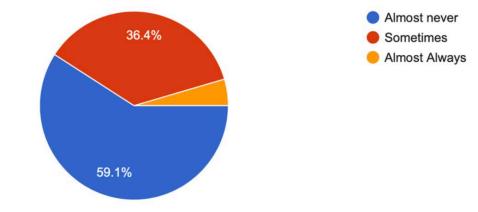
Some comments provided for reasons as to a lack of huddle occurring include:

- "Don't know what sepsis huddle is or how to initiate it"
- "[Lack of] availability of other providers including Nursing and Attending"

Have you seen a BPA ("Best Practice Advisory" EPIC Alert) for sepsis?



How often is a huddle initiated from a BPA (from you or nurses)?







**SMART Aim:** Decrease time interval between onset of sepsis (clinically derived time zero) and antibiotic order from 116.5 minutes to 60 minutes in greater than 50% of pediatric patients admitted to the PICU at CCMC by June 30<sup>th</sup>, 2024.

### Timeline



Jan 3<sup>rd</sup>: Introduced at PICU EQUIPP to unit

Jan 8<sup>th</sup>: Resident education begins – presented at PICU orientation

- Presented on 11<sup>th</sup> and 12<sup>th</sup> at Resident conference
- Jan 15<sup>th</sup>: Signs posted around unit
  - Nursing education begins

Jan 17th: Shared at PICU Collaborative

#### Jan 29th: Process Go Live

Week of Jan 29<sup>th</sup> and Feb 5th: Daily Check Ins with Staff regarding Process – review of BPAs

- Attendance at daily DMS huddle for reminders
- Email reminders in Residency/Nursing weekly updates
- Unit wide Voalte every morning

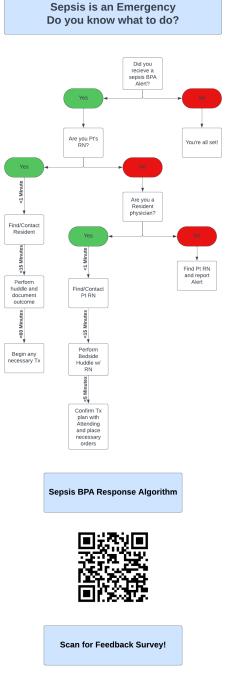
Rolling refreshers/reminders as needed

- Via meetings and email
- Deployment of reminder items (pens and chapsticks)

April: Review of implementation and future PDSA cycle planning

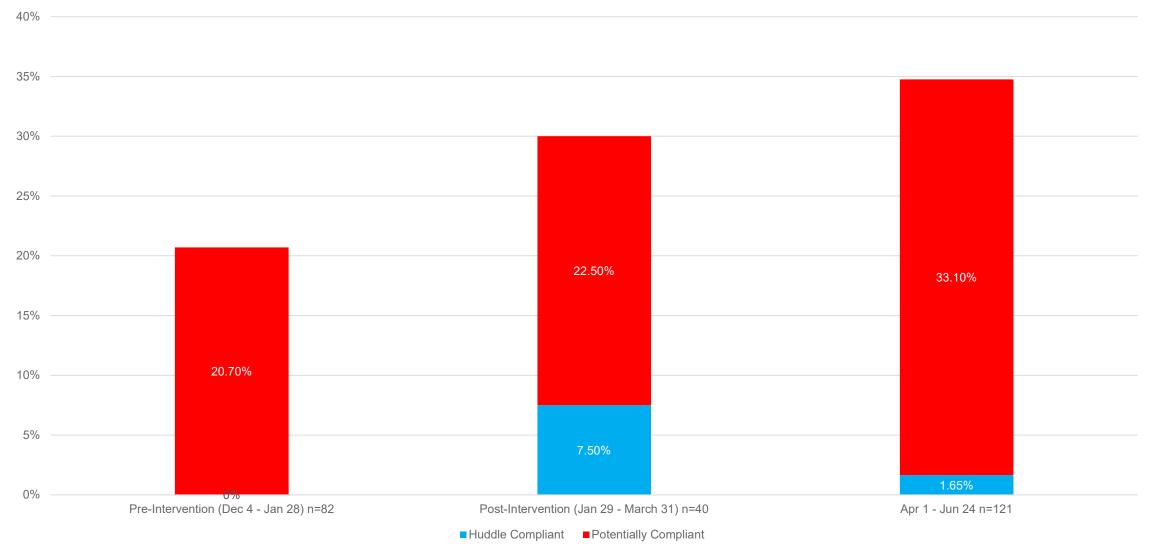
#### **Education Visualizations**

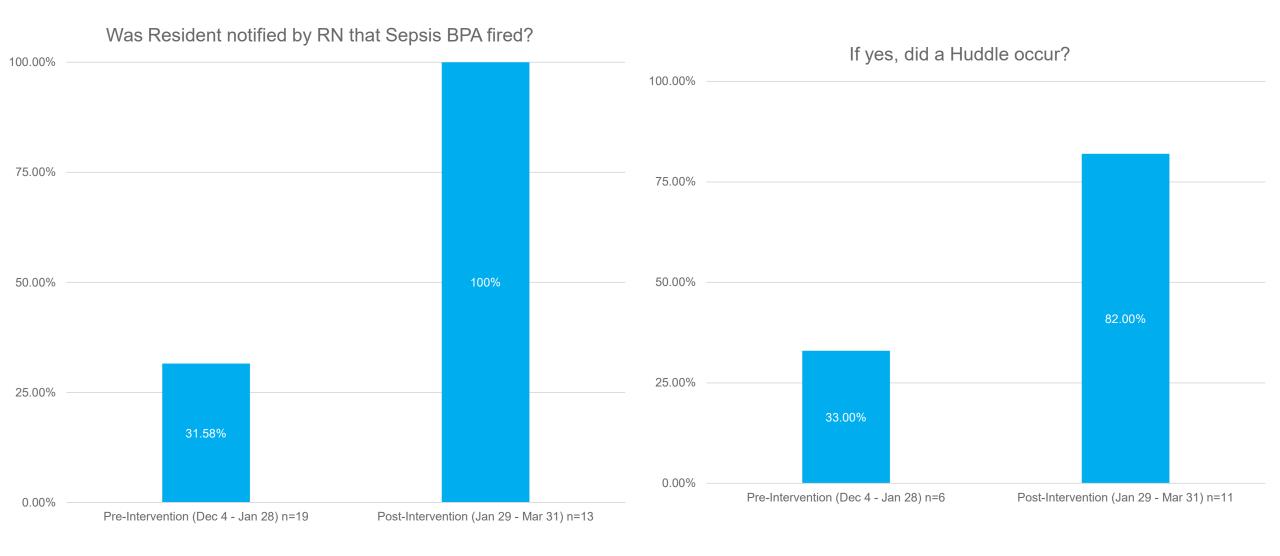
SEPSIS IS AN EMERGENCY Diagram Key DO YOU KNOW WHAT TO DO? Nurse Resident Attending Choose Vital Signs i "Notified Provide in BPA Validate **Device** Data Sepsis Huddle Attending Looped In





#### PICU Sepsis Huddle Compliance







#### Successes + Limitations

Successes:

Pre intervention - No huddle process

Post intervention -

- Feb to April: 29% Huddle Compliance
- April to July: 35 % Huddle Compliance
- July to October: In progress

Limitations:

- Documentation of Huddle Least intrusive method of data collection
- Looking only at first BPA firing in each shift
- BPA non conducive to Huddle process

### Questions/Thoughts on what we did

### Next Steps

#### New BPA

Roll out in 2025 for PICU + ED

Associated Features:

- 1. BPA Navigator
- 2. Storyboard BPA for Orderset access
- 3. Sepsis Response Checklist
- 4. BPA Key

#### SEPSIS RISK/SEPTICK SHOCK ALERT

This patient has an elevated Sepsis Risk Score Assess mental status, pulses, capillary refill, and blood pressure Immediately call for Sepsis Huddle

Predi	ctive Model De	tails
9 (High)	Factor	Value
Calculated 1/1/2023 at 1230 Pediatric Sepsis RIsk	Lowest systolic BP in 4 hours	40
	Worst temp in 4 hours	40
Model	Fastest pulse in 4 hours	200
	Fastest respiration in 4 hours	80

Sepsis Huddle If Sepsis Huddle has not yet occured Will Initiate Sepsis Huddle
Initiating Sepsis Treatment Undergoing Sepsis Treatment Close Monitoring for Sepsis Continue Routine Care Staff Present Other (comment)
Sepsis BPA Key       Sepsis BPA Navigator       Septic Shock Pathway       Sepsis Progression Pathway       Flowsheets         Acknowledge Reason - If not involved in patient care





- A process for recognizing/acknowledging sepsis is an essential precursor to timely treatment
- A sepsis huddle allows a team to create a shared mental model who can drive care
- Future plans will include:
  - $\circ$  An acknowledgement that sepsis is present and that it is an emergency
  - Huddle script
  - Setting of clear priorities and assignment of roles, continual assessment, and contingency planning

#### Acknowledgement



- Jessica Serventi-Gleeson, MD Matt Cummins, MD, Sravya Gourishetti, DO Peds residents
- Meaghan Yanaros, RN
- Mary Saccocio, RN and Shirley Bonazelli, RN
- Matt Laurich, MD
- Our IT team, especially Joseph lacuone
- All our resident, nurses, and colleagues who do the day to day work
- Any many, many others

#### Questions? Also feel free to reach out!

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