Timely Interventions in Patients Developing Sepsis within the PICU

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Timely Interventions in Patients Developing Sepsis within the PICU

Graduate Nurse Residents
PICU Winter Cohort 2018

Lindsey Bloom, Ashley Bramel, Kelsey Cumpton, Christopher Damrat, Emily Lingo, Grace Sexton, & Breton Struble
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- Physicians – Dr. Jay Rilinger and Dr. Marita Thompson
- KT Scholar - Jessica Youmans
- QIC - Charity Thompson
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A3 for Problem Solving

Focus: Tissue Interventions in Patients Developing Sepsis within the PICU

A3 Team: Lindsay Bloom, Ashley Bramal, Kelsey Cumatore, Chris Danner, Emily Lingo, Grace Sexton, & Breton Struble

Owner: Nurse Residency Program

Dates: 9/30/2018

Department Director Signature: 

Date Approved: 11/7/2018

KT Scholar: Jessica Youmans

QIC: Charity Thompson

Clarify the Problem

A3: A3 for Problem Solving is a method of Human Factors/EMSE (enhanced mental skills enhancement) that focuses on improving the performance of people working in complex environments.

Develop and Implement Countermeasures

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Check Results and Process

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Set a Target

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Identify Root Cause

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Standardize and Follow Up

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Clarify the Problem

- Literature review
- Care Process Models (CPM)
- PICU median time to interventions from Clinically Derived time Zero
  - 110 minutes for fluid administration
  - 72 minutes for antibiotic administration
The Summer 2017 Nurse Resident Cohort ended their PICU Sepsis project with the development of a Computer on Wheels (COW) card which went live on 7/16/18.

On average the PICU has 4 patients develop sepsis each month and as of 8/7/18 no COW Cards had been completed.

Your patient was diagnosed with SEPSIS at ___________

*To be Completed in the 1st Hour*

Start Time:
- Initiate Supplemental Oxygen
- Obtain IV Access
- Obtain Cultures
- Obtain Labs
- Start IV Fluids
- Start 1st Dose of Antibiotics

Completion Time:
Initials of RN:
Breakdown the Problem

Break Down the Problem

- If you have taken care of a patient with a diagnosis of sepsis, did the provider utilize the yellow sepsis COW Card?

- Select tasks that need to be completed within the first hour of sepsis diagnosis:

  - Teams interpreted
  - Point of Care
  - Administration
  - Supply Line
  - Timeliness

- Have you taken care of a septic patient?

- Physician Surveys
Set a Target

- As of 09/10/18, 0 cards have been collected. Our goal is to collect sepsis COW cards to better communicate among the team to ensure the treatment tasks are completed within the first hour, which will be evidenced by collecting 4 cards by 02/01/19.
Identify Root Cause

Nurse
- Unawareness that cow cards are a part of the process
- New initiative
- Staffing needs
- Multiple critical patients
- Sepsis needs in the first hour of sepsis concern
- Lack of signs and symptoms
- Extra paperwork
- Lack of understanding of the importance of the cow cards

Attending/Resident
- Unawareness that cow cards are a part of the process
- New initiative
- Lack of signs and symptoms
- Diagnosis vs. concern/possibility
- Time to treat

Materials

Nature of the Problem
The lack of utilization of the sepsis cow cards in the PICU.
Identify Root Cause

- Unaware that COW cards are part of the process by both the bedside nurse and the attending and/or resident.
- Unaware of where to turn in the COW cards
Develop and Implement Countermeasures

- ED Process Implementation
- COW Card Text
- Communication with ED
- CAS pick up COW cards
- Sepsis RN
- 3** pager with Sepsis RN
- Sepsis Weet
- Bathroom flyer
- COW cards at Nurses station
- Power Point
Sepsis Week 2019

SEPSIS WEEK
Jan. 6th – 12th

Does your patient have a POSSIBLE diagnosis of sepsis? Grab a Sepsis COW Card!

What? The Sepsis COW Card is a checklist with interventions to complete within the first 60 minutes after a suspected sepsis diagnosis.

Why? The Sepsis CPG recommends the 6 interventions be completed within the first 60 minutes of a sepsis diagnosis to improve patient outcomes. The PROUT measures 177 minutes to administer antibiotics and 110 minutes for fluids in these patients.

Who? Physicians and nurses can initiate use of the COW card any time sepsis is suspected. Sepsis diagnosis does not have to be confirmed.

When? Does your patient have a fever? Starting antibiotics? Initiating fluids? Anytime you have a patient with a POSSIBLE sepsis diagnosis, grab a COW Card! The diagnosis does not need to be definitive!

Where? The COW cards are in the pocket on the back of the COWs. When you are done with the COW Card, turn it in to bin labeled SEPSIS in the old pharmacy workroom, above the education code cart.
Sepsis Week 2019

Push-Pull Competition

Sepsis BINGO
Countermeasures

- Revised Sepsis COW Card

**SEPSIS COW CARD**
Your patient has a possible diagnosis of **SEPSIS** at

---

*Once completed, return to the old pharmacy workroom SEPSIS bin above the code cart*

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**To be completed within the 1st hour**

**Start Time:**
**Time completed:**
- [ ] Initiate Supplemental Oxygen
- [ ] Obtain IV Access
- [ ] Obtain Cultures
- [ ] Obtain Labs
- [ ] Start IV Fluids
- [ ] Start 1st Dose of Antibiotics

**Completion time of all tasks:**
**Initials of RN:**
*If unable to complete ANY of the above tasks, contact your attending ASAP.*
Check Results and Process

Cumulative COW Cards Received in the PICU

Target: 4 COW Cards by 2/1/19

Cards at Nurse station; Power Point
Bathroom Flyers
Sepsis Week
Check Results and Process

Patients Receiving Antibiotics & Fluids in 1st Hour

- 29% Antibiotics & Fluids in 1st hour
- 71% No Antibiotics & Fluids in 1st Hour
Check Results and Process

**Q1 Have you taken care of a septic patient?**

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
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<tbody>
<tr>
<td>Yes</td>
<td>58.54%</td>
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<tr>
<td>No</td>
<td>41.46%</td>
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**Q2 If you have taken care of a patient with a diagnosis of sepsis, did the provider utilize the yellow sepsis COW card?**

<table>
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<th>Answer Choices</th>
<th>Responses</th>
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<td>15.51%</td>
</tr>
<tr>
<td>No</td>
<td>10.51%</td>
</tr>
<tr>
<td>N/A</td>
<td>60.95%</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>
Check Results and Process
Standardize and Follow Up

- COW Cards were revised
- Continuing to improve sepsis interventions in the PICU
- The next group of Nurse Residents will focus on promoting the revised COW Card, and implementing a designated Sepsis RN in the PICU.


Questions