Session: 69. What’s New in Clinical Practice?
Thursday, October 3, 2019: 12:15 PM

Background. Sepsis—a life-threatening organ dysfunction caused by a dysregulated host response to infection—is a major public health burden and is considered a leading cause of preventable death. Although sepsis care guidelines have been established by the Surviving Sepsis Campaign, improved compliance monitoring and analytics are required for sustainable improvement in clinical processes and patient outcomes. Using the Optum Pan-Therapeutic (PanTher) electronic medical record database, we developed granular process measures and a data analytics toolkit to measure compliance with sepsis care guidelines and provide insight into areas for improvement.

Methods. We identified 15,421 episodes of adult patients in January-June, 2017 with sufficient evidence of suspected sepsis. Episodes qualified if they: (1) met at least two of the quick Sequential Organ Failure Assessment (qSOFA) clinical criteria, (2) had a blood culture order initiated, and (3) had a serum lactate order. For these 15,421 episodes, we obtained the timestamps of antibiotics order and administration, blood culture order and collection, and when at least two of the qSOFA criteria were first met. Based on Surviving Sepsis Campaign care protocols for suspected Sepsis, we measured compliance for the timelines of antibiotics administration and blood culture collection using a threshold of 3 hours after when the qSOFA criteria were first met.

Results. Compliance of the antibiotics administration and blood culture collection measures were found in 7,647/10,343 (74%) episodes and 1,219/1,530 (80%) episodes, respectively. The median times from when the qSOFA criteria were first met to antibiotics administration and blood culture collection were 77 minutes and 5 minutes, respectively.

Conclusion. We have developed new process measures and a data analytics toolkit to monitor compliance rates and identify episodes where sepsis protocols are not followed according to sepsis care guidelines. These noncompliant episodes are opportunities for care providers to identify root causes of noncompliance and proactively work toward improved adherence to sepsis care guidelines.

Disclosures. All authors: No reported disclosures.
resuscitation, and appropriate initiation of vasopressors. The addition of the "Code Sepsis" triage tool decreased the median time to antibiotic administration from 1 hour 53 minutes to 33 minutes. Improvements were also noted in the elements of the 6-hour "perfect care" bundle; however, compliance rates were lower than goal.

**Conclusion.** Early identification and appropriate treatment of sepsis is key to improving survival. Despite widespread knowledge early treatment, many EDs struggle to meet the CMS sepsis care bundles. Utilizing the Lean framework allowed the improvement team to break down a multi-siloed, interdependent care process.

**Disclosures.** All authors: No reported disclosures.

---

**788. Outcomes of Multidisciplinary Care Conferences for Patients with Substance Use Disorders Requiring Prolonged Antimicrobial Therapy for Severe Infections**

**Methods.** We prospectively recorded comprehensive notes at OPTIONS-DC and retrospectively performed chart review for conferences held from February 2018 to March 2019. We performed a content analysis of OPTIONS-DC notes and patient records to identify ways that OPTIONS-DC modified care plans and prioritized patient preferences.

**Results.** Thirty-one conferences were held during the study period. Twenty-eight patients reported substance use within 90 days, 24 used intravenous substances, 12 were homeless, 24 had a mental health diagnosis, and 20 started medication-assisted treatment during hospitalization (Table 1). For 16 patients the conference altered the definitive treatment plan to align with patient preferences while emphasizing safety, and 13 of those were changed to an outpatient setting. A total of 10 patients had a decreased length of stay, with a total of 238 hospital days saved overall. OPAT was planned at discharge for 15 patients, 11 of whom completed their OPAT course. Overall, 21/31 (68%) completed their recommended antimicrobial course and 3 were lost to follow-up.

**Conclusion.** A multidisciplinary conference that prioritizes patient preferences and uses harm reduction strategies to optimize infection treatment plans is feasible and effective. The OPTIONS-DC model has potential to expand treatment options for infections in SUD, reduce hospital days, and may serve as an example for other institutions.

**Table 1: Patient characteristics by disposition location for treatment of infection**

|                      | All (n=31) | Hospital (n=11) | Home (n=10) | SNF (n=4) | Homeless/shelter (n=4) | Residential/other treatment (n=2) |
|----------------------|------------|-----------------|------------|----------|-----------------------|----------------------------------|
| Mean age             | 41.9       | 43.1            | 46.0       | 40.0     | 31.5                  | 59.5                             |
| Female               | 14 (45%)   | 7 (64%)         | 6 (60%)    | 4 (100%) | 1 (25%)               | 0 (0%)                           |
| Income housing       | 14 (45%)   | 7 (64%)         | 1 (10%)    | 0 (0%)   | 4 (100%)              | 2 (100%)                        |
| Median age           | 37 (12%)   | 3 (27%)         | 1 (10%)    | 0 (0%)   | 1 (25%)               | 3 (75%)                         |
| Recommended antibiotics |           |                 |            |          |                       |                                  |
| IV                   | 26 (84%)   | 11 (100%)       | 7 (70%)    | 4 (100%) | 3 (75%)               | 1 (50%)                         |
| Long acting IV       | 4 (13%)    | n/a             | 2 (20%)    | n/a      | 1 (25%)               | 1 (25%)                         |
| Oral                 | 1 (3%)     | 0               | 1 (10%)    | 0 (0%)   | 0 (0%)                | 0 (0%)                          |
| Completed recommended therapy | 21 (68%) | 10 (91%)        | 7 (70%)    | 2 (50%)  | 1 (25%)               | 1 (50%)                         |
| Ama discharge from hospital | 4 (13%)   | 0               | 1 (25%)    | 0 (0%)   | 3 (75%)               | 0 (0%)                          |
| Average hospital length of stay (days) | 29 | 40 | 25 | 27.75 | 14.25 | 25 |

**Disclosures.** All authors: No reported disclosures.

---

**993. Pharmacist-driven Penicillin Allergy Assessment in the Emergency Department – Antimicrobial Stewardship at the Point of Prescription**

**Methods.** Retrospective, quasi-experimental study of adult patients with a PCN allergy receiving antibiotics at a community hospital ED. The intervention comprised an ED pharmacist performing allergy assessment and discussing therapy options with providers at the point of prescription. The primary outcome was to evaluate impact on guideline-preferred antibiotic prescription in the ED pre-intervention (March 1, 2017–August 31, 2017) vs. post-intervention (March 1, 2018–August 31, 2018). Secondary outcomes included types of reported allergic reactions, safety of allergy assessment, and impact on downstream antibiotic use.

**Results.** Overall, 381 patients were evaluated (256 pre-intervention, 125 post-intervention). The median age was similar between groups and 85% of patients presented to the ED from the community. Most common infectious syndromes encountered in the ED were UTIs (35%), respiratory tract infections (25%), and skin/soft-tissue infections (18%). The proportion of guideline-preferred antibiotic prescriptions in the ED increased from 37% pre to 44% post (P = 0.171). Proportion of fluoroquinolone (FQ) prescriptions in the ED was reduced from 37.5% pre to 26% post (P = 0.002). The proportion of cephalosporin prescriptions increased from 26% pre to 42% post (P = 0.002). Types of reported allergic reactions were similar between groups and 55% of

**Disclosures.** All authors: No reported disclosures.