

Septic Shock: The First Hour

Prompt Antibiotic Administration Improves Patient Outcomes

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Background

- Early antibiotic administration is a key component of the Surviving Sepsis Guidelines
- Healthcare providers know it is critical to start antibiotics early to improve patient outcomes
- In January 2019, only 65% of shock patients were given an antibiotic in the first hour
- The care team employed the following strategies to increase the number of septic shock patients receiving an antibiotic within the first hour of arrival

Methods

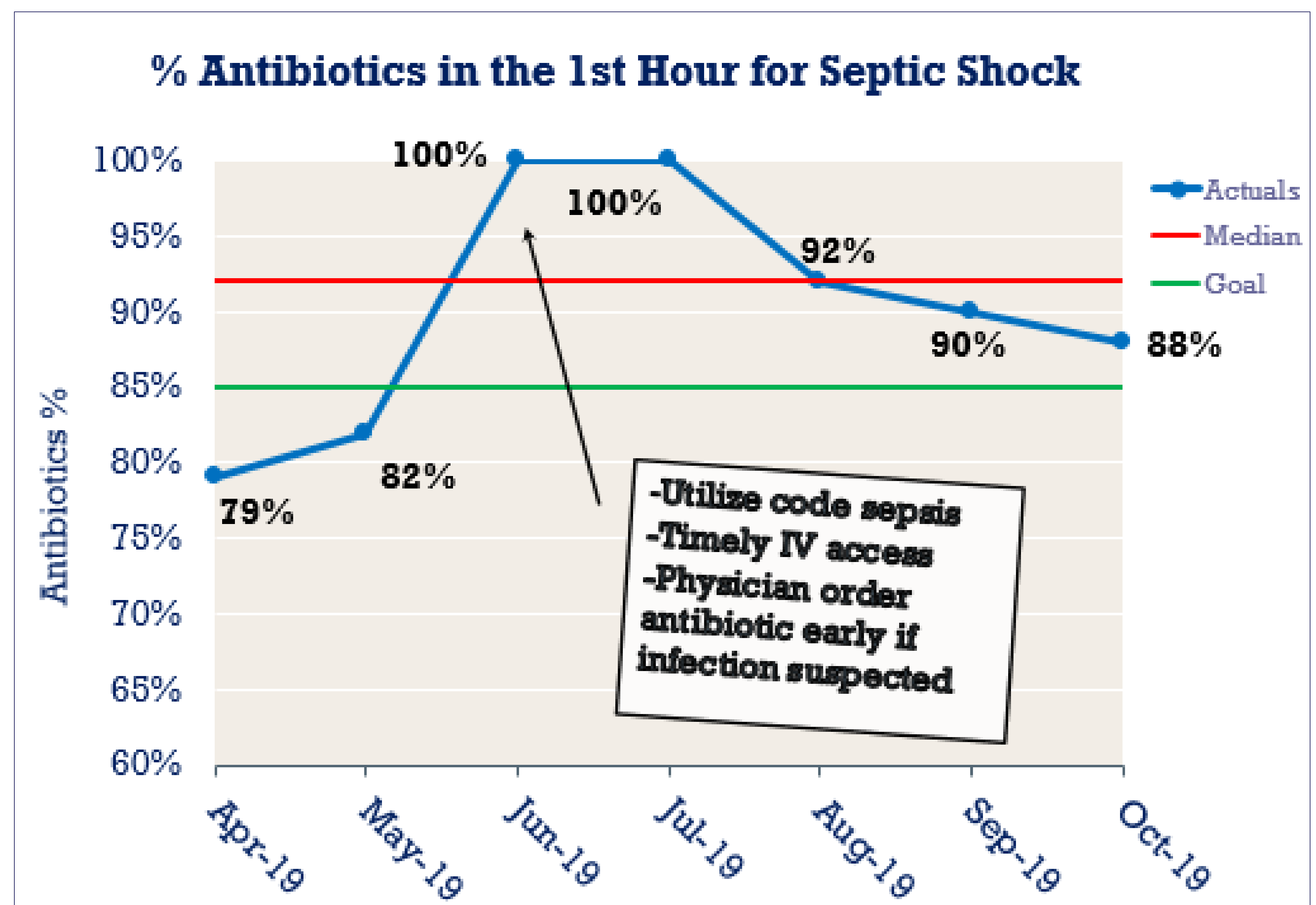
- **Utilize code sepsis upon ED arrival**
 - EMS to activate prior to hospital arrival
 - Triage staff to activate upon arrival
 - Included SIRS criteria, possible or suspected infection, signs of organ dysfunction
- **Establish prompt IV access**
 - Early notification to the physician by RN if difficulty obtaining IV access
 - Involving additional resources (ultrasound IV guidance or vascular access nurse)
 - Administration of intramuscular antibiotics in event no IV access obtained in the first hour
- **Timely order of antibiotics**
 - Key stakeholders reviewed the sepsis order sets
 - Recommended antibiotic choices were pre-selected (per facility antibiogram) with 2nd option in case of allergy
 - Average time to antibiotic by provider was given to the ED medical director each month
 - Recognition given to ED team with fastest time to antibiotic each month

AIM Statement

Increase the number of septic shock patients receiving antibiotics within the first hour to at least 85% and maintain for 6 months.

Results

- The 6 month period occurred May 2019 through October 2019
- May was just short of making the 85% goal due to education and new process implementation
- For all other months the goal was met, including 2 months where 100% of shock patients received their antibiotic in the first hour
- Antibacterial stewardship targets remained consistent – antibiotic days of therapy (DOT per 1000 patient days) ranged between 145-152 (goal is 150 DOT or less)



Conclusion

- Communication between all providers on the care team is critical to ensuring patients get timely antibiotics
- Staff knew the importance of initiating the bundle timely; they needed a process to follow when barriers occurred
- Including nurse and physician champions is imperative to gain insight into obstacles, empower staff, and implement change