



Developing an Ambulatory Sepsis Protocol for Interventional Radiology Patients in the PACU

Team Lead: Mahroz Mohammed BSN, RN, CMSRN & Stephen R. Lee MD
Team Members: Barbara Merutka MSN, RN, CMSRN, CAPA, Staci Eguia MSN, RN, CCRN, Benjamin A. Arnold MD

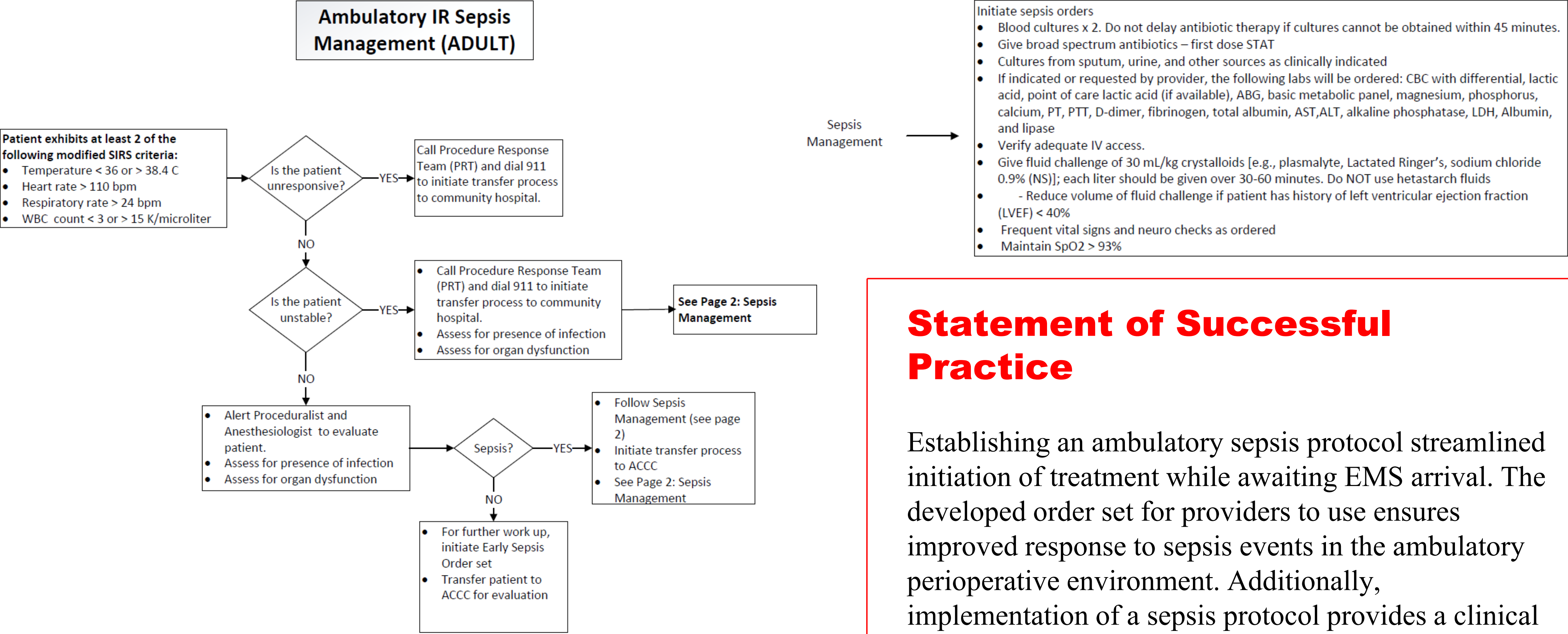
Background

According to the Centers for Disease Control and Prevention (CDC), at least 1.7 million adults in the United States develop sepsis and at least 350,000 die as a result. Ambulatory Interventional Radiology (IR) is a unique field where patients undergo minimally invasive procedures such as drain placements, nephrostomy catheter exchanges, biliary catheter exchanges, biopsies and various other procedures. Patients undergoing drain placements or catheter exchanges are often at a higher risk in developing sepsis due to the nature of the procedure and can present signs of sepsis within minutes into their recovery. While processes for sepsis management do exist, there is an opportunity for improvement due to the lack of a standardized protocol in the ambulatory setting.

Objectives

The objective of this project was to create and implement an ambulatory sepsis protocol. With over 5,000 ambulatory Interventional Radiology (IR) procedures performed in ambulatory locations between September 2023 – August 2024, with an average of 1 patient transferring every other month due to the potential of sepsis post procedure, it became evident the need to have an outpatient sepsis algorithm as our patient volumes increase yearly. Creating sepsis protocols facilitates the use of evidence-based practices, including obtaining cultures, administering antibiotics, fluid resuscitation, and hemodynamic support. This protocol would ensure treatment of sepsis is initiated quickly along with transferring patients to the nearest emergency room via 911 emergency medical services. By developing an ambulatory sepsis protocol, patient outcomes can be improved.

Algorithm



Statement of Successful Practice

Establishing an ambulatory sepsis protocol streamlined initiation of treatment while awaiting EMS arrival. The developed order set for providers to use ensures improved response to sepsis events in the ambulatory perioperative environment. Additionally, implementation of a sepsis protocol provides a clinical tool for provider and frontline staff to assure standards of care for our patient population.

Implication for Peri-Anesthesia Nursing Practice

A Sepsis protocol in the ambulatory postoperative recovery area is essential for safeguarding patients. Initiating a sepsis protocol could improve clinical outcomes and optimizing use of healthcare resources. By prioritizing early detection and intervention, the ambulatory sepsis protocol developed plays a vital role in effective management of sepsis while also promoting a culture of safety.

Implementation

Nursing leadership worked in collaboration with multidisciplinary providers, including anesthesia and interventional radiologist, to develop an ambulatory IR sepsis management algorithm based on our institution’s inpatient sepsis algorithm which follows current standards of care and evidenced based practice. Due to the lack of resources in the ambulatory setting such as lab processing constraints, the inpatient algorithm was reviewed and modified to be applicable in an ambulatory settings located over 20 miles away from our home campus. Using this algorithm, an outpatient sepsis order set was developed for faculty to use and order pertinent labs, antibiotics and other interventions as needed. Currently the EHR order set for this algorithm is being built. Once built, the nursing staff and providers will receive education on implementation.

Acknowledgments

Houston Area Location – West Houston Procedure Floor

Quoc T Hoang, PA

