Sepsis & Emergency Management

Sharon Herndon
*Otterbein University, sharon.herndon@otterbein.edu*

Follow this and additional works at: https://digitalcommons.otterbein.edu/stu_msn

Part of the Bacterial Infections and Mycoses Commons, Medical Pathology Commons, and the Nursing Commons

**Recommended Citation**

https://digitalcommons.otterbein.edu/stu_msn/113

This Project is brought to you for free and open access by the Student Research & Creative Work at Digital Commons @ Otterbein. It has been accepted for inclusion in Nursing Student Class Projects (Formerly MSN) by an authorized administrator of Digital Commons @ Otterbein. For more information, please contact digitalcommons07@otterbein.edu.
The images above (kijmo, 2015) imply how early recognition and diagnosis are critical to properly managing sepsis. As initiation of early goal directed therapy and protocols are put in motion mortality rates from severe sepsis are reduced. THINK SEPSIS.

**Sepsis & Emergency Management**

**Sharon Herndon, RN, BSN**

Otterbein University, Westerville, Ohio

---

**Significance**

Millions of patients are seen for sepsis yearly, initiatives working to reduce mortality rates have gained attention because the succor has been poor. The study by Harrison, Thongprayoon, Kashyap, Chute, Gajay, Pickering, and Herasuev (2015) attempts to determine the delay in early recognition and treatment of sepsis by analyzing collected patient data, orders, and nursing interventions. Equipping nurses with the proper tools allows effective analysis and increases critical thinking. The gathering of information, analysis, and forming an appropriate potential diagnosis is fundamental in critical thinking in the ED. Working with the first responders, ED nurses are key to early recognition of sepsis.

**Nursing Implications**

Many patients are seen daily in the ED. Triage nurses play a vital role in early recognition of sepsis. Assigning an acuity and appropriate protocols for illness are imperative in early recognition and treatment for sepsis. When a patient meets two of the SIRS criteria in the ED, immediate action should be initiated.

**Sepsis protocols:**

- Immediate physician notification
- Two large bore intravenous accesses
- Blood cultures and lab draws
- Fluid resuscitation
- Antibiotic therapy

Excellent nursing care includes completing all protocol orders in a timely manner. Every clinician should have a basic understanding of the incidence, clinical features, and treatment of sepsis, particularly given the rising incidence and the mortality benefit of early treatment (Cawcutt and Peters, 2014).

**References**


---

**Pathophysiological Process**

**SIRS pathophysiology is complex and multifactorial but can be explained in three mechanisms all of which release mediators that result in systemic inflammatory response:**

- The pro-inflammatory response
- Failure of the compensatory anti-inflammatory response to act
- Immunoparalysis

There are three phases of inflammatory response

- Release of bacterial toxins
- Release of mediators in response to infections which include pro-inflammatory cytokines and anti-inflammatory cytokines
- The effects of specific mediators (Sagy et al. 2013).

An imbalance exists between excessive pro-inflammatory responses resulting in SIRS. At the same time an excessive compensatory anti-inflammatory reaction (CARS) occurs in inappropriate immunosuppression. Multiorgan dysfunction occurs when there is an imbalance between SIRS and CARS and homeostasis is violated (Sagy et al. 2013). The figure below shows inflammatory, thrombotic, and fibrinolytic responses to infection (kijmo, 2015).

**Inflammatory Responses**

**SIRS**

Sepsis & Emergency Management

Millions of patients are seen for sepsis yearly, initiatives working to reduce mortality rates have gained attention because the succor has been poor. The study by Harrison, Thongprayoon, Kashyap, Chute, Gajay, Pickering, and Herasuev (2015) attempts to determine the delay in early recognition and treatment of sepsis by analyzing collected patient data, orders, and nursing interventions. Equipping nurses with the proper tools allows effective analysis and increases critical thinking. The gathering of information, analysis, and forming an appropriate potential diagnosis is fundamental in critical thinking in the ED. Working with the first responders, ED nurses are key to early recognition of sepsis.

**Nursing Implications**

Many patients are seen daily in the ED. Triage nurses play a vital role in early recognition of sepsis. Assigning an acuity and appropriate protocols for illness are imperative in early recognition and treatment for sepsis. When a patient meets two of the SIRS criteria in the ED, immediate action should be initiated.

**Sepsis protocols:**

- Immediate physician notification
- Two large bore intravenous accesses
- Blood cultures and lab draws
- Fluid resuscitation
- Antibiotic therapy

Excellent nursing care includes completing all protocol orders in a timely manner. Every clinician should have a basic understanding of the incidence, clinical features, and treatment of sepsis, particularly given the rising incidence and the mortality benefit of early treatment (Cawcutt and Peters, 2014).

**References**