

Background

Emergency Departments act as a hospital's front door welcoming patients with an array of concerns and conditions. Patient entry through the Emergency Department represents an opportunity to initiate appropriate transmission-based precautions based on known or suspected disease state. A pediatric hospital sought to evaluate the implementation of transmission-based precautions based on symptom presentation versus the implementation of transmission-based precautions following diagnostic results.

Objectives

Learning Objective 1:

Upon completion, participants will understand the importance of transmission-based precautions and the importance of the use of technology to support efforts for appropriate isolation.

Learning Objective 2:

Upon completion, participants will identify the risk associated with the untimely transmission-based precautions institution.

Learning Objective 3:

Upon completion, participants will define process improvement strategies to improve syndromic surveillance in the Emergency Department.

Methods

A descriptive analysis of pediatric emergency department patients was completed. The analysis evaluated the frequency of isolation documentation in the electronic medical record for patients with a respiratory virus polymerase chain reaction (PCR) panel order. A time analysis was also evaluated to understand time from triage end to adding the isolation documentation in the electronic medical record as well as the time from the respiratory virus panel results to adding the isolation documentation in the electronic medical record.

Results

Two pediatric Emergency Departments were evaluated for timeliness of initiation of transmission-based precautions for a two-facility pediatric health system. Site 1 evaluated 2,985 pediatric Emergency Department encounters with respiratory virus panels ordered. The median time in hours for isolation to be documented from triage end was 1.62 hours and the median time in hours for isolation to be documented from respiratory virus panel result was -1.64 hours. Site 2 evaluated 8,489 pediatric Emergency Department encounters with respiratory virus panels ordered. The median time in hours for isolation to be documented from triage end was 1.63 hours and the median time in hours for isolation to be documented from respiratory virus panel result was 0.34 hours. Site one performed better in instituting transmission-based precautions based on symptoms versus relying on diagnostic results.

Conclusion

The analysis of both facilities reveals that improvement is needed when isolating patients entering the facility through the Emergency Department. Transmission-based precautions should be adhered to based on symptom presentation as well as known disease status, but there is an overreliance on diagnostic results to institute transmission-based precautions.

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