

TITLE: Understanding Patient Factors Associated with Readmission for Sepsis

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RESEARCH PROJECT DESCRIPTION (brief overview of background, hypothesis, methods, role of medical student, funding and relevant publications -- SHOULD NOT EXCEED ~ 250 WORDS)

Sepsis occurs when an infection triggers a dysregulated immune response that leads to organ dysfunction or death. With clinical advances in resuscitation and improved sepsis screening, early mortality and late-onset multiple organ failure rates have improved. Nationwide, sepsis accounts for the greatest percentage of hospital readmissions when compared to MI, CHF, COPD and pneumonia¹ and in California, was shown to cost over \$500 million/year (far more than CHF (\$229m) and MI (\$142m))². In a recent review of UFH-J sepsis data, sepsis readmissions occur at a rate of approximately 20% regardless of payer status. However unfunded patients, who upon initial admission had fewer comorbidities and less likelihood to suffer in hospital death, have differences in characteristics of their sepsis readmissions. Unfunded patients' readmissions are notable for lower median charges per admission, significantly shorter median lengths of stay, and show a trend towards earlier readmission for sepsis than readmissions from other payer groups. We hypothesize that some of these hospital readmissions may be preventable and specifically related to: 1) socioeconomic status, 2) health literacy, 3) limited post-discharge support, and 4) sepsis-associated organ dysfunction. This project aims to create a score for prospective risk assessment at the time of discharge from the index sepsis admission. We will extensively characterize potential risk factors for readmission at the time of index hospital discharge for sepsis and address factors contributing to readmission within 6 months of index sepsis discharge. The UF Health-Jacksonville Faculty Dean's Grant funds this project. The medical student will participate in data collection, analysis, and other projects relating to emergency department sepsis and/or health equity research and education as assigned.

1. Mayr FB, Talisa VB, Balakumar V, Chang CCH, Fine M, Yende S. Proportion and Cost of Unplanned 30-Day Readmissions After Sepsis Compared With Other Medical Conditions. JAMA. 2017;317(5):530-531.
2. Chang DW, Tseng CH, Shapiro MF. Rehospitalizations Following Sepsis: Common and Costly. Crit Care Med. 2015; 43(10):2085-93.

