

I-131 albumin dilution measurements of blood, plasma and RBC volumes by  $+0.6\pm 2.8\%$ ,  $-5.4\pm 3.6\%$ , and  $+11.0\pm 4.7\%$ , respectively. DISCUSSION/SIGNIFICANCE OF IMPACT: BIA is capable of tracking modest changes in total body water. Carbon monoxide rebreath appears to be a viable alternative for the I-131 albumin dilution technique to determine blood volume. Together, these two techniques may be useful in monitoring fluid status in patients with impaired fluid regulation.

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### Modeling Emergency Department Length of Stay of Patients With Substance Use Disorder Using an Accelerated Failure Time Model

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OBJECTIVES/SPECIFIC AIMS: Emergency department (ED) length of stay (LOS) is one of the important indicators of quality and efficiency of ED service delivery and is reported to be both cause and result of ED crowding. Increased ED LOS is associated with ED crowding, increases service cost and sometimes poor patient outcome. Substance abuse is one of the major determinants of morbidity, mortality and healthcare needs. Substance abuse may confound the healthcare and service needs of patients in the ED irrespective of primary purpose of their ED visit and may lengthen the ED LOS. The aim of this study was to evaluate the effect of patients' demographic and clinical characteristics and of different patient-related activities such as screening brief intervention and referral to treatment (SBIRT) on the ED LOS of patients discharged from the ED with a diagnosis of substance abuse. METHODS/STUDY POPULATION: We conducted a retrospective data analysis of electronic health records. The study population included 26971 patients who visited our hospital ED between 2013 and 2017, had a history of substance abuse and were discharged from the ED. An accelerated failure time (AFT) model was used to analyze the influence of covariates on patient ED LOS. The predictor factors in the model included age, gender, ED arrival shift and weekday, diagnosis history of mental health and drug use, acuity triage level from 1 to 5, with 1 being worse severity, and whether any lab tests were ordered, SBIRT intervention and whether patient was homeless. The AFT model is an alternative to the Cox Proportional Hazard Ratio model, which directly models the log of ED LOS as a function of a vector of covariates. The model defines the increase or decrease in LOS with the changes in the covariate levels as an acceleration factor or time ratio (TR). RESULTS/ANTICIPATED RESULTS: The overall median ED LOS was 4 hours with IQR of 4.2 hours. The average age of the study population was 39.3 years, 58.6% of the patients were male and 57% were White; 63.4% had a history of drug use; 43% had a history of mental health issue, and 0.4% were homeless. In the analysis using the AFT model, increased age (a year increase, TR = 1.01,  $p = 0.008$ ), female sex (TR = 1.044,  $P < 0.001$ ), SBIRT (TR = 1.525,  $P < 0.001$ ), history of mental health issue (TR = 1.117,  $P < 0.00$ ), evening arrival (evening vs night, TR = 1.04,  $p = 0.006$ ), history of drug use (drug vs alcohol only, TR = 1.04,  $p = 0.001$ ), higher acuity (triage level 1 vs 5, TR = 2.795,  $p < 0.001$ ) and homelessness (TR = 1.073,  $P = 0.021$ ) lengthened the ED LOS. In contrast, weekend arrival (TR = 0.956,  $p = 0.004$ ) and day shift arrival (day vs night, TR = 0.958,  $p = 0.004$ ) shortened the ED LOS. DISCUSSION/SIGNIFICANCE OF IMPACT: We

identified gender, age, SBIRT, arrival shift, weekend arrival, mental health status, substance abuse, acuity level and homelessness to be significant predictor of ED LOS. The fact that SBIRT increased the LOS should be balanced with the advantages of engaging patients into substance use disorder treatment. Understanding the determinants of ED LOS in this population may provide useful information for physicians or patients to better anticipate an individual's LOS and to help administrators plan the ED staffing and other resources mobilization.

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### Mycoplasma Induced Rash and Mucositis: How Affected Are the Eyes?

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OBJECTIVES/SPECIFIC AIMS: To demonstrate the prevalence of ocular complications in patients suffering with Mycoplasma Induced Rash and Mucositis (MIRM). METHODS/STUDY POPULATION: In this retrospective observational study, we identified all patients in our hospital database who were diagnosed with MIRM. Diagnosis was confirmed by clinical information and positive Mycoplasma pneumoniae serology. Only patients with available records with formal ophthalmology consults were included. Clinical and laboratory data were collected from our electronic medical record system to capture key components of their clinical course. RESULTS/ANTICIPATED RESULTS: A total of 12 patients satisfied all inclusion and exclusion criteria and were included in our study. The average age of our included patients was  $21.2 \pm 14.7$  years, and the majority were male vs. female (66.7% vs. 33.3%). In all 24 eyes, the only acute ocular findings included conjunctival hyperemia ( $n=20$ , 83.3%), meibomitis ( $n=4$ , 16.7%), and conjunctival epithelial defects ( $n=1$ , 4.2%). None of the patients required or were recommended to receive an amniotic membrane transplantation in the acute phase. Only 2 patients were followed in the chronic phase, one of whom showed evidence of meibomitis in both eyes. Otherwise, no other chronic complications were seen in either patient with chronic follow-up. DISCUSSION/SIGNIFICANCE OF IMPACT: Ocular complications from MIRM may be much milder in comparison to ocular complications found in other bullous and inflammatory conditions such as Stevens-Johnson Syndrome or Toxic Epidermal Necrolysis. Understanding MIRM's specific sequelae is important in understanding disease manifestation and prognosis in order to better inform acute and chronic management.

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### Neuroclinical fingerprint of high-risk psychosis

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OBJECTIVES/SPECIFIC AIMS: The study aims to utilize event-related potentials (ERPs) coupled with observable reports of symptoms to comprehensively understand neurological and symptomatic profile of individuals at risk for developing psychosis. The study is a short-term longitudinal design which allows for examination of course as well as structure of illness. The primary outcome is to