

Eric Schott, PGY-3; August 2016 - Block 2

M. Kennedy Hall, MD, Maria C. Raven, MD MPH MSc FACEP, Jane Hall, PhD, Clement Yeh, MD, Elaine Allen, PhD, Robert M. Rodriguez, MD FAAEM, Niels L. Tangherlini, NREMTP BA, Karl A. Sporer, MD, John F. Brown, MD MPA FACEP. EMS-STARS: EMERGENCY MEDICAL SERVICES "SUPERUSER" TRANSPORT ASSOCIATIONS: AN ADULT RETROSPECTIVE STUDY. *Prehospital Emergency Care*. 2015:19-1.

Background:

Considerable attention has been drawn to frequent users of Emergency Departments as they have demonstrated greater length of stay, and have greater morbidity than those who do not use the ED frequently. However, literature is much more limited regarding frequent utilizers of EMS systems, who increasingly impact the former.

Methods:

This cross-sectional study of adult EMS users, sought to identify characteristics associated with increased EMS use and estimate its financial impact. Data was collected from an ALS EMS system in San Francisco with a resident population of 805K leading to 80K+ calls during the studied year. Patient categories included: low users (1 EMS encounter), moderate users (2–4 EMS encounters), high users (5–14 EMS encounters), and "super users" (≥ 15 EMS encounters). Data included the patient's age, chief complaint, mention of alcohol, and average reimbursement per transport as well as payer type.

Results:

43,559 EMS encounters generated by 31,462 adult individuals including 100 (0.3%) 'super users' who resulted in 2668 (6.1%) of transports. These individuals were more likely to be male, older, and presented with 'general medical' or alcohol-related complaints.

Analysis:

As we have better analyzed our ED patient population in hopes of providing better resources and treatment options (social workers, mental health, observation units, etc.), this review of frequent EMS users will hopefully begin us down a similar pathway. This study demonstrates a clear demographic that accounts for a significant portion of EMS use. Advances in community paramedicine (specifically alternative management and destinations from the field) will help to identify the means whereby these patients may be managed without an ED visit. Identifying Medicare as a major payer of the frequent/super user provides a financial motivation for further studies and efforts to limit any unnecessary expenditures in their care. While this provides a good start into identifying these trends, additional target population characteristics will need to be explored (housing status, co-morbidities among others) as well as a review of the reliability of EMS workers' assessment in these encounters.
