“Patients prescribed OPAT are at risk for readmission. A subgroup of patients at especially high risk can be identified using easily obtainable clinical characteristics at the time of hospital discharge.” Allison et al (2014).

Reference:


Abstract:

BACKGROUND: Factors associated with readmission for patients prescribed outpatient parenteral antibiotic therapy (OPAT) at hospital discharge have not been definitively identified. The study aim was to develop a model of 30-day readmissions for OPAT patients.

METHODS: A database comprising 782 OPAT patients treated between 2009 and 2011 at a single academic center was created. Variables collected included patient demographics, comorbidities, infections, and antibiotic classes. Final model discrimination was assessed using the c-statistic, and calibration was examined graphically.

RESULTS: Mean patient age was 58 years (range, 18-95 years), 43% were women, and the most common diagnoses were bacteremia (24%), osteomyelitis (20%), and pyelonephritis
(13%). The unplanned 30-day readmission rate was 26%. The leading indications for readmission were non-infection related (30%), worsening infection (29%), and new infection (19%). The final regression model consisted of age (odds ratio [OR], 1.09 per decade; 95% confidence interval [CI], 0.99-1.21), aminoglycoside use (OR, 2.33; 95% CI, 1.17-4.57), resistant organisms (OR, 1.57; 95% CI, 1.03-2.36), and number of prior hospital discharges without intravenous antibiotics in the past 12 months (OR, 1.20 per prior admission; 95% CI, 1.09-1.32). The c-statistic was 0.61 and the highest-risk quintile of patients had almost a 3-fold higher rate of readmission compared to the lowest.

CONCLUSIONS: Patients prescribed OPAT are at risk for readmission. A subgroup of patients at especially high risk can be identified using easily obtainable clinical characteristics at the time of hospital discharge. More intensive interventions to prevent OPAT readmissions should be targeted and tested with those at highest risk.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).