

Acute Coronary Syndromes

HIGHER 30-DAY READMISSION RATE FOR SUSPICION OF ACS: EFFECT OF KIDNEY FUNCTION

Poster Contributions

Poster Sessions, Expo North

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Background: Current evidence suggests prolonged hospitalization for Acute Coronary Syndrome (ACS) in the setting of chronic kidney disease (CKD). What remains unclear is the impact of CKD on 30-day readmission rate for suspected ACS.

Methods: All patients who came to the emergency department (ED) from 2004 to 2010 and had cardiac Troponin measurement were included. Poisson regression was used to compare 30-day readmission rates between CKD stages after adjusting for age, gender, race, myocardial infarction, diabetes, hypertension and congestive heart failure at first admission.

Results: Of 85,055 patients studied, 51.2% were admitted as In-patient, 13.3% as Observation and 35.5% were discharged directly from the ED (not admitted). Overall 6.2% were readmitted for suspected ACS within 30 days. The crude 30-day readmission rate was 51.6 per 1,000 person-days for GFR \geq 60 mL/min/1.73 m², 96.2 for GFR 30-59, 140.2 for GFR 15-29 and 160.0 for GFR $<$ 15. The readmission rates followed the same pattern whether patients were In-patient, Observation or discharged directly from the ED (Figure 1). The adjusted 30-day readmission rate for patients with GFR $<$ 15 was almost twice as high as the rate for patients with GFR \geq 60 [incidence rate ratio (IRR):1.9, 95% CI=1.6- 2.2]. The IRRs for patients with GFR 15-29 and 30-59 were respectively 1.6 (1.4- 1.8) and 1.2 (1.2- 1.3).

Conclusion: Readmission for suspected ACS occurs more often in patients with CKD. Close monitoring may provide opportunities to reduce cost and improve outcomes.

