

Centre For Health Economics Seminar Series 2019

Do socioeconomic status and capacity affect the access to invasive coronary angiography and mortality of AMI patients?

Presenter: Associate Professor Jongsay Yong
Date: Wednesday 20 March 2019
Time: 12.00pm - 1.00pm
Venue: Room H.921 Caulfield campus



Abstract

This paper examines access to invasive coronary angiography (ICA) by two types of acute myocardial infarctions (AMI): ST-elevation myocardial infarctions (STEMI) and Non-ST-elevation myocardial infarctions (NSTEMI). We consider the extent to which capacity and capacity rationing affect AMI patients of different socio-economic status (SES). Although by best-practice guidelines both STEMI and NSTEMI patients should receive ICA, they differ in urgency: STEMI requires more urgent ICA compared to NSTEMI. Most studies do not consider catheterization capacity of admitting hospitals at the time of admission (ICA is one type of catheterization) and hence whether there is capacity rationing in performing ICA. We examine STEMI and NSTEMI hospital admission episodes occurring in Victoria during a seven-year period (2004/05 – 2011/12). Data are obtained from clinically coded datasets of admission records and emergency department presentations. We identify 13,468 STEMI and 42,167 NSTEMI of first-time AMI admissions occurring in 144 hospitals. Catheterization capacity of hospitals at time of admission is measured using the maximum number of daily catheterization procedures performed during the previous 14 days by the admitting hospital. SES is measured using private insurance status, rurality and an area-based socio-economic disadvantage index (SEIFA). We jointly model the probability of patients admitting to a catheterization-capable hospital, receiving ICA, and surviving 30 days post discharge. The results suggest that the SES plays an important role in affecting the access to ICA and survival probability of AMI patients using a recursive system of probit regressions. We find that the probability of receiving ICA is significantly lower for patients in SES disadvantaged areas than in advantaged areas, and for private than public patients. Moreover, the likelihood of access decreases for low SES patients as available catheterization capacity declines. We conclude that when capacity rationing occurs, it appears to affect low SES patients more than high SES patients.

Presenter

Jongsay Yong is a Principal Research Fellow at the Melbourne Institute: Applied Economic & Social Research, University of Melbourne. He has a PhD in Economics from the University of British Columbia, Canada. His research interests are on empirical research in the areas of health economics and industrial economics. A strong focus of his work is in linking research to policy and practice. His recent work includes examining the role socio-economic status on hospital utilization, understanding the use and abuse of coronary angiography, assessing the effects of competition for private patients on hospital performance, and measuring competition of the aged care industry.

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