Better Cardiac Care (BCC) Data Linkage Project: utilising cross-jurisdictional data to improve patient-flow capture.

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Objective

The BCC project aims to describe the burden of acute myocardial infarction (AMI) and access to cardiac procedures and care for New South Wales (NSW), Australia residents. For patients experiencing AMI, particularly ST-elevation myocardial infarction (STEMI), timely revascularisation is important to optimise prognosis.

Approach

The AMI patient journey often involves presentation to the closest appropriate facility and transfers between hospitals, including across jurisdictions. The BCC dataset consists of cross-jurisdictional linked ambulance, emergency, hospital, outpatient, deaths, Medicare and Pharmaceutical Benefits Scheme records for residents of NSW. For NSW residents hospitalised for STEMI between 2013 to 2018, we compared the number of STEMI hospitalisations, the proportion of patients receiving revascularisation procedures, and the time to procedures using only NSW records versus records from all jurisdictions and Medicare Benefits Scheme. This dataset will be updated annually.

Results

The BCC dataset comprises 332 million records, from 18 datasets, across 6 jurisdictions. Compared with NSW hospital data, including data from other jurisdictions increased the ascertainment of STEMI hospitalisations by 8.0% (from 15,420 to 16,659) and procedures by 11.2% (from 13,219 to 14,701) for NSW residents. This increase was greatest for residents living near state borders, increasing the number of STEMI hospitalisations by up to 210% and the percentage receiving procedures by up to 70%.

Conclusions

Cross-jurisdictional data is essential to understand patient journeys of residents who live in border areas and to evaluate patient care for STEMI and AMI more broadly. The BCC dataset is a vital asset that enables a more comprehensive view of care for AMI than has been possible to date.