

Variation in access rates amongst patients groups in Wales for specialist interventions.

Gareth Davies¹, Kendal Smith², Ashley Akbari¹, Rowena Bailey¹, Lloyd Evans¹, Gareth John², Michael Thomas², and Kerryn Lutchman-Singh²

¹Swansea University

²NHS Wales

Objectives

The Welsh Health Specialised Services Committee (WHSSC) has commissioned a study to assess if there is a standard value-based approach to measure and evaluate the effectiveness of specific interventions, and whether variation exists that may indicate differences in the equity of access to these services provided to patients in Wales.

Approach

Using anonymised individual-level, population-scale, routinely collected electronic health record (EHR) data held within the Secure Anonymised Information Linkage (SAIL) Databank, we planned to identify amongst the population of Wales any patients experiencing percutaneous coronary intervention (PCI) and Transcatheter Aortic Valve Implantation (TAVI). We would measure associated patient outcomes 2-years before and after the intervention minus a 6-month clearance period on either side by measuring primary care attendances in general practice, and secondary care attendances in hospital, outpatient and emergency department data. To further inform the analysis, linkage to socio-demographic factors, comorbidities and lifestyle factors would be controlled for.

Results

Preliminary results identified 5,999 PCIs between June 2014 and March 2020. We were able to identify 1,530 as elective and 4,358 as emergency secondary care procedures. Of the elective PCIs, 184 patients had a greater number of elective hospital days pre-PCI, and 382 patients had a greater number of elective hospital days post-PCI. Of the emergency PCIs, 135 patients had a greater number of emergency hospital days pre-PCI, and 893 patients had a greater number of emergency hospital days post-PCI. For TAVI intervention, we identified 74 elective and 49 emergency procedures. 35 of the elective TAVI had greater hospital days pre-intervention, and 17 of the elective TAVI had greater hospital days post-intervention. Primary care costs slightly rose for PCI and slightly reduced for TAVI.

Conclusion

We successfully identified interventions and measured and contrasted outcomes before and after the intervention using the SAIL Databank. For PCI, the elective intervention showed a reduced increase in bed days compared to emergency intervention. These initial findings allow us to plan an expanded analysis to examine other intervention types.

