Centre for Health Policy

Seminar

The University of Melbourne

Melbourne School of Population & Global Health

Determining costs, cost predictors, and resource requirements in fertility care pathways: a value-based costing tool to assess the impact of AI on patient pathways

Presenter: Maura Leusder

Tuesday April 4 2023, 12:00pm—1pm (AEST)

Seminar Room 515
Level 5 207 Bouverie Street
Carlton, VIC 3053

Or join online at:
https://go.unimelb.edu.au/8yrs

The aim of this research was to determine the total costs of fertility care cycles for all patient pathways, identify cost predictors, and to stratify resource use per treatment option.
We developed a cost calculation tool using time-driven activity-based costing (TDABC), direct observations (218), and metro mapping, which incorporates patient-level input parameters for the entire patient pathway.

Our results indicate that fertility treatments vary significantly in cost and duration when considering the patient journey from initial consultation to ongoing pregnancy. Treatment cycle costs can vary from €226 to €4,879 and do not necessarily reflect reimbursement amounts. Patient-level cost variation is greatest during lab phases of treatment, driven directly by the volume of material handled by the lab per patient, staff experience levels, and the patient's case mix. Lab staff, lab disposables, and lab equipment together make up 39% of the average IVF cycle expenses, highlighting the importance of a motivated workforce and the potential benefits of technological investments, including artificial intelligence (AI) embryo selection.

Maura Leusder, MSc. Is a PhD candidate at the Erasmus School of Health Policy and management. Her research concerns the costs and outcomes of fertility care patient journeys from initial consultation to pregnancy, including the impact of artificial intelligence (AI) on the workload and value-based outcomes. Her research methods include metro mapping, time-driven activity-based costing (TDABC), process mining, and ethnography. Her research sits at the intersection of health services research, management accounting, and organisation science.