

PhD Confirmation Seminar

The University of Melbourne

The health economic potential of high throughput sequencing technologies for blood cancer

Presenter: Martin Vu

**Supervisors: Prof Maarten IJzerman,
A/Prof David Westerman & Dr Koen Degeling**

Tuesday 2nd March 10am–11am

Via Zoom: <https://unimelb.zoom.us/j/3058644025?pwd=QkJVcm11MGFBek9wVXk2SVZlbnNpZz09>
Password: 826638



Martin Vu is a PhD candidate in Cancer Health Services Research at the Centre for Health Policy, Melbourne School of Population and Global Health. His research interests include health economics in blood cancer genomics. His PhD project focuses on understanding the health economic impact of genomic sequencing in clinical practice to improve health outcomes for patients living with a blood cancer.

Martin completed his degrees of Bachelor of Science and Master of Public Health at the University of Melbourne.

Next-generation sequencing (NGS) refers to a suite of technologies that can comprehensively analyse the genomic basis of blood cancers in order to establish individualised therapies for each patient. These technologies are well-placed to create substantial clinical impact by improving clinical outcomes for patients with blood cancer and delivering more appropriate use of healthcare resources.

However, access to NGS is restricted to certain settings and the adoption of NGS in routine blood cancer care remains low. This is due to uncertainties in the evidence on the health and economic impact of precision medicine strategies in blood cancer care. Evaluation of NGS is complicated because of methodological challenges in health economic modelling, but there are also issues with existing economic evaluation frameworks when assessing these precision medicine interventions.

The aim of this PhD is two-fold. Firstly, this PhD aims to demonstrate the health economic impact of NGS technologies by assessing the cost and cost-effectiveness of these technologies to inform clinical management for blood cancer patients. Secondly, this PhD seek to address challenges in the conduct of health technology assessments for NGS technologies by conceptualising a framework to analyse the value of individualised therapies for blood cancers.