

## Using data linkage for the economic evaluation of the Melbourne Mobile Stroke Unit

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**Abstract Title** Using linked data for an economic evaluation of the Melbourne Mobile Stroke Unit

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### Background

The Melbourne Mobile Stroke Unit (MSU) has been implemented to improve early diagnosis and access to evidence-based treatments including thrombolysis and endovascular clot retrieval. This new model of care for Australia requires comprehensive evaluation, which includes an assessment of costs relative to benefits achieved.

### Objectives

To determine the cost-effectiveness of the MSU compared to standard ambulance services for patients with suspected stroke.

### Method

A decision analytic model will be used in this economic evaluation to assess the potential cost-effectiveness of the MSU. The primary outcome will be the additional cost per patient with disability/death avoided as measured using the modified Rankin Scale. Data on the treatment of stroke in the MSU will be obtained directly by MSU staff and from routinely collected data within the hospital. These data will be supplemented by linkage to Ambulance Victoria, the Australian Stroke Clinical Registry and routinely collected hospital administrative datasets (including clinical costing). Additionally, these linked datasets will be utilised to identify historical (pre/post) and prospective case-controls for patients treated in the MSU.

### Results

Preliminary economic evaluations have been conducted based on data collected on 1244 dispatches and 505 subsequent attendances completed in 2018. Approvals for linkages to other datasets to supplement these analyses are currently being sought.

### Conclusions

This information is essential for future planning of the MSU service in metropolitan Melbourne, other metropolitan locations within Australia, and potentially regional areas.