

# Development of an evidence-based position statement on models of care for transient ischaemic attack (TIA)

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## Background

- ASC
  - organisation of members representing major groups, agencies and professions involved in stroke care in Australia
- National audit results show great variation in adherence to Aust. Clinical Guidelines
- Goal of ASC that TIA receive appropriate and timely evidence-based care

## Aim and methods

- **Aim:** Develop a national discussion paper
  - Outline models of care for TIA management to enable all patients in different regions access to evidence-based care
- **Method:**
  - A nationally representative project team
  - International and Australian evidence reviewed
  - Current Australian models described
  - Draft discussion paper
  - (circulate to members for consultation)
  - (finalise and consider publication)

## Principles for all models of care for TIA

- Rapid recognition and diagnosis of TIA
- Prompt access to investigations and imaging
- Specialist assessment / consultation
- Early initiation of secondary prevention
- Clear referral pathways and continuity of care
- Front-line staff are trained and competent to recognise TIA and stroke symptoms
- Ongoing quality improvement

Model	Point of entry	Early assessment	Stroke specialist review	Admission policy	TIA clinic
<b>Admit all</b>	ED	ED with early input from stroke specialist	Phone referral from ED (minimum) or consult	Yes for all on stroke unit	No
<b>Outpatients / clinic</b>	ED or direct referral by GP	By ED physician (usual) or GP	Phone referral (minimum) & follow up in clinic	Based on local criteria for those deemed high risk.	Yes -Rapid (<24hrs) or routine (< 48 hrs)
<b>Geographically centralised clinic</b>	Screening (clinical history/exam) by ED or GP with phone referral to clinic	Stroke specialist / registrar. Timing determined by criteria	Run clinic	Based on local criteria for those deemed high risk.	Yes
<b>General care with offsite specialist input</b>	GP or ED	GP practice or non-specialist hospital ED	Phone or telehealth support / link as part of initial assessment	Possibly after discussion with specialist.	No

## Recommended models

- **Specialist Hospital Inpatient (admit all)**
  - suggested where access to stroke unit is available but a rapid access outpatient clinic is not available, and/or concerns are held for the capacity of the service system to access investigations, test results and expert input promptly as an outpatient.

## Recommended models

- **Specialist Hospital Outpatient Clinic (with some admitted based on risk assessment)**
  - has initial investigations in ED or GP with expert input to determine level of urgency of review and determine secondary prevention medications.
  - Some high risk patients may still be admitted
  - Need not be hospital clinic (may be private rooms)

## Recommended models

- **Geographically centralised rapid access clinic (24/7) – Parisian/Jannes! model**
  - entry point of ED or primary care (GP). The person with suspected TIA has their initial screen at point of entry and a phone call consult is made to a 24/7 clinic where the decision to refer and the timing of the referral is made. The clinic has rapid access to investigations and expert opinion.



## Recommended models

- **General Care with specialist input**
  - entry point through ED or primary care (GP). Initial screening and assessment is made at point of entry with support from a specialist on-call service. The decision on initiating investigations, reviewing test results and determining interventions (including need for transfer to stroke unit for admission) is made with specialist input.

## Discussion points

- The models themselves can/should vary as long as they adhere to the principles
- Most difficulty around risk stratification, timing of investigations, and decisions around whether to admit patients
  - This includes remote model where need to incorporate criteria for transfer to specialist centre for investigation and admission
- Admission vs outpatients/clinics – no Australian tertiary centres currently have 7 day a week clinic.

## Discussion points – risk stratification



## Discussion points – ABDC2

- Risk stratification decisions – should we really be categorizing, or treating all TIA patients (with recent symptoms) as one group?
  - Many guidelines incorporate the use of ABCD2/3/etc as a tool for risk stratification
- Updated meta-analysis (Sanders et al Neurology 2012) indicates the tool is poorly predictive of subsequent stroke risk
- We can probably do better with a combination of clinical factors and investigations...

## Risk Stratification and Implications

- Patients with TIA at high risk of stroke
  - Clinical: crescendo TIA, motor symptoms > 1 hour, fluctuating symptoms)
  - Investigation: carotid imaging (symptomatic stenosis > 50%), atrial fibrillation, positive DWI (MRI)
  - Should such patients be admitted?
- Timeliness for investigations (and which ones?)
  - This guides early preventative treatment timing as well as decisions around rapid review or admission (depending on model)

## Ideally, any model should adhere to these principles:

- All patients should be seen (or consulted by phone) by a specialist in neurovascular disease within 24 hours of presentation.
- All patients should have ECG and blood tests at the initial point of healthcare contact
- All patients should have brain and carotid imaging ideally at the initial point of healthcare contact, or within 24 hours of presentation.

## Ideally, any model should adhere to these principles:

- Patients at high risk of stroke (based on clinical assessment and investigation results) should be strongly considered for admission to a specialist stroke unit
- Measures for secondary prevention introduced as soon as the diagnosis is confirmed
  - this will vary according results of investigations (e.g. AF, carotid disease)

## Conclusion

- No one model fits all
- Choice depends on local situation
- BUT
- Clear consensus on the principles of TIA management which any model must meet to ensure all people are managed according to the evidence.
- A work in progress