



TIA MIMICS IN A REGIONAL HOSPITAL EMERGENCY DEPARTMENT

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Background:

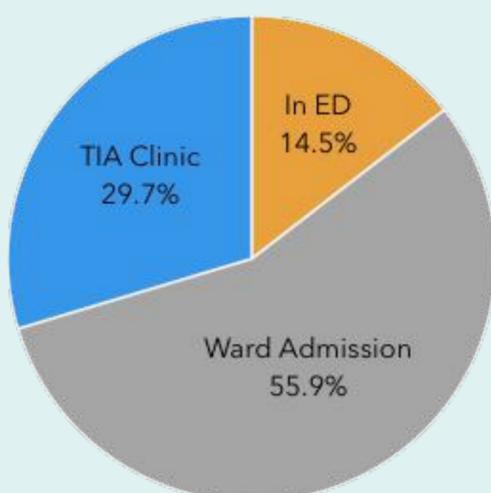
Early diagnosis of Transient Ischemic Attack (TIA) is crucial to the appropriate commencement of secondary prevention and reduction of future stroke risk ^{1,2}. This raises many challenges in emergency departments (EDs) as TIA presentations are heterogeneous and brief ³. Observational studies suggest 20-40% of acute TIA referrals have a revised 'TIA mimic' diagnosis following neurologist review ^{1,4,5}. It is unknown if mimics occur with the same frequency outside the metropolitan setting, where access to specialist stroke resources may be relatively limited.

Aim:

In order to optimise our TIA management pathway, we aimed to determine the frequency and types of TIA mimics presenting to a large regional hospital.

Methods:

We conducted a three year retrospective cohort study of all suspected TIA presentations to the ED of Ballarat Health Services, a large regional hospital in Victoria, Australia. Data were extracted from the medical records of all patients with an ICD-10 TIA code (G45.3, G45.8, G45.9). All documented diagnoses were reviewed by a neurologist.



- 21 revised in ED
- 81 revised during ward admission
- 43 revised in TIA Clinic

Conclusions:

- TIA Mimic frequency and type are similar to those observed in metropolitan centres
- Regardless of hospital location, identifying TIA mimics at a point of acute referral may reduce unwarranted further investigation, medication and follow up appointments

Results:

Data extraction resulted in 388 neurologist-reviewed TIA cases referred from ED. 243 (62.6%) were confirmed as stroke, TIA or amaurosis fugax. 145 were revised to a TIA mimic diagnosis.

Demographic characteristics more commonly observed in neurologist confirmed Stroke/TIA:

- Older age ($p=0.03$), male sex ($p=0.01$)
- Hypertension ($p<0.01$), atrial fibrillation ($p=0.04$),
- History of smoking ($p=0.02$), previous neurologist confirmed stroke/TIA ($p<0.01$), ischemic heart disease ($p=0.01$)

Most diagnoses (55.9%) were revised during a ward admission.

In total there were 28 different 'TIA Mimic' diagnoses:

Diagnosis	Number	% Overall Diagnoses
Migraine	19	4.9%
Delirium	18	4.6%
Pre-syncope/Syncope	17	4.4%
Transient Global amnesia	12	3.1%
Seizure	8	2.1%
Peripheral neuropathy	7	1.8%
Non-specific headache	6	1.5%
Functional Anxiety	5	1.3%
Hypoglycaemia	4	1.0%
Symptomatic hypertension	2	0.5%
Other singular diagnoses	47	12.1%