Managing TIA in the ED

The Impact of an Outpatient Neurovascular Clinic

Current Recommendations for TIA Patients in the ED

- Brain Imaging
- Vascular Imaging (Carotids)
- ECG
- Medical Therapy
- Neurovascular Clinic Referral

Within 24 hours

How many TIA patients receive proper care? Does referral to a neurovascular clinic improve outcomes?

A Retrospective Cohort Study

4 EDs in the Nova Scotia Capital District Health Region

668 TIA Patients from Jan 1, 2012 to Dec 31, 2012

Separate into Cohorts and Match 1:1 to 1 based on Patient Similarity

ED Only: 215 Patients

ED & Clinic: 215 Patients

Unmatched: 256 Patients

Compare readmission rates for stroke, MI or vascular death within 90 days of initial TIA

The Results

1. 57% of TIA patients were referred to NV clinic, with 56% showing up for an appointment

2. Majority of patients with TIA were treated with antibiotics in 24 hours

3. 4.2% of patients seen in ED were readmitted for stroke, MI or vascular death within 90 days

4. Risk of stroke, MI and vascular death was lower for patients who followed up with the NV clinic (adjusted hazard ratio 0.28; 95% CI 0.08-0.99)

Conclusions

- Outpatient neurovascular clinics can be used to improve TIA patient outcomes. This is likely due to faster investigations and improved access to professionals with expertise in stroke care.
- Neurovascular clinics are underutilized by ED physicians, with only 51% of TIA patients referred to a clinic.
- The use of CT, ECG and anticoagulant therapy in the ED for TIA patients is high, however there is a need for more vascular imaging and more aggressive anticoagulation.

References:

This infographic was created by Simon Harvey for the Sparrow Hospital and CCHS with editing from Blake Thomas, Matthew Woods & Mike Anderson.