



Stroke Services

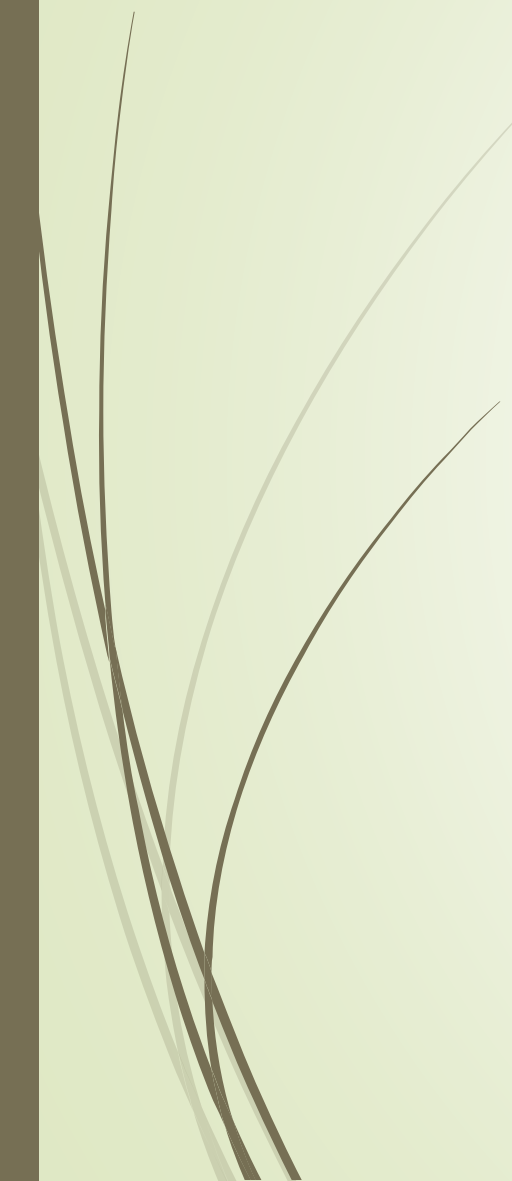
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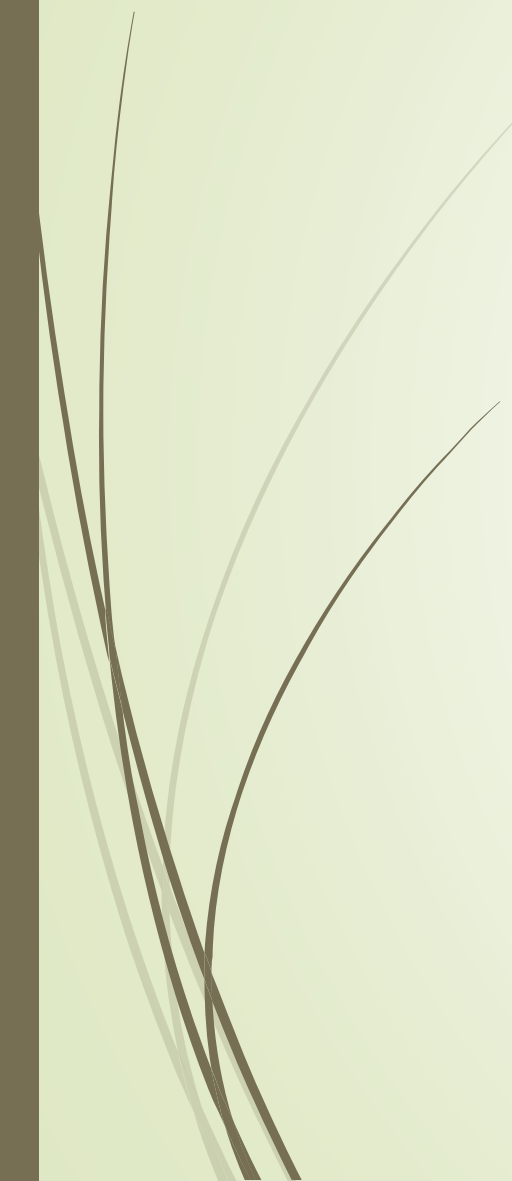
What we'll be discussing

- Referral Proforma
 - Initial Management
 - NICE Guidelines
 - How the service operates at BDGH
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Referral Proforma

- New edition
 - Standardised for both A&E and GP
 - Will probably be corrected soon (again!)
 - Discussion with Stroke Response Team

 - Your feedback is welcomed
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TIA Referral Form

PLEASE CONTACT THE STROKE RESPONSE NURSE ON 01228 450189 TO DISCUSS REFERRAL
SEND REFERRAL TO stroke.response@nhs.net



TIA Clinic URGENT REFERRAL PROFORMA

Patients presenting with lasting neurological deficit, atrial fibrillation, on an anticoagulant and/or had more than one TIA in a week (crescendo TIA) should be admitted unless discussed with the stroke team prior to referral

Patient Details:

NHS No:

Surname:

Forename:

DOB:

Address:

Contact Number:

Practice Stamp

G.P Signature:

Date/Time of Referral:

Reason for Referral: Suspected TIA

Brain: Right Face Left Face Right Arm Left Arm Right Leg Left Leg
Impaired Language Impaired Vision Aphasia Expressive Aphasia

Brain Stem: Vertigo Dysphagia Both Arms Both Legs Visual Field

Other Symptoms:

Date of TIA:

Blood Pressure:

- Prescribe Aspirin 300mg STAT & Clopidogrel 300mg STAT
- Then Aspirin 75mg & Clopidogrel 75mg for 21 days then Clopidogrel thereafter
- CONSIDER**
- Lansoprazole 15mg daily to protect gastric lining
- Optimise Statin Treatment i.e. Prescribe Atorvastatin 40mg-80mg od for secondary prevention
Preferably commence 40mg Atorvasatin
- ECG & Bloods
- Provide patient with information leaflet & advise not to drive

Risk Factors:

- Previous Stroke/TIA
- Diabetes
- Hyperlipidaemia
- Hypertension
- IHD
- Other Cardiac Disease
- Atrial Fibrillation
- PVD

List of Medication:

Lifestyle:

- Smoker
- Alcohol

Definition of a TIA:

- Transient focal neurological symptoms now resolved
- Unilateral face/arm/leg weakness or sensory loss
- Speech disturbance
- Visual field loss or monocular blindness
- Diplopia, dysphagia, vertigo and other focal neurological symptoms

Also consider symptoms which may mimic TIA (6S's), e.g.

- Syncope/loss of consciousness
- Somatisation (functional)
- Seizure – with Todd's paresis or other transient neurology
- Syncope/loss of consciousness
- Sugar – hypoglycaemia
- Sepsis with acute confusional state
- Space occupying lesion e.g. SDH/tumour
- Dizziness without focal neurological deficit
- Migraine
- Bell Palsy

DO NOT REFER THESE PATIENTS TO TIA CLINIC
ADMIT OR REFER APPROPRIATELY

Provide patient with TIA leaflet AND advise the patient;

- They must not drive for one month (if all symptoms have resolved), inform their insurers and to see GP for further advice before returning to driving
- Risk factor management
- Smoking cessation
- Alcohol reduction
- Lifestyle changes

If signs and symptoms have not resolved, the diagnosis is cerebrovascular event

- Admit as a stroke
- Move on to the Stroke Pathway

NIHSS

1a—Level of consciousness	0 = Alert; keenly responsive 1 = Not alert, but arousable by minor stimulation 2 = Not alert; requires repeated stimulation 3 = Unresponsive or responds only with reflex
1b—Level of consciousness questions: What is your age? What is the month?	0 = Answers two questions correctly 1 = Answers one question correctly 2 = Answers neither questions correctly
1c—Level of consciousness commands: Open and close your eyes Grip and release your hand	0 = Performs both tasks correctly 1 = Performs one task correctly 2 = Performs neither task correctly
2—Best gaze	0 = Normal 1 = Partial gaze palsy 2 = Forced deviation
3—Visual	0 = No visual lost 1 = Partial hemianopia 2 = Complete hemianopia 3 = Bilateral hemianopia
4—Facial palsy	0 = Normal symmetric movements 1 = Minor paralysis 2 = Partial paralysis 3 = Complete paralysis of one or both sides
5—Motor arm Left arm Right arm	0 = No drift 1 = Drift 2 = Some effort against gravity 3 = No effort against gravity 4 = No movement
6—Motor leg Left leg Right leg	0 = No drift 1 = Drift 2 = Some effort against gravity 3 = No effort against gravity 4 = No movement
7—Limb ataxia	0 = Absent 1 = Present in one limb 2 = Present in two limbs
8—Sensory	0 = Normal; no sensory loss 1 = Mild-to-moderate sensory loss 2 = Severe-to-total sensory loss
9—Best language	0 = No aphasia; normal 1 = Mild-to-moderate aphasia 2 = Severe aphasia 3 = Mute; global aphasia
10—Dysarthria	0 = Normal 1 = Mild-to-moderate dysarthria 2 = Severe dysarthria
11—Extinction and inattention	0 = No abnormality 1 = Visual, tactile, auditory, spatial, or personal inattention 2 = Profound hemi-inattention or extinction
Score = 0–42	



How to make an effective referral

- ▶ Clear sudden onset
- ▶ Resolution of neurology – big plus to examine
- ▶ NIHSS if possible – scoring system will formulate initial treatment*

- ▶ BE-FAST is very useful guide
- ▶ No longer using ABCD2 – clinical judgement is preferred!
- ▶ Mention of relevant cardiovascular risk factors
- ▶ Relevant co-morbidities

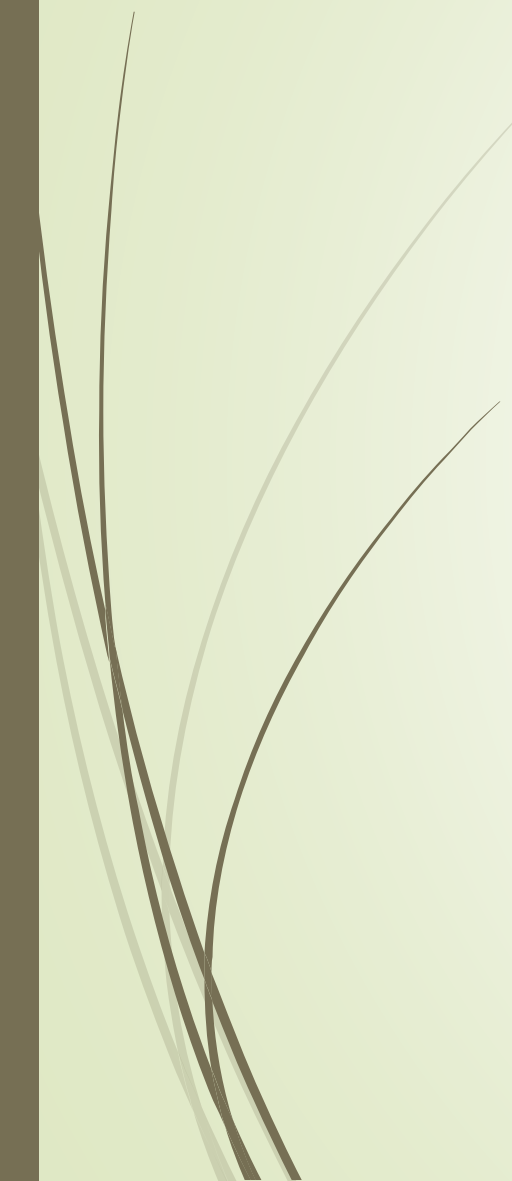


Initial Management

- ▶ Aspirin 300mg STAT + 13/7 Rx with lansoprazole 15mg OD
- ▶ High dose atorvastatin
- ▶ Useful bloods – lipid profile + Hba1c
- ▶ ECG
- ▶ BP reading
- ▶ Advised against driving

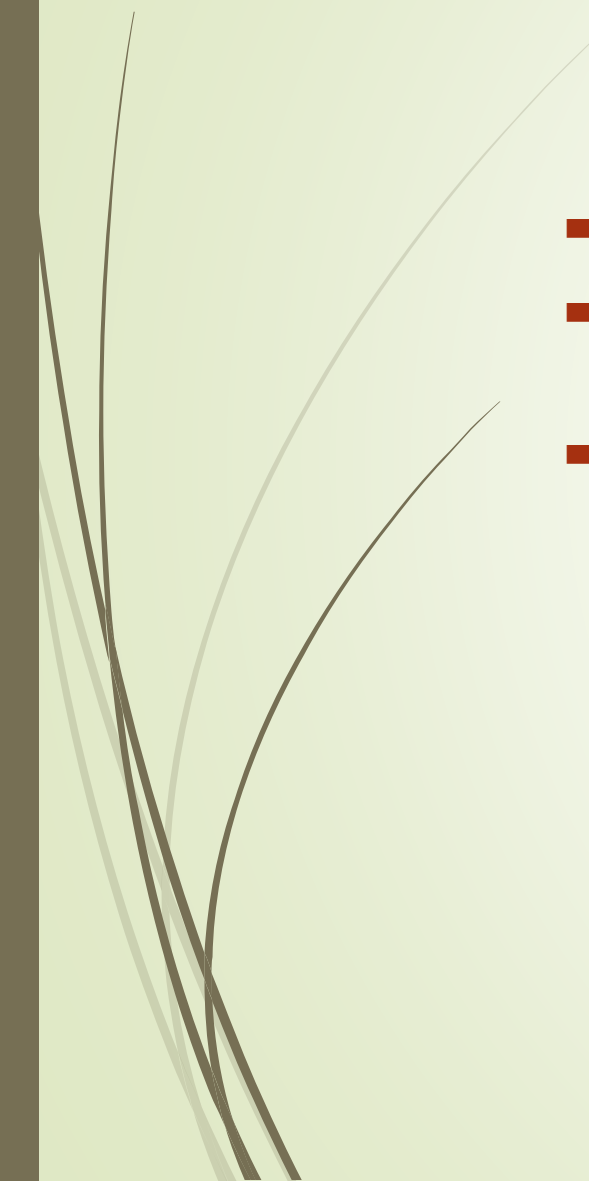


What happens in TIA clinic

- Telephone consultation
 - Gradual reversion to f2f
 - Next day Doppler (usually)
 - Not same day service so patient still wait for MRI Head
 - F/U in 4 weeks to review scan
 - So patients will be on DAPT until F/U appt
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NICE Guidelines

- ▶ Differentiates between suspected and diagnosed TIA
 - ▶ Emphasis on same day service – within 24h and immediate MRI Head + Carotid Doppler
 - ▶ Diagnose and Treat on the same day by specialist
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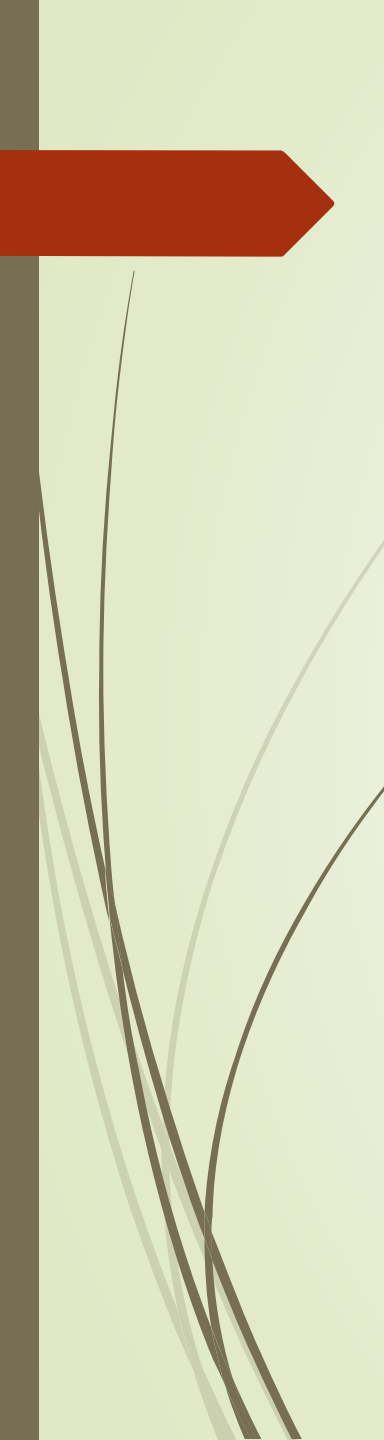



Recommendations

- A** Patients with acute focal neurological symptoms that resolve completely within 24 hours of onset (i.e. suspected TIA) should be given aspirin 300 mg immediately unless contraindicated and assessed urgently within 24 hours by a stroke specialist clinician in a neurovascular clinic or an acute stroke unit. **[2023]**

- B** Healthcare professionals should not use assessment tools such as the ABCD2 score to stratify risk of TIA, inform urgency of referral or subsequent treatment options. **[2023]**


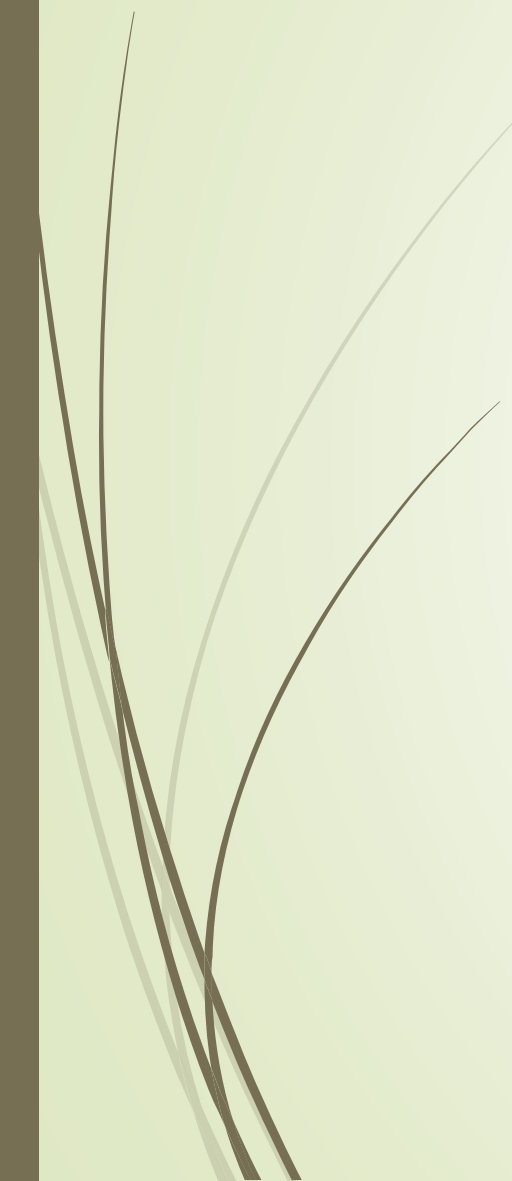
- C** Patients with suspected TIA that occurred more than a week previously should be assessed by a stroke specialist clinician as soon as possible within 7 days. **[2016]**

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- D** Patients with suspected TIA and their family/carers should receive information about the recognition of stroke symptoms and the action to be taken if they occur. **[2016]**
 - E** Patients with suspected TIA should be assessed by a stroke specialist clinician before a decision on brain imaging is made, except when haemorrhage requires exclusion in patients taking an anticoagulant or with a bleeding disorder when unenhanced CT should be performed urgently. **[2023]**
 - F** For patients with suspected TIA, MRI should be the principal brain imaging modality for detecting the presence and/or distribution of brain ischaemia. **[2023]**
 - G** For patients with suspected TIA in whom brain imaging cannot be undertaken within 7 days of symptoms, MRI (using a blood-sensitive sequence, e.g. SWI or T2*-weighted imaging) should be the preferred means of excluding haemorrhage. **[2023]**



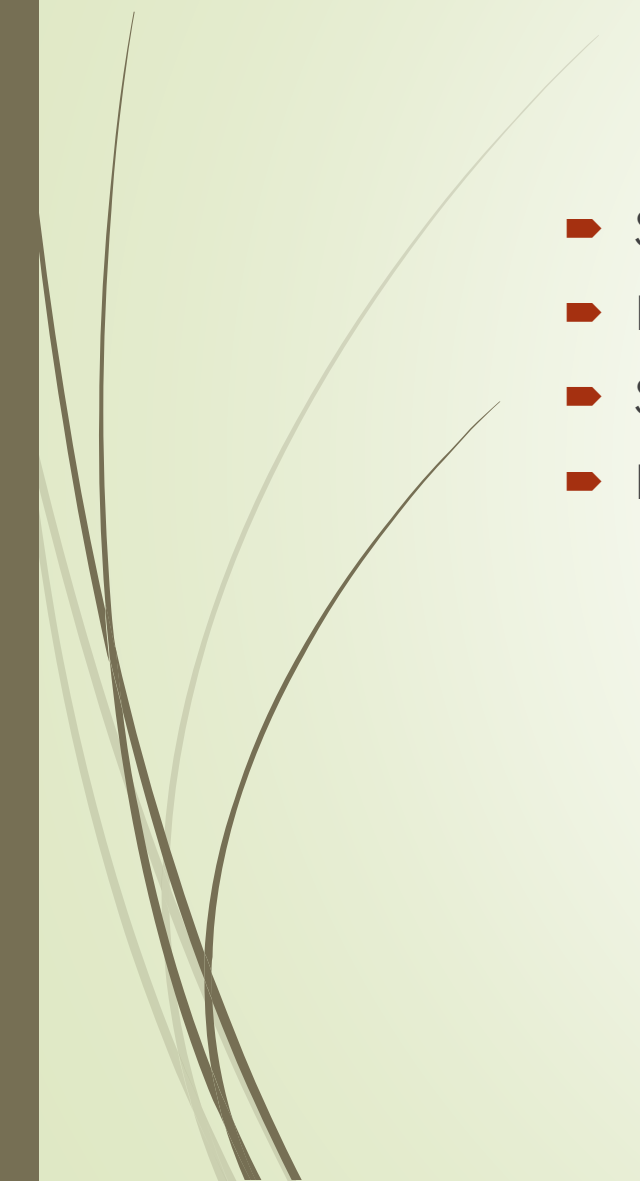
B Patients with TIA or minor ischaemic stroke should be given antiplatelet therapy provided there is neither a contraindication nor a high risk of bleeding. The following regimens should be considered as soon as possible:

- For patients within 24 hours of onset of TIA or minor ischaemic stroke and with a low risk of bleeding, the following dual antiplatelet therapy should be given:
Clopidogrel (initial dose 300 mg followed by 75 mg per day) plus aspirin (initial dose 300 mg followed by 75 mg per day for 21 days) followed by monotherapy with clopidogrel 75 mg once daily
OR
Ticagrelor (initial dose 180 mg followed by 90 mg twice daily) plus aspirin (300 mg followed by 75 mg daily for 30 days) followed by antiplatelet monotherapy with ticagrelor 90 mg twice daily or clopidogrel 75 mg once daily at the discretion of the prescriber;
- For patients with TIA or minor ischaemic stroke who are not appropriate for dual antiplatelet therapy, clopidogrel 300 mg loading dose followed by 75 mg daily should be given;
- A proton pump inhibitor should be considered for concurrent use with dual antiplatelet therapy to reduce the risk of gastrointestinal haemorrhage;
- For patients with recurrent TIA or stroke whilst taking clopidogrel, consideration should be given to clopidogrel resistance. **[2023]**

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- E** Patients with ischaemic stroke or TIA who after specialist assessment are considered candidates for carotid intervention should have carotid imaging performed within 24 hours of assessment. This includes carotid duplex ultrasound or either CT angiography or MR angiography. **[2023]**
- F** The degree of carotid artery stenosis should be reported using the North American Symptomatic Carotid Endarterectomy Trial (NASCET) method. **[2016]**
- G** Patients with TIA or acute non-disabling ischaemic stroke with stable neurological symptoms who have symptomatic severe carotid stenosis of 50–99% (NASCET method) should:
- be assessed and referred for carotid endarterectomy to be performed as soon as possible within 7 days of the onset of symptoms in a vascular surgical centre routinely participating in national audit;
 - receive optimal medical treatment: control of blood pressure, antiplatelet treatment, cholesterol reduction through diet and medication, and lifestyle advice including smoking cessation. **[2016]**



Carotid USS

- ▶ Symptomatic lesion that is >50% stenosis
 - ▶ Referral to vascular surgeons within 7d
 - ▶ Second imaging required
 - ▶ Patient must be fit enough and willing
- 



MRI Head

- ▶ 30% of TIA and minor strokes have no DWI changes
- ▶ Specialist will review and decide whether diagnosis is TIA/minor stroke
- ▶ The longer the delay of MRI scan, less likely DWI changes appear
- ▶ Gold standard to diagnose TIA
- ▶ Can pick up old infarcts, age of bleeds and cerebral microbleeds better that will change treatment




Barnsley only has ASU + Rehab

- ▶ Repatriated from other hospitals with HASU
- ▶ Mainly Pinderfields and other regional hospitals (STH, DRI and RDGH)
- ▶ Undergo stroke therapy – decision whether for home/rehab unit

- ▶ Patients who do not require HASU end up here – not suitable for thrombolysis/thrombectomy, end of life/terminal stroke
- ▶ Patient choice to remain close to home



However...

- ▶ Patients do present to A&E with acute neurology and then transferred to Pinderfields or STH HASU
 - ▶ Pre-hospital transfer depends on geographic location where closest HASU is based
- 



Any questions?

