

STROKE THROMBOLYSIS

MODULE: CORE MEDICINE: CARE OF THE ELDERLY

TARGET: FY1/2 & CT1/2

BACKGROUND:

"Stroke is a preventable and treatable disease. Over the past two decades a growing body of evidence has overturned the traditional perception that stroke is simply a consequence of aging that inevitably results in death or severe disability. Evidence is accumulating for more effective primary and secondary prevention strategies, better recognition of people at highest risk, and interventions that are effective soon after the onset of symptoms. Understanding of the care processes that contribute to a better outcome has improved, and there is now good evidence to support interventions and care processes in stroke rehabilitation."

CG68 NICE Clinical Guideline: Stroke (July 2008)

This scenario can be used as a stand-alone scenario, or as follow-on from the "stroke on the ward" scenario.

RELEVANT AREAS OF THE CMT CURRICULUM

Core Medicine	
H.1 Stroke/Cerebrovascular Disease	
Knowledge	Recall the Bamford classification of stroke, and its role in prognosis
	Demonstrate knowledge of investigations for acute presentation, including indications for urgent head CT
Skills	Perform full examination to elicit signs of systemic disease and neurological dysfunction and identify associated deficits
	Describe likely site of lesion in motor system and produce differential diagnosis
	Order, interpret and act on initial investigations for motor weakness appropriately
	Recognise when swallowing may be unsafe and manage appropriately
	Ensure appropriate care: thrombo-prophylaxis, pressure areas
Behaviour	Recognise importance of timely assessment and treatment of patients presenting with acute motor weakness
	Consult senior and acute stroke service, if available, as appropriate
	Recognise patient and carers distress when presenting with acute motor weakness
	Consult senior when rapid progressive motor weakness or impaired consciousness is present
	Involve speech and language therapists appropriately
	Recognise the relationship between dysarthria and swallowing difficulties and advise patients and carers accordingly
	Contribute to multi-disciplinary approach
Geriatric Competencies	
	Set realistic rehabilitation targets
	Recognise the role of intermediate care, and practice prompt effective communication with these facilities

INFORMATION FOR FACULTY

LEARNING OBJECTIVES

Management of an inpatient with an acute ischaemic stroke

Indications and contraindications for thrombolysis

Complications of thrombolysis and their management

SCENE SETTING

Location:	A&E Resus	Expected duration of scenario:	15 mins	Expected duration of debriefing:	40 mins
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EQUIPMENT AND CONSUMABLES

SimMan3G
 I.V. Cannula
 Drug Chart
 Image: Normal CT Head
 Alteplase drug label
 Observations chart with temperatures
 Patient wrist band
 NIHSS score sheet
 Non-rebreathe O2 mask
 Crash trolley
 Clerking booklet

PERSONNEL-IN-SCENARIO

FY1
 CT1/2
 Nurse (faculty)
 Thrombolysis nurse co-ordinator (faculty)

PARTICIPANT BRIEFING

You are on call at the weekend and are asked to see Hubert Jones, 74yo man admitted with septic arthritis on intravenous antibiotics. He is normally fit and lives independently. He has a history of type 2 diabetes recently diagnosed by his GP and hypertension. You have accompanied him to the CT scanner, as he had slurred speech and was not moving his right arm, suggesting a stroke. You have called the stroke thrombolysis team, and they have asked you to take Mr Jones to A&E Resus, where they will proceed with thrombolysis if appropriate.

FACULTY BRIEFING

'VOICE OF THE MANIKIN' BRIEFING

You are Hubert, 74 year old man being treated with intravenous antibiotics for septic arthritis of the knee. 30 minutes ago you noticed difficulty in pronouncing words and moving your right arm. You have not noticed any change in your vision. You were fine 30 minutes ago at your last meal. You have not noticed any change in the sensation in your face, legs or arms. You have not tried to walk because your knee is sore. You have recently started Metformin for type 2 diabetes and take blood pressure tablets. You are not allergic to anything that you know of. No one in your family has had a stroke. You have noticed palpitations over recent days while your knee has been painful. You drive; you live with your wife who is dependent on you. You are very anxious about the sudden difficulty in speaking and moving your arm, and want to know what's happened. Nothing like this has happened before. You've never had any trouble with your heart in the past. You have not had any falls, banged your head, or had any recent surgery.

You have just had a CT scan of your head, and have been wheeled on a trolley from the scanner to A&E resus. You are scared. For the easy difficulty scenario – your speech improved throughout, and you say that you can move your right arm a little. For the normal difficulty, your speech remains slurred. For the hard difficulty scenario, a few minutes after the alteplase is started, you say that you are getting a headache, and don't feel very well. Your speech becomes more muddled, slower, and more slurred. After a further few minutes, you stop speaking, and become unresponsive.

IN-SCENARIO PERSONNEL BRIEFING

If this scenario is used in conjunction with the "stroke on the ward" scenario, then the scenario will resume after a debrief, with the patient having gone to A&E Resus from the CT scanner, the stroke thrombolysis team, should be present, but if they have not been called they should be now. The stroke physician should be telephoned to ask for an interpretation of the CT head result. The participants will then be expected to help with the thrombolysis, including documentation.

Stroke physician (phone) –

Asks for clinical history. Says that the CT head looks normal, and that thrombolysis should proceed (normal and hard difficulty). If the neurological signs are improving (easy difficulty) then they will recommend that the participant treats this as a transient ischaemic attack.

Thrombolysis nurse –

Helpful, performs usual role with help of participant. Fills out NIHSS score, calculates Alteplase dose.

Neurosurgical registrar –

Asks for background and co-morbidities, and asks the participant to organise for another CT scan, and to call him back with the results.

Difficulty Level:

Hard difficulty –

Participant may ring the neurosurgical registrar, the medical registrar, or intensive care registrar. The medical/ICU SpR says that are busy, and to ring the neurosurgical registrar for advice.

Patient's relative (Son or Daughter) –

You have been sitting with your father on the ward for about a hour, and were there whilst he ate his lunch. He had no problems when you first arrived, but over the last 30 minutes, you've noticed that his speech has become slurred, and that he can't move his right arm. You are aware that your father has high blood pressure, and type 2 diabetes, but he is normally fit and well. You were hoping that since he had been recovering so well from his infected knee, he would be coming home this

afternoon, or at the latest tomorrow morning. You have come down to A&E Resus to be with your father whilst he has thrombolysis.

Difficulty Level:

Easy difficulty:

You are concerned, but calm and helpful. You are able to give his history clearly, and if the participant needs prompting. You are accepting and understanding of the situation if the participant explains it to you clearly and sensitively.

Normal difficulty: You are concerned, agitated, and upset, you pace around the room, constantly asking questions, such as: what's happening now? Why aren't you doing anything? What's wrong with my father? You can give a full history if asked. You will not leave the room if asked to. You are disruptive, and get in the way.

Hard difficulty: As with normal difficulty, you are upset, disruptive, and are difficult to reason with.

ADDITIONAL INFORMATION

Drug History:

NKDA

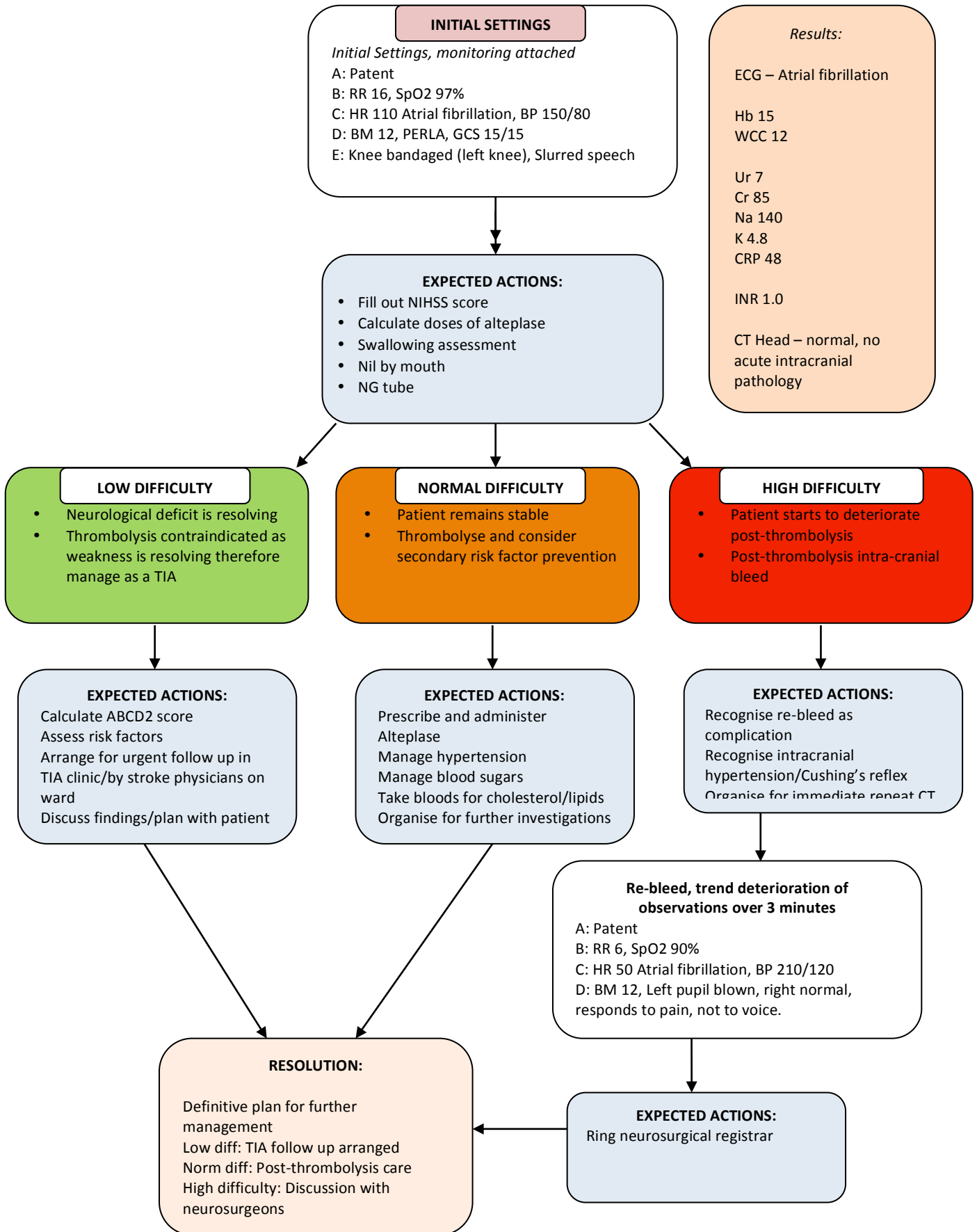
IV flucloxacillin and clindamycin (or as per trust guidelines for septic arthritis)

Metformin 500mg BD

Ramipril 5mg OD

Amlodipine 5mg OD

CONDUCT OF SCENARIO



DEBRIEFING

POINTS FOR FURTHER DISCUSSION

Management of an inpatient with an acute ischaemic stroke

Indications and contraindications for thrombolysis

Complications of thrombolysis and their management

DEBRIEFING RESOURCES

<http://www.nice.org.uk/CG68>

<http://www.patient.co.uk/doctor/thrombolytic-treatment-of-acute-ischaemic-stroke>

GERIATRIC MEDICINE > SCENARIO 11
INFORMATION FOR PARTICIPANTS
KEY POINTS

Management of an inpatient with an acute ischaemic stroke

Indications and contraindications for thrombolysis

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RELEVANCE TO THE CURRICULUM

Core Medicine H.1 Stroke/Cerebrovascular Disease	
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FURTHER RESOURCES

<http://www.nice.org.uk/CG68>

<http://www.patient.co.uk/doctor/thrombolytic-treatment-of-acute-ischaemic-stroke>

PARTICIPANT REFLECTION

What have you learned from this experience? (Please try and list 3 things)

How will your practice now change?

What other actions will you now take to meet any identified learning needs?

PARTICIPANT FEEDBACK

Date of training session:.....

Profession and grade:.....

What role(s) did you play in the scenario? (Please tick)

Primary/Initial Participant	<input type="checkbox"/>
Secondary Participant (e.g. 'Call for Help' responder)	<input type="checkbox"/>
Other health care professional (e.g. nurse/ODP)	<input type="checkbox"/>
Other role (please specify):	<input type="checkbox"/>
Observer	<input type="checkbox"/>

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
I found this scenario useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand more about the scenario subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have more confidence to deal with this scenario	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The material covered was relevant to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please write down one thing you have learned today, and that you will use in your clinical practice.

How could this scenario be improved for future participants? This is especially important if you have ticked anything in the disagree/strongly disagree box.

FACULTY DEBRIEF – TO BE COMPLETED BY FACULTY TEAM

What went particularly well during this scenario?

What did not go well, or as well as planned?

Why didn't it go well?

How could the scenario be improved for future participants?