

HYPOTHERMIA

MODULE: HYPOTHERMIA

TARGET: F1/F2/CT1/CT2

BACKGROUND:

Hypothermia is defined as a core body temperature below 35oC. The effects of hypothermia are proportional to the change in temperature, with metabolic rate reduced by about 10% for every 1°C fall in temperature. Primary hypothermia is due to environmental exposure to cold, without any underlying medical conditions provoking temperature loss. Secondary hypothermia results from a medical illness lowering the temperature set-point.

RELEVANT AREAS OF THE CMT CURRICULUM

Core Medicine R.3. Falls in the Elderly	
Knowledge	Define hypothermia and its diagnosis
	Recall perturbations caused by hypothermia including ECG and blood test interpretation
	Recall the causes of hypothermia
	Recall the initial management of hypothermia
	Recall complications of hypothermia
Skills	Employ the emergency management of hypothermia as per ALS guidelines
	Correct any predisposing factors leading to hypothermia
	Request appropriate monitoring of the patient
Behaviour	Recognise the often multi-factorial nature of hypothermia in the elderly and outline preventative approaches
	Recognise the seriousness of hypothermia and act promptly to re-warm
	Recognise that death can only usually be certified after re-warming
Geriatric Competencies	
Assess mental state and tests of cognitive function	
Recognise the often multi-factorial causes for presentation in the elderly & outline preventative approaches	
Recognise that older patients often present with multiple problems	

INFORMATION FOR FACULTY

LEARNING OBJECTIVES

Define hypothermia and its diagnosis
 Recall perturbations caused by hypothermia
 Causes of hypothermia
 Initial management of hypothermia
 Complications of hypothermia

SCENE SETTING

Location:	A&E Resus	Expected duration of debriefing:	40 mins
Expected duration of scenario:	20 mins		

EQUIPMENT AND CONSUMABLES

SimMan 3G
 Bair Hugger
 Fluid warmer
 IV fluids
 Urethral catheter pack
 Cardiac monitor
 ECG printout with J waves
 Cannulation equipment
 ABG equipment
 Blood cultures
 Blood test tubes
 Chest X-ray showing right basal pneumonia

PERSONNEL-IN-SCENARIO

F1/F2
 CMT trainee
 Nurse (faculty)

PARTICIPANT BRIEFING

You are seeing Elsie MacDonald, 83, found by her neighbour on her kitchen floor after not being seen for two days. It is not clear how long she has been on the floor. Her curtains have not been drawn for two days. The nurse in A&E Resus has taken bloods and put in an IV cannula.

FACULTY BRIEFING

'VOICE OF THE MANIKIN' BRIEFING

You are Elsie MacDonald who has had a fall at home and spent two days on her kitchen floor. You are previously independent though becoming frailer over recent months prompting concern amongst your family. You have a low body temperature from being exposed for two days and have developed a chest infection. You are dehydrated and your muscles are breaking down (rhabdomyolysis) from being on the floor. You can only moan and groan when asked any questions but as you are warmed up you are able to speak some confused words (e.g. "what's going on?" "where am I?"). You do not fully regain consciousness during the scenario.

IN-SCENARIO PERSONNEL BRIEFING

Medical Registrar – on phone – can give advice regarding Bair Hugger, warmed fluids, acute kidney injury; is unable to come and help for another 10 minutes – is with an unwell patient
A&E Nurse – (novice but helpful) had handover from ambulance staff. Neighbours found patient on floor after not seeing her for two days. Neighbours report that she has been less mobile over the last two months, but still independent. The patient feels very cold to the touch, and looks like she is shivering (prompt the participant if they do not quickly recognise that this is hypothermia)

ADDITIONAL INFORMATION

DHx

NKDA

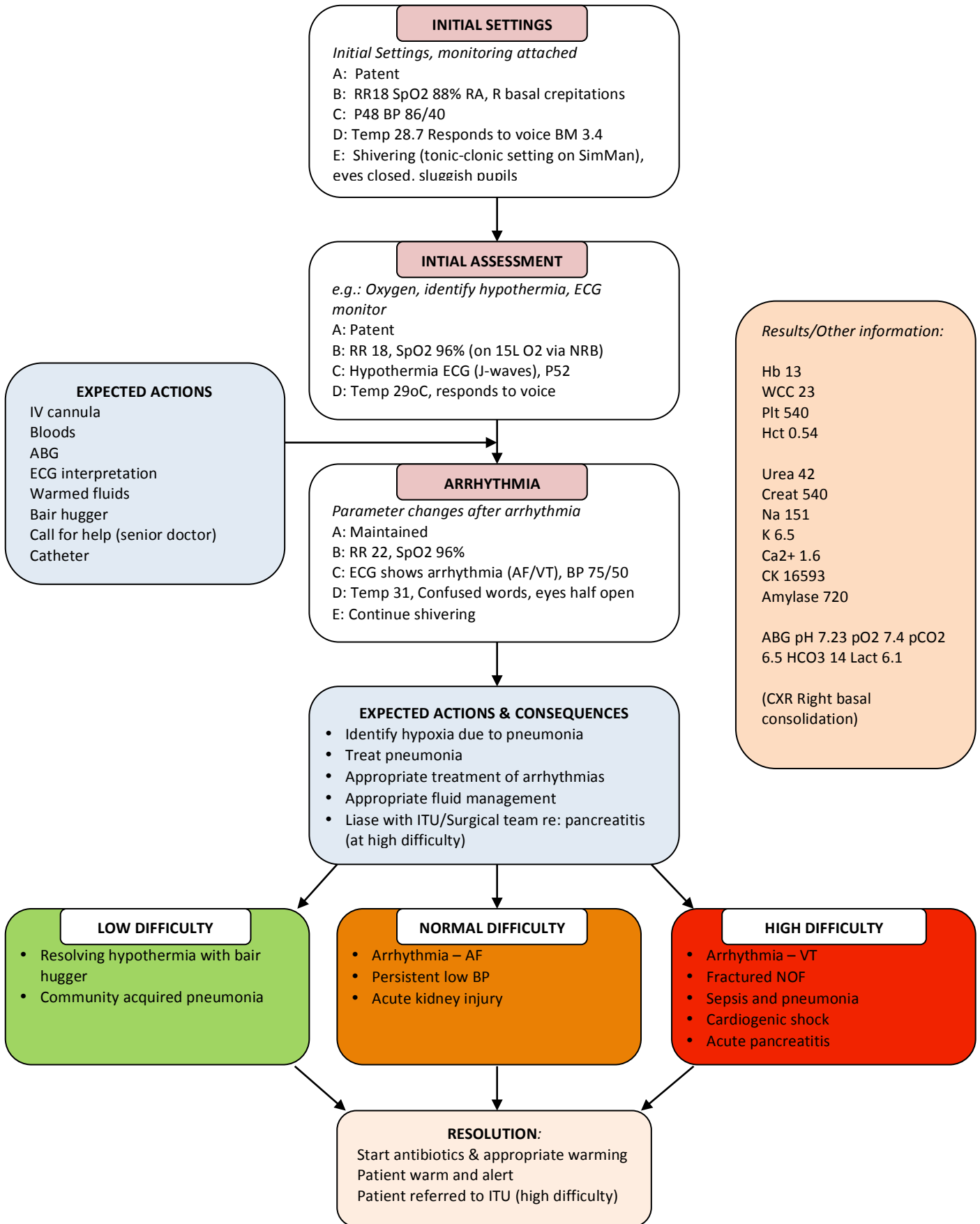
Ramipril 5mg OD

Simvastatin 40mg ON

Paracetamol 1g QDS

Aspirin 75mg OD

CONDUCT OF SCENARIO



DEBRIEFING

POINTS FOR FURTHER DISCUSSION

Define hypothermia and its diagnosis
Recall perturbations caused by hypothermia
Causes of hypothermia
Initial management of hypothermia
Complications of hypothermia

DEBRIEFING RESOURCES

<http://www.patient.co.uk/doctor/Hypothermia.htm>

[Joint Royal Colleges Ambulance Liaison Committee](#); Care Guideline; Hypothermia; May 2007.

[Edelstein JA, Li J](#); Hypothermia; eMedicine, October 2009.

[NICE Clinical Guideline](#); Management of inadvertent perioperative hypothermia in adults; April 2008.

[Resuscitation Council UK](#); Adult advanced life support guidelines, (2010)

GERIATRIC MEDICINE > SCENARIO 7

INFORMATION FOR PARTICIPANTS

KEY POINTS

Diagnosis of hypothermia

Initial management of hypothermia and its complications

RELEVANCE TO THE CURRICULUM

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FURTHER RESOURCES

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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?