

# MALNUTRITION/REFEEDING SYNDROME

MODULE: CORE MEDICINE: CARE OF THE ELDERLY

TARGET: FY1/2 & CT1/2

## BACKGROUND:

Re-feeding syndrome is a preventable, under-recognised, and potentially fatal condition. It affects patients who have had a prolonged period of malnutrition, and are then given nutritional support. Refeeding syndrome can cause a precipitous drop in serum electrolyte concentrations, leaving patients susceptible to a host of electro-chemical and metabolic disturbances.

## RELEVANT AREAS OF THE CMT CURRICULUM

| Core Medicine  |  |  |
|--|--|--|
| A.5.2 Ventricular tachyarrhythmia, D.14.2 Malnutrition |  |  |
| <b>Knowledge</b>                                       | Demonstrate knowledge of causes of cardio-respiratory arrest   |  |
|  | Recall the ALS algorithm for adult cardiac arrest  |  |
|  | Outline indication and safe delivery of drugs used as per ALS algorithm  |  |
| <b>Skills</b>  | Recall the indications and complications for nutritional supplements and enteral feeding including PEG/NG feeding  |  |
|  | Rapidly assess the collapsed patient in terms of ABC, airway, breathing and circulation  |  |
|  | Perform Basic Life Support competently as defined by Resuscitation Council (UK): effective chest compressions, airway manoeuvres, bag and mask ventilation                   |  |
|  | Competently perform further steps in advanced life support: IV drugs; safe DC shocks when indicated; identification and rectification of reversible causes of cardiac arrest |  |
|  | Break bad news appropriately   |  |
|  | Order, interpret and act on initial screening investigations   |  |
|  | <b>Behaviour</b>   | Recognise and intervene in critical illness promptly to prevent cardiac arrest such as peri-arrest arrhythmias |
|  |  | Maintain safety of environment for patient and health workers  |
|  |  | Hold a valid ALS certificate   |
|  |  | Succinctly present clinical details of situation to senior doctor  |
| Consult senior and seek anaesthetic team support       |  |  |
|  | Recognise importance of sensitively breaking bad news to family  |  |
|  | Recognise multi-factorial aspect of weight loss, especially in the elderly   |  |
|  | Liaise with nutritional services appropriately   |  |

## INFORMATION FOR FACULTY

### LEARNING OBJECTIVES

Recognition of refeeding syndrome

Management of hypomagnesaemia

Management of ventricular tachyarrhythmia

### SCENE SETTING

|                                |               |                                  |         |
|--------------------------------|---------------|----------------------------------|---------|
| Location:                      | Hospital ward | Expected duration of debriefing: | 40 mins |
| Expected duration of scenario: | 20 mins       |                                  |         |

### EQUIPMENT AND CONSUMABLES

SimMan 3G  
 Hospital gown  
 Cardiac monitor  
 Crash trolley  
 100ml bag of fluid with 5g MgSO<sub>4</sub>  
 Nasogastric tube and Jevity  
 Ensure food supplement  
 Drug chart with Pabrinex infusion & chlordiazepoxide  
 12 lead ECG – Torsades de Pointes

### PERSONNEL-IN-SCENARIO

F1  
 CT1  
 Nurse (faculty)  
 (Medical Registrar on phone)

### PARTICIPANT BRIEFING

Mr John Smith, 74, has been admitted with reduced oral intake and malnutrition secondary to depression and self neglect. He has been on the ward for two days receiving nasogastric feeding. The nurses have been unable to take blood over the weekend. You have been asked to see him because he is complaining of feeling unwell. The ward sister managed to send a set of bloods earlier today.

## FACULTY BRIEFING

### 'VOICE OF THE MANIKIN' BRIEFING

You are John Smith, 74, who has been admitted into hospital with malnutrition due to reduced oral intake, depression and self neglect. You have been receiving special nutritional supplementation through a nasogastric tube. You are also receiving vitamin supplements and medicine to control your withdrawal from alcohol. You have started to feel unwell, shaky and with funny feelings in your chest. After a few minutes you develop palpitations and these scare you.

### IN-SCENARIO PERSONNEL BRIEFING

Nurse (faculty) –  
You are busy but will help if asked.

## ADDITIONAL INFORMATION

#### Admission clerking

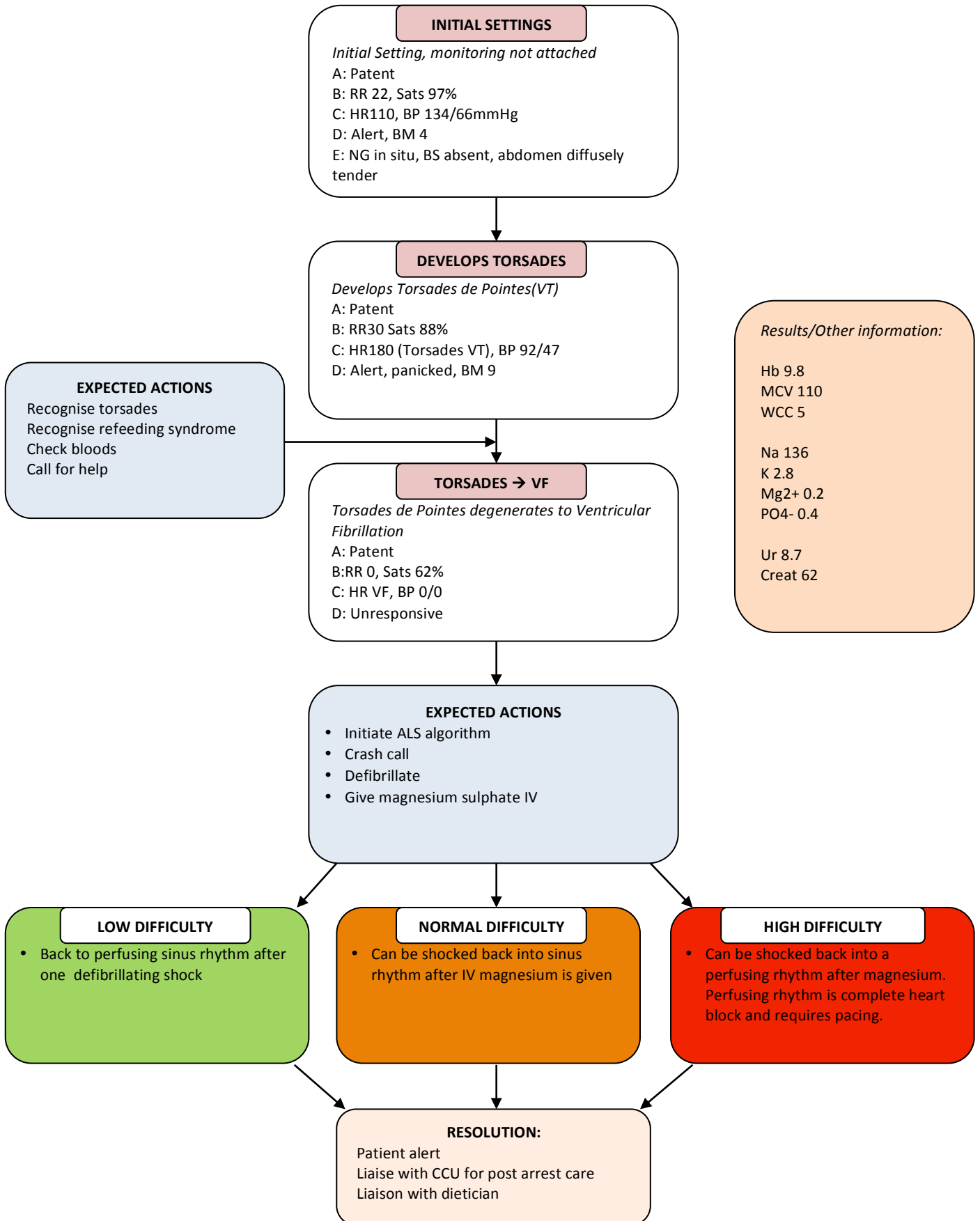
Admitted due to with self-neglect, depression, malnutrition (BMI 17)  
NG feeding started after assessing capacity (lacking decision-specific capacity).

#### Refeeding bloods back after torsades de pointes rhythm started

- If asked for earlier, then say that lab will ring with results as soon as they are ready).

If participant asks for magnesium when patient develops torsades patient should degenerate into VF before magnesium is given.

**CONDUCT OF SCENARIO**



## DEBRIEFING

### POINTS FOR FURTHER DISCUSSION

Recognition of refeeding syndrome

Management of hypomagnesaemia

Management of ventricular tachyarrhythmia

### DEBRIEFING RESOURCES

<http://www.resus.org.uk/pages/als.pdf>

<http://www.bmj.com/content/336/7659/1495>

<http://www.nice.org.uk/CG032NICEguideline>

## GERIATRIC MEDICINE &gt; SCENARIO 8

## INFORMATION FOR PARTICIPANTS

## KEY POINTS

Recognition of refeeding syndrome

Management of hypomagnesaemia

Management of ventricular tachyarrhythmia

## RELEVANCE TO THE CURRICULUM

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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):<br>.....                  | <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?