SIMulatED

Royal Darwin Hospital Emergency Department

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# Scenario Run Sheet: Template

## Scenario Overview

**Estimated SIM time: 20-30mins**

**Estimated Guided Reflection Time: 30mins**

**Target Group: ED Registrars and Nurses**

**Brief Summary: A 72 year old man presents with palpitations. ECG shows SVT. He has had several episodes of the same that have usually lasted for 10-15mins. He had a holter and echo with Dr Agahari recently which were NAD. Today he went to the GP and has had the Sx now for 2 hrs. Stable throughout. No assoc sx. Requires a structured approach to management of SVT including vagal manoeuvres, adenosine (which fails), then consideration of other drugs (verapamil is CI as patient is on atenolol 50mg bd) and finally a synchronised shock.**

**Both the resus nurse and the junior reg will have juniors that they are teaching. The resus nurse in training and the med student will be pre-prepped with questions to ask through the scenario.**

## Learning Objectives

**General**

- Communication, consent and explanation to staff and patient

- Teaching the more junior member of staff (med student/junior nurse)

**Scenario Specific**

**-** Nursing approach to the patient with tachycardia and minimal other sx or derangements (Hx/ECG/Obs)

**-** Medical Assessment of a stable patient with SVT

- Recognition of SVT on ECG

 (NCT/retrograde p waves/regularity/rate 150-180 and differentiation from other tachyarrhythmias)

- Vagal and positioning manoeuvres for SVT

- Pharmacological options for SVT

- Syncronised electrical cardioversion for SVT (only if time permits - unlikely)

## Equipment Checklist

**Equipment**

Resus Trolley

Defib

O2 prongs and masks

Full non invasive monitoring

**Medications and Fluids**

NaCl

Adenosine

Verapamil

Ketamine/Midazolam/Propofol/Opiates

**Documents and Forms**

Triage Sheet

Obs chart

Sedation checklist

**Diagnostics Available**

VBG

## Scenario Preparation/Baseline Parameters

**Initial Parameters**

P150

BP 130/70

Sats 99% RA

RR 16

Afebrile

**Initial Progress**

Obs remain same throughout until cardioverted

Then SR at 90bpm

## Participants

**Staff**

Aimed at Junior Reg

Nurses – 1 resus trained and 1new to resus/in training

Medical Student

**Instructor Roles**

Provide VBG/CXR

## Additional Information/Medical History

**Demographics –**72M, ex storeman at the hospital,

**HPC –** Recently Ix for palpitations by Ian Agahari (Cardiologist) but nothing found – pt reports normal echo and holter.

**PMH –** HTN only, on ramipril 5mg, atenolol 50mg bd

## Proposed Scenario Progression

- Patient self presents to ED, put into resus due to heart rate of 150bpm, but looks and feels well

- **Nursing assessment** by resus nurse who is training a new resus nurse (Obs/ECG/Bloods/VBG)

 WOULD LIKE TO EMPHASIZE THE NURSING ASSESSMENT AND HANDOVER TO DOCTOR IN THIS SIM!

- Doctor and his/her medical student arrives to see CAT2 patient – handover from nursing

- Recognition of SVT on ECG

- Vagal manoeuvres/rev trendelenburg – check no previous CVA/carotid bruit given age

- Full monitoring/IVC/Flush bag/3 way tap for adenosine/defib attached

- Consent and check for contraindications – note BB so verapamil CI due to risk of heart block/hypotension

- 6mg/12mg/18mg incremental adenosine with fast flush ideally through a 3-way tap

- If close to end of SIM then 3rd bolus successfully reverts

IF TIME PERMITS THEN 3rd Adenosine fails and need to consider set up for electrical cardioversion

- Sedation/Intubation checklist

- Selection of appropriate energy (100-150J) with sync

- Safe defib technique

DURING THE SIM THE FOLLOWING QUESTIONS WILL BE ASKED BY THE NURSE/MED STUDENT IN TRAINING:

**MED STUDENT Q’s:**

 - Could it be anything other than SVT? (prompting the reg to think that it could be Aflutter and may not revert but just be unmasked)

 - How does adenosine work?

 - Is it safe?

 - How come it wears off so quickly?

 - Verapamil is on eTG – can we use that?

 - Why do you sync the defib? (If time permits and get to electrical cardioversion)

**NURSE IN RESUS TRAINING Q’s:**

 - Why do you reckon he’s so tachycardic?

 - Do you think he might be septic?

## Debriefing/Guided Reflection Overview

**General Opening Questions**

* How was the scenario? (each team member reflects)
* What happened in the scenario – i.e. relay the story to a workmate who wasn’t there

**Scenario Specific Questions**

* What was wrong with the patient?
* What medications/investigations may be required?
* Where does the patient need to go?

**General Wrap-Up Questions**

* What did you find most beneficial about this scenario
* What was the most challenging point in this scenario?
* What would you do differently next time?

## Case Considerations

- TEACHING – effective strategies to teach a junior during a

- COMMUNICATION and HANDOVER

 -ISOBAR handovers between staff at the bedside

- SVT

 -How can you tell the difference between SVT, Aflutter, VT?

 -What are vagal manoeuvres – how do you do them?

 -When is it unsafe to give adenosine?

 -Why does adenosine not work if given slowly or without a flush?

 -What other pharmacological options do you have?

 -What might happen if you give verapamil to this patient?

- SAFE DEFIB

 - Syncing – why?

 - Energy levels?