

Cabrini Practice OSCE 6

Candidate instructions:

You are the consultant in charge of an urban district ED with no Paediatric ICU.

Your registrar has called you into the resuscitation cubicle to assist with the management of a 4 month old female.

Vital signs:

Afebrile

HR 260

BP 80/50

O2Sats 100%

RR 50

Capillary Refill 2 secs

Weight 5 kg

The infants ECG is provided.

Your tasks:

1. Interpret the ECG
2. Lead the team in managing this patient

Domains:

Medical Expertise

-Investigation interpretation, Management 50%

Team Work and Collaboration 20%

Prioritization and Decision Making 30%

Cabrini Practice OSCE SIM

Paediatric SVT scenario

Role Player instructions:

You are the registrar and nurses in an urban district ED with no Paediatric ICU.

You have called your consultant to assist you managing a 4 month old female who has just arrived with her mother.

History- Normal pregnancy/delivery/neonatal period, IUTD, no meds no allergies

Sudden onset SOB and not feeding 2 hours ago. Referred by GP with ? bronchiolitis.

Initial Vital signs:

Afebrile

Pulse 260

BP 80/50

O2Sats 100%

RR 50

CR 2 secs

Weight 5 kg

0-2 mins Stage 1:

Candidate enters room

Receives brief handover

Allocate roles

Takes team leader role

Staff to care for parents/offer parents to be present

Interpret ECG – SVT, currently stable

Initial management- O2, monitoring, call for help – Paediatrician in on their way,

- ivc- bloods VBG, BSL etc, IVF bolus 10-20mls/kg wt is 5kg = 50-100mls N/Saline

- vagal manoeuvres- gag or icepack/iced water for infants -slurry of bagged ice over nasal bridge and forehead for up to 30 seconds. Also can lift legs up as per the REVERT trial. Not gag/eyeball pressure/Valsalva/carotid massage.

Vagal manoeuvre unsuccessful

2-4 mins Stage 2:

Adenosine 100mcg/kg = 500mcg(0.5mg) IV push with flush (*note: if not instructed specifically by candidate give slowly*) – no response

Repeated at 200mcg/kg = 1000mcg (1mg) IV push with flush – no response

Repeat at 300mcg/kg = 1,500mcg (1.5mg) IV push with flush – no response

4-7 mins Stage 3:

Baby become pale and lethargic

New Vital signs:

Afebrile

Pulse 290

BP 60/35

O2Sats 95%

RR 70

CR 5 secs

Drowsy, pale, 'floppy'

Expected Management:

DCR with sedation (given still conscious)- fentanyl 1mcg/kg (5mcg) iv or 1.5mcg/kg (7.5mcg) IN, Midazolam 0.15mg/kg (0.75mg), similar dose Diazepam,

Ketamine 1-2mg/kg = 5-10mg (*note- contraindicated in <3 months old, 3-6 months can use only if have personnel with advanced airway skills – RCH*)

1 Joule/kg = 5 joules Synchronized

Safe DCR technique demonstrated – clear, charging, shock, check

Reversion to SR post 1 x DCR

New Vital signs:

Afebrile

Pulse 140

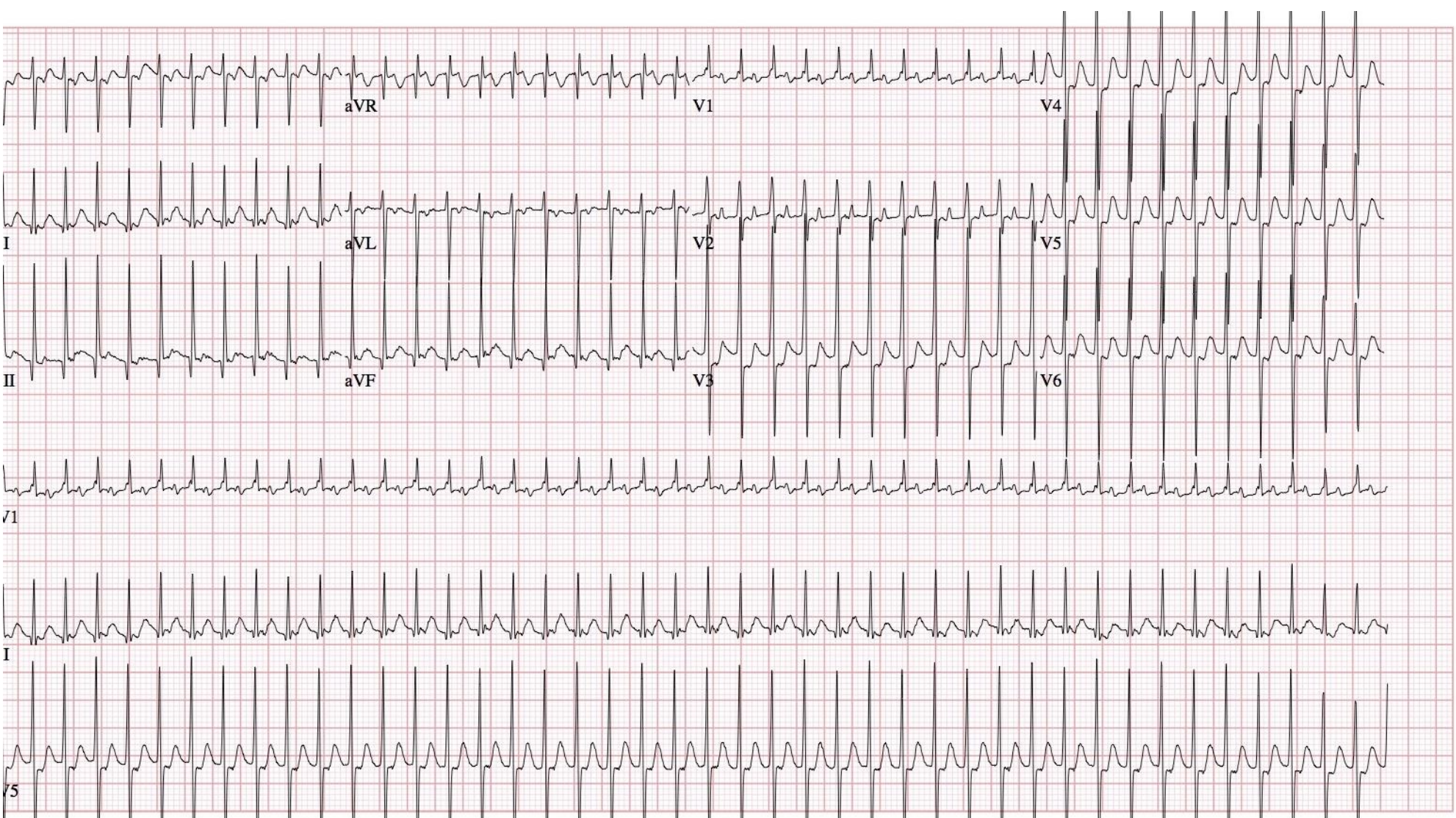
BP 90/55

O2Sats 98%

RR 55

CR 3 secs

Post DCR care- repeat ECG, CXR, bloods, monitor, refer/transfer- Paediatric cardiology – required Echo, ? commence medications, explain to parents



Equipment List:

2 x infant mannequins,
Simulation monitor with remote control,
Monitoring leads/pulse oximetry

Airway

- Guedel,
- LMA,
- NPA,
- ETT,
- Laryngoscope
- suction

Breathing

- Bag/valve/mask or neopuff

Circulation

- iv cannula 24 gauge,
- IVF 500ml normal saline,
- Defibrillator with infant pads,
- blood tubes,
- ice pack for infants forehead/face,
- iv flush,
- syringes

Drug ampoules (labelled normal saline ampoules would be fine) - adenosine, midazolam, fentanyl, ketamine,

Examiner Marking Sheet

COMPONENT ASSESSMENT

For each Domain below, select the ONE best option that best represents the candidate's level of performance. The option "**minimum level of competency displayed**" represents the level of safe independent practice as a junior **FACEM** in Australasia

Very poor
level of
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displayed

Well below
minimum
level of
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Below
minimum
level of
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Minimum
level of
competen
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Above
minimum
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High level
of
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Very high
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Please rate ALL the following domains:

Medical Expertise – Ix interpretation, Management	☐	☐	☐	☐	☐	☐	☐
Teamwork and Collaboration	☐	☐	☐	☐	☐	☐	☐
Prioritization and Decision Making	☐	☐	☐	☐	☐	☐	☐

[Detailed assessment criteria](#)

Please use the following criteria to inform your ratings above (mandatory items in ***bold italics***)

Medical Expertise

Investigation interpretation

ECG Narrow-complex supraventricular tachycardia - SVT. AVNRT, retrograde P waves.

Management

Supportive – O2, monitoring, ivc, bloods, IVF bolus

Specific – Vagal Manoeuvre- icepack/iced water for infants - apply to face

- Adenosine 3 doses
- DCR – sedation, safe technique, 1 joule/kg
- Post DCR care and disposition

Teamwork and Collaboration:

Allocate roles, act as team leader, ensures team is comfortable with their roles

Closed loop communication, clear instructions

Summarizes situation and plan

Prioritization and Decision Making

Identifies significant arrhythmia

Stepwise approach to stable SVT – Vagal then IV adenosine

Rapidly acts to perform DCR when deteriorates

Station Summary: Infant SVT Simulation**INFORMATION****EXAMINER NOTES** (For examiner reference only)

OSCE 'incident reporting' notes: Please provide details if an issue occurs which may influence the candidate's exam outcome e.g. protocol breach, candidate illness, etc

GLOBAL RATING FOR STANDARD SETTING:

This scale is used in the standard setting process for the OSCE. Please rate the candidate's OVERALL performance in this OSCE. The rating should take into account the entirety of the OSCE, rather than just a sum average of the individual domain scores. This element MUST be completed for the standard of the examination to be set.

	Well Below Standard	Below Standard	Just at Standard	Above Standard	Well Above Standard
In terms of a safely practicing junior emergency physician , select the ONE option that best reflects the candidate's performance in this station:	☐	☐	☐	☐	☐

EXAMINER SIGNATURE:

Reference: [https://www.rch.org.au/clinicalguide/guideline_index/Supraventricular Tachycardia SVT/](https://www.rch.org.au/clinicalguide/guideline_index/Supraventricular_Tachycardia_SVT/)
ECG <https://sinaiem.org/svt-in-a-pediatric-patient-try-chilling-them-out-with-some-ice/>