

SAQ 3

A 3 month old girl is brought in to ED with pallor and lethargy for the past hour. She has had fevers and URTI symptoms for the past 3 days. Her observations are as follows

GCS 15/15 but floppy/lethargic

HR 250

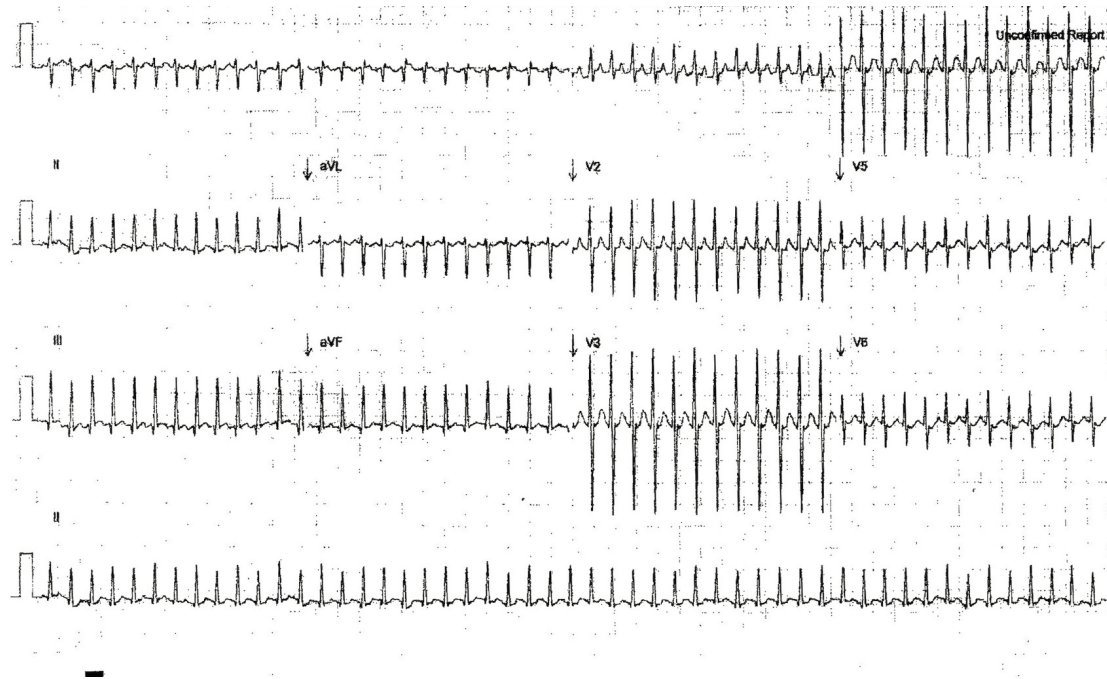
BP 75/45

CRT 2 seconds

Sat 95%A

T 38.2

This is her ECG



1. What is the most likely diagnosis? (1 mark)

SVT

1. What are 2 features of the ECG that support this diagnosis? (2 marks)

Rate is extremely fast – too fast for sinus tachycardia

Narrow complex

No P waves seen

2. List 3 treatment options in the order of escalation that you would perform them (3 marks)

Vagal manoeuvres – dunk head in ice water or cold face cloth dropped on face

Adenosine IV 100mcg/kg (can double dose Q2min up to 400mcg)

(Amiodarone IV 5mg/kg over 30 min)

DCCV cardioversion – sync 0.25-0.5J/kg (with sedation)

3. List 4 investigations you would perform in the ED and their justification (4 marks)

BSL/glucose – prolonged tachycardia could cause hypoglycaemia, hypoglycaemia as cause of floppiness

FBC – anaemia leading to circulatory collapse, inc or dec WCC (sepsis)

Electrolytes/renal function - potassium/calcium/magnesium – deficiencies leading to arrhythmia

CXR – look for cardiomegaly/signs of CHD/myocarditis, signs of LVF, focal infection

Septic screen (blood culture, urine, consider LP) – sepsis as cause of SVT

Urine toxicology screen – as cause of arrhythmia