QUIZ 20th June 2018 (answers below)

1. **Outline your management of patients with epistaxis.**

2. **What discharge advice do you give to epistaxis patients?**

3. **How do you insert a Rapid Rhino™?**

4. **At what ßhCG level should a viable intrauterine pregnancy be visible on transvaginal ultrasound?**

5. **Describe and interpret the following ECG.**

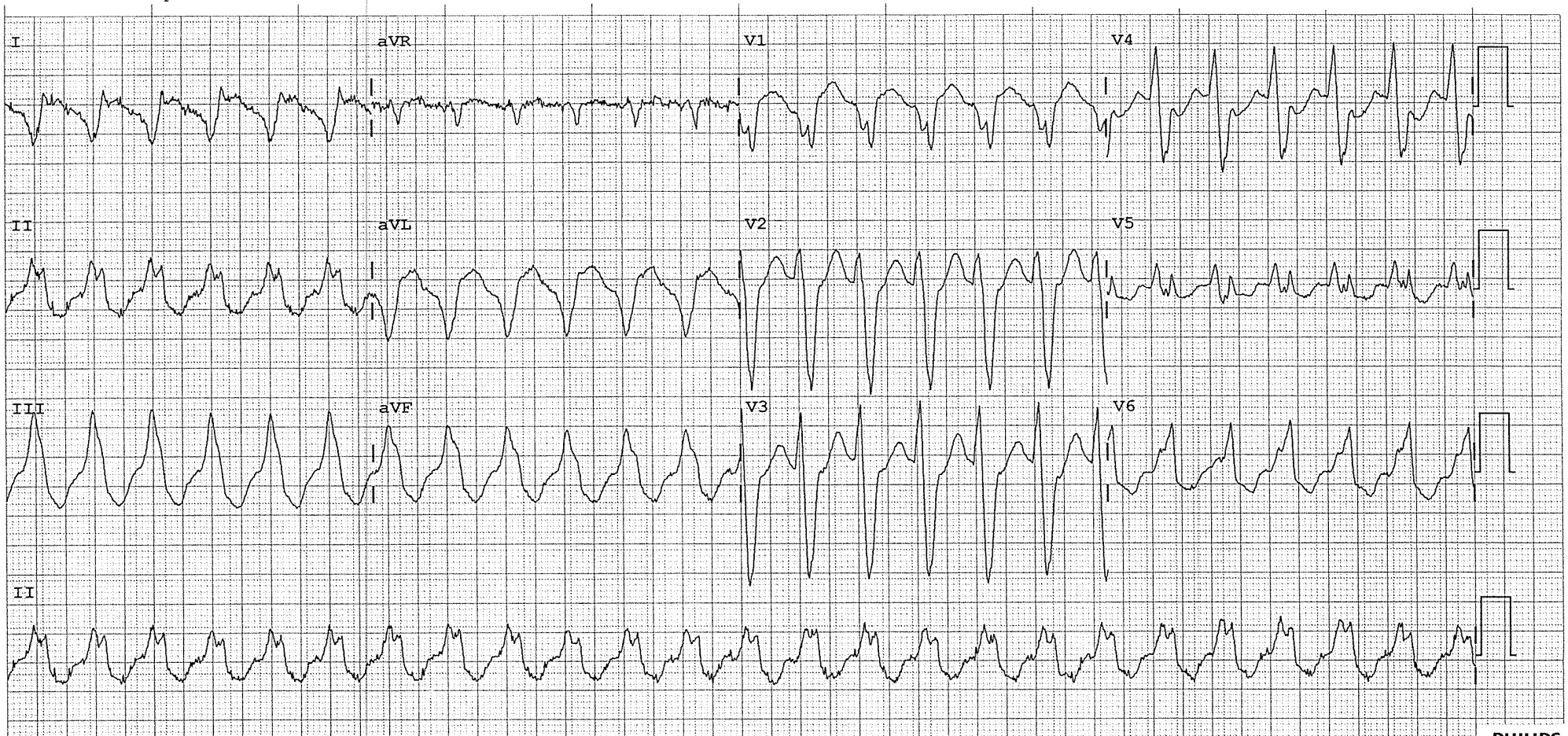
HR	148	. Age not entered, assumed to be 50 years old for purpose of ECG interpretation	Room: RESUS 1
RR	404	. Sinus tachycardia.....rate> 99	
PR	396	. Prolonged PR interval.....PR >200, V-rate 121-300	
QRSD	185	. Consider right atrial enlargement.....P >0.24mV limb lead	
QT	385	. Nonspecific intraventricular conduction delay.....QRSd >115mS, not LBBB/RBBB	
QTc	605	. Repol abnrm suggests ischemia, diffuse leads.....ST-T neg, ant/lat/inf	

--AXIS--

P	-29
QRS	105
T	-68

- ABNORMAL ECG -

12 Lead ECG Report (Standard) Unconfi



Device: EQPT1 Speed: 25 mm/sec L : 10 mm/mV Chest: 10 mm/mV 0.15-100 Hz PH100B C

QUIZ answers 20th June 2018

1. **Outline your management of patients with epistaxis.**

A. *Resuscitation*

Particularly in severe or prolonged epistaxis, consider need for:

- *Airway management*
- *Blood transfusion/ MTP/Anticoagulation reversal*
- *Urgent ENT consultation*

B. *First aid – (patients can be instructed to do this if it happens again)*

Gently blow nose to clear clots
Pinch the SOFT sides of the nose against the septum
Hold firm pressure continuously for 10 minutes
Sit up and lean forward, spit out any blood in mouth
+/- Cold compress across bridge of nose

C. *Examination*

Try to determine which side the bleeding started from
Clear clots out – by patient gently blowing nose, or use soft Y suction catheter snipped shorter so that there are no side holes
Spray CoPhyenycaine one/both sides
Visualise affected side looking for bleeding site
Headlight
Nasal speculum
May need more suctioning, wiping with swab

D. *Ongoing bleeding*

Cotton wool pledgets soaked in adrenaline 1:1000
Patient can apply first aid pressure with pledget in place
10 – 20 min
Can also try pledget soaked in tranexamic acid

**Consider posterior bleeding*
Usually not minor bleeding
Bleeding from both nostrils
No anterior site found
Patient feels blood dripping down oropharynx

E. *Cautery*

If bleeding site found, can cauterize with silver nitrate stick
Risk of perforation is only if cauterizing septum bilaterally
Then apply small folded piece of surgicel and discharge instructions

F. *Packing with Rapid Rhino*

Only if failure of above measures
Commits patient to admission to hospital
Consider ENT help prior to insertion as it causes too much mucosal trauma to remove again straight away for re examination

2. What discharge advice do you give to epistaxis patients?

For the next 3 days:

Avoid exertion, straining and heavy lifting
Avoid steaming hot food, drinks and showers
Avoid nose blowing
Use vasoconstrictor eg. Drixine
Use moisturiser on nasal mucosa bd
eg. Nasalate, chlorsig ointment, bactroban, vaseline
Provide first aid (as above) if recurs and return if epistaxis persists

3. How do you insert a Rapid Rhino™?

- *Remove blue cover*
- *Soak in sterile water for a full 30 seconds*
  Don't use saline as it inhibits the gelling characteristics of the fabric.
  Don't use lubricant or antibiotic ointment, as they will inhibit the haemostatic properties of the fabric.
- *Insert the device along the septal floor and parallel to the hard palate until the plastic proximal fabric ring is well within the nares.*
- *Use a 20mL syringe and inflate the device with AIR.*
  Stop the inflation when the pilot cuff becomes rounded and feels firm when squeezed.
  The amount of air depends on the size of the patient's nasal anatomy.
- *Tape the pilot cuff to the side of the patient's face.*

4. At what ßhCG level should a viable intrauterine pregnancy be visible on transvaginal ultrasound?

2000IU/L.

There is much variability between patients and it is operator dependant. Ideally, patients would have their ultrasound done by sonographers and radiologists that specialise in early pregnancy ultrasound.

You may have noticed that the discriminatory zone has increased over the last 10-20 years, despite advances in ultrasound technology. This is thought to be because of the increase in multiple gestations, where a higher BHGC is seen at an earlier stage of pregnancy. Interesting, huh?

Most places use a discriminatory zone of 2000IU/L. Above this level, a normal viable pregnancy should be visualised. However, if a viable pregnancy is not visualised, this is not diagnostic of a non-viable or ectopic pregnancy.

Shaunik A et al Utility of dilation and curettage in the diagnosis of pregnancy of unknown location
Am J Obstet Gynecol 2011;204(2):130.e1-136.e1

Results from the above study showed that among women with a pregnancy of unknown location and hCG levels of 2000 – 3000 IU/L, there were 19 ectopics and 38 non viable pregnancies for each 1 viable intrauterine pregnancy. The important point to appreciate here is that the most common cause of an hCG above 2000 without visualisation of pregnancy is actually non viable pregnancy, rather than ectopic.

Women with ectopic pregnancies have highly variable hCG levels, often less than 1000IU/L. The hCG level does not predict the likelihood of ectopic pregnancy rupture. That is, a single hCG value, even if low, does not rule out a potentially life-threatening ruptured ectopic pregnancy. Hence, ultrasonography is indicated in any woman with a positive pregnancy test who is clinically suspected of having an ectopic pregnancy.

Doubilet et al Diagnostic Criteria for Nonviable Pregnancy Early in the First Trimester
N Engl J Med 2013; 369:1443-1451

5. Describe and interpret the following ECG.

Rate *148/min*
Regular
No AV dissociation, capture or fusion beats seen

P waves *None*
What looks like possible P waves in V4 corresponds to obvious T waves in other leads

QRS *Wide complex 0.19 – 0.2 sec*
Axis is northwest axis (I and II are negative, III is isoelectric)
Morphology criteria for VT in LBBB pattern

- *Notched S wave in V1 (Josephson's sign)*
- *Wide R wave in V2 >0.04s*
- *QRS duration to peak of S > 0.10s (Brugada's sign)*

ST/ T *Generally opposite in polarity as expected in BBB*

➔ *Ventricular tachycardia*

This patient was 78 years old. This makes diagnosis of ventricular tachycardia highly likely, regardless of meeting Brugada criteria.

This patient has an AICD but the ventricular rate was not fast enough to initiate antitachycardia pacing. The pacemaker technician performed antitachycardia pacing and reverted to the rhythm to sinus rhythm. The settings now have a lower threshold for commencement of antitachycardia pacing.