

# Palpitations

Disclaimer:  
Read the disclaimer at [medimaps.co.uk/disclaimer](http://medimaps.co.uk/disclaimer)

References:  
 1. cks.nice.org.uk  
 2. <http://www.heartrhythmcharity.org.uk/>  
 3. [bradfordfordvts.co.uk](http://bradfordfordvts.co.uk)  
 4. NB Medical  
 5. Cardiology consultant lecture, Walsall, Sept 2017  
 6. 12 LEad ECG the art of interpretation by Garcia  
 7. Cardiology consultant Russells Hall Hospital, Feb 2018

- Most pt's with palpitations do not have arrhythmias.
- Syncope is transient death !
- Abrupt onset = < 30 sec.
- No safe age
- Ask middle aged men about cocaine, viagra etc.
- Sudden cardiac death is unprovoked i.e. no risk factors.

- Causes of palpitations.
- Arrhythmia.
- Structural heart disease.
- Systemic disease.
- Drugs.
- Psychogenic.

- Think systemic first then narrow down to heart disease.

Rate is important.

- A structurally normal heart and body can tolerate 200-age.
- So you can tolerate up to this rate before you will get syncope.
- So hence age is a factor.
- Because a 80y old has 200 - 80 = 120 max rate that you can attribute to sinus tachycardia. Above this it will never be sinus tachycardia.
- But a 20y will be able to have sinus tachy of 200 - 20 = 180.

Duration.

- If > 5 min bad prognostic feature.

Beta blocker helps virtually every arrhythmia.

- Bisoprolol is long acting. Not lipid soluble, so does not work on the brain. ???use metoprolol or propranolol???
- Bisoprolol good for PAF.

Flecainide 50mg PRN is very good for ectopics. Does not affect HR. If ECG normal and no Hx of structural heart disease, there is no need for an echo. Do not use if LV dysfunction or long QT. Do not give to post menopausal women, or middle age men or women.

Selenium and potassium is good for ectopics.

Flecainide:

- Class 1c anti arrhythmic drug.
- Main indications are AF with 80+% efficiencies and ectopic suppression.
- Dose ~2mg/kg/day.
- Whilst it can cause QT prolongation this is usually only clinically deleterious in elderly females. And avoid with long QT drugs.
- Not to be used in ischaemic or LV dysfunction.
- ECG recommended 1-2weeks post start.
- It works synergistically with beta blockers ( but not sotalol).
- I don't use with short acting CCB like diltiazem or verapamil due to interactions.
- Cessation is safe with no rebound though can go for prn (pill in pocket).
- In my experience it's a very safe drug.

Hope that helps  
Consultant Cardiologist

- Look at duration. If 6 hrs worth it is useless. Need to be as close to the 24 hr mark as possible.
- Artefact is normal. But if 10-15%, be wary of interpretation.
- Normal beats range = 80-120 thousand in 24 hr.
- Ventricular ectopics < 5% is normal. > 10% is bad prognosis. 5-10 % = use clinical judgement to determine significance.
- It's a computer generated report, and only the last sentence is written by the clinician.
- Takes 2 weeks to get a report for 24 hr recording.

- Caffeine.
- Alcohol.
- Amphetamine, heroin, ecstasy.
- Medications.

- salbutmol
- ipratropium
- macrolides
- antipsychotics
- antidepressants
- non-sedating antihistamine

- Pre existing cardiac disease.
- Syncope / pre-syncope.
- FHx sudden cardiac death <40yr
- Precipitated by exercise.
- Medication s/e.

- HF
- IHD
- MI
- CABG
- valvular disease
- congenital heart disease

- FBC
- UEs
- LFTs
- TFT
- HbA1c
- BNP
- ECG

- BNP if you think structural heart disease e.g. is elderly, previous MI, ??? - ???
- But do not do for every pt.

- Risk stratify using Hx and ECG.
- Attempt to classify arrhythmia as detailed to below.

Primary Care

Skipped beats  
Thumping beats  
Short fluttering  
Slow pounding  
AND  
Normal ECG  
AND  
No structural heart disease

- Reassure that very common.
- Benign i.e. no risk of MI, stroke, sudden cardiac death etc.
- If get anxious, then causes 'heightened cardiac awareness'.
- If truly intrusive then beta blocker trial.

- Thumping beat is a good sign.
- It indicates a long pause which then allows the heart to fill up with blood and a big stroke volume results.
- This means there is good cardiac output.

- If sustained and fast rhythm arrange monitoring:
- If daily = 24 hr holter monitor.
- If < once per day = self activated recorder or event recorder.

??? required or not if going to manage in 1o care ???

Refer for routine cardiology opinion

Hx suggests episodes of SVT  
Palpitations with associated symptoms  
AND/OR  
Abnormal ECG  
AND/OR  
Known structural heart disease

- Sudden onset and ending of fast regular rhythm

- Chest pain.
- Lightheaded.

Classic findings may only be visible once the rate is controlled:

- short PR (< 120ms)
- delta wave
- widened QRS

- LVH.
- LVSD.
- Valvular heart disease.

- Wolff-Parkinson White syndrome.
- LBBB.
- Brugada syndrome.
- Prolonged QT.
- Q waves.
- LVH.

males = >440ms  
females = > 460ms

Refer for urgent cardiology opinion

- During exercise
- Syncope or near syncope
- High risk structural heart disease
- FHx of sudden cardiac death
- 2nd and 3rd degree AV block
- Pregnant.
- Athletic.