

## Tachyarrhythmias

### ▪ CAUSES

- Re-entrant pathway (most common)
- Poisoning
- Metabolic weirdness
- After cardiac surgery
- Long QT
- cardiomyopathy

## Bradyarrhythmias

### ▪ CAUSES

- Pre-terminal in hypoxia (most common)
  - Raised intracranial pressure
  - Conduction pathway damage after cardiac surgery
  - Congenital heart block
  - INTUBATION: tickling the larynx causes a vagal response
- Adrenaline
  - Atropine if it was vagal stimulation

## Emergency management

- If there is shock and bradycardia, start CPR
- If there is shock and VT, give a synchronized DC shock, 1 J per Kg
  - If that doesn't work, progress to 2J/Kg
- You may not be able to synchronize effectively
- An asynchronous shock may cause the rhythm to deteriorate into VF
- If the synchronous shocks are ineffective, use asynchronous shocks

## The Child with SVT

- The most common non-arrest arrhythmia
  - Its usually 220-300bpm
  - Once you're past 200bpm, you cant see any P waves anyway
  - The longer it continues, the more unstable your blood pressure
  - Vagal manoeuvres may be of use
  - Adenosine 100mcg/kg, up to a maximum of 500mcg/kg
- ONLY USE ONE DRUG:**
- Amiodarone 5mg/kg
  - Procainamide 15mg/kg
  - Flecainide 2mg/kg
  - Digoxin.... Maybe
  - Verapamil – NOT in the under 1 year olds.
    - DO NOT combine with amiodarone, beta-blockers, or flecainide.
  - Propanolol 50mcg/kg – but, it may cause asystole.

## The Child with VT

- Look for torsade de pointes - you will be wanting magnesium sulphate.
- If the arrhythmia is due to drugs, its better to correct it with DC shock