The Leeds Teaching Hospitals NHS
NHS Trust

Management of tachyarrhythmia

Adult Critical Care

- Is this a primary cardiac problem?
  - Remember fast AF may reflect hypovolaemia/sepsis/PE rather than inadequate rate control
- Is the patient compromised?
  - e.g significant escalation in vasopressors, hypotension, cardiac failure or ischaemia
  - If yes then synchronised DC cardioversion
  - **Do you need to initiate ALS?**
- Broad or narrow complex?
- Regular or irregular?
- Is there a correctable precipitating cause?
  - e.g CVC in too far, electrolyte abnormality, prolonged QTc
- Remember to investigate cause
  - e.g. echocardiography, ECG, CXR and troponin

Narrow complex

- Regular
  - SVT
  - Vagal maneuvers
  - Adenosine 6mg, 12mg, 12mg
  - If SR not restored consider B blockers (e.g. metoprolol 5mg)
  - Atrial flutter treat as per AF
- Irregular
  - New AF or A.flutter with variable block
  - Consider magnesium 5g over 1hr, B blockers (e.g. bisoprolol 1.25-5mg) or amiodarone 300mg over 20-60 mins.
  - If amiodarone used consider follow up 900mg amiodarone 24hr infusion
  - If inadequate response consider digoxin or d/w cardiology
- If unclear rhythm then short acting B blockers may reveal underlying pathology

Broad complex

- Regular
  - Amiodarone 300mg over 20 – 60 mins
  - Beware pre-existing bundle branch block and SVT
- Irregular
  - AF with bundle branch block – treat as for AF
  - Polymorphic VT – Torsades de pointes – Magnesium 2g over 10 mins

AF in Wolf Parkinson White

- Avoid adenosine, B blockers & Ca channel blockers. Amiodarone may be unsafe also.
- DC cardioversion, procainamide, ibutilide all options – suggest d/w cardiology.