2010 Resuscitation Guidelines

Resuscitation Council (UK)

Adult bradycardia algorithm

- Assess using the ABCDE approach
- Give oxygen if appropriate and obtain IV access
- Monitor ECG, BP, SpO_2, record 12-lead ECG
- Identify and treat reversible causes (e.g. electrolyte abnormalities)

Adverse features?
- Shock
- Syncope
- Myocardial ischaemia
- Heart failure

YES → **Atropine** 500 mcg IV → **Satisfactory response?** YES → NO

NO → **Risk of asystole?**
- Recent asystole
- Mobitz II AV block
- Complete heart block with broad QRS
- Ventricular pause > 3 s

YES → **Interim measures:**
- Atropine 500 mcg IV repeat to maximum of 3 mg
- Isoprenaline 5 mcg min^{-1} IV
- Adrenaline 2-10 mcg min^{-1} IV
- Alternative drugs *

OR
- Transcutaneous pacing

→ **Seek expert help**
Arrange transvenous pacing

NO → **Observe**

*Alternatives include:
- Aminophylline
- Dopamine
- Glucagon (if beta-blocker or calcium channel blocker overdose)
- Glycopyrrolate can be used instead of atropine

October 2010

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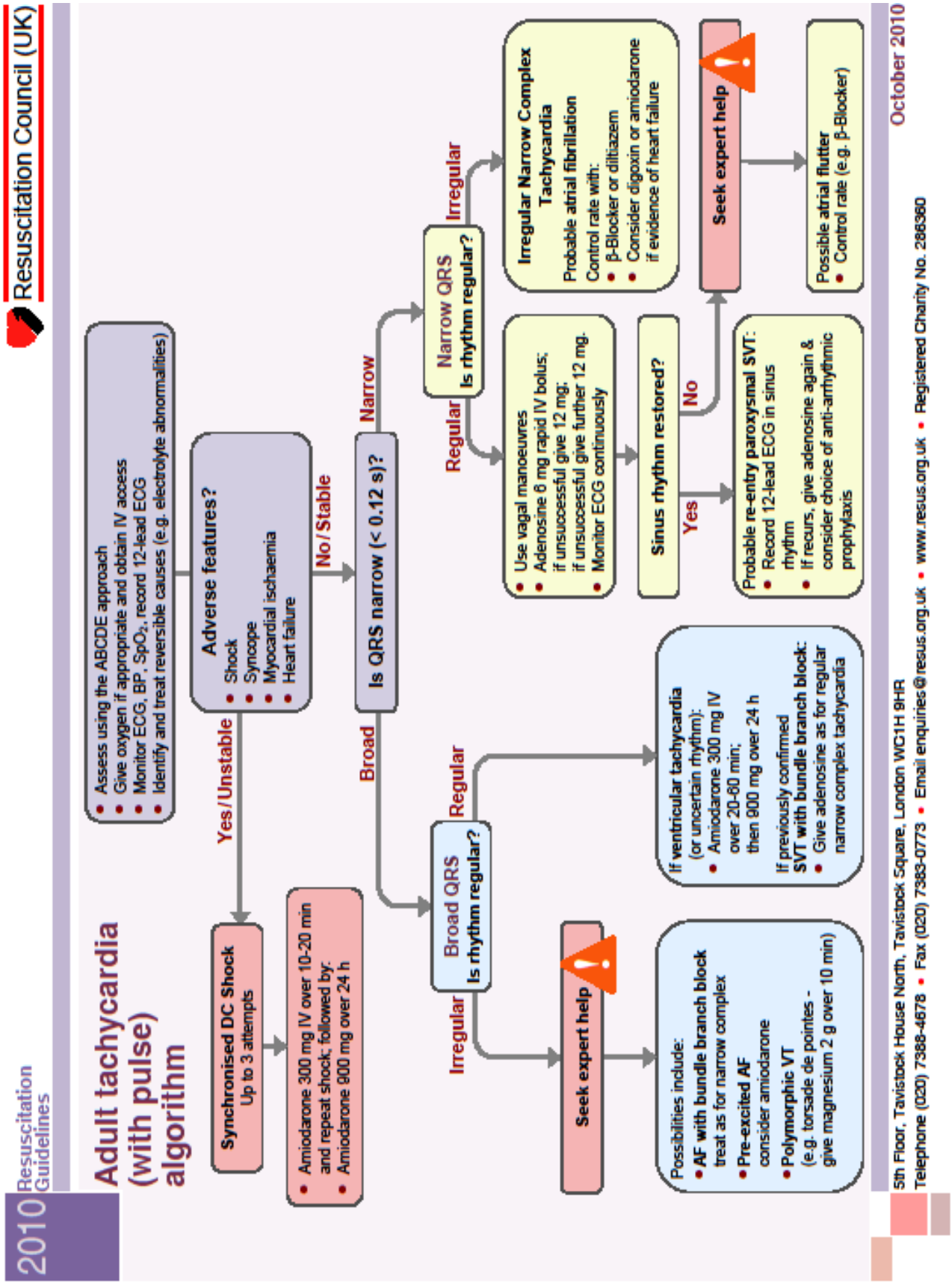
Resuscitation Council (UK)
2010 Resuscitation Guidelines
Adult tachycardia (with pulse) algorithm
Assess using the ABCDE approach
Give oxygen if appropriate and obtain IV access
Monitor ECG, BP, SpO2, record 12-lead ECG
Identify and treat reversible causes (e.g. electrolyte abnormalities)
Adverse features?
Shock
Syncope
Myocardial ischaemia
Heart failure
Yes/Unstable
No/Stable
Synchronised DC Shock
Up to 3 attempts
Amiodarone 300 mg IV over 10-20 min and repeat shock; followed by:
Amiodarone 900 mg over 24 h
Is QRS narrow (< 0.12 s)?
Broad
Narrow
Broad QRS
Is rhythm regular?
Irregular
Regular
Seek expert help
Possibilities include:
AF with bundle branch block
treat as for narrow complex
Pre-excited AF
consider amiodarone
Polymorphic VT
(e.g. torsade de pointes - give magnesium 2 g over 10 min)
If ventricular tachycardia
(or uncertain rhythm):
Amiodarone 300 mg IV over 20-60 min; then 900 mg over 24 h
If previously confirmed SVT with bundle branch block:
Give adenosine as for regular narrow complex tachycardia
Narrow QRS
Is rhythm regular?
Regular
Irregular
Use vagal manoeuvres
Adenosine 6 mg rapid IV bolus; if unsuccessful give 12 mg; if unsuccessful give further 12 mg.
Monitor ECG continuously
Sinus rhythm restored?
Yes
No
Probable re-entry paroxysmal SVT:
Record 12-lead ECG in sinus rhythm
If recurs, give adenosine again & consider choice of anti-arrhythmic prophylaxis
Irregular Narrow Complex Tachycardia
Probable atrial fibrillation
Control rate with:
β-Blocker or diltiazem
Consider digoxin or amiodarone if evidence of heart failure
Seek expert help
Possible atrial flutter
Control rate (e.g. β-Blocker)
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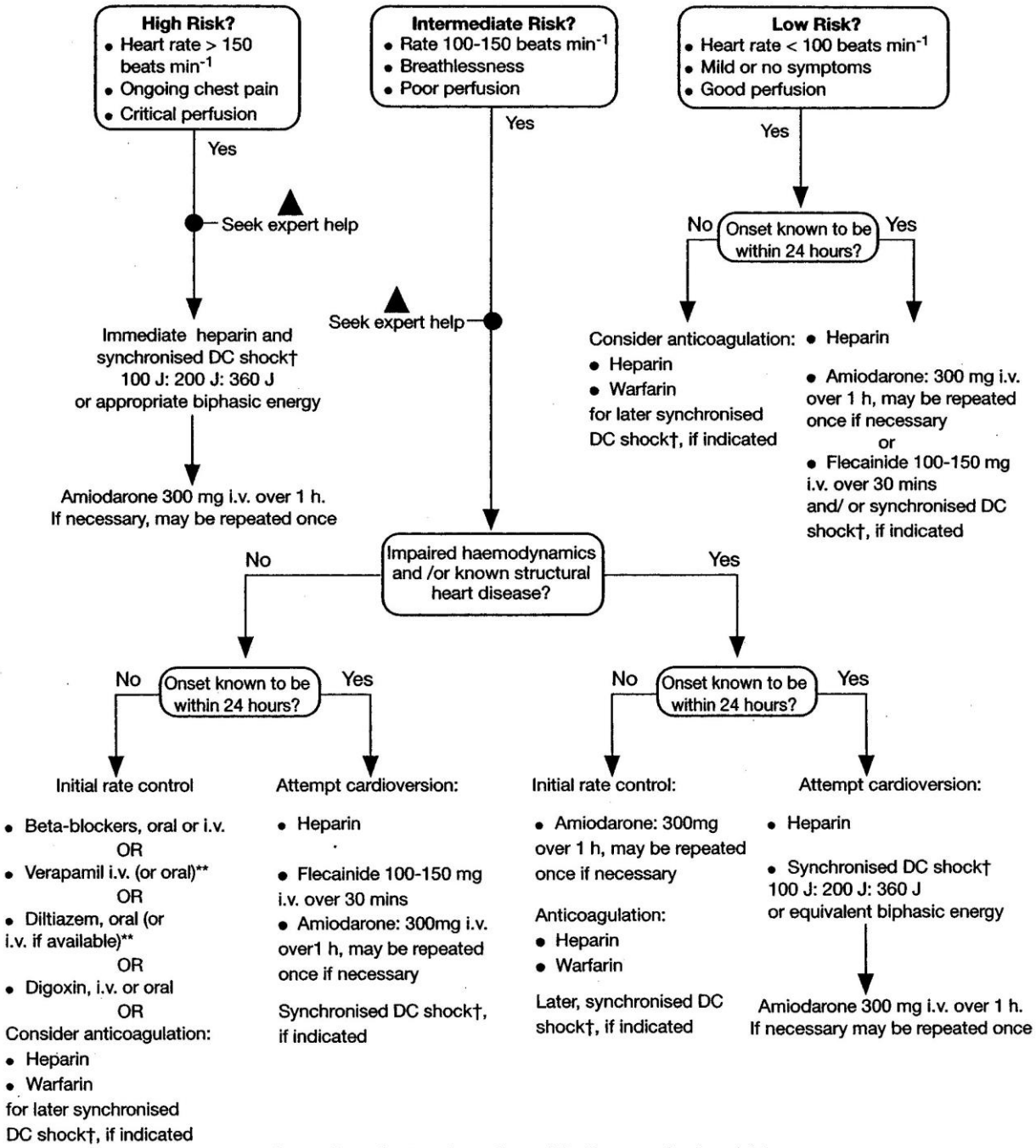
Atrial Fibrillation

If appropriate, give oxygen and establish i.v. access



Doses throughout are based on adult of average body weight

† Note 1: DC shock is always given under sedation/ general anaesthesia.
** Note 2: NOT TO BE USED IN PATIENTS RECEIVING BETA-BLOCKERS