|  |
| --- |
| 2-7 Tachycardia v.1 |
| Tachycardia in theatre is often due to inadequate depth of anaesthesia / analgesia or alternatively a reflex to hypotension.  Tachycardia should not be treated as an isolated variable: remember to tailor treatment to the patient and the situation.  Follow the full steps to exclude a serious underlying problem. |

|  |
| --- |
| Box A: CRITICAL TACHYCARDIA |
| If no pulse, delegate one person (minimum) to chest compressions and → 2-1 Cardiac arrest.  If hypotension worsening or impending arrest, consider electrical cardioversion (Box D). |

START.

❶ **Immediate action**: Stop any stimulus, Check pulse, rhythm and blood pressure:

* If no pulse or impending arrest: use Box A.
* If narrow complex AND not hypotensive first increase depth of anaesthesia/analgesia.

❷ **Adequate oxygen delivery**

* Check fresh gas flow for circuit in use AND check measured FiO2.
* Visual inspection of entire breathing system including valves and connections.
* Rapidly confirm reservoir bag moving OR ventilator bellows moving.

❸ **Airway**

* Check position of airway device and listen for noise (including larynx and stomach).
* Check capnogram shape compatible with patent airway.
* Confirm airway device is patent (consider passing suction catheter).

❹ **Breathing**

* Check chest symmetry, rate, breath sounds, SpO2, measured VTexp, ETCO2.
* Feel the airway pressure using reservoir bag and APL valve <3 breaths.

❺ **Circulation**

* Check rate, rhythm, perfusion, recheck blood pressure, obtain 12-lead ECG if possible.

❻Consider underlying problems(Box B).

❼ Consider rate control (Box C).

❽ **Call for help;** consider electrical cardioversion (Box D) if problem not resolving quickly.

**❾ Depth:** Consider current depth of anaesthesia AND adequacy of analgesia.

|  |
| --- |
| Box B: POTENTIAL UNDERLYING PROBLEMS |
| * Stimulation with inadequate depth. * Consider drug error. * Also consider: central line/wire; hypovolaemia; primary cardiac arrhythmia; myocardial infarction; electrolyte disturbance; local anaesthetic toxicity (→ 3-10); sepsis (→ 3-14); circulatory embolus, gas/fat/amniotic (→ 3-5); anaphylaxis (→ 3-1); malignant hyperthermia crisis (→ 3-8) |

|  |
| --- |
| Box C: DRUGS FOR TACHYCARDIA |
| * Fluid bolus 10 ml.kg-1 (adult 250 ml) * Magnesium 50 mg.kg-1 (adult 2 g) over >10 min, max conc. 200 mg.ml-1 * Amiodarone 5 mg.kg-1 (adult 300 mg) over >3 min, NOT in polymorphic VT * Labetalol 0.5 mg.kg-1 (adult 25-50 mg), repeat when necessary * Esmolol 0.5 mg.kg-1 (adult 25-50 mg) * Adenosine 0.1 to 0.5 mg.kg-1 (Adult 3 to 18 mg) – for SVT |

|  |
| --- |
| Box D: ELECTRICAL CARDIOVERSION |
| * Attach pads and ECG from defibrillator. * Ensure adequate depth / sedation / analgesia for cardioversion. * Engage synchronisation and check for sync spikes on R-waves. * Start with 1 Jkg-1 (adult 50-100 J) biphasic. * Remember to hold shock button until sync shock delivered. |

**The Association Of Anaesthetists of Great Britain & Ireland 2018. www.aagbi.org/qrh** Subject to Creative Commons license CC BY-NC-SA 4.0. You may distribute original version or adapt for yourself and distribute with acknowledgement of source. You may not use for commercial purposes. Visit website for details. The guidelines in this handbook are not intended to be standards of medical care. The ultimate judgement with regard to a particular clinical procedure or treatment plan must be made by the clinician in the light of the clinical data presented and the diagnostic and treatment options available.

2-7