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| 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. |

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| 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.

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| 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)
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| 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
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| 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.
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