



PROCEDURE CHECKLIST

Direct current cardioversion

Synchronised electrical shock under procedural sedation to restore sinus rhythm in unstable tachyarrhythmia or selected stable atrial fibrillation, flutter or ventricular tachycardia.



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Patient reference	Date	Time	Completed by
Equipment ready			
☐ Defibrillator with synchronisation mode and ECG monitoring			
☐ Self-adhesive defibrillation pads (adult and paediatric sizes)			
☐ Full monitoring: ECG, non-invasive blood pressure, oxygen saturations and waveform capnography			
☐ Oxygen, bag-valve-mask, suction and airway adjuncts			
☐ Procedural sedation drugs and reversal agents per local protocol			
☐ Resuscitation drugs (including amiodarone, adrenaline, atropine) and a transcutaneous pacing option			
☐ Reliable intravenous access			
☐ Sedation / cardioversion checklist			
☐ Confirm adequate sedation (no response to voice) and a maintained airway with capnography.			
Before · Assessment			
☐ Assess ABCDE and look for adverse features: shock, syncope, myocardial ischaemia, heart failure.			
☐ Record a 12-lead ECG if the patient is stable enough; otherwise print a rhythm strip.			
☐ Establish the onset and duration of the arrhythmia and anticoagulation status.			
☐ Do not electrically cardiovert stable atrial fibrillation or flutter of more than 48 hours' or unknown duration unless the patient has been anticoagulated for at least 3 weeks or atrial thrombus has been excluded by transoesophageal echocardiography.			
Unstable patients: cardiovert immediately and start anticoagulation.			
☐ Check potassium, magnesium and digoxin use where time permits.			
During · Synchronised shock			
☐ Press the SYNC button and confirm a marker appears on every R wave, not on T waves or artefact.			
☐ Select the energy: broad-complex tachycardia 120–150 J biphasic, escalating; atrial flutter and regular narrow-complex tachycardia 70–120 J, escalating; atrial fibrillation — a maximum-energy first shock is reasonable per current Resuscitation Council UK / ERC guidance.			
☐ Charge the defibrillator and announce 'charging, stand clear'.			
☐ Remove oxygen sources at least 1 metre from the chest and ensure nobody is touching the patient or trolley before shocking.			
Oxygen-enriched air risks fire; contact risks shock to staff.			
☐ Announce 'shocking', press and hold the shock button until the shock is delivered (there is a short delay while the machine synchronises).			
☐ Check the rhythm and pulse immediately after the shock.			
During · If unsuccessful			
☐ Re-select synchronisation before every further shock.			
Many defibrillators revert to unsynchronised mode after each shock; an unsynchronised shock on the T wave can cause ventricular fibrillation.			
☐ Escalate the energy and consider changing pad position; give up to three synchronised shocks in total.			
☐ If three shocks fail, give amiodarone 300 mg IV over 10–20 minutes, then repeat the shock, per Resuscitation Council UK tachycardia algorithm.			
☐ If the patient becomes pulseless or develops ventricular fibrillation, turn off synchronisation, start CPR and follow the advanced life support algorithm.			
Synchronised mode may not fire in ventricular fibrillation.			
Before · Consent and team			
☐ Explain the procedure, sedation, risks (skin burns, embolic stroke, arrhythmia, sedation complications) and obtain consent, or document best-interests decision in the unstable patient.			
☐ Assemble the team: a sedationist with airway skills separate from the operator delivering the shock.			
☐ Complete the sedation checklist: fasting status (not a barrier in emergencies), airway assessment, drugs drawn up and labelled, suction working.			
After · Recovery			
☐ Continue monitoring until the patient is fully recovered from sedation and meets discharge-from-sedation criteria.			
☐ Record a 12-lead ECG to confirm the rhythm.			
☐ Check the skin under the pads for burns; treat if present.			
☐ Check the function of any implanted cardiac device and arrange device interrogation.			
Before · Pads and machine			
☐ Remove clothing, jewellery on the chest and any glyceryl trinitrate patches; dry the skin and clip chest hair if needed.			
☐ Place pads anterolateral (right infraclavicular and left mid-axillary at V6 level) or anteroposterior (left precordial and left infrascapular).			
☐ Keep pads at least 8 cm from any implanted pacemaker or defibrillator generator; check the device afterwards.			
☐ Connect the defibrillator monitoring leads and select a lead with a tall R wave.			
☐ Pre-oxygenate the patient.			
After · Treatment and documentation			
☐ Start or continue anticoagulation for atrial fibrillation or flutter per stroke-risk assessment; guidance recommends anticoagulation for at least 4 weeks after cardioversion in most patients.			
☐ Treat the underlying cause and correct electrolytes; plan rhythm or rate control with cardiology.			
☐ Document the indication, consent, sedation drugs and doses, pad position, each energy and rhythm result, and complications.			
During · Sedation			
☐ Give procedural sedation titrated to effect per local protocol (e.g. propofol, ketamine or midazolam with an opioid).			



A drafted procedure checklist, awaiting senior review. Perform procedures only within your training, competence and local policy. It does not replace your clinical judgement.

EM Orbit · Emergency medicine, in one orbit · proc-dc-cardioversion · red rows are the steps that must not be missed