

## PROTOCOL FOR ANESTHESIA FOR CARDIOVERSION IN A STABLE, AWAKE PATIENT

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1. Evaluate the patient for anesthesia (airway, cardiac function, allergies, etc.) and fill out the anesthesia assessment form (with the attending signature).
2. Verify patient identity and procedure.
3. Make sure consent for the procedure and anesthesia have been obtained.
4. Check npo status (solids 6 hours, clear liquids 2 hours). If not npo, discuss with the cardiologist whether the risk of aspiration is outweighed by the risk of postponing the cardioversion. If not, postpone until the patient is npo; if so, proceed with the head of the bed elevated and apply cricoid pressure while the patient is unconscious and consider succinylcholine and intubation.
5. Place routine monitors.
  - a. Electrocardiogram: if it shows sinus rhythm, cancel the procedure.
  - b. Pulse oximeter: make it audible.
  - c. Blood pressure: place cuff on limb that does not have IV or pulse oximeter and start automatic measurement every minute.
  - d. An old Datascope® monitor is available in the cardiology recovery unit for gas (end-tidal CO<sub>2</sub>) monitoring
6. Make sure patient has a free-flowing intravenous line (IV).
7. Make sure necessary supplies are available.
  - a. Yankauer suction
  - b. Airway supplies (a small portable cart is kept in the cardiology recovery unit and its key is kept in the EP anesthesia room)
  - c. Emergency medications (including epinephrine, atropine, succinylcholine, phenylephrine, and ephedrine)
8. Place a soft bite block (gauze). Denitrogenate the patient with 100% oxygen mask.
9. If using a non-central venous line, pre-treat the vein with 1 mg/kg IV lidocaine (cf. *Anesth. Analg.* 74:246-249, 1992), unless the patient is allergic to it.
10. If the patient is allergic to propofol, soybeans, or eggs, or has left ventricular ejection fraction < 25%, induce with etomidate 0.1 mg/kg IV; otherwise, use propofol 1 mg/kg IV.
11. If the patient becomes hypotensive, notify the cardiologist, consider intravenous fluid and phenylephrine, and use etomidate rather than further propofol.
12. If the patient responds to tapping his/her forehead or shouting his/her name, tell him/her to take deep breaths and give propofol 0.4 mg/kg or etomidate 0.04 mg/kg and re-assess.
13. Check for loss of eyelash reflex; if not, give propofol 0.4 mg/kg or etomidate 0.04 mg/kg and re-assess.
14. Support the patient's airway as needed.
15. Tell the cardiologist that he/she may proceed.
16. Check for pulse and check blood pressure.
17. If the patient is bradycardic, ask the cardiologist if he/she wants you to administer atropine.
18. If cardioversion is unsuccessful, ask the cardiologist if he/she will attempt again. If so, go back to step 11.
19. Check that the patient moves all extremities on command when awake.
20. Give report to the cardiology nurse.

21. Turn in the yellow copy of the anesthesia record in the box in the EP anesthesia room (or outside Sandy Boyer's office on the 4th floor). Be sure that the start time and end time, diagnosis, procedure, physical status, attending signature, and concurrency are filled out. Circle "EPL" for location.
22. Be sure that the front page of the anesthesia record and of the anesthesia assessment form (with attending signatures) get on the patient's chart. The pink copy should be given to the cardiology nurse.
23. Return the supply cart key to the EP anesthesia room, and do not leave medications, syringes, or needles lying around.

For further reading, see *Anaesthesia* **51**:565-570, 1996.

For an alternative technique, see *Anaesthesia* **57**:1114-1119, 2002.