Cardiothoracic Admission - Basic Example

65yo F CABG x2 (LIMA-LAD; SVG-Cx), MVR for severe MR, TV annuloplasty.
Echo (date): N LV size with moderate segmental dysfunction; anterior wall akinesis; severe MR; mod TR; PAP 75mmHg.
Angio (date): Findings eg 80% and 70% Cx. LAD LV Function.
Antiplatelet agents: aspirin ceased xx/xx/xx; clopidogrel ceased xx/xx/xx; heparin infusion ceased xx/xx/xx, tirofiban etc.
(or: no antiplatelet agents preoperatively).
Lung Function Tests/pre-op ABG (if available).

e.g. Transferred from XX Base Hospital on xx/xx/xx with 2/7 Hx SOBOE and chest pain on background of known MR. Angiogram. Treated with heparin infusion, aspirin and clopidogrel.

OT
- CPB time: xx hours.
- ACT at end.
- PAP, CO and CI (all pre and post pump).
- Intraoperative antibiotics.
- Any salient events (eg dysrhythmias coming off pump, cardioversion, pacing, transfusion of blood products, excessive blood loss, IABP).
- Post-pump TOE (if documented).

Past medical history
- Rheumatic heart disease/IHD.
- COPD/Pack year smoking history.
- PVD/CRF.

All this info can be obtained from the anaesthetic record
But why do we need to know this?

- **CPB time**: long time on bypass usually means the patient is cold and coagulopathic postoperatively.
- **ACT (activated clotting time)**: this is occasionally checked at the start of the operation (= baseline) and immediately prior to going on pump after the heparin has been given (usual number ~ 600). When the patient is off pump, the heparin is reversed with protamine and the ACT is checked again. The ACT should be similar to the baseline ACT, or around <150. Note: patients can come back to CT ICU with "pump blood" still being infused (this blood is heparinised).
- **PAP (pulmonary artery pressure)**: it is important to know what PAP is normal for that individual patient (look at highest and lowest). This can help guide what PAP you aim for over the duration of the CTICU stay.
- **Post pump TOE**: it's important to know what the ventricular function (LV and RV) is like post procedure.

Medications & Allergies
- Record ALL preoperative medications and doses including date that antiplatelet agents were ceased.
- Use GENERIC prescribing and start dates/indication/planned duration of therapy for all antibiotics.
- ***THEN PLEASE CROSS OUT ALL PRE-OP DRUG CHART AND WRITE "ICU" ON THE FRONT***

Social history
- Smoking, other dependencies

OE
- Temperature
- CNS: GCS 3T (propofol 30mg/hr, morphine 2mg/hr)
- CVS: HR xx, BP xx, MAP xx (milrinone xx mcg/kg/min; dobutamine xx mcg/kg/min; GTN xx mg/hr), CVP xx, PAP xx/xx, CI xx, SVR xx. Paced (DDD, VVI), rate xx bpm. HSDNM, cool, no oedema.
- Resp: P-SIMV, PS xx, PEEP xx, FiO2 xx%, TV xx, RR xx ABG result. Chest clear
- 3 chest drains (example: L pleural, mediastinal, pericardial); output xx ml/hr.
- Abdo: SNT, BS present.

- Renal: UO xx/ml/hr. IVF (usually ml/hr = weight).

Plan;

- Think about whether you can wake, wean and extubate your patient.
- Aim a SBP / MAP target (as an example – this is not the rule!: SBP 90-100 if aorta as been touched or is a valve; SBP 100-120 for CABG); check with the ICU Consultant, surgeons, anaesthetists, Fellow/CMO.
- Bloods (including troponin) and CXR (look at placement of ETT, PAC, CVC, drains; check for pneumothorax).

Investigations

On return from OT, the patient will need:

- Post-operative bloods including FBC, EUC, CMP, LFT coags, ABG, VBG.
- Chest x-ray (order a mobile one on eMR and the nurse will page for you).
- These can be ordered in advance if there is time.

Other routine investigations;

- 6 hour post-op troponin
- FBC, EUC, CMP, LFT, troponin, coagulation profile 3am the following morning.
- Cease troponins once they have peaked and one result has come back lower.
- FBC, EUC, CMP, LFT, coagulation profile daily.
- Daily chest x-ray.

Medications

- Check the med chart, generally;
    - Cephazolin x 3 post-op
    - Vancomycin x 2 post-op **ONLY** if one of the below:
        - Transfer from other hospital and an inpatient for >48 hours.
        - POWH inpatient >72 hours.
        - Known MRSA.
        - Any valve operation.
        - Redo sternotomy case.
    - Exercise care in acute kidney injury, ask your Registrar/Fellow/CMO if they want trough levels done.
    - Warfarin is usually started on Day 1 for post-operative valves.
    - Aspirin on day 1 for post-operative coronary bypass patients.

Fluids

- Be guided by your Registrar/Fellow/CMO regarding resuscitation fluids.

Generally, the preferred fluid for cardiothoracic patients is Plasmalyte following initial resuscitation with 4% albumin.