

CCU (CA1) Orientation and Expectations

****At the end of your rotation, send this form to the next group of residents starting CCU****

Structure

- Team room is PAVA 12-100 near room 12-141.
- Resident-resident signout is 7am and 6pm all days of week (be professional, arrive early).
- There is always an in-house fellow able to assist with emergencies.

Handoff

- CA1 handoff: ([Link](#))
- CA3 handoff: ([Link](#))
- Should be concise, aimed at rapid understanding of primary problems and immediate plan
- A/P and To-Do should be updated every shift, day and night
- Please do not delete the last row between the gray headers, or else... 🦴

How CA1 works

- We admit and manage patients with primary cardiology problems requiring ICU level of care. When patients improve and are downgraded to floor status, we continue as the primary team.
 - Therefore, there are many geographic locations for patients:
 - PAVA 12-100, PAVA 8-200 (typically MCS), PAVA 8-100, PAVH 6
- Exceptions for transfer off CCU:
 - Patients upgraded from Floor (CA3) or Advanced HF (CA4) to CCU are typically transferred back to the original service when appropriate
 - Very stable patients awaiting placement or post procedure, consider transfer to Interventional Cardiology (CA7)
 - Primary cardiology problem resolved but still requiring prolonged hospital stay, consider transfer to MICU, Hospital medicine, or MD zero

Team structure and responsibilities

- Team: Attending, fellow, residents, pharmacist, nurses, ECMO specialists, SW/CM
- Attending: Accepting transfers, teaching, assist fellow on leading rounds, back up for procedures
- Fellows: junior attending, supervision, advanced procedures (see below), cardiac procedural consent/case requests (e.g. angiogram, cardioversion, right heart cath), ED CCU triage
- Residents: primary doctor for patients, general ICU consent, orders, consults, notes, goals of care, procedures (see below), discharges, follow up coordination
- ECMO specialists (perfusionists): help micromanage patients on ECMO, including labs, pump speeds, gas exchange. They are a very helpful resource when weaning device or trouble shooting.
- Pharmacist: rounds with the team, guidance and dosing for medications
- SW: Zack Warnick, Patrice Marx

Admissions

- Notes: Update your templates so all CCU (CA1) and floor (CA3) admissions have the following:
 - Add this to your note template (if not already included):
 - “The following cardiovascular risk factors and co-morbidities complicate the management of these conditions: {CV comorbidities:40118} @HPROBL@.”
 - Current CCU H&P template: **standardized template is coming**
 - Current CCU progress note template: **standardized template is coming**
- Admission Order Set: CCU Admission
- Consent: Obtain general ICU consent on admission
- Staffing: Generally, new patients are first reviewed and staffed with the fellow, as the junior attending.

Rounding

- Residents are expected to review and see their patients prior to attending rounds
- Time and style of rounds varies by the attending preference, CCU census, and acuity of patients
 - Most attending start rounds at 8:30-9:00am
- Rounding team: see team structure above
- Location: see typical unit locations above

Discharges

- Cardiac Rehab: robust research shows patients benefit greatly from participation. Most patients should have cardiac rehab referral at discharge.
 - Qualifying diagnoses: ACS/MI, stable angina, cardiac angioplasty, HFrEF, heart transplant, PH, PAD/ Claudication, CABG
 - Katelyn King (exercise physiologist) assists with referrals and tries to see all qualifying patients prior to discharge for an introduction
 - Place the order: “Discharge Ambulatory Referral to Cardiac Rehab” or “Non UK Cardiac Rehab” and make sure to select a qualifying diagnosis (see above)
- Transitions of Care (TOC) Clinic: occurs on Fridays, typically arrange for 1-2 weeks post discharge depending on acuity/risk
- Scheduling: Secure chat Cedrica Douglas to schedule TOC / cardiac rehab
- Med Rec: Med list on discharge should be reviewed as a team to ensure patient is on all appropriate medications (CAD: ASA, statin, SLN NTG; HFrEF: max GDMT – if not, why / titration plan)
 - Controlled substances on discharge: plan ahead and make sure DEA licensed provider is available

Procedures

- Procedures should not be performed without discussion with fellow.

- Residents: central lines and arterial lines, fellows are available for supervision.
- Fellows: pulmonary catheters and transvenous pacers, residents are encouraged to assist.
- All procedures require timely procedural documentation.
- All internal jugular central lines require post CXR before use (even if placed under fluoro in lab).

Education

- The CCU is a rich learning environment. Take advantage of the opportunity even if cardiology is not your future career
- Fellows and attendings are expected to teach. Ask for specific topics at the beginning of the week
- Please see the CCU Survival Guide Powerpoint for a review on hemodynamics, cardiogenic shock, STEMI, VT storm, and more
- The Cardiology Education Sharepoint site has numerous powerpoints, primary literature, and recorded lectures ([link](#))

Goals of care

- Patients in our CCU are critically ill, with high morbidity and mortality
- The CCU rotation is a great opportunity to practice Breaking Bad News or GOC conversations
- We do not need to consult palliative care for every GOC conversation
- When a patient is deemed comfort care the following should occur:
 - Document with ACP note and sign
 - Updated comfort care order set
- Hospice:
 - How to activate hospice: Lightning Bolt: HOS- Hospice Care > Scatterbed Consults
 - Patients who have transitioned to comfort focused care should transfer to the hospice service

Mechanical circulatory support (MCS)

- You are not expected to make major decisions regarding MCS without fellow/attending
- For any MCS complication or issue, immediately notify the fellows and attendings
- Learn the important numbers and hemodynamic values to collect and report on rounds
- ProTip: for EMCO patients, talk to the perfusionists before rounds to get the best info and updates
- Please see the CCU Survival Guide Powerpoint for more on MCS

Codes

- Get there ASAP, simultaneously alert fellow
- Majority of arrests are VT/VF, so when arriving make sure pads on and rhythm check has been performed, if shockable then shock as soon as possible
- Please see the CCU Survival Guide Powerpoint for more on MCS codes ([link](#))

Important numbers. More numbers found on top of handoff form.

Heart station 36254	Inpatient sonographers 84277	Bed assignment 32233
ECMO 859-562-7448		
Echo reading room 36947	Outpatient sonographers 36947	Cath lab front desk 36035

CCU Online References

<u>CCU SharePoint</u>		
<u>IBCC VA ECMO Manual</u>	<u>IBCC Impella Manual</u>	<u>IBCC Balloon Pump Manual</u>
<u>VA ECMO Weaning Protocol</u>		
<u>PERT Pathway</u>	<u>hs-Troponin Pathway</u>	
	<u>IV Sotalol Loading</u>	<u>Entresto Initiation</u>
	<u>Dofetilide (Tikosyn) Induction</u>	<u>Dofetilide (Tikosyn) Continuation</u>

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