VANDERBILT UNIVERSITY MEDICAL CENTER
MULTIDISCIPLINARY SURGICAL CRITICAL CARE

Advanced Practice Provider Orientation

Table of Contents

Page	Topic
	Job Description & Responsibilities
2	SICU APP Mission Statement and Job Description
5	Teaching/Nonteaching Services Description
8	Typical Flow of Shift – Dayshift
9	Typical Flow of Shift - Nightshift
10	Intern Orientation Responsibilities with Daily SICU Order Reminders
12	Common Phone Numbers and Door Codes for the SICU
13	SICU APP Holiday Coverage and Schedule of Monthly Unit Meetings
	Orientation
14	Orientation Program and Plan
19	Orientation Preceptor Check-Off List
25	Procedure Competency, MDSCC Approval of Orientation
26	Procedure Log
	Clinical Management and Pathways of Care
29	ENT and Head/Neck Pathway of Care
31	Liver Transplant Pathway of Care
33	End of Life Considerations/Protocols

Appendix A: Scope of Practice for SICU Acute Care Nurse Practitioners

Last Updated: 04/28/2015 Addison May, MD; Lauren Wrisley ACNP-BC, MD; Billy Cameron, ACNP-BC; Erin Burrell, ACNP-BC

Advanced Practice Provider
Job Description and Responsibilities

Surgical Intensive Care Unit
APP Mission Statement

The purpose of the APP in the SICU is to support the Multidisciplinary Critical Care (MDSCC) team to develop and implement plans of care and document specific goals and actions to move patients through the course of care, optimize team effectiveness, and communicate with patients and family members while promoting continuity of care with ethical practice and participation in quality performance initiatives to ensure excellence in healthcare, education, and research.

Surgical Intensive Care Unit
APP Job Description

The SICU advanced practice provider's role is to assist the multidisciplinary critical care team in providing consistent, ongoing, uninterrupted, and quality patient care. They work collaboratively with the attending physicians, resident physicians, nursing staff, respiratory therapists, case managers, social workers, family, and ancillary staff to direct and share information about the patient's plan of care. The SICU advance practice providers take first call on all SICU patients. Through improved efficiency, the APPs will help ensure timely patient transfers and/or discharge planning. They write daily progress and interim notes, perform a variety of procedures, monitor patient progress, manage complex wound care, and perform patient/family education. The goal is to promote efficient, safe, and thorough patient progress. The SICU APP will work three (3) twelve (12) hour shifts. A shift is defined as 0600-1800 or 1800-0600 to provide APP coverage in the SICU 24 hours/day, 365 days/year.

Administrative:

1. Practice Management Guidelines:
    - The APP will assist in the development, maintenance, and monitoring of Practice Management Guidelines (PMGs) along with the nurse educator, unit board, process improvement committee, and the medical director.
    - The APP will assist in monitoring the compliance of PMGs and reporting variances to the Critical Care attending of the week, SICU PI, the Medical Director of the Surgical ICU, and/or the Nurse Manager of the Surgical ICU.
2. WIZ/HEO:
    - The APP is responsible for knowing and understanding all WIZ/HEO order sets relevant to the Surgical ICU.
    - They will be responsible for educating new residents to the SICU about the WIZ/HEO order sets.
    - They are also responsible for making recommendations and changes to the WIZ/HEO order sets as necessary.
3. Quality Improvement:
    - The APP will assist with the identification, implementation, and surveillance of quality improvement initiatives in conjunction with the SICU leadership and faculty.

4. Process Improvement:
    - The APP will participate in the monthly PI meeting held on the 4th Tuesday of each month at 3pm (or designee).
5. Morbidity and Mortality:
    - The ACNP will participate in the monthly SICU M&M meetings held on the 3rd Tuesday of each month at 3pm (or designee).
6. MDSCC Meeting:
    - The ACNP will participate in the monthly MDSCC meetings held on the 2nd Tuesday of each month at 6am (APP Team Leader).
7. Hospital & Departmental Committees:
    - The APP will participate in hospital and departmental committees and projects as directed by the MDSCC and/or Assistant Director of Advanced Practice.
8. ACNP Meeting:
    - The APP will participate (required) in the monthly ACNP meetings held on the 4th Tuesday of each month at 4pm.
9. MDSCC Manual:
    - The APP will help review the MDSCC manual annually, for correctness and significant clinical changes (Lead APP or designee).
10. APP Manual:
    - The APP will help review the APP manual annually, for correctness and significant clinical changes (Lead APP or designee).
11. A Note About Faculty Status:
    - Faculty status will be provided as part of the job status of the SICU APP as an Assistant in Surgery through the Department of Surgery/Trauma and the Vanderbilt School of Medicine. It is expected that the SICU APP will transition from any mindset of "shift work" and treat this position as a career dedicated to continuous education and drive for excellence.

Consultative:

1. The APP will serve as a liaison between the surgical critical care service, primary surgical service, nursing staff, and ancillary services addressing problems and responses to treatments throughout the patient's stay in the Surgical ICU.
2. The APP will act as a consultant to the patient/family and multidisciplinary critical care team.
3. The APP will write admission orders on SICU patients in coordination with the Interns and Residents, as part of Mandatory Consultation of the MDSCC team for patients admitted to the SICU.

Clinical:

1. The APP will initiate positive change and growth within the Surgical ICU through identification and clarification of problem solving.
2. The APP will initiate/adjust the plan of care in collaboration with the multidisciplinary critical care team.
3. The APP's primary focus is continuity of patient care in the Surgical ICU. This will be accomplished through collaboration with multiple disciplines and the primary surgical service.
4. The APP will be available and accessible to patients/families as well as surgical and nursing staff.
5. The APP will manage up to 22 patients:
    - The goal of census breakdown is to maintain a balance between resident education and service as determined by the SICU attending and Fellow.
    - The ICU census complexity and growth will determine the percentage of ACNP involvement.
    - The APP will be the primary contact for care of these patients.

6. The APP on the teaching service (teaching/nonteaching services explained on page 5) will participate in morning rounds and daily critical care rounds to delineate patient problems and help construct a plan of care. The APP on the teaching service will also make rounds toward the end of shift with the Attending/Fellow/Mid-level resident prior to sign out for loop closure.
   - The APP on nonteaching service will make rounds with the MDSCC Attending as directed.
7. The APP on teaching service will enter WIZ/HEO orders in collaboration with the multidisciplinary critical care team including, but not limited to pharmacological and non-pharmacological management, laboratory studies, radiographic evaluations, and nursing orders. The APP will also be the initiator for certain unit-specific protocols such as foley catheter removal and early mobility, and be sure that all patients in the SICU have appropriate VAP, DVT, & PUD prophylaxis as well as glycemic control.
8. The APP will perform physical exams on all surgical critical care patients with notation of progress towards recovery and assessment of complications that may delay progress.
9. The APP will perform procedures as outlined in his/her credentialing packet including, but not limited to the following: wound management, wound cleansing and debridement, suturing, suture removal, surgical drain removal, central venous and arterial catheterization, pulmonary artery catheterization, chest tube management and removal, bronchoscopy, and tracheostomy downsizing and decannulation.
10. The APP will review and analyze results of lab work/radiological studies.
11. The APP will participate in data collection and analysis, writing progress notes in medical records, and writing transfer/discharge orders.
12. The APP will communicate with, and respond to, telephone inquiries from surgical nursing staff.
13. The APP is often the primary point of contact for nursing staff and consulting teams. It is imperative the APP has a thorough understanding of the patient census in order to initiate appropriate clinical action when necessary and effectively communicate changes in the plan of care with other team members.
14. The APP will be actively involved in discharge/disposition planning through the identification of patients who will require placement, or social work intervention on a daily basis and meet with the SICU Case Manager on a daily basis to accelerate appropriate long-term care and rehabilitation for those patients requiring such. The APP will facilitate involvement of the appropriate members of the primary team, including and not limited to case managers and/or social workers, to provide a plan of care for placement and/or referral in a timely manner, as the patient progresses towards discharge or transfer from the SICU.
15. The APP will educate and serve as a role model regarding the appropriate barrier precautions when performing bedside operative procedures for resident physicians.
16. The APP must be sure to complete the ONE Packet in cooperation with the Center for Advance Practice Nursing and Allied Health (CAPNAH) to be credentialed with Provider Support Services and have Faculty Status in the Department of Surgery secured via recommendation letters presented and confirmed by the Director of Surgery at VUMC. The credentialing process must be completed during the orientation process for the ACNP with assistance from the Assistant Director of Advanced Practice for the Surgical PCC and the SICU APP Team Leader.

Education:

1. The APP will provide for educational needs of patient/family teaching during the surgical critical care phase of care in an effort to elicit concerns, explain progress, and provide education.
2. The APP will provide immediate educational feedback to resident physicians and nursing staff when clinical errors are identified.
3. The APP will participate in the development of patient education materials.
4. The APP will identify clinical practice trends/issues to the nurse educator and unit board and work collaboratively to a solution.
5. The APP will take ownership for his/her continued education, and maintain certification as an advanced practice nurse.

Research:

1. The APP will assist in clinical research activities including review and pursuit of grant funding for related clinical trials.

VANDERBILT UNIVERSITY MEDICAL CENTER
MULTIDISCIPLINARY SURGICAL CRITICAL CARE

SICU ADVANCED PRACTICE PROVIDER PRACTICE GUIDELINES FOR TEACHING/NONTEACHING TEAMS:

RATIONALE: Advanced Practice Providers (APPs) are part of the MDSCC team in the SICU and contribute in a number ways including the following:

1) Provision of direct patient care
2) Providing consistency and continuity of care
3) Improving compliance with guidelines, protocols and safety practices by serving as content experts and educational resources for protocols/standards of procedure, and by providing intern orientation and direct intern assistance
4) Direct involvement in development and implementation of quality and safety initiatives

To ensure the appropriate balance of patient care activities by the APPs and maintain their contributions to quality and safety, the following guidelines are provided:

DAY TIME APP coverage model: responsibilities for the two APPs will be divided as follows:

- **1 APP will cover the nonteaching patient census**
- **1 APP will be involved with the teaching census as well as manage a limited census of patients.**

Practice protocols are listed below for APP Teaching Team and APP Nonteaching Team:

APP on Teaching MDSCC Census	APP on Nonteaching APP Only Census
• **Limited critically ill census (see Intern Education/Patient Assignments section below)**	· **6-8 pathway & less critically ill patients such as** - **All head and neck patients without critical issues, plastics flap patients on pathway, etc** - **Transplant patients on pathway (not bleeding, hemodynamically stable, graft functioning)** - **Patients with transfer orders** - **If a patient diverts from pathway; then this patient will be transferred to the APP on the Teaching Team if there is room on his/her census, or to the appropriate intern**
• **Rounds with MDSCC team each morning**	· **Not responsible for rounds with MDSCC team**
• **Follows all patients on teaching census for continuity and SOP compliance**	· **Rounds with Attending/Fellow after MDSCC rounds for NT APP patient census (no earlier 10:00)**
• **Enters WIZ orders during rounds (or assists intern)**	· **Responds to RRTs**
• **Aid residents/interns with procedures and patient follow up throughout day**	

- **Present intern orientation every 4th Monday**
- **Helps admit new patients and write admission consult notes**

Intern Education/Patient Assignments: The educational requirements for surgical/anesthesia interns are maintained in this practice proposal. For example, with a 22-bed census in the SICU, if the NT APP team carries 8 patients, that leaves 14 patients remaining for the teaching team. With 3 interns and Teaching APP, each provider can see 4-5 patients. In the event intern coverage is reduced, the patient load will be increased for each team member. Having an APP on the teaching team to provide patient care allows for the intern to truly focus on a few patients rather than attempting to manage more patients than what is safe. ACGME guidelines will remain intact, including no supervision of interns or residents by the APP.

More specifically, the assignments should be made in the following manner:

- NT APP: 6-8 patients, or 25-30% of the entire SICU patient census
- T APP: The remaining 70% of the patient census will be divided among the interns and ACNP according to percentages as follows:
  1) With 3 interns on days, each should carry a minimum of 3 patients (or 25% of the remaining 70%) and the APP will cover 25% (or maximum of 3 patients).
  2) On weekends typical intern coverage will be reduced to 2. Each should carry a minimum of 6 patients (or 40% of the remaining 70%) and the APP will cover 20% (or maximum of 3 patients).
  3) Regardless of patient census, the APP on the teaching team will carry a maximum of 3 patients in order to provide adequate patient follow up, perform procedures, and perform other duties as described above.
  4) Flexibility between the APP and interns on the teaching team is paramount in order to ensure the interns are carrying a manageable patient census in order to fulfill an appropriate educational experience while in the SICU. Patient assignments may differ from the above only after communication with the interns and APP on the teaching service have come to an acceptable agreement. Should conflict arise, the attending faculty physician will make the final assignments.
  5) When the SICU census is less than 22 patients, the percentages listed above should dictate the patient assignments between the 2 teams.

Procedure Assignments: Each intern and each APP on day shift are responsible for procedures for their specific patients. This includes both the teaching and nonteaching teams. Should the APP not be credentialed for a specific procedure; then, he/she should seek assistance from the 2nd year resident or fellow. In order for the APP to maintain his/her procedural credentialing with VUMC, this practice should remain intact. If the APP is busy with other duties or wishes to hand over the procedure to an intern with the assistance of the 2nd year resident or fellow, that can be negotiated at the time. Each intern should maintain procedures on their patients in order to gain the educational and procedural experience for their surgical/anesthesia programs. The APPs will remain flexible to ensure this occurs, but the APP also maintains "first rights" to procedures on their specific patients. The same is true for each intern. This should lessen confusion about who is doing procedures for specific patients. Should there be conflict, the Fellow will negotiate and make the procedural assignment. If the Fellow cannot negotiate an appropriate resolution, the Faculty Attending MD will negotiate the resolution.

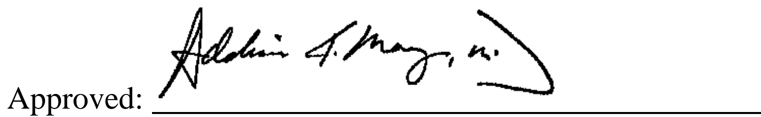
Variability: At times when only 1 APP is available during the daytime shift, the sole APP will cover the NON-TEACHING census as well as the other duties outlined WITHOUT covering any patients on the teaching service. Example: major holidays, daytime APP out ill and unable to cover shift, scheduling conflicts not allowing for 2 daytime APPs

Assignment of APP to T APP and NT APP: To be arranged by SICU APP team scheduler per 4 week scheduling period in a rotating basis. Changes to how the assignments are made will be discussed between the members of the SICU APP team and medical director to insure appropriate rotational schedule. All APPs who are not dedicated night APPs will rotate between T APP and NT APP teams.

NIGHT APP practice: One APP will provide night coverage for the SICU. The APP night duties are outlined as follows:

- Provide coverage, patient care, and follow up for the entire SICU patient census in cooperation with the SICU Fellow, 2nd year resident, and intern. APP will write admission orders for new admissions or assist 2nd year resident/intern in doing so.
- Provide orientation and assistance to SICU Intern on night coverage. Each 4th Monday of the month; the intern on night coverage will receive SICU orientation from APP.
- Perform procedures in accordance with the night shift APP's credentialing with VUMC as needed
- Write SICU Consultation notes PRIOR to midnight in order to capture critical care billing. The 2nd year resident or intern will write the consultation notes AFTER midnight and forward to the Attending for billing.

Revised April 28, 2015
Billy Cameron, ACNP-BC
Lauren Wrisley ACNP-BC
Addison May, MD
Lisa Weavind, MD

Approved:  Date: April 9, 2013

Typical Flow of Dayhift (Workflow) for SICU APP

1.) Interns are responsible for updating patient list Word Document with new patients, operations/procedures, and major events prior to each oncoming shift for sign-out. Interns will print patient lists and CMRs prior to the day-shift teams' arrival for sign-out.

2.) Receive report from previous shift APP or R2. Focus on 24 hour events/acute changes. If not familiar with patient, need to retrieve pertinent patient data: diagnosis, course of hospitalization, expected outcomes, dispo, etc.)

3.) Make plans for your patients based on lab data, nursing flow sheets (I/Os, and trend VS), notes from primary and other teams, radiology results

4.) You can choose to put in orders or wait until you have rounded on your patients

5.) Assess your patients

6.) MDSCC Rounds: Usually lasts for about 3 hours

- 07:30 M, T, R, Sa, Su (this is Attending-dependent…most Attendings will round at 0800)
- 08:00 W
- 09:00 F

Note: APP on teaching service enters orders during rounds for consistency and assurance to policies. APP on nonteaching service will round with attending after MDSCC rounds, or during if preferred (if Attending MD is not participating in MDSCC rounds).

7.) Immediately after rounds: The teaching APP will run the patient list with the interns, R2, fellow to ensure that all orders were entered correctly, follow up on any questions, and divide work/procedures. The NT APP will run their patient list with the Attending/Fellow at this time.

8.) Procedure Board:

- Place procedures on procedure board outside the Team Room
- Perform procedures on your patients and/or help out the interns with theirs
- T,W,R: While on orientation, attend lecture at 1-2p in 9T3 Conference Room

9.) Lunch (usually)

10.) Write progress notes, follow up on patients/primary teams (try to get these tasks done early so that you are free to help with afternoon admissions)

11.) Follow up on afternoon labs

12.) Teaching APP will meet with Case Management Huddle at 14:00 every M-F to discuss specific disposition orders/issues. Nonteaching APP can also meet, but not required

13.) Around 5pm: Interns print patient lists for oncoming R2 and write sign out for oncoming dayshift APP if not here the following day

14.) 17:45: Sign out to oncoming R2/APP/Fellow/Intern; make sure written sign out is left for oncoming APP

Typical Flow of Nightshift (Workflow) for SICU ACNP

1.) Interns are responsible for updating patient list Word Document with new patients, operations/procedures, and major events to nightshift team's for sign-out. Interns will print patient list and CMRs for each oncoming shift for sign-out.

2.) Receive report from previous shift APP or R2.

3.) Make plans for your patients based on lab data, nursing flow sheets (I/Os, and trend VS), notes from primary and other teams, radiology results. The night-shift APP is not assigned to a certain number of patients, but rather needs to be familiar with each patient in the unit.

4.) Round with fellow/R2/intern typically starting between 19:30-20:00 to ensure plans discussed during day-time teaching rounds are being carried through.

5.) Divide any admissions with intern. APP responsible for writing consultation notes prior to midnight for billing purposes. Any consultation notes after midnight will be written by intern/R2.

6.) Following rounds, the APP is responsible for following-up on laboratory and radiographic data, procedures, admissions, while continuing to ensure that plans of care are being met.

7.) As morning labs and chest x-rays return, the APP is responsible for interpretation and appropriate follow-up.

8.) Round again with Fellow/R2/intern usually around 04:00 to close the loop on plans of care and overnight events.

9.) Around 05:00: Intern will print patient lists/CMRs for oncoming day team.

10) 05:45: Sign out to oncoming day team.

11) Answer rapid response calls throughout shift.

Intern Orientation Responsibilities

It is part of the role of the SICU APP to create consistency with our first year residents providing care in the SICU. The following are functions which we need to educate/orient the interns to each month:

1. Explain Role of SICU APP (give prepared power point presentation; Teaching APP)
2. Hand out RASS/CAM cards, antibiotic cards, order reminder cards with each new intern start. Cards are located at APP desk in the Team Room.
3. Explain isolation policy
4. Remind them to be knowledgeable of all MDSCC manual guidelines and procedures (https://medschool.vanderbilt.edu/trauma-and-scc/surgical-critical-care)
5. Ensure appropriate supervision for intern procedure performance (Fellow, R2. APPs are not allowed to supervise an intern during procedures)
6. Explain common orders and be sure that each patient has the following orders and considerations if necessary (see list below):

Daily SICU Order Reminders

Neuro:

- Renew RASS Score on every patient every day
- Pain management
- ICU Sedation Protocol if critically ill

Respiratory:

- Morning CXR if patient is intubated/ventilated, trached/ventilated, has CT, pulmonary disease processes, or other processes requiring pulmonary management.
- Incentive spirometer – if extubated and not trached
- If intubated, patient must have VAE orders found under SICU VAE set.
- Restraints renewed q24h if applicable (all intubated patients)

CV:

- Metoprolol/Beta Blockers – always place hold parameters of HR<60 or SBP<100
- Vasopresors – Always place titration parameters for bedside RN (except vasopressin – stays at 0.04U…always)

FEN/GI:

- Appropriate diet orders – if tolerating enteral feeds, change meds from IV to PO if possible
- Bowel regimen and PUD prophylaxis
- SCC Electrolyte replacement protocol – do NOT use on pts with renal dysfunction

Renal:

- Discontinue foley if no longer needed (SCC Foley discontinue orders)
- If foley remains, foley care protocol can be found under SCC Foley.

- Renal dose medications (Antibiotics, Pepcid).

Endocrine:

- Every pt in the unit must have glycemic control. If intubated/sedated/critically ill – insulin gtt. Otherwise, SSI per SICU protocol. Both can be found under SCC Insulin.
- Every pt must have dextrose source – adequate diet, TF at half goal, TPN, D5 @100/h, or D10 @30/h.

ID:

- Check for troughs on antibiotics (ie; Vancomycin, Tobramycin, Amikacin)
- Transplant surgery teams will manage immunosuppressive agents when applicable.

Labs:

- Almost every pt needs CBC(qAM), BMP(qAM), and CRP/Prealbumin(Mon/Thurs). Common labs and SCC Nutritional labs are the place to find these. Choose wisely on lab orders and discontinue as soon as appropriate
- Intubated pts need qAM ABG's unless otherwise discussed.
- Lasix gtt always need BMP q8h to monitor electrolyte balances. Lasix boluses need BMP 3-4 hrs after to monitor electrolyte balances if deemed necessary.

Musculoskeletal:

- Appropriate activity orders – PT/OT
- If patient is intubated/sedated – use progressive mobility protocol found under SICU admission orderset.

Prophylaxis:

- DVT prophylaxis – Heparin or Enoxaprin (Liver tx pts NEVER receive anticoagulation) and SCD's
- PUD prophylaxis – Pepcid – renal dosing qday/PPI – if home med or clinical indications (GI bleed)

Lines:

- Discontinue central line/arterial lines/PAC if not needed or no longer using.
- Update diagnoses in WIZ with line status and dates of insertion/COW

Miscellaneous:

- Every patient needs SICU consultation – found under consult peds/med/surg
- When new patient arrives, use SICU Admission order set for general orders.

<u>**Common SICU Phone Numbers**</u>

SICU APP Cells	**752-6234 (T)**	**566-3561 (NT)**
Attending Cell	886-0669	
Fellow Cell	479-4082	
R2 Cell	421-1344	
Respiratory Therapy I	421-1311	
Respiratory Therapy II	421-1312	
Case Manager	831-8935	
Front Desk SICU	2-0988	
Charge Nurse Cell	414-7201	Pager 835-5308
Doug Burns (Nurse Manager) Desk	875-5582	
TBD (Educator)	Desk 2-6565	Pager 835-7701

CSL (Assistant Managers):

Dayshift: June McGhee, Barb Wilson, John Paulley
Nightshift: Erin Palmer, Joe Ricci, Donna Sabash
RSL/PI Nurse Leader : Heather Hart

Other often called numbers are saved into the APP Cell phone (Various Attending MD numbers, primary teams, RT, Nutrition, Kelli, April, etc.)

<u>Door Codes</u>

SICU Main Door	0160
Break Room	20988*
Conference Room	432*
Family Consult Room	432*
Attending Room	1409*
Resident Call Rooms	0415*

SICU APP Holiday Coverage Policy

APPs provide holiday coverage for the SICU. The holidays to be covered are as follows:

Minor Holidays:

- Easter (even though not recognized as a holiday by VUMC, many people make special plans over Easter weekend)
- Memorial Day
- Labor Day
- 4th of July

Major Holidays:

- Thanksgiving Day
- Christmas Eve/Day
- New Year's Day

Each APP will be required to cover a minimum of 2 holidays (1 minor/1major) with the understanding that this is subject to change as our APP team grows and changes in dimension. We will rotate each year who will cover which holiday (i.e. Christmas to New Year's Day to Memorial Day) with one day APP and one night APP with a year off from holiday coverage.

MDSCC APP Team Participation in PI, M&M, and MDSCC Meetings

Each MDSCC APP team member or designee will participate in the PI, M&M, and MDSCC Meetings

A. The APP representative for the MDSCC meeting will be assigned as the group decides. The default representative is the APP Team Leader. It is expected that each APP attempt to attend MDSCC meetings when possible. However, the monthly APP meeting is mandatory.

B. In order to facilitate a broad knowledge base in all three facets, each member of the APP team will participate in PI, M&M, and the MDSCC meetings.

C. Meetings:

MDSCC:	2nd Tuesday.	6A-7A.	9th Floor CCT Conf Rm.
SICU M&M:	3rd Tuesday.	3P-4P.	9th Floor CCT Conf Rm.
SICU PI:	4th Tuesday.	3P-4P.	9th Floor CCT Conf Rm.
APP Meeting:	4th Tuesday.	4P-5P.	9th Floor CCT Conf Rm.

Orientation Program

This orientation program is being provided to allow the seasoned or new graduate APP to succeed in an environment of support, mentorship, and education. **THIS ORIENTATION PROGRAM INCLUDES INFORMATION ABOUT ALL ASPECTS OF YOUR ORIENTATION**:

1) VUMC orientation
2) VUMC APN orientation
3) SICU-specific APP orientation

The SICU APP will have a variety of experiences to gain the knowledge and skills to successfully practice in the SICU, including but not limited to the following:

Week One:

1) Complete VUMC new employee orientation. Access MDSCC manual/protocols on and read thoroughly https://vumc.org/trauma-and-scc/surgical-critical-care (see instructions below #9). This will also be included in your Critical Care APP Orientation from the Assistant Director of Advanced Practice.
    - IT training
    - StarPanel/WIZ training
    - IMPAX
    - Badge (Also need to obtain access card to central supply room from educator/manager and be educated on supply retrieval process)
    - Human Resources
    - Hearts & Minds and other orientation presentations as scheduled through the Office of Advanced Practice.

2) Meet with your preceptor(s) to answer questions, go over orientation packet, arrange schedule for week 2

3) Meet with Surgical PCC Assistant Director of Advanced Practice to receive ONE Credentialing Packet. Complete and turn in ONE Packet within the first 2 weeks for expedient credentialing.

Week Two:

4) Meeting with:
    - Staff Nurse - Ask questions about workflow of day, expectations of the RNs, what/when/how the RNs chart, ask about the Dash Board protocols
    - Clinical Staff Leader (CSL) - Pay special attention to how CN makes assignments, what are the guidelines for moving patients out of the ICU area, when the CN moves patients, go to bed meeting with them, etc.
    - SICU Procedure Nurse - Attend as many procedures with Christy as possible, assist, gown up, and help as much as possible in the set up process because this will help when setting up for procedures

at a later time. Get familiar with where procedural kits and supplies are kept, the US and bronchs, etc

5) Shadow:
   - Fellow: Notice how the fellow clinically thinks and manages the patient list. Listen for SICU protocols. Don't be afraid to ask questions.
   - Attending: This is mainly during MDSCC rounds.

6) Meet with MDSCC members:
   - SICU Respiratory Therapy: Discuss vent weaning protocols & ventilation modes along with general guidelines of pulmonary care in the SICU.
   - SICU Pharmacy: Kelli Rumbaugh to discuss antibiotic therapies, protocols, and pharmacotherapy unique to the SICU.
   - SICU Dietary: Donna Sika to discuss tube feed formulae, process for nutrition consults, and general considerations for SICU nutrition. (TPN is covered by a different nutrition team)

7) Round with the MDSCC with your preceptor each morning.

8) Attend Resident MDSCC Orientation, including daily lectures through completion of orientation (Tues, Wed, Thur from 1300-1400 in SICU Conference Room.

9) Identify resources, **including MDSCC manual (https://medschool.vanderbilt.edu/trauma-and-scc/surgical-critical-care)**, phones and pagers, SICU Order sets (page 10), CAPNAH, etc. ***The MDSCC manual is a MUST READ during week ONE.*** It can also be accessed by clicking the "MDSCC" icon on a CWS. This manual is online at the above listed website and you will need to log in using your VUNet ID and password. We will not be printing this manual any longer. You are welcome to print it off for yourself for notes/questions, etc. ***It is imperative that you be familiar with this manual as it included all of our EBP protocols which are reviewed and edited on a regular basis with the APPs and medical faculty.***

10) Watch online videos regarding line insertion (to be given to you during 1st month of orientation).

11) Register for Fundamentals of Critical Care (FCCS): Current contact is Beverly Fletcher with Dept of Anesthesia.

12) Attend VUMC Critical Care Boot Camp for ACNP/PAs in the Fall of each year

13) Discuss with your preceptor scheduling CELA lab time for procedure skills

After completing Week 2 of orientation, the APP orientee will be able to:

1. Describe the mission, vision and values of Vanderbilt University Medical Center.
   Include: Elevate, Credo, AIDET, HEART, through VUMC orientation programs; and

2. Become familiar with SICU and key places in the SICU
   - MDSCC Team Room
   - Staff lounge & conference room
   - Call Rooms for APP/Fellow/Attending
   - SICU Manager's office

- CSL's office
- Educator's office
- Respiratory room/ Blood gas lab
- SICU nurse's stations
- Fire extinguishers & pulls
- Oxygen, vacuum & air controls
- Staff bathrooms
- Code carts, including airway bag
- Find the CODE button in patient room
- Service center (access card from Nurse Educator with education how to use the system)
- Dirty utility room & linen room
- Blood Bank (2-2233)
- Copy machine

3. Become familiar with location of essential equipment within the SICU
    - Code carts
    - Airway bag
    - US
    - Bronchoscopy cart
    - Vigilence monitor (PAC monitor)
    - Central line kit
    - Arterial line kit
    - Celiotomy box
    - Chest tube box
    - Percutaneous tracheostomy kit
    - Patient room supply carts

4. Gain access to the following:
    - WIZ-Orientation (will need to sign up for class)
    - Star Panel-Orientation (will need to sign up for class)
    - imPAX system with self-guided tutorial
    - Email-Orientation
    - Pager-Satelink office (Tina Danforth)

5. Become familiar with policies related to patient care in the SICU, including the following:
    - Patient confidentiality
    - Restraints
    - Patient identification issues
        - no information status
        - real name
    - Bereavement/death & dying
    - Palliative care
    - Family care guidelines/visitation
    - Security
    - Office of patient affairs

- Absent/ill/holiday/vacation policies

7. After working with a Staff Nurse, be familiar with daily care of the patient in the SICU, including transport, admission, rounding, and documentation of daily nursing care.

8. After meeting with CSL, be familiar with diversion, transfer, and staffing variables.

9. Become familiar with procedures in SICU by shadowing the Procedure Nurse, including location of supplies and documentation of procedure.

10. Meet with Respiratory Therapist, preferably RT dedicated to SICU: discuss role of RT and treatment modalities in SICU related to ventilatory support.
    a. discuss modes of ventilation
        i. describe weaning protocol
        ii. describe measures of weaning
        iii. describe SBT
    b. Describe how to notify RT of lab specimens placed in the RT lab
    c. Describe RT treatments, how to order, and when to order
    d. Discuss Vent. Bundle
    e. Assist with intubation if available.

11. After meeting with the SICU PharmD, be familiar with SICU Standard orders and Protocol orders, including management of TPN, Vent. Bundle, antibiotic and antifungal use, and Blood Glucose management. Other content is discussed in the MDSCC Lectures and MDSCC Manual.

12. Attend MDSCC lectures with residents
    a. Review MDSCC manual
    b. Follow lecture series, including skills sessions

After completing Week 2 and the requirements listed above, the orientee will begin work in the SICU with a credentialed APP in order to begin working with patients and orienting to the role of the APP in the SICU toward independent practice in cooperation with the MDSCC.

***After week 2*, time will also be arranged with Liver Transplant, ENT, and EGS services for specific patient education with time in the OR for observation, clinic time with liver transplant for patient education, grand rounds with liver transplant who rounds every Friday at 11am starting in the SICU, and OR time with some of our general surgeons. These times will be arranged with the orientee's preceptor and specific teams listed above (OR video must be observed prior to OR experience: see link below). Radiology education with MDSCC team member can also occur or with radiologist in reading room.**

Contacts for these teams are as follows:

- ENT: Dr. Robert Sinard
- Liver Transplant: Dr. Sunil Gheevarghese
- Abdominal surgeries: Dr. Richard Miller
- ICU follow up clinic (MICU): Tess Huggins, ACNP-BC

Directions for OR Education link PRIOR to being permitted to observe in OR:

- ⇨ Go to http://www.mc.vanderbilt.edu/perioperative
  <blocked::http://www.mc.vanderbilt.edu/perioperative>
  on the left hand column
- ⇨ Click on "Visitors to OR"
- ⇨ Click on "Periop movie"

Once you sign in and watch this video, it is logged with the OR nurse education system, so they know who has and hasn't watched the video. Our unit Nurse Educator has the code for the scrub dispenser, so arrange this prior to getting to the OR and he will inform you as to this process.

Week 3 and following: Will include patient care, procedure performance, and the details of the orientation as listed below in the Orientation Checklist. ***The majority of orientation time for at least the first 8 weeks will be spent on the Teaching APP service in order to gain sufficient critical care knowledge and practice preferences.*** After the preceptor and orientee have established a mutual level of confidence with the critically ill patients, then the orientee will move on to the Nonteaching APP team for the remainder of the orientation process to gain autonomy with this service.

Future Plans: We are also planning to move through a type of "mini fellowship" with some of our Fellows and Attendings. This will further aid in our education as intensivists to provide excellent and evidence-based practice for our patients. More on this to come as plans are solidified.

Note about Medical Faculty Status: Faculty status will be provided as part of the job status of the SICU APP as an Assistant in Surgery through the Department of Surgery/Trauma and the Vanderbilt School of Medicine. It is expected that the SICU APP will transition from any mindset of "shift work" and treat this position as a career dedicated to continuous education and drive for excellence.

Orientation continued…

<u>Surgical Intensive Care Unit APP Orientation Checklist</u>
(Preceptor to check off competency and follow up with orientee for improvement in specific areas)
Orientee Name: ______________________________Preceptor Name: ______________________________

Expected Time of Completion	Competency	Preceptor Initials	Completed Date	Comments
	Organization of the Work Day			
Week 3-4	Patient assessment			
	Collaborate with nurses and MDs regarding plan			
	Prioritizes work			
Week 4+	Obtains report from night physician/R2/APP			
	Enters stat and now orders			
	Calls consults			
	Able to evaluate events, assign them to a priority level and then organize day			
	Evaluates readiness for resuming home medications			
	Appropriately evaluates the need for peer consultation/collaboration			
	Writes progress/event notes if necessary			
	Reassess response to treatments			
	Enters pre/post op orders as necessary			
Week 4-6	Performs admission H&P and orders if necessary			
Week 6-8	Prepares sign out sheet/report for next shift			
Week 6+	Initiates procedures/treatments/orders			
Week 8+	Performs procedures in a timely manner			
	Credentialing/privileging/VUMC Orientation			
Week 1	Receive name Badge, IT Training, StarPanel/WIZ/HEO Attend VUMC Orientation (Hearts & Minds, etc.) Completion of One packet			
	Signature on file with Provider Support			
	Meet with Assistant Director of Advanced Practice Surgery PCC			
Week 4	Communication with Provider Support for updates on status			
	History and Physical			
Week 3-4	Proficient in Star Panel H&P			
Week 4+	Notification of surgical attending/fellow			
	Daily Progress Notes			
Week 2	Labs			
	Reports (operative, diagnostic)			
	Flowsheets			
	Personal worklists/files			
	StarForms			
	StarNotes			
Week 3-4	Date, time, heading with POD and procedure			
	Events of last 24 hours			
	VS, labs			

	Physical assessment			
	Assessment and Plan			
Expected Time of Completion	Competency	Preceptor Initials	Completed Date	Comments
Week 3-4	Signature/attestation			
	Risks/benefits of autopopulating			
	Completes progress note in timely manner			
	IMPAX Navigation			
Week 2+	IMPAX Navigation			
	Documenting procedure notes (StarPanel)			
Week 4+	CVC Insertion/ COW			
	Arterial Line Insertion			
	Adult Transpyloric Feeding Tube			
	Bronchoscopy			
	Death Forms			
Ongoing	Death Report (primary service does Death Summary)			
	WIZ Order Entry			
Week 3	Printing daily lists/CMRs from scratch census			
Week 3-4	Medications history			
	Looking up inactive orders			
Week 4	Order sets (SICU, preop/admission, transfer, nonpathway)			
Week 4+	Input daily orders			
Week 6+	Cleaning up inactive orders			
	Electrolyte Replacement			
Ongoing	Identify electrolyte abnormalities according to serum lab results			
	Identify signs and symptoms of electrolyte disturbances			
	Identify safest and most effective means of correcting electrolyte abnormalities			
	Pathway Medication Overview			
Week 4-6	Sedation and Analgesia protocol			
	Antibiotic protocol			
	Periopertive beta blocker			
	Stress ulcer prophylaxis/DVT prophylaxis			
Ongoing	Perioperative management of home medications			
	Identify medications that should be stopped prior to surgery (ie, ASA, Coumadin, plavix, heparin drip)			
	Perioperative Management of Blood Glucose			
Ongoing	Recognizes S&S of high or low blood glucose levels following surgery			
	Independently and appropriately orders insulin SQ or IV for pts with high blood glucose values			
	Resumes home oral hypoglycemic or home insulin therapy appropriately			
	Consults with more experienced APP/MD when reasonable means of blood glucose managment has been attempted and failed			
	Reassesses response to plan and makes changes as			

	necessary			
	Able to identify when Endocrine consult is necessary			
Expected Time of Completion	Competency	Preceptor Initials	Completed Date	Comments
	Ventilator Management			
Week 6+	Identifies clinical situations that require CXR and ABG evaluations			
Ongoing	Demonstrates basic understanding of ventilation modes and why each is used			
	Recognizes the needs for increased Fi02, can identify possible causes, initiates corrective measures, and consults MD			
	Able to direct the implementation of SICU weaning protocols			
	Recognizes trends in PIP, the significance of those trends and consults MD as necessary			
	Cardiac Risk Factor Management			
Ongoing	Assesses patients for cardiac risk factors			
	Appropriately initiates ASA, beta blockers, and lipid lowering agents			
	Able to recognize cardiac risk factors and the impact on transfusion requirements			
	Management of Acute Respiratory Insufficiency			
Week 3-4	Identifies significant changes in the subjective presentation and objective data of pts experiencing respiratory insufficiency			
	Identifies the differential diagnoses for respiratory failure			
Ongoing	Orders and interprets ABG's and other diagnostic tests			
	Recognizes the needs for increase PEEP or Fi02 and initiates the order			
	Orders bronchodilators, chest percussion and IPPB appropriately.			
	Consults with more experienced APP or MD for further plans to improve the pts oxygen status			
	Orders and follows up on measures taken to correct respiratory insufficiency			
	Management of Sepsis			
Week 3-4	Identify signs/symptoms of sepsis			
Ongoing	Appropriate management of sepsis (fluid, vasopressors, source control)			
	Management of Atrial Dysrhythmias			
Ongoing	Orders appropriate diagnostic work-up for Afib/Aflutter and SVT			
	Appropriate medical management of Afib/Aflutter, SVT			
	Notifies fellow/attending			
	Management of Low Urine Output			
Week 3-4	Assess subjective data according to the protocol			
	Assess objective data according to the protocol			

	Appropriately assesses for and diagnoses hypovolemia			
	Appropriately assesses for and diagnoses hypervolemia			

Expected Time of Completion	Competency	Preceptor Initials	Completed Date	Comments
Week 3-4	Updates MD appropriately			
	Management of Acid/Base Imbalances			
Week 3-4	Correctly interprets subjective/objective data			
Week 4+	Develops a plan to correct in conjunction with more experienced APP or MD			
	Corrects the underlying problem			
	Orders follow up ABG and repeats an assessment to ensure the cause of the problem has been corrected			
Ongoing	Consults more experienced APP or MD when necessary to review differential diagnosis for etiology of acid/base imbalance			
	Vasoactive Drip Management			
Week 6-8	Initiates vasoactive drips after consultation with MD			
	Manages titration of drips according to the plan			
	Recognizes the need to modify the agreed upon plan and consults MD or experienced APP for new plan			
	Pulmonary Artery Catheter Management			
Week 3-4	Demonstrates a working knowledge of hemodynamics (preload, afterload, contractility and their normal values) or correctly diagnoses (with or without references).			
	Able to determine the accuracy of hemodynamic values and waveforms (square waveform test, arterial vs venous waveforms, wedge testing)			
	Management of Hypertension			
Week 3-4	Correctly interprets subjective and objective data indicative of hypertension			
	Consults more experience APP or MD to review the differential diagnoses for etiology of hypertension			
	Orders appropriate diagnostics and correctly interprets the results			
Week 4+	Initiates appropriate medications			
	Recognizes need to modify the plan and consults MD or experienced APP for new plan			
	Non Core Priveleging and Procedures – refer to Procedural Protocols and Skill Checklists			
Week 1-2	Watch procedure videos at http://content.nejm.org/misc/videos.dtl?ssource=recentVideos			
Week 8+	Non core application process for privileging of performing procedures. See check list for # required per procedure.			
Ongoing	Complete Procedure Check List			
	Electrocardiogram			
Week 3	EKG analysis			
	Recognize EKG changes associated with ischemia/infarct			

Expected Time of Completion	Competency	Preceptor Initials	Completed Date	Comments
	Able to recognize arrhythmias OR appropriately seeks expert consultation			
	X-Ray Analysis			
Week 4-8 (after time with rads)	Identify this equipment and verify safe placement on CXR: ETT, central lines, PAC, chest tubes, tracheostomy			
Week 4-8	Identify these structures/conditions or seeks consultation PRN for CXR: ribs, carina, PTX, PNA, pulmonary edema, atelectasis, consolidation, heart silhouette			
Week 4+	Identify DHT/NGT placement on KUB			
	Identify these conditions or seeks consultation PRN for KUB: ileus, air/fluid levels, free air			
	Lab Data Analysis			
Week 3	Know normal limits of standard laboratory tests and create a plan as to management			
	Blood Transfusion Policy			
Week 3	Blood transfusion policy			
	Fever Management			
Week 3	Fever protocol			
	Fever Workup			
	Withdrawal of Care Protocol			
Week 3+	SICU Order Set and Protocol			
	DNR/DNI paperwork appropriately completed			
	Patient Management			
Week 3-4	Mgmt of 1 pt: Management of common post operative complications/problems. Service specific management of post operative patients			
TBD by preceptor	Mgmt of 2 pts: Management of common post operative complications/problems. Service specific management of post operative patients			
	Mgmt of 3 pts: Management of common post op complications/problems, problem-solving, effective primary team communication, proactive thoughts and actions (take out foley, COW, pathway actions, etc.)			
	Mgmt of 4+ pts: Management of common post op complications/problems, problem-solving, effective primary team communication, proactive thoughts and actions (take out foley, COW, pathway actions, etc.)			
	Total APP census management			
	Managing APP phone and primary team reports each morning			
Week 4-6	Thoracic, ENT (pathways)			
Week 4-6	Through-Put and Disposition discussion with case management			
Week 4+	Manage individual service patient protocols i.e: liver tx,			
Week 6+	Effective report off to R2 or other APP			

Week 6+	Effective sign out sheet writing			

I have validated the skills listed above. The skills not validated during orientation will be set as my goals to be completed by the end of my probationary period. I recognize and accept responsibility for all other skills and protocols that I have not validated and will seek assistance prior to their performance. I will not perform protocols or procedures independently until application for VUMC provider credentialing is granted.

Provider signature: ________________________________ Date: _____________________________

Preceptor signature:________________________________ Date: _____________________________

Final MDSCC Approval for Clinical Practice:____________________________ Date:______________

SICU Medical Director

Orientation continued (procedures)…

SICU APP Orientation Procedure Competency

I. Procedural credentialing

A. Training: APP will participate in procedural skills training as determined by supervisory MD personnel. Further training will be provided by attending/fellow or designee oversight throughout the course of orientation for the APP.

B. Documentation: APP will document performance of hospital designated obligate # of procedures using the Star forms mechanism (see Procedure Log for obligate number of procedures per procedure type) and tracked through the Knowledge Learning Map.

C. Performance: APP will be required to perform procedures to the satisfaction of the overseeing attending or designee.

D. Credentialing: With completion of obligate number of procedures, a Privilege Request Form will be submitted to Provider Support Services for VUMC with the necessary attestation and supervising physician signatures. Additional procedure requests may be submitted at a later date once the required number has been completed.

E. MDSCC Final Approval: Independent practice of procedures will occur only after the MDSCC group clears in the monthly meeting

Each procedure must be performed with a supervising physician or credentialed APP until core performance through PSS is granted. For initial training the supervising physician must sign this form to indicate successful completion of procedure. ***After completion of each required number, the APP still must be accompanied by a MD or advanced core credentialed APP until procedure credentialing occurs with PSS and the MDSCC leadership team has approved independent procedure performance***.

In order to maintain competency, procedures must be performed a minimum of ___ times per year (see PSS credentialing check list). If the minimum number of procedures has not been achieved or maintained the APP must again be supervised the minimum number of times until competency is achieved and maintained.

The check off sheet that follows can be used as an adjunct to the KLM in order to provide each attesting physician the ability to see which procedures have been satisfactorily performed by the APP and have an attesting signature.

<u>SICU APP Procedure Log</u>.

Each procedure will also be logged into Star Panel under "Star Forms" under the appropriate procedure. This is VERY important as this will be the way PSS tracks your procedures performed. Each new SICU APP needs to create a user profile on the **<u>Knowledge Learning Map</u>** website available on a VUMC clinical workstation. This is how your procedures will be tracked by PSS and by our MD Fellows/Attendings. If there is no Star Form for your procedure, create an ad hoc miscellaneous procedure in KLM.

5 must be completed with MD supervision

Central Line Placement		
Date	MRN	Supervising MD

4 Must be completed with MD supervision

Change over Wire		
Date	MRN	Supervising MD

5 must be completed with MD supervision

Arterial Line Insertion		
Date	MRN	Supervising MD

5 Must be completed with MD supervision

Bronchoscopy		
Date	MRN	Supervising MD

Name: ____

4 Must be completed with MD supervision

Trach Downsize		
Date	MRN	Supervising MD

5 Must be completed with MD supervision

Chest Tube Insertion		
Date	MRN	Supervising MD

4 Must be completed with MD supervision or other APP who is credentialed (Cardiothoracic Service)

Chest Tube D/C		
Date	MRN	Supervising MD

4 Must be completed with MD supervision

Tracheostomy d/c		
Date	MRN	Supervising MD

5 Must be completed with APP supervision credentialed in CorTrack Machine

DHT		
Date	MRN	Supervising MD

Name: ____

10 Must be completed with MD supervision

PA Catheter insertion/refloating		
Date	MRN	Supervising MD

3 Must be completed with MD supervision

Drain Removal		
Date	MRN	Supervising MD

3 Must be completed with MD supervision

Simple Suturing Date	MRN	Supervising MD

Advanced Practice Provider Common Pathways of Care

Common Pathways of Care for the SICU APP

Disclaimer: These processes are referred to as pathways because they are common processes. We are in the process of making them protocols as we can. However, at this time, they are all common pathways and are subject to change. Each patient is, of course, different; so we treat them individually. So, WHEN IN DOUBT, ask the attending AND/OR primary team.

Head & Neck/ENT Patients Pathway of Care

1. **Free Flaps**- These patients will be in the unit for 72h minimum (flap checks q1h x48h, q2h x24h, q4h until discharge).
   a. POD #1
      - Trickle tube feeds (Isosource HN is preferred formula)
      - Periop ABX x24h (hospital wide policy)
      - Per tube meds
      - Continue PCA at least 24h
      - DC foley/aline
   b. POD #2
      - D/c PCA if able
      - Advance TF to goal
      - IVF + TF = 100ml/hr
   c. POD #3
      - Change to bolus tube feeds
      - Initiate homebound TF teaching
      - Add free water (if Na+ appropriate)
      - Saline lock IVF
      - D/c Pepcid if not a home medication

- **Common Complications**- Aside from EtOH withdrawal, complications are rare with ENT patients. But just some to be aware of:

  Urinary retention:
  - If fails voiding trial, start Cardura or Hytrin (Flomax cannot be crushed). Send UA to ensure UTI is not cause for retention.
  - Maintain foley until 2 doses of Cardura/Hytrin has been given. If patient fails voiding trial x2, maintain foley and consult urology for outpatient follow up.

  EtOH withdrawal/DTs:
  - Ativan or valium is drug of choice. We do NOT use the CIWA protocol in the ICU setting.
  - Discuss with attending.
  - Give MVI, B vitamins, thiamin, and folate x3days total.
  - Check TSH/FT4 along with folate for deficiencies.

Periop MI (RARE):

- Biggest issue will be whether or not to anticoagulate (Cardiology, ENT attending and SICU attending will make this call)
- Otherwise manage as any other ACS patient

Pneumonia (or other infection issues):

- CXRs are not needed daily on these patients, but if you see something suspicious for a pneumonia on their post op film, you may want to consider getting a follow-up film the following a.m.
- Otherwise follow our protocol for working up febrile patients (pan cultures, possibly CT scan, 4E dopplers, line discontinuance, etc.)

2. **Pec Flaps/Lat Flaps**- These patients will be in the unit for 24h for airway monitoring. They do not require flap checks as it is a rotational flap. Otherwise they follow the same pathway as free flaps. If they are in the unit longer than 24h, continue to follow the above.

SICU ACNP Contact for H/N & ENT Pathway: Erin Burrell, ACNP-BC

Liver Transplant Patients Pathway of Care

Hepatobiliary team is very sensitive about the care of their transplant recipients (as they should be), and each primary attending likes things slightly different from the others. ALWAYS, ALWAYS, ALWAYS ask before making major changes, ESPECIALLY TRANSFUSIONS. **These include but are not limited to**: transfusions, diet, diuresis, consults (renal in particular), lab orders, etc. ***When in doubt ask***.

1. POD #0
   a. RASS 0-just keep them comfortable until they are resuscitated and can be extubated.
   b. Fentanyl only for sedation; propofol only if the patient is still paralyzed from OR. ***Avoid all benzos***.
   c. If the patient appears ready for extubation (resuscitated/not bleeding), discuss with fellow and primary team. Goal is early extubation.
   d. Discontinue NGT when extubated
   e. Check labs (CBC, BMP, ABG/lactate, LFT's, LDH) q6H x24H; then q8H x24H; then q12H; then daily. The HBS team may expedite this process if the patient is doing well.
   f. **NO SQ Heparin**…only SCDs for DVT prophylaxis. Will consider SQ Heparin if plts>100
   g. Electrolyte protocol if renal function appropriate
2. POD #1 (After extubation):
   a. Advance to clear liquid diet
   b. Add PO pain meds (oxycodone generally to avoid Tylenol)
   c. Add bowel regimen; docusate and senna
   d. PO pepcid
   e. Discontinue Aline x1, MAC/Cordis, RIC (Keep TLC/BLC)
   f. Discontinue foley
   g. Labs q12H x24H
   h. Transition to SSI if Insulin gtt <5u/h – consider consulting Endocrine if known DM preop
   i. PT/OT
3. POD#2
   a. Advance diet as tolerated
   b. Transition to labs qAM
   c. Consider discontinuing all CVCs if PIVs are adequate

4. Postop Bleeding/Resuscitation – The primary service may report that they were bloody or leaking before closure or the patient may have an open belly due to bleeding/difficult anastomoses requiring biliary discontinuity. There is no hard and fast rule for these patients other than supportive care until their coagulopathy is corrected and/or the primary team takes them back to the OR.
   a. Transfusion triggers (although these can vary):
      - PCV<21
      - Plts <20
      - INR >2.5
   b. Labs: Check all the normal labs and also consider fibrinogen and TEGs to further guide coagulopathy resuscitation. Can add vitamin K if continues to bleed.

c. Supporting them is most important. **Discuss resuscitation with fellow and/or attending.** This is the **ONLY** possible exception to the "call primary team before all transfusions" rule. Some of the patients will bleed so much that it is all you can do to keep up with them, while others will just slowly continue to leak. If you suspect that they are a bleeder when they arrive on the unit, establish a plan with primary team for transfusions. It is important to monitor hemodynamics, JP drain output, peak airway pressures, and abdominal exams closely.
d. Continue labs serially until bleeding resolved and patient course improving. Again, ask primary team how long they want to continue them before making changes.
e. If a patient requires deeper sedation and/or paralysis due to abdominal compartment syndrome, discuss need for benzos with our fellow/attending AND primary team upper level/attending. Propofol is usually sufficient except in the presence of intractable hypotension

SICU ACNP Contact for Liver Transplant Pathway: Erin Burrell, ACNP-BC

End of Life Care Pathway of Care

The SICU depends on the APPs to initiate the EOL protocol/withdrawal /comfort care order sets and manage these patients while experiencing the end of life. Again it is difficult to abide by anything hard and fast about this topic for two primary reasons. ***First***, remember that each patient is an individual and not all families are the same. Listen to the families closely for wishes/concerns. You will learn more about withdrawing care from listening to your families and figuring out their needs than anything else. ***Second***, our attendings, as well as the primary attendings, all have different ways of handling these situations. In the beginning it is recommended listening in on family meetings with attending physicians and the palliative care team to observe how some team members handle withdrawal of care. The Palliative Care is an invaluable resource and should be used when necessary. They are a very strong presence for the families and can offer us a lot of support. It takes time, compassion, and experience, to gain sufficient comfort in handling end of life matters. Always review the DNR/DNI status and make sure it is updated in StarPanel before moving forward with withdrawal of care. A couple of things to know to ask:

1. Should palliative care be involved? Does the patient/family wish for last rights from a priest or appropriate religious leader (VUMC Chaplain Services is very helpful) ?
2. What are the family's wishes? For example, some may ask us to maintain their loved one until a family member arrives. This may require vasopressor and vent support, but you can still institute all other comfort measures.
3. Does the attending and/or family want to extubate the patient?
4. Always clean up other orders. The only orders that should remain are from the SICU Comfort Care protocol. Make sure to order pain medication (fentanyl or morphine), anxiolytics (ativan or versed), haldol, and robinul (this is used for secretions). Make sure to select all the nursing orders at the top, including social work and chaplain if needed by the family. The last portion of the order set is for the respiratory plan. If you are going to extubate, it is the first option. IF they will remain intubated, it is the second option. Educate the nurses to use pain meds to treat first. Often it is difficult to prove that a patient it is anxious. So treat pain first, if that does not work treat anxiety. Use robinul for excess oral secretions.
5. After the patient dies, the bedside RN or charge nurse will know the procedures that are to follow such as calling TDS, calling the ME, report of death, death summary, asking for funeral home details, asking about autopsy. This is all part of our EOL protocols in the MDSCC manual and is available online at the MDSCC website.

SICU ACNP Contact for End of Life/Comfort Care Pathway: Laurie Ford, ACNP-BC

SICU ACNP Orientation Program and All Content Created Herein Created & Reviewed by (Most recently reviewed 4/28/2015):

Caroline Banes, ACNP-BC
Erin Burrell, ACNP-BC
Billy Cameron, ACNP-BC
Katie Cole, ACNP-BC
Laurie Ford, ACNP-BC
April Kapu, ACNP-BC
Addison May, MD
Lauren Wrisley, ACNP-BC
Lisa Weavind, MD
SICU MDSCC Leadership Team

Date: April 28, 2015

Resource Reference:

Bahouth, M., Esposito-Herr, M. 2009. Orientation program for hospital-based nurse practitioners. *AACN Advanced Critical Care*. *20* (1): 82-90.

Appendix A

Vanderbilt University Medical Center
Surgical Intensive Care Unit
Division of Trauma and Surgical Critical Care

Advanced Practice Protocol Scope of Practice

(As needed to be on file for the State of Tennessee)
April, 2010

This scope of practice statement is for the collaborative practice between_____________, Advanced Practice Provider, and primary supervising physician Dr. Addison May. The practice site will be at Vanderbilt University Medical Center, Division of Trauma and Surgical Critical Care PCC. At this practice site, the APP will provide multidisciplinary care from admission to discharge of surgical critical care patients. The APP's responsibilities may include, but are not limited to: physical assessments, history and physicals, daily progress and episodic notes, managing patient care and progress, management of simple and complex wound care, performs procedures per written protocols, and performs patient and/or family education. Contingent on competency validation and physician attestation, the APP may perform the following procedures but not limited to the following:

1. Arterial Line Insertion
2. Central Line Insertion
3. Central Line Change Over Wire
4. Chest Tube Insertion
5. Chest Tube Removal
6. Pulmonary Artery Catheter Insertion
7. Bronchoscopy
8. Drain Removal
9. Tracheostomy downsizing
10. Tracheostomy decannulation
11. Placement of Postpyloric Soft Feeding Tubes
12. Placement of Single Lumen Infusion Catheters (SLICs)
13. Intubation

The purpose of this Scope of Practice Statement is to maximize the collaborative practice of the APP and the supervising physician in the provision of quality health care. Utilizing specialty standards as a framework for managing patient care, the process includes but is not limited to:

A. Assessment of health status. The APP assesses health status by obtaining a relevant health and medical history, performing a physical examination based on age and history, performing or ordering preventative and diagnostic procedures and identifying health and medical risk factors.

B. Diagnosis. The APP makes a diagnosis by utilizing critical thinking in the diagnostic process, synthesizing and analyzing collected data, formulating differential diagnoses and establishing priorities to meet the health and medical needs of the patient.

C. Development of the treatment plan. The APP establishes an evidenced based plan of care which may include conducting/ordering additional diagnostic tests, ordering/prescribing appropriate pharmacologic and non-pharmacologic interventions, developing a patient education plan and seeking appropriate consultations and referrals.

D. Implementation of the plan. The interventions are based on established priorities and are individualized and consistent with the plan of care. Interventions are based on scientific principles, theoretical knowledge and clinical expertise and may include conducting, supervising and interpreting diagnostic tests, prescribing/ordering pharmacological and non-pharmacologic therapies, providing patient education and make appropriate referrals to other health care providers.

E. Follow-up and evaluation of patient status. Systematic follow-up includes determining the effectiveness of the plan, accurate documentation of outcomes, and reassessing and modifying the treatment plan as necessary to achieve health and medical goals.

In addition, evidenced based, written guidelines or protocols, jointly approved by the APP and supervising physician(s) are utilized in the provision of medical management. These guidelines are not intended to replace clinical judgment in individual patient care. The guidelines are reviewed on an annual basis and when new practice guidelines are published or changes occur, the advanced practice provider and supervising physician(s) will acknowledge the changes by initialing and dating the change. The guidelines/protocols include physician consultation and referral criteria. A copy of the guidelines/protocols will be accessible at the site of service. In addition, the following reference texts and evidenced based practice web sites may also be utilized for the management of patient care:

Eskind Biomedical Library at Vanderbilt University Medical Center
www.pubmedcentral.nih.gov
www.webmd.com
www.mdconsult.com
www.micromedex.com
www.uptodate.com

Reference Text Books:

- **Critical Care: Concepts, Role, and Practice for the ACNP** (Wyckoff, Houghton, & LePage)
- **Practice Guidelines for Acute Care Nurse Practitioners** (Barkley)
- **The ICU Book** (Marino)

The supervising physician or designee and/or the collaborating physician(s) will be available for consultation at all times. The nurse practitioner is responsible for maintaining documentation of physician consultation. In the event the supervising physician is not available, he/she will prearrange coverage for consultative responsibilities and communicate the plan with the nurse practitioner.

Once every thirty (30) days, the supervising or collaborating physicians will make a personal review of the historical, physical and therapeutic data on a minimum of 20% of the charts monitored or written by the ACNP and shall so certify by signature.

The APP and supervising and collaborating physicians will comply with all the applicable requirements for prescriptive privileges and supervising physician requirements as found in Rule 0880-06 of the Tennessee Board of Medical Examiners and Rule 1004-.09 of the Board of Nursing.

______________________________ ______________
Supervising Physician Date

______________________________ ______________
Advanced Practice Provider Date