PERFORMANCE IMPROVEMENT

Vanderbilt University Medical Center
SICU Performance Improvement/ Patient Safety

Purpose:
Provide a systematic and ongoing process for monitoring and evaluating the delivery of care to the critically ill patient, and to implement improvements to that process.

Objectives:
1. Establish, implement, and adhere to clinical practice guidelines relevant to the critical care setting.
2. Provide a planned, systematic and ongoing mechanism for monitoring and evaluating the quality of care based on current practice guidelines.
3. Provide a mechanism for the implementation of corrective action, follow-up and re-evaluation of identified events.
4. Provide for the integration of the SICU PI process with the hospital wide performance improvement process.

Definitions:
1. Multidisciplinary Surgical Critical Care Committee (MDSCC)
2. SICU Performance Improvement MD (PIMD)
3. SICU Acute Care Nurse Practrioners (ACNP)
4. SICU ACNP Liaison (PINP)
5. SICU RN Liaison (PIRN)

Scope and Authority:
The SICU performance improvement process falls under the direction of the Multidisciplinary Surgical Critical Care Committee. The PIMD, PINP, and PIRN share responsibility for the execution of the SICU PI process.

Sources:
Data abstraction is a daily process whereby all activities in the SICU are evaluated, abstracted and entered directly into the SICU database. Any part of the SICU care delivery system that does not perform well should be identified in a timely and accurate manner. Timely issue identification is essential in order to achieve this goal several mechanisms will be utilized. These include but are not limited to: SICU morning and afternoon sign out, daily rounds by house staff SICU team and mid level providers (acute care nurse practitioners), charge nurse reports, communication with primary surgical services, concurrent chart review, word of mouth, Veritas reports, and PI email.

ISSUE IDENTIFICATION
SICU morning and afternoon sign out and SICU team rounds serve as the initial venue for the performance improvement process. All new admissions or transfers to the SICU should be discussed during these times. Any systems issues within the past 24 hours are identified and

discussed on SICU team rounds. The SICU PI program should identify all patients admitted or transferred to the SICU. The entire team needs to be aware of all PI audit indicators. While most issues should be identified by the SICU team, some issues may not be identified in this venue. Therefore, the nursing leadership and nursing staff are encouraged to notify the PI program, as well as the SICU team, of any PI issues they have identified. Using the PI Issue Identification Flow Chart, SICU team and/or nursing should report PI issues in a timely fashion. Issues identified will be evaluated by the PIRN who will investigate and validate issues. APPENDIX A: Audit filters. APPENDIX B: PI Issue Identification Flow Chart

LEVELS OF REVIEW
1. Primary review is accomplished by the PIRN. Once an event is validated it is then referred to the appropriate provider for further input, forwarded for secondary review or in some cases closed.
2. Secondary review occurs at the level of the PIMD and/or PINP. If peer review is indicated, the case is forwarded to one of the peer review venues
3. Tertiary review (peer review) occurs at SICU Morbidity & Mortality monthly conference, the Department of General Surgery Morbidity & Mortality monthly conference, SICU PI Committee monthly meeting, or Multidisciplinary Surgical Critical Care Committee. Criteria for determining which cases are brought to these meetings are:
   a. Select deaths
   b. Select complications
   c. System or clinical PI issues
   d. Cases with educational benefit
   e. Focused reviews

If indicated, an event may be elevated to the hospital wide quality program or risk management group, this will be only after discussion with the SMD and PIMD.

Cases are reviewed, factor determinations made and preventability established. Corrective actions can then be developed, implemented and monitored for loop closure.

PREVENTABILITY STATUS
The SICU has adopted the classification system described in the American College of Surgeons, Optimal Care of the Injured Patient: 2006.
Deaths:
1. Mortality without opportunity for improvement
2. Anticipated Mortality with opportunity for improvement
3. Unanticipated mortality with opportunity for improvement
Complications:
1. Non-preventable – an event or complication that is a sequela of a procedure, disease, an illness or an injury for which reasonable and appropriate preventable steps had been taken.
2. Potentially preventable – an event or complication that is a sequela of a procedure, a disease, an illness or an injury that has the potential to be prevented or substantially ameliorated.

3. Preventable – an event or complication that is an expected or unexpected sequela of a procedure, a disease, an illness, or an injury that is likely to have been prevented or substantially ameliorated, had appropriate steps been taken.

Contributing factors:
1. Provider related – an event or complication largely due to provider-related provision of care by a credentialed or non-credentialed provider functioning in a supportive and otherwise well-functioning system.
2. System related – an event or complication not specifically related to a provider or disease, such as, operating room availability, blood availability, and diagnostic test availability; an event or complication whose correction usually goes beyond a single provider or department. System related issues usually involve multiple individuals and/or departments.
3. Mortality related
4. Morbidity related

PROCESS FOR JUDGEMENT/CONSENSUS

SICU Morbidity & Mortality Conference
Purpose: Provide focused education in a peer review setting while reviewing the performance of the SICU.
Membership: SICU Medical Director
SICU Associate Medical Director
SICU Performance Improvement MD (Chair)
SICU RN Liaison (Co-Chair)
SICU NP Liaison
MDSCC Faculty (including ACNPs)
SICU Pharmacist
SICU Procedure Support Nurse
SICU Respiratory Therapy (RT) Liaison
SICU Nursing leadership
Critical Care Fellows (Anesthesia and Surgical Critical Care)
General Surgery house staff rotating on SICU Service
Frequency: Monthly

Minutes are approved by the PIMD and maintained by the PIRN. Issues may be forwarded to the MDSCC or risk management as appropriate.

General Surgery Morbidity and Mortality
Purpose: Provide focused education in a peer review setting while reviewing the performance of the SICU.
Membership: Department of General Surgery Faculty
MDSCC Faculty (including ACNPs)
Critical Care Fellows
General Surgery house staff
Frequency: Monthly

SICU PI Committee Meeting
Purpose: Provide focused review, evaluation and discussion of ongoing SICU PI initiatives and SICU processes.
Membership: SICU Performance Improvement MD (Chair)
              SICU RN Liaison (Co-Chair)
              SICU NP Liaison
              MDSCC Faculty (including ACNPs)
              SICU Nursing leadership
              SICU Nurse Educator
              SICU Pharmacist
              SICU Procedure Support Nurse
              SICU Respiratory Therapy (RT) Liaison
              Critical Care Fellows (Anesthesia and Surgical Critical Care)
Frequency: Monthly

ACTION PLAN
After issues have been investigated, validated, and presented for peer review with factor determination and preventability complete. The PIMD will make action plan recommendations to the SICU Medical Director. Actions taken include the following:
1. Trend for pattern
2. Education and training
3. Guideline and Protocol development
4. Provider counseling
5. Further peer review

LOOP CLOSURE
We will continually need to demonstrate that our PI process is correctly identifying and demonstrate that we move to problem resolution. The PIRN, PINP and PIMD will continually monitor the action plan in place. Our goal is to show that our action plan has had the desired effect of correcting the identified issue.

Appendix A. SICU PI Audit Filters

Neuro:
      Daily SATs
      P/A/D monitoring
CV:

      MI
      Central line complications
      Thrombotic/embolic events (PE, CVA, arterial emboli)
Pulm

      VAP bundle adherence
      Daily SBTs
      Reintubation within 48hrs
      Self-extubation
GI

      New GI bleed or perforation (other than admission dx)
      Aspiration
      Abdominal compartment syndrome
GU

      Adherence to foley protocol
      Inappropriate/lack of foley care
FEN

      Adherence to nutrition protocol
      Adherence to insulin protocol
Heme

      Transfusion issues
      MTP activation
ID

      Nosocomial Infection (VAE, CAUTI, CLABSI, C.diff)
      Delayed starting abx
      Failure to adhere to abx rotation (using an excluded class)
      Inappropriate/Unnecessary abx usage
MSK/Skin
      Pressure ulcer
      Inappropriate mobility barriers
Prophy
      DVT
      Line and/or tube pulls (includes accidental extubation and trach or PEG issues)
Pharm
      Medication errors
      Narcan administration
Other
      All Deaths
      Unanticipated codes
      Bounceback or RRT within 24-48hrs
      Bedside procedural complications (periprocedural or delayed)
      Communication issues (primary team vs ICU team)
      Protocol violations
      Nursing documentation
      Consistent equipment and supplies shortages/needs

Appendix B. SICU PI Flow Diagram

ISSUE IDENTIFICATION

STAFF NURSE | CSL | ACNP | HOUSESTAFF | FELLOWS | FACULTY

PI COMMITTEE INVESTIGATES AND VALIDATES → NO PROCESS OR QUALITY ISSUE → NO FURTHER ACTION

INITIAL REVIEW

DEATH OR COMPLICATION | PROCESS ISSUE

PEER REVIEW AND CONSENSUS JUDGEMENT

SICU M&M | GENERAL SURGERY DEPARTMENTAL M&M | RISK MANAGEMENT | PI COMMITTEE MEETING | MDSCC MEETING

PIRN, PIMD, AND PINP FORMULATE ACTION PLAN

ACTION PLAN

TRENDING | EDUCATION & TRAINING | GUIDELINE & PROTOCOL DEVELOPEMENT | PROVIDER COUNSELING | FURTHER PEER REVIEW

LOOP CLOSURE