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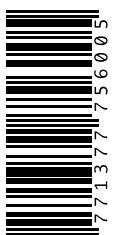
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Katherine L. Nugent

Critical Care Fellow
Departments of Emergency Medicine
and Anesthesiology and Emory Critical
Care Center
Emory University School of Medicine
and Emory Healthcare
Atlanta, GA, USA



Craig M. Coopersmith*

Professor
Department of Surgery and Emory
Critical Care Center
Emory University School of Medicine
and Emory Healthcare
Atlanta, GA, USA

cmcoop3@emory.edu

* corresponding author

How to Run Successful Rounds in the Intensive Care Unit

Rounds in the intensive care unit (ICU) allow for scheduled discussions in which healthcare providers review clinical information and develop care plans for critically ill patients. Despite this straightforward concept, there is widespread variability in numerous components of rounds. While some of these differences are culturally rooted and, as such, unavoidable, unintentional or unnecessary variability in key structures of rounds can lead to significant issues related to patient safety and dissatisfied patients, families and/or members of the multiprofessional ICU team. This article addresses some of the key components to successful ICU rounds with the goal to advance current practice patterns.

What are Core Principles of ICU Rounds?

First and foremost, the focus on rounds must be on the patient. While multiple elements of rounding will have to be tailored to a specific ICU, having the patient at the centre of all that happens on rounds must transcend differences in ICU structure and culture. Equally important, clear communication between team members is a requirement that positively impacts the quality and safety of patient care.

Which Healthcare Professionals Should Be On Rounds?

In 2015, the Society of Critical Care Medicine published practice guidelines focusing on processes of care and ICU structure (Weled et al. 2015). These guidelines strongly emphasise the importance of an intensivist-led multidisciplinary team. While a physician skilled in intensive care is a key component for successful rounds, we believe that a physician's presence, while critical, is insufficient. Although not every ICU will have all team members listed below, the more professionals with diverse and complementary skill sets, the more effective rounds will be.

Depending on the size of an ICU and patient acuity, an intensivist may spend 5-10 percent of their day (or less) with each individual patient. In contrast, based upon local staffing practices, the bedside nurse spends anywhere between 33-100 percent of their time with each patient. It therefore follows that the bedside nurse has a much better second to second knowledge of the patient's medical condition than the physician, and, as such, can often offer valuable insight that might be otherwise missed in developing the daily care plan. Furthermore, nurses also frequently have an in-depth knowledge of the humanistic concerns of patients and their families due to both increased contact time as well as a specific emphasis on this throughout their training. Adding this perspective to rounds brings an additional dimension that may otherwise be lacking. Finally, the bedside nurse is charged with directly carrying out many elements of the daily plan discussed on rounds, and direct communication is crucial towards its successful completion.

Critical care pharmacists assist clinicians with pharmacotherapy decision-making and dosing. They also play a crucial role in reduc-

ing medication errors and improving medication safety by identifying drug-drug interactions and assuring appropriate initiation and discontinuation of medications. Notably, a landmark study prospectively evaluated the impact of pharmacist participation during patient care rounds in a medical ICU on the rate of preventable adverse drug events, and found that the presence of a pharmacist on rounds was associated with a significant reduction in the total number of preventable adverse drug events (Leape et al. 1999). Studies have also shown improvements in infection control management, anticoagulation therapy, and sedation/analgesia utilisation in ICUs with critical care pharmacists (Preslaki et al. 2013).

Advanced practice practitioners (nurse practitioners and physician assistants) are increasingly being utilised in ICUs worldwide. These highly skilled practitioners have a diverse skill set and often function as the first-line bedside provider for patients, performing histories/physicals, developing differential diagnoses, constructing daily care plans, prescribing medications and performing procedures. Whereas physicians frequently

rotate to other responsibilities in the hospital and do not work full-time in the ICU in many parts of the world, advanced practice practitioners typically work full-time only in a single ICU and thus provide continuity that would otherwise be missing. Notably, outcomes in ICUs with advanced practice practitioners are at least equivalent to that provided by resident physicians (Kleinpell et al. 2008).

A large percentage of patients in the ICU require either invasive or noninvasive mechanical ventilation. In ICUs with dedicated respiratory care practitioners, they play a partnership role in determining the optimal way to ventilate a patient as well as physically manipulating ventilators. In addition, many ICUs have dedicated nutrition teams. In light of the multiple complex ways to feed patients enterally and parenterally, dietitians and others with specialised nutrition expertise play a vital role on rounds. Religious beliefs and the role those beliefs play vary widely between cultures; however, chaplains with specialised training to engage and support patients and their families in these often forgotten domains can have a significant impact on a wider view of patient care. Finally, every patient admitted to the ICU will eventually leave the ICU. Post-ICU options vary widely in the terms of locations to which a patient can go. For instance, in the United States, patients may be discharged to the hospital wards, long-term acute care facilities, nursing homes, skilled nursing rehabilitation, hospice, or (rarely) home. Navigating this complex array of potential locations, which is also dependent upon both availability and payer status, is an important portion of rounds in order to help the patient who no longer needs ICU services and the future patients who need an ICU bed in order to receive lifesaving critical care services. Social workers play a crucial role in planning and managing patient flow to optimise the location for patients following ICU discharge.

Should the Patient's Family Be On Rounds?

Although the primary focus of rounds should be on the critically ill patient, patients are rarely going through their ICU experience by themselves. Typically, their family is unpre-

pared for the stress brought on by the acuity and complexity of an ICU admission. Exacerbating this stress is a general lack of understanding of what is happening to their loved ones.

Family participation on rounds represents an opportunity to improve collaboration and to engage in shared decision making with the ICU team. The American College of Critical Care Medicine's guidelines describing evidence-based best practices for patient- and family-centred care in the ICU recommend family participation in rounds as a way to improve bidirectional communication (Davidson et al. 2007). Family participation in rounds has multiple potential advantages. First, they allow family members to hear the daily plan of care. Understanding concrete daily goals can help make an ICU experience seem less overwhelming. Next, it allows transparency in care so families do not feel the medical team is hiding something from them (which unfortunately occurs frequently). It also allows for rapid communication of patients' wishes and concerns for patients unable to verbalise these to the rounding team. Finally, the family typically knows the patient's pre-morbid condition more accurately than the rounding team.

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They also frequently know critical components of both the pre-ICU medical history and moment-to-moment experience in the ICU that would otherwise not be elucidated, which can in turn improve patient care and experience. While critics cite prolongation of rounds, reduced medical education opportunities, and avoidance of difficult clinical discussions as negative consequences when families join multidisciplinary rounds, the preponderance of the evidence supports families joining rounds. It is important to understand that this is not “one size

fits all” and that some families prefer not to join rounds or to do so in a more limited fashion. It is important to note that we understand there is tremendous international variability related to the concept of families joining on rounds and several large countries have not instituted this concept, even on a pilot level. While we are respectful of these differences and the challenges associated with behaviour change, we respectfully submit that engaging the family interested in joining the rounding team in a culturally appropriate and respectful manner has numerous benefits that outweigh the associated challenges.

What is the Role for Standardised Rounding Structure?

In the practice of critical care, standardised protocols including evidence-based care bundles and order sets have led to improvements in a number of clinical endpoints. Standardisation of ICU rounding structure should be no different, and health-care provider satisfaction has been shown to improve after implementation of a standardised rounding process and communication system (Lane et al. 2013). While there is no single optimal structure, standardisation of what time rounds start (should be the same 7 days a week) and location improves rounding effectiveness by facilitating greater participation among team members and improving team member attendance. Rounds should emphasise a systematic approach not only to patient data presentation but also to formation and documentation of treatment plans, timing of team member input, allowance for questions and clarifications, and summary of overall goals of care for the day.

What Makes a High-Functioning Team?

In addition to the construction of a multidisciplinary ICU team that has a standardised approach, there are several other factors needed to ensure such a team is highly functional and able to deliver the highest quality of patient care. Explicitly defining the role of each healthcare provider on the ICU team has been shown to increase patient-centredness and facilitate more effective discussions on rounds. Access to patient data for all health-

care providers and documentation of patient care goals are two key components reported by bedside providers to contribute to successful rounds (Lane et al. 2013). By definition, each member of the multidisciplinary team will have a different background and skill set, but it is imperative that all members support each other and treat each other with respect. Mutual respect optimises the clinical environment allowing for improved communication, collaboration, and teamwork. For instance, a study examining nurses' perspective on interprofessional communication in an ICU suggested that destruction of the hierarchical structure and power imbalance imposed on nurses by physicians creates more constructive clinical decision-making and improves information flow and communication between healthcare providers (Knoll et al. 2008). Anecdotally, this is why both of the authors of this article request that all members of the ICU team call them by their first name, regardless of their specialty. Empowering team members increases contributions during rounds and promotes a team-oriented approach to critical care management.

How Should Communication and Information Transfer Be Optimised?

Effective communication is vital to the successful care of critically ill patients. Communication failures are an important source of medical error, whereas conversely effective communication decreases medical errors and improves patient outcomes. This is especially important in the ICU where patients undergo numerous tests and treat-

ments daily and have limited physiological reserve to tolerate even the smallest setback.

There is a strong association between provider understanding of the daily treatment plan and goals of care with provider satisfaction, perception of quality communication, adherence to practice guidelines and improved patient outcomes. By implementing a standardised rounding process, including documentation of patient daily goals at bedside or utilisation of daily goals checklists, barriers to communication are reduced and providers perceive a higher quality of communication between team members (Justice et al. 2016). All providers should be encouraged to speak clearly and audibly so all members of the care team can hear and have an opportunity to ask questions to clarify any points of confusion and practise closed-loop communication. Flow of information is critical, and just because something is said does not ensure it is understood. This is why a reiteration of the daily plan in some form (order readback from the person entering daily orders, reiterating the daily plan by either the team leader or those responsible for carrying out the plan) is critical to ensure that the plan has not only been heard by the team but also has been clearly communicated. Further, a "to do" list developed on rounds helps minimise lost information.

Other potential sources contributing to problematic or ineffective communication include interruptions during information transfer and rounds, lack of clear responsibilities and expectations for each team member, and insufficient understanding of

patient care goals and daily treatment plans by all team members. Assigning roles to all team members involved in rounds allows for the ability to focus on one's specific responsibilities and remain engaged in discussion.

How Should Learners Be Integrated Into Rounds?

In academic medical centres in particular, ICU teams often consist of trainees from multiple specialties with different levels of training and exposure to critical care pathology. Learners may require some degree of individualised teaching and instruction, which can be difficult given the acuity of the ICU and the time constraints of other members of the team. While there is no single optimal approach to teaching, it is important to provide an interactive commitment to education focusing on maximising the engagement of all participants. Avoiding a condescending attitude towards trainees (and all team members) is crucial. While engaging trainees and simultaneously efficiently running patient-centred rounds can be challenging, the payoff for both trainer and learner can be enormous.

Conclusion

Although the concept of rounding in the ICU sounds simple, effective rounding requires considerable effort in numerous overlapping domains. Optimally, ICU rounds should be efficient, professional, interactive and educational. Finally, despite the very serious nature of our clinical environment, it is a tremendous privilege to work in the ICU, and rounds should be enjoyable—and even fun—if at all possible. ■

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