



CREATING COLLABORATIVE WORKPLACES IN INTENSIVE CARE

A wide variety of healthcare professionals are involved in the management of the critically ill patient. The nature and complexity of these patients requires an integrated and collaborative approach between all those involved in a patient's care.

There are principally two sorts of integrated care required of ICU patients¹. Michaelson et al refer to interdisciplinary care, constituted by the Intensive Care staff, and other treating medical and surgical teams. They also refer to the ICU interprofessional team, constituted by medical, nursing and allied health staff. This article will look at the challenges of interprofessional care in the ICU.

The Australian & New Zealand Intensive Care Foundation have outlined that doctors, nurses, physiotherapists, speech therapists, dieticians, pharmacists and social workers, may all be involved in the management of ICU patients, and as such will be referred to as the Interprofessional Team. The challenge of this group is to work together to facilitate the care for patients and their families².

Intensive Care is a relatively new specialty, having been established following the polio epidemic in the 1950's and the specialty has changed drastically since its conception. Halpern et al published a review of US ICU beds over the period 2000 to 2005, there was a seven percent increase in the number of ICU beds, but an overall decrease in hospital beds of 4 percent. This combined with an aging, and increasingly complex patient group means the need for changing patient care is imperative³.

Historically, the care of patients was directed by doctors, and facilitated by nursing and allied health staff. Keddy et al, state "The role of the nurse in the early days was not described in terms of patient care, but in terms of proficiency with which she carried out the physician's orders. Good nursing care was often equated with the efficient fulfillment of doctors' orders"⁴. By the time intensive care was developing, many of the changes related to doctor/nurse relationships had begun. This was probably as a result of World War Two, where nurses were required to have increased autonomy.

Knolle et al suggest that 'destruction of the hierarchical structure and power balance imposed on nurses by physicians, creates more constructive clinical decision-making and improves information flow and communication between healthcare providers'⁵. There are still concerns that elements of the doctor /nurse relation persist, Maier et al concluded that 'The dominance of the medical team directed the ways in which other health professionals acted' and require further evolution⁶.

The primary goal of healthcare providers within a hospital setting is to deliver standardised, evidence-based care, and achieve maximum patient safety. This challenge has proven particularly difficult within intensive care. Our environment has the testing combination of severely ill, complex patients often with a poor prognosis, large staff numbers and shift work. However, through the implementation of interprofessional rounds and by using a collaborative team-based approach, patient outcomes can be optimised.

How the interprofessional team functions in a modern ICU is hard to discern from the literature. Michalsen et al did a systematic review, and only found four papers that assessed the effect

of interprofessional shared decision-making¹. The expert panel which reviewed these papers made five recommendations.¹

1. Interprofessional shared decision-making is a collaborative process among clinicians that allows for shared decisions regarding important treatment questions.
2. Clinicians should consider engaging in interprofessional shared decision-making to promote the most appropriate and balanced decisions.
3. Clinicians and hospitals should implement strategies to foster an ICU climate oriented toward interprofessional shared decision making.
4. Clinicians implementing interprofessional shared decision-making should consider incorporating a structured approach.
5. Further studies are needed to evaluate and improve the quality of interprofessional shared decision making in ICU's.

There is no doubt that collaborative care using interprofessional teams in ICU is necessary for the best care of families and patients. The bigger task is identifying areas of weakness and developing a plan of how to optimise our workplaces. There are obviously things happening in units all over the country to facilitate this. There are several opportunities to formalise interprofessional management of patients, the two most obvious activities are ICU ward rounds and interprofessional meetings⁷.

The ward round conducted twice a day in almost all units presents the best opportunity to improve collaborative care. The CICM (ANZ) 2016 policy on Minimum Standards for Intensive Care Units states that an intensivist "must see all patients under his/her care with junior staff at least twice daily and set a management plan, in the form of a structured bedside ward round plan"⁸. Patient length of stay is consistently demonstrated to decrease when an interprofessional team approach is used for rounding^{9,10}.

Whilst an interprofessional team should consist of all those noted above, the presence of a pharmacist on the ward round has shown to reduce medication errors by up to 66% via identifying correct dosing and duration, proper monitoring of drugs, and any possible medication associated interactions¹¹.

Other markers for morbidity, including weaning days, total days of mechanical ventilation, and prevention of complications such as stress ulcers, deep vein thrombosis, falls, skin breakdown, infection, and readmissions, also show significant improvement with the interprofessional approach. Interprofessional rounds are also associated with increased staff satisfaction and facilitates greater understanding of patient care, more effective communication, and a better sense of teamwork than providers of traditional rounds.

Specifically, infection control management, anticoagulation therapy, and sedation/analgesia utilization in ICUs are improved significantly when a pharmacist is directly involved in the interprofessional rounding¹.

Rose et al described several barriers to successful interprofessional collaboration including, power dynamics, poor communication, differences in priorities of patient care and lack of defined roles and responsibilities¹². Further to this, six key catalysts that influence the balance between collaboration and conflict were identified by Hawryluck and colleagues¹³. These six catalysts were authority, education, patient needs, knowledge, resources and time.

Authority was viewed as a positive influencer, but only if the team leader was endorsed by the interprofessional team¹³. Education was able to enhance shared team goals but can become

a source of conflict if time does not permit attention to it. Diversion in perceived understanding of patient needs can lead to disagreement on how best to manage patients. The laying claim to, denying responsibility for or lack knowledge can hinder collaboration, reinforcing the importance of shared education and team goals. Resources and time are at time scarcities within an ICU and when linked with differing views on patient needs can significantly curtail collaborative efforts.

These and other factors can be combined to result in a list of practical obstacles that need to be addressed to facilitate the running of truly collaborative interprofessional Intensive Care ward rounds.

1. **Allowing sufficient time** for all patients to be evaluated, all staff present to contribute and education to be undertaken.
2. **Increasing insight** from team members as to the capabilities, and potential contributions of other members will ultimately lead to knowledge transmission
3. **Acceptance of change.** The need to listen and allow for all to contribute can be time consuming, and the temptation to just continue, requires tolerance, and even cultural change. This can be facilitated, by using a structured approach, and checklists¹⁴.
4. **Minimising interruptions** from external sources to concentrate on patient care
5. **Participant availability.** Team members may not be available to participate in ward rounds. Whilst many units will have pharmacists available to participate, other specialties particularly social work, and speech therapy resources often do not have enough staffing
6. **Follow up.** Plans made on the round need to be followed up, particularly if they relate to personnel who are not on the round.
7. **Fostering collaborative leadership.** To allow all team members to contribute regardless of seniority or behaviour of team leadership.

Whilst the institution of well-structured ward rounds will contribute to collaborative care of patients, some of the above limitations may be overcome using alternate means. Meetings should be considered to fill in some of the issues that are necessary for good patient care.

Whilst meetings are held anecdotally in many units, they are often not well structured, and do not provide the required output to facilitate good care. Van den Bulcke et al, introduced an intervention involving structured weekly meetings and in-depth case discussion and participants reported significant improvement in “organizational factors” and “care processes”¹⁵.

To design how to run efficient and effective meetings, it is helpful to learn lessons from the business and management literature, not the medical literature. Neal Hartman from the Sloan School of Management suggests seven steps that are imperative to good meetings¹⁶.

1. **Make your objective clear.** Prior to a meeting there should be a defined purpose and outcome. Generic invites to a ‘status update’ are unlikely to be a useful use of time for busy staff. A meeting must have a specific and defined purpose.
2. **Consider who is invited.** Make sure all meeting invitees need to be there. When people feel that what is being discussed is not relevant to them or that they lack the skill or expertise to be of assistance, they will view their attendance at the meeting a

waste of their time. Similarly, not inviting relevant people and making decisions in their absence is not conducive to collaborative management.

3. **Stick to the schedule.** Create an agenda, with timelines and stick to it.
4. **Take no hostages.** Establishing ground rules early on will create a framework for how your group functions. Nothing derails a meeting faster than one person talking more than their fair share. If you notice one person monopolising the conversation, call them out.
5. **Start on time, end on time.** People appreciate it when meetings start and run to time. Sixty minutes is probably the longest anyone can function.
6. **Minimise personal technology.** A tricky area, but if you want people to really concentrate on the items on the agenda they need to concentrate and leave their phones alone.
7. **Follow up.** It is quite common for people to come away from the same meeting with quite different interpretations of what occurred. To reduce this risk, email a summary, highlighting what was accomplished to all who attended within 24 hours. Document the responsibilities given, tasks delegated and any assigned deadlines. That way, everyone will be on the same page.

Meetings truly can be valuable and productive; you just have to take the steps to make them that way.

In summary, although interprofessional and collaborative care of patients works in most units, there are several ways this could be improved. The acknowledgement and recognition of the value of all members of the team is key to the conduct of effective and efficient interprofessional ward rounds. The team way we manage patients in ICU has changed for the better, but we need to continually challenge ourselves to optimise the care we give.

References:

1. Michalsen A, Long AC, DeKeyser Ganz F, et al. Interprofessional Shared Decision-Making in the ICU: A Systematic Review and Recommendations From an Expert Panel*. *Crit Care Med*. 2019;47(9):1258-1266. doi:10.1097/CCM.0000000000003870
2. Nathanson BH, Henneman EA, Blonaisz ER, Doubleday ND, Lusardi P, Jodka PG. How much teamwork exists between nurses and junior doctors in the intensive care unit? *J Adv Nurs*. 2011;67(8):1817-1823. doi:10.1111/j.1365-2648.2011.05616.x
3. Vincent J-L. Critical care--where have we been and where are we going? *Crit Care Lond Engl*. 2013;17 Suppl 1:S2. doi:10.1186/cc11500
4. Keddy B, Gillis MJ, Jacobs P, Burton H, Rogers M. The doctor-nurse relationship: an historical perspective. *J Adv Nurs*. 1986;11(6):745-753. doi:10.1111/j.1365-2648.1986.tb03393.x
5. Knolle ER. [The role of the nursing service in the pastoral care in psychiatric hospitals]. *Krankenpfl Frankf Am Main Ger*. 1977;31(7-8):249-250.
6. Maier CB, Köppen J, Busse R, MUNROS team. Task shifting between physicians and nurses in acute care hospitals: cross-sectional study in nine countries. *Hum Resour Health*. 2018;16(1):24. doi:10.1186/s12960-018-0285-9
7. Curtis JR, Cook DJ, Wall RJ, et al. Intensive care unit quality improvement: a "how-to" guide for the interdisciplinary team. *Crit Care Med*. 2006;34(1):211-218. doi:10.1097/01.ccm.0000190617.76104.ac
8. Minimum Standards for Intensive Care Units. Published online 2016. https://www.cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Professional%20Documents/IC-1-Minimum-Standards-for-Intensive-Care-Units_2.pdf
9. O'Mahony S, Mazur E, Charney P, Wang Y, Fine J. Use of multidisciplinary rounds to simultaneously improve quality outcomes, enhance resident education, and shorten length of

- stay. *J Gen Intern Med*. 2007;22(8):1073-1079. doi:10.1007/s11606-007-0225-1
10. Preslaski CR, Lat I, MacLaren R, Poston J. Pharmacist Contributions as Members of the Multidisciplinary ICU Team. *Chest*. 2013;144(5):1687-1695. doi:10.1378/chest.12-1615
 11. Leape LL. Pharmacist Participation on Physician Rounds and Adverse Drug Events in the Intensive Care Unit. *JAMA*. 1999;282(3):267. doi:10.1001/jama.282.3.267
 12. Rose L. Interprofessional collaboration in the ICU: how to define? *Nurs Crit Care*. 2011;16(1):5-10. doi:10.1111/j.1478-5153.2010.00398.x
 13. Hawryluck LA, Espin SL, Garwood KC, Evans CA, Lingard LA. Pulling together and pushing apart: tides of tension in the ICU team. *Acad Med J Assoc Am Med Coll*. 2002;77(10 Suppl):S73-76. doi:10.1097/00001888-200210001-00024
 14. Lane D, Ferri M, Lemaire J, McLaughlin K, Stelfox HT. A systematic review of evidence-informed practices for patient care rounds in the ICU*. *Crit Care Med*. 2013;41(8):2015-2029. doi:10.1097/CCM.0b013e31828a435f
 15. Van den Bulcke B, Vyt A, Vanheule S, Hoste E, Decruyenaere J, Benoit D. The perceived quality of interprofessional teamwork in an intensive care unit: A single centre intervention study. *J Interprof Care*. 2016;30(3):301-308. doi:10.3109/13561820.2016.1146876
 16. Hartman N. Seven Steps to Running the Most Effective Meeting Possible. Accessed September 6, 2020. <https://www.forbes.com/sites/forbesleadershipforum/2014/02/05/seven-steps-to-running-the-most-effective-meeting-possible/#252335297a61>