Getting Started Kit:
Multidisciplinary Rounds

How-to Guide

Developed by the Institute for Healthcare Improvement (IHI), the Improvement Map is an online tool, available free of charge, that distills the best knowledge available on the key process improvements that lead to exceptional patient care. Use this tool to create your overall improvement plan, set and align priorities, and then dive deeply into the knowledge base in areas in which you've chosen to focus. In addition, IHI offers the Passport membership program and Expeditions for organizations that want additional support to effectively implement the Improvement Map process improvements. Learn more at www.IHI.org.

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INSTITUTE FOR HEALTHCARE IMPROVEMENT

Multidisciplinary rounds, a model of care in which multiple members of the care team come together to discuss the care of a patient in real time, have proven to be a valuable tool in improving the quality, safety, and patient experience of care. Many hospitals have demonstrated reduced patient days, reduced central line days, and increased coordination of care through the use of multidisciplinary rounds. Successful organizations, often starting in the intensive care and critical care units, conduct multidisciplinary rounds with multiple members of the care team (physicians, nurses, and ancillary clinicians and staff) seven days a week, developing daily goals for every patient. Additionally, some hospitals have successfully invited families into their regular rounding process and have implemented multidisciplinary rounds on non-critical care units.

What Are Multidisciplinary Rounds?

Multidisciplinary rounds are a patient-centered model of care, emphasizing safety and efficiency, that enable all members of the team caring for patients to offer individual expertise and contribute to patient care in a concerted fashion.

> Burger C. Multi-disciplinary rounds: A method to improve the quality and safety of critically ill patients. *Northeast Florida Medicine*. 2007;58(3):16-19.

With multidisciplinary rounds, disciplines come together, informed by their clinical expertise, to coordinate patient care, determine care priorities, establish daily goals, and plan for potential transfer or discharge.

> Spuhler V. Presentation for IHI Expedition: Using Multidisciplinary Rounds to Ensure the Right Care for Every Patient. September 17, 2009.

Many hospitals have reported improved communication and collaboration among the care team, more reliable adherence to process measures, and better patient outcomes through the use of multidisciplinary rounds. Although the affects of multidisciplinary rounds has not been heavily researched, formal peer-reviewed studies have found similar results. In one study, researchers at St. Luke's Hospital found that the adoption of multidisciplinary rounds in the medical intensive care unit resulted in improved process and outcome measures. For example, the use of multidisciplinary rounds has

resulted in improved compliance with the IHI Ventilator Bundle protocol and a significant decrease in ventilator-associated pneumonia.

> Burger CD. Multi-disciplinary rounds: A method to improve quality and safety of critically ill patients. *Northeast Florida Medicine*. 2007;58(3):16-19.

In another study, researchers studied the impact of a three-part intervention that included daily multidisciplinary rounds. Here, the intervention resulted in a positive affect on the communication and collaboration amongst physicians and nurses.

> Vazirani S, Hays RD, Shapiro MF, Cowan M. Effect of a multidisciplinary intervention on communication and collaboration among physicians and nurses. *American Journal of Critical Care*. 2005 Jan;14(1):71-77.

The importance of including pharmacists in daily rounds has also been researched. Including a pharmacist on the ICU rounding team to make recommendations of dosage or frequency adjustments was found to significantly reduce adverse events.

> Kucukarslan SN, Peters M, Mlynarek M, Nafziger DA. Pharmacists on rounding teams reduce preventable adverse drug events in hospital general medicine units. *Archives of Internal Medicine*. 2003;163:2014-2018.

A study in the *Archives of Internal Medicine* reports that multidisciplinary care teams appear to be associated with a lower risk of death among patients in the intensive care unit. According to the authors, “Multidisciplinary rounds may facilitate implementation of best clinical practices such as evidence-based treatments for acute lung injury, sepsis and prevention of ICU complications. Pharmacist participation on rounds is associated with fewer adverse drug events and alone may be associated with lower mortality among ICU patients. Multidisciplinary rounds may also improve communication between health care providers.”

> Kim MM, Barnato AE, Angus DC, Fleisher LF, Kahn JM. The effect of multidisciplinary care teams on intensive care unit mortality. *Archives of Internal Medicine*. 2010 Feb;170(4):369-376.

Why Is It Important to Conduct Multidisciplinary Rounds?

In its 2001 report, *Crossing the Quality Chasm: A New Health System for the 21st Century,* the Institute of Medicine identifies continuity of care as one of the key areas of

concern in patient care delivery. Too frequently, decisions related to the care of a patient occur without input from the key providers, including nursing, pharmacy, social work, respiratory therapy, nutrition, physicians, physical therapy and occupational therapy. As a result, communication breakdowns occur, resulting in fragmented and poor quality care.

> Committee on Quality of Health Care in America, Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*, Washington, DC: National Academies Press; 2001:39-60.

- Effective multidisciplinary rounds can be a powerful vehicle for:
    - Coordinating care among disciplines
    - Reviewing current patient status
    - Clarifying goals and desired outcomes
    - Creating a comprehensive plan of care

- Multidisciplinary rounds provide a formal mechanism for daily communication
    - Identification of safety risks
    - Identification of daily goals

- Multidisciplinary rounds facilitate protocol or guideline use and understanding
    - Consistent approach
    - Education and teaching

- Multidisciplinary rounds provide consistency for process improvement

Key Components of Reliable Multidisciplinary Rounds

Many hospitals across the country have successfully implemented multidisciplinary rounds. There are a variety of rounding models, including teaching rounds, safety rounds, and rounds that focus on the patient's discharge from the hospital. IHI uses the term "multidisciplinary rounds" to mean any type of rounding that enables key members of the team caring for the patient to come together and offer expertise in patient care.

An ideal model for multidisciplinary rounds includes the following:

- Occurs every day
- Includes all key disciplines for the specific patient population
- Has a designated team member as lead for the rounds
- Utilizes an individualized daily goal sheet
- Addresses one or two key patient safety concerns for each patient
- Identifies potential discharge or transfer dates, verbalizing barriers and goals for transition
- Includes the participation of patient and families
- Occurs in a variety of settings with high-risk patients

Potential Impact

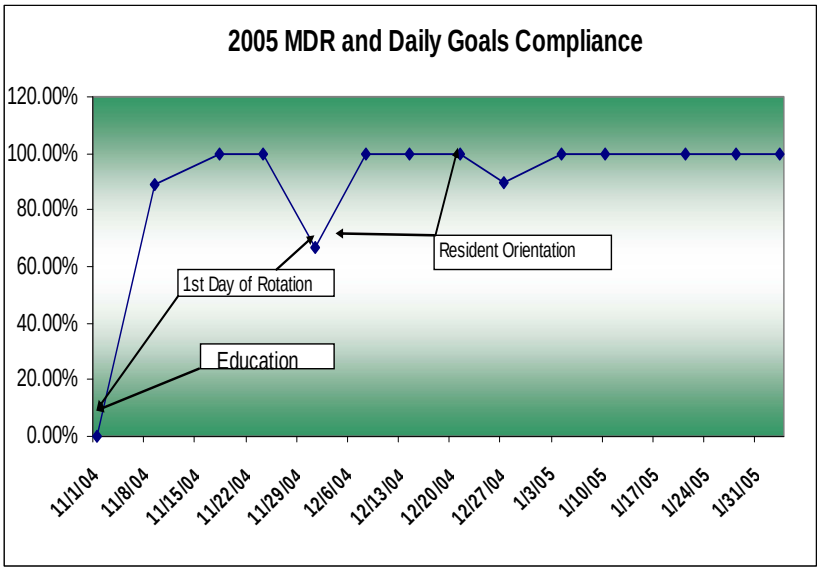
Although the literature on the effectiveness of multidisciplinary rounds is still fairly small, many hospitals have demonstrated an impact on the following outcomes:

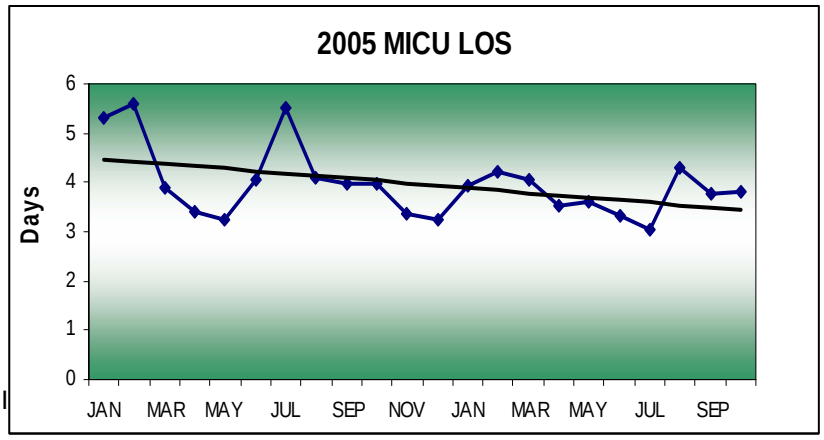
- Improved communication and teamwork across caregivers, which has been shown to be an important contributing factor to high levels of safety and reliability of care
- Reduced errors
- Reduced ventilator days
- Reduced central line days
- Reduced length of stay
- Improved flow of patients through levels of care
- Expedited discharge planning
- Increased collaboration and satisfaction among all members of the multidisciplinary team

Examples of Success

IHI has worked with a number of hospitals, achieving significant improvement in applying evidence-based care and in patient outcomes through the use of multidisciplinary rounds.

Hackensack University Medical Center, a 775-bed teaching medical center in New Jersey, has utilized multidisciplinary rounds (MDR) hospital-wide as the foundation for all their quality improvement efforts. The rounding process fosters improved communication and collaboration among team members, creating a forum for improvement in all areas of care and increasing the reliability and safety of care. Multidisciplinary rounds were first piloted in the Medical Intensive Care Unit (MICU) by a physician-led team, including nursing, performance improvement, respiratory therapy, pharmacy, nurse education, and nurse management. The Chief Quality Officer oversees all of their work in multidisciplinary rounds. Hackensack was able to test and develop a daily rounding process that includes all key disciplines. The improvement team holds weekly meetings for feedback on how to continually improve the process and has developed and tested a daily goal sheet to keep the care team focused. Since the start of this work, Hackensack has seen improvements in compliance with setting daily goals and a decrease in length of stay (LOS) in some units.



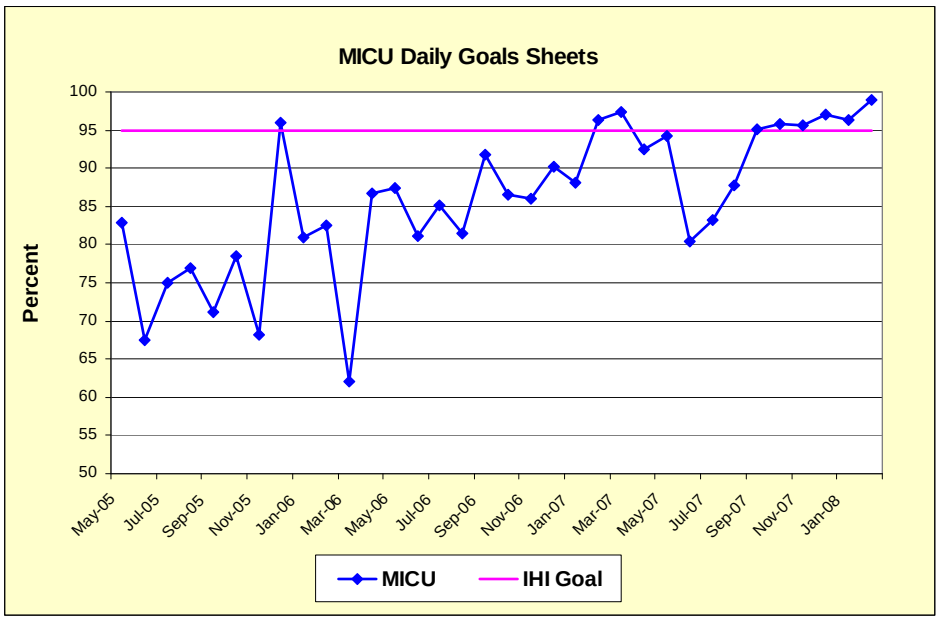


Hackensack also developed a model for rounding in specialized medical units. Using the patient's care plan and a checklist of quality indicators as a guide, the team reviews the diagnosis, discusses any pending issues such as new symptoms or further testing needed, checks on documentation, and reviews discharge plans.

Hackensack asked participating physicians on five different units to use a point scale to evaluate multidisciplinary rounds in three specific categories: membership (attendance and participation/effectiveness within the team); process (use of rounding tools, communication, issue resolution, resiliency); and barriers (role definition and knowledge deficit). Out of a possible 26 points, physicians rated the experience a "17" on average across all five units, with a range of 9 to 24. Not surprisingly, the more patients the group saw together, the higher the scores.

> IHI Improvement Story. "Pursuing Perfection: Report from Hackensack University Medical Center on Multidisciplinary Rounds." Available at: http://www.ihi.org/IHI/Topics/Flow/PatientFlow/ImprovementStories/PursuingPerfectionReportfromHackensackUniversityMedicalCenteronMultidisciplinaryRounds.htm.

University of Utah Health Care, a 457-bed public teaching hospital in Salt Lake City, has also successfully implemented a multidisciplinary rounding process in their MICU. Multidisciplinary rounds were first tested in 2005 through their participation in the IHI Critical Care Learning and Innovation Community. The rounds were multidisciplinary, patient focused, and included patient and family involvement. Success factors included identifying a physician champion for rounds and focusing on how the rounding process helps the patient. Completion of the daily goal sheet was the primary process measure, in addition to monitoring the outcomes of patients. Patient and family involvement is the current focus of the care team; they continue to test new strategies to improve the rounds, such as developing scripts to ensure that key questions or concerns are addressed. The team has found over the course of time that transitioning from close-ended questions like "Does this central line still need to be in?" to open-ended questions like "Why does this patient need a central line?" has allowed for richer and more productive work during rounds.



Forming the Multidisciplinary Rounds Team

Teams offer the value of bringing together diverse personnel, all with a stake in the outcome and working to achieve the same goal. All stakeholders in the process must be included, to gain the buy-in and cooperation of all parties.

A core team of no more than five to seven people should oversee the work of the facility with multidisciplinary rounds. This team can assist with the spread and adaptation of multidisciplinary rounds on different units, as well as provide support. This team may include the following:

- Senior leadership (Chief Quality Officer or Medical Director)
- Day-to-day leadership (Charge Nurse or Nurse Manager)
- Physician
- Performance Improvement Specialist
- 1 to 2 representatives from key disciplines (respiratory therapy, pharmacy, etc.)
- A patient or family member

The team needs encouragement and commitment from senior leadership; including an administrative representative on the team is a powerful way to keep the team focused and to remove barriers. Identifying a champion increases a team's motivation to

succeed. When measures are not improving, the champion readdresses the problems with staff and helps to keep the team on track toward the aims and goals.

In addition to the core team, develop small teams on each unit to facilitate the testing and implementing of changes. This team is committed to small tests of change and may include those individuals who actually do the testing. This small group has a “home town” commitment to the implementation of multidisciplinary rounds on the unit. This unit-based team will need to include:

- Day-to-day leadership (Charge Nurse or Nurse Manager)
- 1 to 2 bedside nurses
- Representatives from key disciplines that provide care for the majority of the patients within the unit

Setting Aims

Improvement requires setting aims. An organization will not improve without a clear and firm intention to do so. The aim should be time-specific and measurable; it should also define the specific population of patients that will be affected. Agreeing on the aim is crucial; so is allocation of people and resources necessary to accomplish the aim.

Units will want to develop a specific aim statement in pursuit of the goal to develop multidisciplinary rounds. This aim statement should identify tasks to be completed within a set timeframe. The following are sample aim statements:

- The MICU will conduct daily multidisciplinary rounds and document daily goals on each patient with at least four disciplines by December 2010.
- By June 2010, 4 South will conduct daily multidisciplinary rounds and document transition goals for each patient that is 3 or more days post-op.

Teams are more successful when they have unambiguous, focused aims. Setting numerical goals clarifies the aim, helps to create tension for change, directs measurement, and focuses initial changes. Once the aim has been set, the team needs to be careful not to back away from it deliberately or "drift" away from it unconsciously.

Developing Daily Goals

Many hospitals have found an effective partnership in using the structure of multidisciplinary rounds to pause and set a daily goal or goals for each patient. Setting individual patients' goals helps focus the efforts of the care team and prioritizes the work for that day. Ideally, patients and their families are present and participate in setting these goals to maximize their alignment with the patient's wishes. Each patient is on a path to move beyond the current care setting, whether through transfer to a more or less intensive level of care within the hospital; discharge to home, rehabilitation, long-term care, or hospice; or through care decisions that allow natural death to occur. Daily goal-setting helps define the steps necessary for these various paths and clarifies what needs to be accomplished before transfer or discharge can occur. Some hospitals have also found it helpful to focus on goals that highlight safety risks for particular patients.

Setting daily goals involves three key steps:

1) Determine the key goal or goals for that day;
2) Document the goal(s) so it is readily accessible to the care team and the patient and family; and
3) Provide feedback and reflection on the goal(s) the next day to refine and reset them for the current day.

Examples of daily goals:

- Discontinue oxygen by 4 PM
- Wean off vasopressors by midnight
- Mobilize patient to walk 20 feet
- Initiate hospice referral

Using the Model for Improvement

In order to move this work forward, IHI recommends using the Model for Improvement. Developed by Associates in Process Improvement, the Model for Improvement is a simple yet powerful tool for accelerating improvement that has been used successfully

by hundreds of health care organizations to improve many different health care processes and outcomes.

The model has two parts:

- *Three fundamental questions* that guide improvement teams:
  1) What are we trying to accomplish?
  2) How will we know that a change is an improvement?
  3) What change can we make that will result in improvement?

- The *Plan-Do-Study-Act (PDSA) cycle* to conduct small-scale tests of change in real work settings — by planning a test, trying it, observing the results, and acting on what is learned. This is the scientific method, used for action-oriented learning.

Implementation: After testing a change on a small scale, learning from each test, and refining the change through several PDSA cycles, the team can implement the change on a broader scale — for example, for an entire pilot population or on an entire unit.

Spread: After successful implementation of a change or package of changes for a pilot population or an entire unit, the team can spread the changes to other parts of the organization or to other organizations.

You can learn more about the Model for Improvement at http://www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/.

Sample Small Tests of Change

Using the Model for Improvement, teams conduct small tests of change to start their improvement work. With this approach, team members can learn quickly what works or how changes need to be refined before full implementation.

The examples below demonstrate small tests to implement multidisciplinary rounds that come from one of the organizations participating in IHI's Multidisciplinary Rounds Expedition. Note the size and scale of the test: it's very focused and specific. It would not take much time to plan each test, do it, learn if it worked, and then test it again on the same scale or expand the scale of the test. Hospitals that have created a successful multidisciplinary rounding system have found that there are many areas they need to test prior to implementation: time, location, structure, attendees, and a useful form for guiding the process and documenting daily goals. Each aspect involves a series of tests or PDSA cycles.

Small test examples:

1) Tomorrow Kelly (the bedside nurse on the unit team) will test the daily goal sheet adapted from another hospital on her two patients.
2) On Monday, Kelly (the staff nurse on the unit team) will meet at 9 AM with Kate (the unit manager), Dr. Patterson (the intensivist), and Jo Ann (the assigned case manager) to round on her two patients.

Measurement

Measurement is essential to learn which changes in the testing of the multidisciplinary rounding process result in improvement. Improved patient outcomes are an important measure of success and should be expected over time with rounds. However, in order to obtain helpful data that informs the initial testing of multidisciplinary rounds, teams should be sure to track daily or weekly process measures such as:

- Number of days multidisciplinary rounds occur
- Number of disciplines involved in multidisciplinary rounds
- Percentage of patients with a documented daily goal in their chart
- Bundle compliance, such as the IHI Ventilator or Central Line Bundles. (For more information on bundles and bundle compliance see: http://www.ihi.org/IHI/Topics/CriticalCare/IntensiveCare/ImprovementStories/BundleUpforSafety.htm.)

In addition to tracking measures related to occurrence and participation in the multidisciplinary rounds, improvement teams should identify the key care-related process measures that may be included on the daily goal sheet. The daily goal sheet can include key components of care specific to the patient and can be used to help structure rounds and keep the conversation focused. These process measures can be encouraging to staff as multidisciplinary rounds evolve.

In addition to the process measures mentioned above or those identified by the improvement team, hospitals have found multidisciplinary rounds to have an impact on a number of key outcome measures, including:

- Length of stay
- ICU patient days
- Central line days
- Ventilator patient days

Tips for Getting Started

Implementing multidisciplinary rounds can seem like an overwhelming challenge. If your team tries to do everything and include everyone at once, it may well prove to be impossible. Below are a few tips we have learned from those organizations that have successfully implemented multidisciplinary rounds.

- ***Look at any existing rounding processes:*** Enlist one or two staff members that see the potential of implementing multidisciplinary rounds. If graduate medical education rounds are currently in place, seek support from the Department Chair to plan and test multidisciplinary rounds. Stating the aim of multidisciplinary rounds will assist in either adapting a current rounding process or gaining the participation of house staff. It may be necessary to consider an additional process for multidisciplinary rounds, a more structured, faster rounding process that is separate from the traditional graduate medical education teaching rounds. Don’t allow traditional graduate medical education teaching rounds to be a barrier to developing a process for multidisciplinary rounds.

- ***Seek willing participants:*** If unable to engage physicians in testing, start with other disciplines (such as nursing and respiratory therapy or nursing and pharmacy).

- ***Start small, test small and often:*** One test, one day, one time, one staff, develop one daily goal for the patient. PDSA cycles may include testing at different times of the day, different days of the week, or on different shifts.

- ***Choose one process to focus on at a time:*** Take into consideration the staff involved in the initial testing and choose a key focus. In an intensive care unit, the focus may be Ventilator Bundle compliance, whereas on a post-op surgical unit it maybe activity progression after surgery.

- ***Develop and document a daily goal for each patient:*** This task encourages all participants in multidisciplinary rounds to contribute and share in a common, short-term goal. Be specific – for example, “Extubate patient by 10 PM” or “Walk in hall twice before bedtime.” Documenting and posting the daily goal in the patient’s room allows everyone who enters the room to ask about, contribute to, and assist with the completion of the goal.

- ***Utilize a short, simple tool to help guide rounds:*** This may be a daily goal sheet or checklist developed by participants. This tool can help to add structure and to expedite the rounds. Some example tools can be found on IHI’s website at http://www.ihi.org/IHI/Topics/CriticalCare/IntensiveCare/Tools/.

- ***Consider including support services*** (e.g., social worker, pastoral care, etc.) in rounds occasionally (1 to 2 times per week).

- ***Tracking interventions*** initiated during rounds and providing feedback on effectiveness to staff can be encouraging and support continued improvement.

Additional Tips for Implementing Multidisciplinary Rounds

Segment Patients

In areas outside the ICU, the thought of starting multidisciplinary rounds on a large unit with 30 or more patients can be intimidating. Segmenting patients can help ensure that rounds are conducted on a specific group of patients. For example, rounding on a medical telemetry floor with a high volume of congestive heart failure (CHF) patients can provide an opportunity to round on CHF patients to ensure compliance with protocols, discharge plans, etc. On a post-op cardiovascular surgery floor, rounding on each patient on post-op Day 3 can offer an opportunity to ensure progression of the patient and set a goal for discharge. By segmenting populations for rounds on individual units, the structure of rounds can provide a unique opportunity for consistency among staff, ensuring compliance with protocols and the development of common daily goals.

Script Questions

During rounds, scripting focused questions can be key in building relationships among participants. Simple yes or no questions often become routine and don't offer much in the way of discussion. Instead of asking yes or no questions, consider more open-ended questions that elicit contemplation and participation by the group. By scripting the questions, even writing them on the goal sheet or using a log that contains thought-provoking questions, requires staff to think "why" or "when" a task or intervention is appropriate. For example:

- Compliance with Ventilator Bundle
    - Sedation vacation: "When is the sedation vacation scheduled?"
    - Readiness to wean: "Has this patient been assessed for readiness to wean? What needs to happen for this patient to be extubated?"
- Central line or urinary catheter: "Why is the central line in? What needs to happen to get the urinary catheter removed for this patient?"
- Discharge: "What needs to happen so the patient can be discharged?"

Expand Slowly

After piloting multidisciplinary rounds on one or two units, it can be tempting to spread the changes quickly throughout the facility. Begin spreading the changes to other areas or units one at a time. Because each unit has its own unique routines and providers, it's important to take time to discuss opportunities with unit staff, set an aim, and test changes. Each unit will have different routines, patient populations, and disciplines serving patients, so testing the time that rounds will occur is critical.

Expand Participation

Participation in rounds will be different for most every unit, as well. For example, an orthopedic floor may develop rounds with physical therapy, while an ICU step-down unit may incorporate respiratory therapy and pharmacy. Some departments have very few people (e.g., palliative care, social work, physical therapy), so including these services in rounds must be well thought out. Depending on the patient population, the necessity of and ability to include these disciplines will need to be determined. Think of the need and test having some ancillary services come every other day or Monday/ Wednesday/Friday. This provides an opportunity to learn and collaborate often, just not every day.

Invite Families to Participate

Inviting families to participate in rounds can be powerful. Families have a unique perspective on the needs of patients and often help us remember our mission. Before inviting families to participate, ensure that the process of multidisciplinary rounds is consistent and structured. It is necessary to have a conversation with family members prior to joining rounds, an orientation of sorts, that introduces them to the focus, routines and expectations of the rounding process. Posting the times, dates, and patients included in rounds can be valuable for families and participants alike. For example, on a medical-surgical floor you may post a sign the day before that says, "Rounds with Nursing, Physical Therapy, and Pharmacy tomorrow at 9:15 AM. Rounds to be conducted on patients in rooms 407, 410, 414, 427, 431, 433 and 441. Family members are invited to attend."

Family members may have input into the care of the patient now and at discharge, and will appreciate being able to see the team working together and focusing on the patient. Posting daily goals in patient rooms may also prompt questions from family members who may not have joined rounds; these are great opportunities to involve the family in conversation any time of day.

Resources

Burger CD. Multi-disciplinary rounds: A method to improve quality and safety of critically ill patients. *Northeast Florida Medicine*. 2007;58(3):16-19.

Dutton RP, Cooper C, Jones A, et al. Daily multidisciplinary rounds shorten length of stay for trauma patients. *J Trauma*. 2003;55:913-919.

Kucukarslan SN, Peters M, Mlynarek M, Nafziger DA. Pharmacists on rounding teams reduce preventable adverse drug events in hospital general medicine units. *Arch Intern Med*. 2003;163:2014-2018.

Vazirani S, Hays RD, Shapiro MF, Cowan M. Effect of a multidisciplinary intervention on communication and collaboration among physicians and nurses. *Am J Crit Care*. 2005;14:71-77

IHI Improvement Story. "At Memorial Hermann Hospital, Family Members Are Included in Rounds."
http://www.ihi.org/IHI/Topics/PatientCenteredCare/PatientCenteredCareGeneral/ImprovementStories/AtMemorialHermannHospitalFamilyMembersareIncludedinRounds.htm

IHI Improvement Story. "Pursuing Perfection: Report from Hackensack University Medical Center on Multidisciplinary Rounds."
http://www.ihi.org/IHI/Topics/Flow/PatientFlow/ImprovementStories/PursuingPerfectionReport+fromHackensackUniversityMedicalCenteronMultidisciplinaryRounds.htm

IHI Improvement Story. "Our Lady of Lourdes Hospital: Where Families Are Included in Rounds."
http://www.ihi.org/IHI/Topics/PatientCenteredCare/PatientCenteredCareGeneral/ImprovementStories/OurLadyofLourdesFamiliesIncludedinRounds.htm

Multidisciplinary Rounds: Critical Care Unit Nurse Handoff Tool.
http://www.ihi.org/IHI/Topics/CriticalCare/IntensiveCare/Tools/MultidiscplinaryRoundsCCUNurseHandoffTool.htm

IHI Tool. Daily Multidisciplinary Rounds Worksheet.
http://www.ihi.org/IHI/Topics/PatientCenteredCare/PatientCenteredCareGeneral/EmergingContent/DailyMultidisciplinaryRoundsWorksheet.htm