BYPASS RAPID ASSESSMENT TRIAGE: HOW CULTURE CHANGE IMPROVED ONE EMERGENCY DEPARTMENT’S SAFETY, THROUGHPUT AND PATIENT SATISFACTION

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Problem: Emergency department waiting rooms are high risk, high liability areas for hospitals. Patients who are greeted by non-clinical personnel or who are not being placed in available beds increases wait times and prevent patients from receiving timely treatment and access to care.

Methods: A multidisciplinary team was convened to review best practice literature and develop and implement an immediate bedding process. The process included placing a greeter nurse in the waiting room who performs a quick patient assessment to determine acuity. Based on that acuity, the greeter nurse then places the patient in the appropriate available bed.

Results: We established our Bypass Rapid Assessment Triage process and improved door-to-triage, door-to-bed, and door-to-physician times while enhancing patient satisfaction.

Implications for practice: A system should be in place that allows for immediate bedding wherever possible. Transitioning to immediate bedding requires a culture change. Staff engagement is essential to achieving such a culture shift.

Communities rely on emergency departments to be available 24 hours a day, 365 days a year. With increased volumes, overcrowding, and long wait times, emergency departments are challenged to provide efficient quality care. Those challenges include millions of nonelderly persons still lacking health care insurance, sustained high unemployment, continued closure of hospital emergency departments, inadequate preventive medical care, and lack of primary care providers. In 2010, 38% of emergency departments reported they were operating at maximum or over their capacity, and ED visits had grown to more than 125 million in the United States. Furthermore, ED waiting rooms are a high risk and high liability area for hospitals. Safety is jeopardized and satisfaction is decreased when patients are required to wait.

In 2011 the Agency for Healthcare Research and Quality reported that 2% of ED patients leave the waiting room without being seen because of long wait times. Patients come to an emergency department expecting timely treatment. Processes that expedite the quickness with which a physician sees a patient enhance our ability to care for patients sooner and build community trust. One possible solution, immediate bedding, is a process whereby patients are placed in available beds, registration and triage occur at the bedside, and physicians have the opportunity to evaluate patients sooner than would otherwise be possible. Immediate bedding expedites door-to-physician times and improves patient throughput in the emergency department.

In 2009 the emergency department of our Magnet-designated, level II trauma, community hospital had 108,000 visits and was facing the same constraints and challenges that were occurring nationally. These challenges included overcrowding, increased demand, longer wait times, and higher patient acuities. To address these multiple issues, ED
management attempted to implement an immediate bedding process with minimal preparation and without staff engagement. The immediate bedding initiative was quickly abandoned because of strong staff resistance. The problems of overcrowding, however, continued. Thus, in 2011 we successfully implemented Bypass Rapid Assessment Triage (BRAT), our revised immediate bedding process, which produced positive results. Communication and staff engagement created the necessary culture change that was the key to success. In this article we will describe the planning, implementation, and results of our BRAT process and how we decreased door-to-triage, door-to-room, and door-to-physician time and enhanced patient satisfaction.

Planning

To achieve success with immediate bedding, ED management recognized that staff engagement was essential and delegated the implementation of the process to the Nursing ED Practice Council. The Practice Council members were sensitive to employees’ previous negative experiences and agreed early on that this initiative would require a culture change prior to inception. To achieve such a change, staff buy-in would be paramount and communication would be the cornerstone.

The first step was seeing the waiting room “through the eyes of the patient.” Observations on all 3 shifts revealed flaws in our traditional process, starting with entry to the waiting room through the front door. The identified problems included unnecessary wait times and inefficient use of available staff and resources. A registration clerk without any medical training greeted and registered patients when they arrived. Patients were then told to wait in our multilevel 33,000 square foot waiting room for a triage nurse and given a pager, unless the registration clerk determined they needed to be seen immediately. Patients waited on average 20 minutes to see a triage nurse without medical screening or severity classification, potentially leaving extremely sick patients unattended. Triage nurses were in adjacent rooms with the doors shut and had no view of the waiting room. They were unaware that patients needed to be seen unless they refreshed their computer track board or registration clerks notified them of a patient concern. Triage nurses typically assessed patients based on the order in which they arrived. Once triaged, patients were then asked to return to the waiting room regardless of bed availability (Figure 1).

Nurses in all ED treatment areas were tasked with monitoring the computerized track board to determine whether there were triaged patients in need of a room...
assignment, unless notified by a triage nurse that a patient needed immediate placement. Nurses with available beds were often engaged in other activities that prevented them from monitoring the track board in real time, resulting in more unnecessary delays. Charge nurses were equally responsible for monitoring patient flow and would assist with assigning patients from the waiting room to an available bed. Despite the best intentions, beds remained vacant, and patients were left waiting unnecessarily on average of 45 minutes from the time they entered the emergency department.

This antiquated and disjointed process had been practiced as long as anyone could remember and would require a culture shift to achieve the necessary improvements. Therefore, a Triage Task Force was formed from within Practice Council. The Task Force members borrowed Einstein’s line, “We cannot solve our problems with the same thinking we used when we created them” as their motto. An early critical decision by the Task Force was to use the Agency for Healthcare Research and Quality tool kit to avoid pitfalls with the initial change process. This tool kit is a guide for hospitals to address ED overcrowding and patient flow. The tool kit also recommended including other disciplines affected by the change. Thus, the membership was expanded to include registration, physicians, behavioral health staff, a patient care assistant, 5 nurses, and an ED assistant nurse manager. The Task Force was chaired by a registered nurse (RN), with the assistant nurse manager acting as liaison to upper management.

The tool kit also helped the team identify potential pitfalls and be proactive in instituting measures to avoid them. Based on lessons learned from the tool kit and their own previous experiences, the Task Force recognized that the following requirements would be integral: staff participation in the change process, implementation of immediate bedding in small steps, and management reinforcement on an ongoing basis. The first change implemented was the “triage quick fix.”

Implementation

The triage quick fix was instituted on all 3 shifts to prompt triage nurses to begin thinking in a more patient-focused way. Triage nurses now kept their doors open, and registration placed patients in designated chairs that were visible from the triage rooms. This small step alone began the momentum for change. To maintain that momentum, however, management needed to reinforce the changes by monitoring triage and ensuring doors were kept open so patients were seen in a timely fashion. The message they conveyed was that staff should own the process if they wanted to be part of the solution. The Triage Task Force communicated with staff on a regular basis, informed them that more changes were coming, and encouraged them to communicate any concerns or suggestions.

The BRAT process was developed on the basis of the needs of 3 distinct treatment areas in the emergency department: main emergency department, fast care (FC), and behavior health evaluation (BHE). FC consists of 12 beds and is designated for minor emergencies and common illnesses. BHE consists of 5 beds and accommodates patients experiencing acute crises as a result of mental health illness. The main emergency department consists of 2 trauma bays and 31 beds, where the more complex patients are assessed and treated. Peak hours of activity are from 11 AM to 11 PM; during those times, up to 8 overflow beds are used routinely. Staffing for the main emergency department is maintained at a 4:1 patient to nurse ratio, and each nurse assignment has designated rooms. FC is staffed by 1 to 3 nurses depending on the time of day. BHE is staffed by 1 RN and 1 to 2 mental health liaisons. There are 3 to 6 patient care assistants (PTCAs) in the main emergency department and 1 to 3 PTCAs in FC. Triage is staffed with 1 to 2 RNs and 1 PTC. Prior to the institution of BRAT, walk-ins arrived via the front door and were triaged by the triage nurse, while ambulances came in through the back door and their patients were triaged by the charge nurse.

BRAT development began by comparing flowcharts of traditional triage compared with what we wanted it to be (Figure 1). Based on the desired flow we designed an algorithm, using guidelines from the Emergency Severity Index (ESI11; Figure 2) and the role of the greeter nurse. The greeter nurse would take the place of one of the triage nurses and assume a seat next to the registration clerk. Nurses with strong clinical judgment who had successfully passed the triage class and preceptorship were chosen to fill this newly created role. Close proximity to the entrance would allow the greeter nurse to begin an assessment as soon as the patient presented. While the registration clerk completed a quick registration including name, date of birth, and chief complaint, the greeter nurse determined what area of the emergency department was required, based on the patient’s symptoms, chose an available room, and contacted the receiving RN. The role of the triage PTC was to transport patients to rooms and initiate vital signs, ECGs, and cardiac monitoring as needed. Critical patients would be escorted by the greeter nurse with the expectation that direct patient hand-off with the primary nurse would occur. Communication between the greeter nurse and the charge nurse was essential to prevent confusion and delay. BRAT would require that patients arriving by ambulance be sent to the waiting room when beds were unavailable and their condition allowed.
Once the process was developed, we formulated guidelines (Figure 3) to be used for staff education, with a plan to initially roll BRAT out from 3 to 7 AM, the lowest census time. Education of all night shift staff was completed in small groups by members of the Task Force. This approach gave staff the opportunity to ask questions and provide input prior to implementation. The majority of staff were concerned about the ability to stop the BRAT process when needed. Criteria were developed to establish when BRAT could be shut down with the expectation that it would resume as soon as possible (Figure 3). A log was developed for staff to record times and circumstances when BRAT was not being utilized.

Night shift go-live began in October 2012. BRAT represented a significant change in practice and there was resistance, but with management reinforcement that it was staying, instead of staff abandoning the process, they helped to customize it, which contributed to sustainability. A couple of months after go-live, we felt ready to expand BRAT to another shift; 7 to 11 AM was chosen, because it still had a relatively low census. All day shift staff received BRAT education and the opportunity to make suggestions, and in November 2012, BRAT was implemented on the 7 to 11 AM shift.

More staff work on the day shift, including a greeter nurse, 1 triage nurse, 2 registration clerks, and registration support staff. With the extra staff, logistics and space became an issue. The BRAT process was modified many times to accommodate the changes. With 2 registration clerks, the greeter nurse did not have access to a computer. After several trials with various electronic devices, the nurses finally chose a computer on wheels to view the electronic bed board and have real-time information about bed availability and patient acuity.

The next challenge was working out role responsibilities with the increased staff. The Task Force initially hoped that “teamwork” would prevail and tasks would just be completed, but it became apparent that responsibility for
BRAT GUIDELINES

- There will be a Greeter nurse at the registration desk. The Greeter nurse will have a portable computer and phone.

- While the patient is being greeted and short registered, use your intuition, experience and the general appearance of the patient, as well as what they tell registration to determine sick vs. not sick. You may ask clarifying questions.

- If the patient meets ESI level 1 or level 2 criteria, greeter nurse will take the patient immediately back to room, and stay with patient until primary nurse arrives.

- The greeter nurse will call the primary nurse for all patients going to the Main ED. If unable to notify the primary nurse, call the charge nurse.

- Ensure all chest pain patients are taken back in a wheelchair.

- Registration is NOT to take Main ED BRAT patients to rooms, but can be asked to take Fast Care BRAT patients to assigned rooms.

- Primary nurses and/or float nurses and/or assigned PTCA’s should be meeting the patient in the room.

- If you have two triage nurses, the second triage nurse will assist the primary nurse with initial assessment when able.

- The second triage nurse will do traditional triage when BRAT is turned off in one area on patients that the greeter nurse determines are appropriate for that area.

- A current medication list will NOT be completed by the triage nurse except to inquire about anticoagulants in the case of a fall or blunt force trauma.

- Triage nurse and triage PTCA should return to triage area ASAP.

- The Triage PTCA will obtain an EKG and vital signs in the Main ED room if assigned PTCA is unavailable. Triage PTCA should return to triage ASAP.

- If the greeter nurse determines that the patient is appropriate for Fast Care then a room will be assigned. The patient will be escorted to a Fast Care room, alternating odd and even rooms. Notify Fast Care staff that patient is in room.

- The Fast Care PTCA assigned to that room will take vital signs; obtain a weight on all patients 18 years of age and under.

- BRAT can be stopped in the Main ED because of traumas, cardiac arrest, critical patients, and/or increased volume in the department. It can also be stopped in Fast Care when patient census is at six and only one nurse is assigned.

- Charge Nurse will decide the need to temporarily stop the process. If BRAT is stopped, the triage nurse will go back to traditional triage until it can be resumed again.

- When all the rooms in the Main ED are full, BRAT will be stopped and patients will be triaged and immediately placed in available overflow beds.

- If multiple patients present at once, they will be assigned rooms and taken back in order of priority. Primary nurses, PTCA’s and the charge nurse can be utilized to help bring patients back when triage staff is being utilized elsewhere.

- If patient presents with BHE complaint, call BHE and ask if they can accept a BRAT patient. Please gather enough information from BHE patients to ensure they do not require medical clearance.

- To avoid placement of patients in dirty beds, please clean your room as soon as patient is discharged.

- Communication is vital to BRAT success; please keep your phone with you at all times.
bringing the patients to rooms, initiating vital signs and ECGs, and placing monitoring equipment had to be assigned. Different processes were tried before settling on the one that is used today. Working through the process engaged staff in the solution and created a sense of ownership, and the culture change gained momentum. It was decided that the 11PM to 3 AM time slot would be the final go-live for BRAT. After second shift received training, BRAT began. Then, after the evening shift was given the opportunity to make changes, BRAT was utilized 24 hours a day, starting in March 2013.

Results

BRAT utilization yielded positive results in a very short period. We compared preimplementation wait times from April, May, and June 2012 to those same months in 2013 after implementation. The quarterly census in 2012 was 27,248, and for the same quarter in 2013 it was 28,030. Despite the increased census, after BRAT implementation, the average arrival-to-triage time improved by 36%, the average arrival-to-room time improved by 32%, and the
average time-to-physician time improved by 26% (Figure 4). This improvement increases the safety margin because patients are moved out of the waiting room and admitted sooner. With the exception of August 2013, our census has continued to rise, but we have been able to sustain our positive results. Prior to BRAT initiation, 1.06% of our patients left the waiting the room without being seen. In fiscal year 2014, that percentage has decreased to 0.54%. Increased patient satisfaction was noted by nurse managers during daily rounds. As a consequence of BRAT, patients who were immediately placed in beds expressed gratitude for the prompt attention. This positive initial interaction can set the tone for the whole visit.

Customer service initiatives were measured by Press Ganey patient satisfaction results. The 2 specific questions that the BRAT team hoped to see improvement in were “likelihood to recommend” and “nurses’ attention to needs.” Prior to BRAT, Press Ganey results revealed that 55.6% of respondents gave a top box score when asked about “nurses’ attention to needs”; by December 2013, this number was 70.2%. Top box percentages for “likelihood to recommend” had been 59.1%; by December 2013, after BRAT implementation, this number had increased to 71.7%.

**Discussion**

One of the benefits of BRAT is that it decreased the potential risk to patients because the first person greeting patients entering the emergency department is an RN, who can immediately recognize seriously ill patients and ensure prompt treatment. BRAT was successful because there was a culture change, not just a process change. The team was engaged in this process from its inception and embraced the challenge. A multidisciplinary approach was utilized. Education was intentionally completed incrementally so the process could be modified and improved as we expanded it to different shifts. Research was done; we recognized our shortcomings and failures and used them as stepping stones to improvement. We put the patients first and were unafraid to abandon familiar routines to improve patient care. The ED attitude toward BRAT has gone from skepticism to optimism, with staff advocating for its continued use. Sustainability is likely because of the team’s commitment to ensuring continued patient satisfaction and safer care.

Change is never easy. Before BRAT, patients arriving by ambulance were immediately placed in a room, regardless of their acuity, even if there were sicker patients in the waiting room. BRAT was instrumental in encouraging staff to consider all waiting patients.

Although we are very pleased with our improving patient satisfaction scores, these positive trends may also reflect another customer service initiative implemented concurrently with BRAT. That initiative also required staff education and change in culture. The focus of BRAT was around wait times and setting the tone for our patients’ experiences. The customer service initiative centered on keeping patients informed about their plan of care and turnaround times for tests and answering call bells in a timely fashion; however, both initiatives had a synergy of purpose.

We knew that because of the relatively short time frame in the waiting room, making the proper patient acuity determination 100% of the time would be challenging for the greeter nurse. However, we also knew that patients would still receive the best care, even if they were sent to FC when their condition actually warranted a higher level of care. They would still be seen by a physician sooner than with traditional system and could be transferred easily to the more appropriate area in the main emergency department. No untoward outcomes have occurred as a result of this very infrequent occurrence.

Ultimately, for the waiting rooms of the future, the waiting process could undergo more transformational change. Waiting rooms could become an extension of the treatment area, where providers, including nurse practitioners and physician assistants, could greet the patients and facilitate their care. Lower acuity patients could potentially be evaluated, treated, and discharged in a more efficient manner from the waiting room and never even need to undergo immediate bedding.

**Conclusion**

Improved throughput was accomplished by successfully implementing an immediate bedded process that decreased door-to-triage, door-to-bed, and door-to-physician times by, on average, 30%. By having a greeter nurse in the waiting room, patients are more satisfied and fewer are leaving without being seen. Through BRAT, we have seen a tremendous culture shift in the attitude and willingness of staff to embrace change to enhance safe patient care. Going forward, sustainability for this change initiative will be all of the team’s responsibility.

**REFERENCES**


