

# Emergency department implements split-flow process to help ease crowding

FROEDTERT HOSPITAL

## Challenge

When Froedtert & the Medical College of Wisconsin's emergency department ("ED") was planning to remodel in 2015, they were looking for out-of-the-box strategies that might also help them reduce the ED's discharge length-of-stay and the percentage of patients who leave without being seen.

## Action

A team member suggested that a split-flow strategy might work, and with a renovation underway, it would be easier to reconfigure the space to meet the needs of a split-flow process. With the support of hospital leadership and frontline ED staff, the ED was reconfigured to support a split-flow process, creating space for "vertical" patients – those patients who could stand or sit for evaluation – in addition to the space that already existed for "horizontal" patients, or those patients who needed to be evaluated in stretchers.

After a planning process that included a tabletop exercise to test the new design, the team landed on a final design that included a dedicated exam rooms and an adjacent Continuing Care Area that could accommodate up to 18 patients in chairs or recliners. At first, the team tried to implement a complex set of triage criteria based on chief complaint that nurses would use to determine a patient's eligibility for the vertical unit. When this proved too complicated, they developed a simpler, five-point decision algorithm (see inset for detail), that allows triage nurses to quickly determine whether patients are appropriate to be seen in the vertical unit.

## Hours and staffing

The ED's vertical unit runs daily from 9-1 a.m. As currently configured, the unit has 18 recliners in the Continuing Care Area and 12 exam rooms – 10 are used for patient exams and two are used for discharge and treatment. There are two faculty shifts in the vertical area during the

time it's open. Typically, there are 1-3 advanced practice providers on at a time (usually 2) and nurse staffing includes 1-2 nurses in the Continuing Care Area and additional nurses that are doing primary patient care in the vertical rooms

## Outcomes

In the first six months of implementation, the ED experienced a drop in discharge length of stay by 25 minutes and saw their percentage of patients who left without being seen drop from 3-5 percent down to 1-2 percent. When the vertical area is open, approximately 40 percent of ED patients are triaged to the vertical area.

## Lessons learned

In the first six months of implementation, the ED experienced

- Space and design are key. Having the right physical space to accommodate a vertical area is essential. You don't necessarily have to do a major redesign, but you need the dedicated internal area (CCA) in order for vertical to work. If possible, try to design the rooms so they look different in vertical; this helps providers get into the right mindset to make vertical run well.
- Keep triage simple. Develop an easy-to-use triage tool to make it easy for the triage nurse to determine which patients are appropriate for the vertical area.

# Vertical Criteria for ESI 3's

- Ineligible for Vertical if:**
- Intoxicated/Altered
  - At risk for self harm
  - Non-ambulatory at baseline
  - Cannot sit in a chair
  - Age > 60 + 1 of the following
    - Headache
    - Dizziness
    - Abdominal Pain
    - Shortness of Breath
    - Chest Pain

