

## Case Study – Reducing Patient Safety Incidences

In order to determine whether or not altering shift change procedures is the correct way to reduce the number of patient safety incidences a number of factors must be evaluated. First, it needs to be determined whether or not the majority of PSIs happen after handoffs during a shift change. If the answer to this question is no, then altering shift change is not the correct course of action. However, if there is a significant amount of PSIs occurring after shift change, then more data needs to be collected to determine in what ways shift change procedures need to be altered in order to reduce the occurrences of PSIs. Data needs to be collected regarding the location of most PSIs (which branches of the hospital), the time of most PSIs (morning, afternoon, night), who is causing the most PSIs (new vs. experienced staff), and which types of patients experience the most safety incidences (compliant vs. noncompliant patients). Evaluating this data can help the administration determine whether or not altering shift change procedures will help reduce the number of PSIs, and will help them form a case to pitch to the staff in order to get them to buy in on the idea.

Interviewing patients and staff about PSIs and why they think PSIs occur will help the administration gather information in order to decide whether or not altering shift change is the correct course of action. However, interviewing staff can lead to making misguided decisions because staff may have ulterior motives when answering questions. Some staff may not be in favor for the idea of moving to 12 hour shifts and answer any and all questions in a way that lead the administration to believe that altering the lengths of shifts will have no effect on the number of PSIs. Interviewing patients is also tricky because patients tend to get attached to staff that is supporting them, so they will most likely all be in favor of longer shifts so that they see fewer

members of the staff. This can lead to conflicting information from person to person depending on the types of interactions that they have with patients or they have with staff. However, speaking to staff and patients, regardless of their own personal opinions on the lengths of shifts, will help the administration learn more about PSIs than simple incident reports will, because they will be given insight on both the causation end and the receiving end of the PSI, which will in turn help them to make a better decision regarding what to do about shift change procedures.

In order for administration to know whether or not their decision to alter shift change procedures is the correct one, a study must be conducted. A factorial design study would be best suited for this application. The administration would have two groups, a group of staff that remains working the normal 8 hour shift as they always have, and a group of staff that they will switch to 12 hour shifts (these two groups of staff will be fully separated so that 8 hour shift employees are not working with 12 hour shift employees and vice versa so that the results are not skewed). Among these two groups, there will be two more groups. A group that will follow the current procedure and not have overlapping shifts, and a group that will have overlapping shifts so that there is face to face communication during patient handoffs. This gives the administration 4 groups to evaluate:

- 1) Group A: 8 hour shift, no overlap in shifts
- 2) Group B: 8 hour shift, overlapping shifts
- 3) Group C: 12 hour shift, no overlap in shifts
- 4) Group D: 12 hour shift, overlapping shifts

The lengths of the shift as well as whether or not the shifts overlap are the two independent variables. The number of PSIs that occur for each test group will be the dependent variable that will be evaluated by the administration. This study will help the administration determine

whether or not increasing the lengths of shifts to decrease the number of handoffs as well as increasing the number of face to face interactions will decrease the number of PSIs. Is a mixture of the two better or is one by itself better than the other, or is the current process the best process? Will longer shifts lead to more fatigued staff resulting in more accidents or will decreasing the number of handoffs truly decrease the number of accidents? All of these questions will be addressed by this study.

If administration determines that moving to longer shifts is the correct course of action, then they must be cautious about over working their staff. Some staff will have families and outside of work responsibilities that they will still have to take care of, and 12 hour shifts make that much more difficult. They will have to work out an entirely new time on and time off schedule in order to ensure that all staff will still be needed and will still get the hours of work that they need in order to have a healthy living. The administration must also think about the patients. Changing shifts to 12 hours will mean that patients are exposed to the same staff for longer periods of time, which could be a good thing or a bad thing. Administration will have to monitor patient reviews of staff in order to determine which staff needs to be adjusted because 12 hour shifts will expose a lot more issues than the shorter 8 hour shift counterparts.