



A targeted initiative to discharge surgical patients earlier in the day is associated with decreased length of stay and improved hospital throughput[☆]



DR. PETER T. HALLOWELL (Charlottesville, Virginia): Drs. Lyons, Hardacre and colleagues are to be commended for their efforts in turning what is essentially a systems optimization project into an academic endeavor. And Dr. Hardacre should be commended specifically on engaging trainees in the administrative side of medicine and surgery. This is an area for which for far too long we, as physicians, have ignored to the great detriment of ourselves and our patients.

Even despite a major building boom at academic medical centers across the country, hospital congestion remains a major concern leading to prolonged boarding times and decreased ability to accept transfers. In fact, University Hospitals of Cleveland has recently completed a major expansion with a new cancer hospital and a brand new ER. Efficient use of space and resources is a more economical alternative to increasing capacity so long as we're not robbing Peter to pay Paul by raising length of stay or increasing readmission rates. The group from University Hospitals has identified a 50 percent increase in discharge by noon rates without any increase in length of stay or readmission.

I have a few questions for the authors. Who provided the majority of discharge coordination and teaching? Was it the house staff, advanced practice nurses attached to a service or unit or floor nurses on the unit? Was there an incentive or penalty for the physicians to participate in the project, and, if so, what was it? Why did you choose noon as your time for discharge? Why not 10:00 a.m. or 2:00 p.m. or another time? Did you see an increase in hospital admissions or surgical case volume and that leads to this improvement in throughput – to this, we call it improvement in throughput, or just relieve the pressure on the system? The increase in efficiency presumably produced a better financial performance. Were financial metrics shared with the team? And if a margin was produced, was that shared with surgical services, the hospital or allocated to the administrators in the C suite?

DR. LYONS: As far as your first questions, the entire patient team, which included the nursing staff, the advanced practice providers, residents and attendings, they were all responsible for reminding the patients of the initiative and encouraging the discharge by noon goal. The house staff and advanced practice providers were responsible for coordinating disposition of paperwork and dealing with any discharge issues that might arise. And then the floor nursing staff were the ones responsible for reviewing those home-going instructions with the patients. As far as the incentives or penalties, there were no incentives, whether financial or tangible,

and no penalties to participate in the project.

As for your question as to why noon. There's a few reasons. The first is that there is some data coming out again from the emergency departments where they did some computer modelling to determine what time would be best to get patients discharged to have the greatest impact on emergency department boarding times. Discharging patients early in the morning did not – because the bottlenecks in boarding times in the emergency department were not quite high early in the morning, that would not justify the increased work needed to get patients out that early. And then later on in the afternoon, the patients boarding was too high and, therefore, discharging patients later in the afternoon would help but there would not be a significant – as much of an impact. The second reason is that most, if not all, of the studies looking at increasing throughput and improving discharge times use noon as their target, and, therefore, we can then compare our data to the rest of the data. And then, finally, we did a pilot initiative on the ENT service alone where we used noon as a goal and saw some promising results, and, therefore, we continued that and broadened it to all surgical services.

As far as increasing hospital admissions or surgical case volume, unfortunately we did not utilize those metrics specifically, but I would imagine that decreasing PAC-U boarding times should increase OR throughput, but that might not occur for some time after the initiative just due to the way that elective procedures are scheduled.

And then as far as the financial benefit, we're currently working with our financial team, and they have told me there is some data to suggest that there is a financial benefit associated with the initiative. Again, this is speculation, but I can assume that because that benefit cannot be directly correlated to the initiative, that those costs savings will just be attributed to the health system as a whole.

DR. THOMAS A. STELLATO (Cleveland, Ohio): While I saw a 50 percent increase, 79 percent of patients were still discharged after 12 o'clock. So does this tell you that noon may be an unreasonable expectation, number one? And, number two, how does it save the hospital money if someone's discharged at 12 o'clock rather than 1 o'clock?

DR. LYONS: So to answer your first question, why noon, indeed most patients are still discharged after noon, however, those patients, there has to be a significant reason as to why those patients are being discharged after noon, and if those reasons can be improved on, then, therefore, we can hopefully try to move those forward. We tried not to encourage patients to be discharged earlier in the day that would not be medically ready. And some of those patients – probably most of those patients discharged in the

[☆] Presentation given by Joshua Lyons, M.D

afternoon might not have been medically ready in the morning.

As far as your question in regards to cost savings, I think the cost savings, again, they're very minimal from what I have been told, however, this study did show that case mix index adjusted length of stay did decrease, and, therefore, that metric alone, I think, can provide some cost savings to the hospital system. And I think that the adjusted length of stay was decreased just because of the emphasis put on the anticipated day of discharge. It was put in the patient's mind beginning with the preoperative visit and they were constantly being reminded about that, and, therefore, were able to leave the hospital at a more efficient time period.

DR. MARK NOLAN HILL (Highland Park, Illinois): Please excuse me for perhaps being a dinosaur, but since these patients were discharged earlier, did most of them get seen by the surgeon or resident before they went home?

DR. LYONS: Good question. The resident staff would see the patients before the operating room starts, so, therefore, 7:15, and then the attendings were also included on the initiative, and were instructed that any patient that was to be discharged that day, that they were to be seen in the morning, whether at be at 9:00 or 10:00 a.m. The attendings were included on the initiative, yes.

DR. HILL: Pleased to hear that.