

Featured Hospital

Rush University Medical Center

Dino P. Rumoro, D.O. F.A.C.E.P.



The building our ED resides in was built circa mid 1800s. In fact, it was a main part of the hospital when Rush had a football team that played, non other than, Notre Dame on several occasions! While we did not fair well against the Golden Domers, it is a piece of apropos ancient history. Though the emergency department was remodeled several times, there is only so much to be done with such an old building and a similar aged infrastructure.

After many years of planning, Rush is now building an entire new facility on the east end of campus with the entire first floor being dedicated to a state-of-the-art emergency department. While the opening of the new facility is not until the first quarter of calendar year 2012, it is nonetheless exciting to see the construction crew working diligently every day on our new home.

The planning for the new ED actually dates back many years, but took a turn for the serious in 2002 when the ED staff contracted with an independent organization to begin to create a simulation model from which to base its future design. The work involved the collaboration between nurses and physicians. All staff wore infrared sensors on their person which continuously fed data into ceiling mounted monitors. This data was tracked and provided information such as how long staff spent with a patient. This data was merged with electronic data capturing the type of patient in the room, the complexity of illness, the procedures and interventions performed, as well as, final diagnosis. From this work, the team was able to group all patients into diagnostic categories and predict the amount of resource utilization required for each category. Finally, looking at historical trend data, the Rush team was further able to predict future resource utilization which led to determining the size of the future ED and the type of beds needed, whether resuscitation, general treatment, or specialty bed.

The model has since been scientifically tested with animation modeling and demonstrates future utilization will be efficient with few patients waiting more than 30 minutes maximum to be placed in a treatment bay. This will be a welcome change to what has become a problematic ED overcrowding issue currently experienced by most, if not all, EDs. As volumes at Rush rose by more than 48% over the past 7 years, patients LWBS also rose significantly to more than 5% as the staff struggles to make room for patients to be seen in a timely fashion. Triage nurses have become more efficient while main room nurses work hard to move patients through the system and physicians PPH continue to rise. All of this occurring while the staff continues to focus on patient satisfaction, research protocols, in the face of providing excellent medical care.

While all of this is not foreign to anyone in EM, the Rush staff believes how the problem is addressed through our ED design of the future, and like the Phoenix arising from the flames a solution to a common problem of ED overcrowding will be the result. Confirmation of the final answer is still a few years off, but time rolls by quickly and the construction crew keeps building – and in 2011 we will be hiring. See you then!