Trauma PI Goal: Reducing Emergency Department Dwell Times

Data source: ASTR 2008to 2011

It is well known that rapid assessment and intervention for time sensitive injury is the primary goal of a trauma system. One method for assessing performance on this measure is by evaluating the length of time patients are held in a level IV trauma center before they are transferred to a level I trauma center. While a sending facility cannot control all factors that contribute to the length of stay, there are interventions and best practices that can reduce this time factor. Most experts agree that patients whose injuries require a transport to a level I trauma center should be transferred within two hours of arrival at the level IV trauma center.

Arizona Baseline for ED Dwell Time before Transfer to a Level I Trauma Center: Average (2008- 2011) – 3.11 hours

How to read this tool:

1. **Level IV trauma patients transported to a level I**: Patients identified in the ASTR as being seen in a level IV trauma center emergency department and who were subsequently transferred to a level I.
2. **< 2 hours ED length of stay:** The number and percent of patients, by year, who were transferred to a level I after spending less than 2 hours in the level IV trauma center emergency department.
3. **> = 2 hours ED length of stay:** The number and percent of patients, by year, who were transferred to a level I after spending 2 hours or more in the level IV trauma center emergency department.
4. **Average ED length of stay – 25% to 90%**: This provides more specificity on the actual length of stay. The final column provides the average length of stay, in hours over the four year period.

Level IV trauma patients transported to a level I	***2008***		***2009***		***2010***		***2011***	
< 2 hours ED length of stay	7	12.73%	44	19.38%	73	24.58%	137	25.18%
> = 2 hours ED length of stay	48	87.27%	183	80.62%	224	75.42%	407	74.82%

Average ED length of stay	***2008***	***2009***	***2010***	***2011***	***Average length of stay (in hours)***
25%	2.25	2.28	2.00	1.98	2.13
50%	3.45	3.12	2.85	3.03	3.11
75%	4.53	4.27	3.83	4.36	4.25
90%	6.47	6.00	5.13	5.92	5.88