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Determining Effects of Delayed Discharges and Pain Medication Administration on Patient Satisfaction

Ernesto Juarez

Raymond Chahoud

Kevin Brody

DETERMINING EFFECTS OF DELAYED DISCHARGES AND PAIN MEDICATION ADMINISTRATION ON PATIENT SATISFACTION

Dr. Ernesto Juarez, DO Dr. Raymond Chahoud, DO Dr. Kevin Brody, MD

Henry Ford Macomb Hospital

PURPOSE

- Studies have shown that there has been significant increases in Emergency Department visits throughout the United States over the past decade. Increased healthcare demands have precipitated increased wait times in the ED and increased turnaround time for physicians to provide care. We sought to determine the effects of actual versus perceived delays in discharge and pain medication administration on patient satisfaction after their visits to the ED.

METHODS

- Henry Ford Macomb – level II 435 bed community hospital with 70K visits yearly staffed by residents, attendings and APPs
- Retrospective Survey
- Studied pt. from April 2017-November 2017
- Total # 240 pt.

METHODS

- Inclusion Criteria:
 - Patient must have arrived by car
 - Patient must be from age 0 – 65 years old
 - Delay in discharge must be greater than 30 min but less than 90 min
 - Patient should not have a documented history of pain medication seeking behavior as determined by chart review
 - Principle investigators will be blinded to whether or not the patient received a Press Ganey Survey

METHODS

- Questions for delays in discharge:
 - “Did you feel there was a delay in discharge and do you know how long the delay was?”
 - “What would you consider a reasonable time from the time you were told you were to be discharged to the actual time you were released? 0, 10, 20, or 30 minutes?”
 - “Assuming no other issue during your visit, If you were discharged at this reasonable time, how would you score our facility on a scale of 1-5 with 5 being the best when it comes delays? If the discharge was delayed past 30 minutes, would your score change and what would it be?”
 - “Assuming no other issue during your visit, If you were discharged at this reasonable time, how would you score our facility on a scale of 1-5 with 5 being the best, overall? If the discharge was delayed past 30 minutes, would your score change and what would it be?”

METHODS

- Survey for delays in pain medication administration:
 - “Did you receive Pain medications during your visit?”
 - “If so, did you feel there was a delay in getting your pain medications”
 - “What would you consider a reasonable time to receive your pain medications in? 0, 10, 20, or 30 minutes?”
 - “Assuming no other issue during your visit, If you received pain medications within this reasonable time, how would you score our facility on a scale of 1-5 with 5 being the best when it comes to pain management? If the medications were delayed past 30 minutes, would your score change and what would it be?”
 - “Assuming no other issue during your visit, If you received pain medications within this reasonable time, how would you score our facility on a scale of 1-5 with 5 being the best, overall? If the discharge was delayed past 30 minutes, would your score change and what would it be?”

ANALYSIS

- Associations between objective data (actual pain medication delays, actual discharge delays), subjective data (perceived pain medication delays, perceived discharge delays) and outcome measures (hospital satisfaction ratings on a scale of 1-5) were assessed using ANOVA, and pairwise comparisons were adjusted with Bonferroni correction.
- “Score delta” was calculated by subtracting the satisfaction score when ideal discharge time was not met from the satisfaction score when ideal discharge was met. Table 2 was created from the data of Table 3.

RESULTS

Table 1 - Reasonable Time to Discharge and Satisfaction Score Impact

	Sample Size	Recorded Delay in Discharge (Minutes)	Perceived Delay	Patient's Estimated Delay (Minutes)	Patient's Ideal Time for Discharge (Minutes)	Satisfaction Score when Discharge Time Met (1-5)	Satisfaction Score when Discharge Time Not Met (1-5)	Score Delta
1	240 / 240	48.3 +/- 19.9	N/A	48.3 +/- 32.3	20.9 +/- 9.0	4.63 +/- 0.60	3.23 +/- 1.31	1.40
2	67 / 240	54.8 +/- 24.8	27.9%	48.7 +/- 33.2	18.7 +/- 8.9	4.49 +/- 0.67	2.89 +/- 1.16	1.60
3	173 / 240	45.8 +/- 17.0	72.1%	41.3 +/- 6.5	21.8 +/- 8.9	4.69 +/- 0.61	3.35 +/- 1.34	1.34
4	183 / 240	47.0 +/- 19.7	76.3%	51.0 +/- 35.1	21.2 +/- 9.4	4.62 +/- 0.66	3.24 +/- 1.30	1.38
5	57 / 240	52.5 +/- 19.7	23.8%	40.6 +/- 20.3	20.1 +/- 7.5	4.68 +/- 0.53	3.18 +/- 1.34	1.50

Row 1: All Data Points
 Row 2: Delay in D/C with perceived delay
 Row 3: Delay in D/C without perceived delay
 Row 4: Delay in D/C with NO pain med delays
 Row 5: Delay in D/C with true pain med delays

Table 3 - Reasonable Time to Discharge and Satisfaction Score Impact

Ideal Time to Discharge (Minutes)	No. of Responses	Ideal Time for Discharge (Minutes)	Avg. Recorded Delay in Discharge (Minutes)	Average Score Delta
<10 Minutes	3	3.3	47.0	1.83
10 - 19 Minutes	82	12.3	49.5	1.70
20 - 30 Minutes	150	24.9	47.4	1.29
>30 Minutes	5	54.0	55.4	0.60

Table 2 - Reasonable Time to Discharge and Satisfaction Score Impact with Statistical Significance

*p-value was calculated using two sample t-test for Delta score.

Ideal Time to Discharge (Minutes)	No. of Responses	Ideal Time for Discharge (Minutes)	Avg. Recorded Delay in Discharge (Minutes)	Average Score Delta*	p-value*
<20 Minutes	85	11.9 ± 3	49.4 ± 24	1.67 ± 1.12	0.006
≥ 20 Minutes	155	25.9 ± 7	47.7 ± 17	1.27 ± 1.03	

Figure 2 - Ideal Time to Discharge and Satisfaction Score Impact

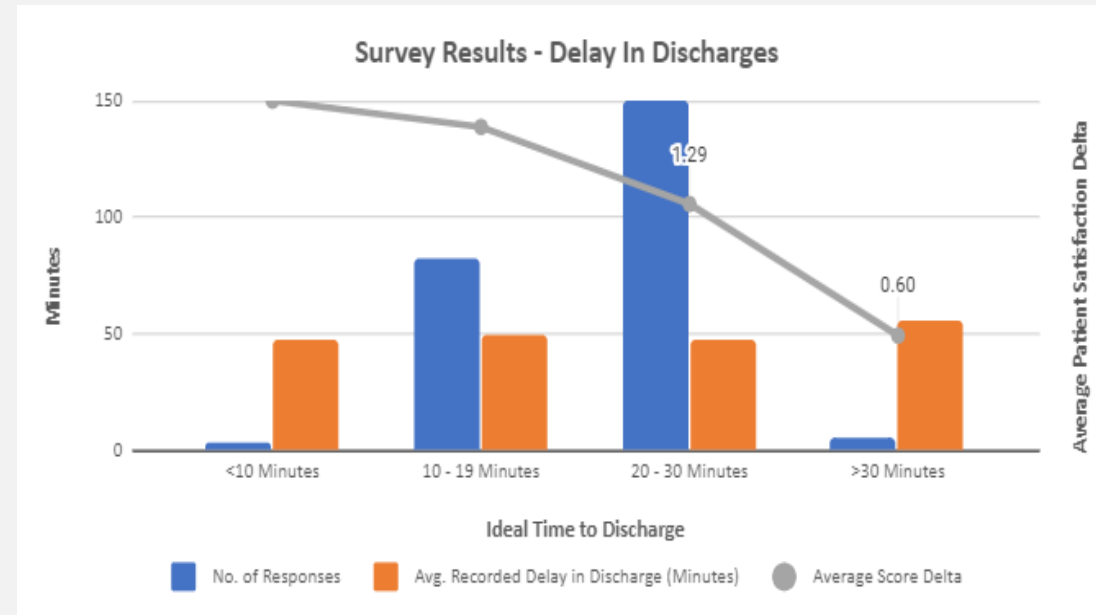


Table 4 - Ideal Time to Medication Administration and Satisfaction Score Impact

	Sample Size	Recorded Delay in Pain Medications (Minutes)	Perceived Delay	Patient's Ideal Time for Pain Medications (Minutes)	Satisfaction Score when Ideal Pain Medication Time Met (1-5)	Satisfaction Score when Ideal Pain Medication Time Not Met (1-5)	Score Delta
1	136 / 136	59.9 +/- 27.0	N/A	15.9 +/- 8.9	4.62 +/- 0.64	2.70 +/- 1.25	1.92
2	57 / 136	59.9 +/- 27.0	41.9%	15.6 +/- 8.2	4.61 +/- 0.64	2.75 +/- 1.20	1.86
3	28 / 57	61.4 +/- 31.2	49.1%	17.1 +/- 8.6	4.25 +/- 0.74	2.14 +/- 1.16	2.11
4	35 / 57	61.4 +/- 31.2	49.1%	18.1 +/- 11.0	4.31 +/- 0.74	2.22 +/- 1.20	2.09

Row 1: ALL PAIN DATA Points
 Row 2: ALL PAIN DATA Points with actual med delays
 Row 3: ALL PAIN DATA Points with actual med delays who perceived med delays
 Row 4: ALL PAIN DATA points with perceived delays (7 pts did not actually have delays)

RESULTS

Table 5 - Ideal Time to Pain Medication Administration

Ideal Time to Pain Meds (Minutes)	No. of Responses	Ideal Time for Pain Medications (Minutes)	Avg. Recorded Delay in Pain Meds (Minutes)	Average Score Delta
<10 Minutes	16	3.9	58.3	2.59
10 - 19 Minutes	66	11.5	65.8	1.98
20 - 30 Minutes	53	24.2	54.2	1.66
>30 Minutes	1	60.0	N/A	1.00

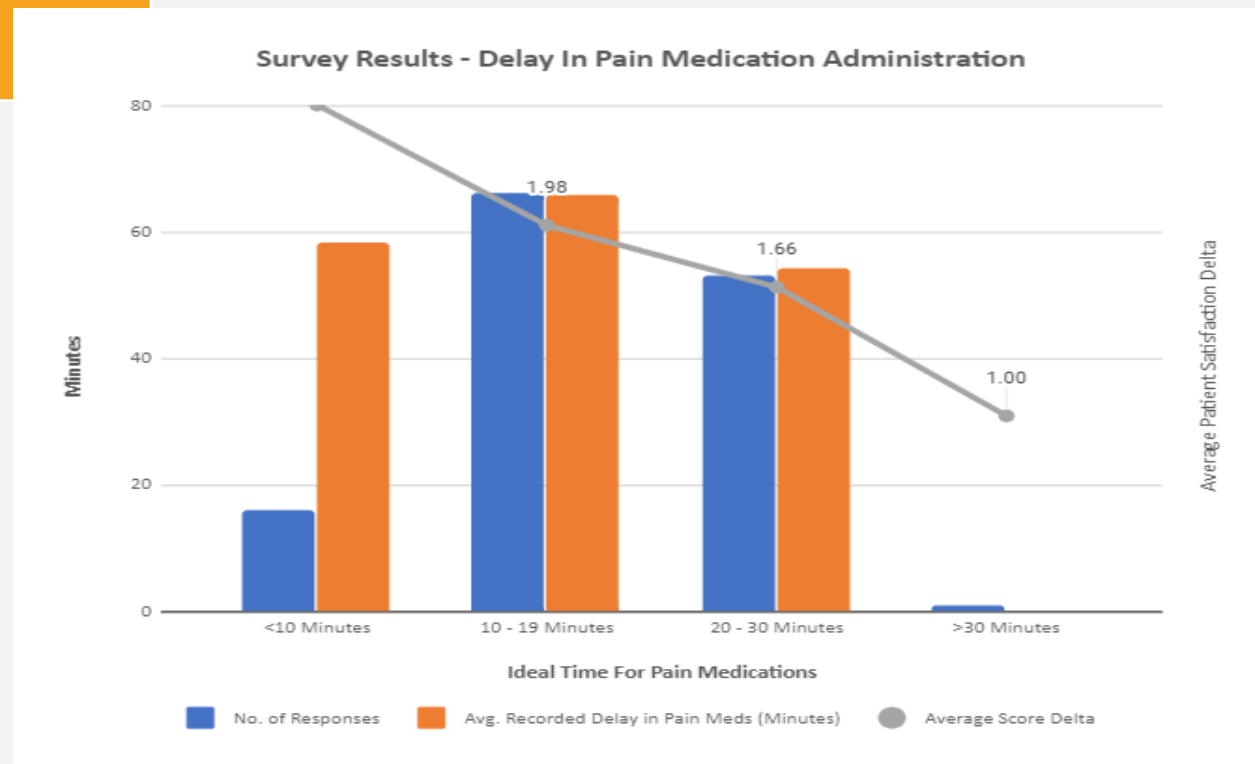


Figure 3 - Ideal Time to Pain Medication Administration

CONCLUSION

- Delay in discharge and pain medication administration does affect satisfaction scores
- We can infer that patients value receiving pain medications over discharge in a timely manner given the delta scores obtained
- If we are able to provide pt. with discharge in less than 20 min and pain medications in less than 16 min we maybe able to increase PG scores
- Future studies at larger institutions and a different variety of patients may influence results.
- Performing this study closer to when patients were seen may reduce the recall bias