

ED Operations Study Group

Building the evidence behind *clinical* and *health care-delivery sciences* within emergency medicine

Site: [REDACTED]
 Site PI: [REDACTED]
 Title: Medical Director, Department of Emergency Medicine

Patient Volume Strata:	Large	
(small) <110 pt/day	(medium) 110-180 pt/day	(large) 181-350 pt/day

REPORTED DATA		CALCULATED DATA		
ED STAFFING		Response	All Depts	Similar Pt Volume
1. Average hours of attending coverage per 24hrs	Patients per attending hour/day	87.6	61.4	78.9
		2.3	2.9	3.1
2. Average resident hours of coverage per 24 hr	Residents per attending hr/day	138.4	77.3	107.1
		1.6	1.2	1.4
3. Average PA/NP hours of coverage per 24 hr	PA/NP per attending hour/day	12.0	25.0	33.2
		0.1	0.4	0.4
Resident/PA/NP hrs per attending hours per day	Patients/(Phys&Extender hours) <small>(Patients per day)/(Attending/Resident/PA/NP hours per day)</small>	1.7	1.7	1.8
		0.9	1.2	1.2
4. Nursing hours of coverage per 24 hrs	Patients per RN hour/day	360.0	287.8	379.1
		1.8	1.6	1.6
5. Is your nursing staff unionized?		Yes	33.3%	45.5%
6. Are your physicians employees of the hospital?		Yes	52.2%	70.0%
7. Hours per year for a full physician faculty time equivalent (FTE)?		1400	1479	1488
8. Do you have Provider incentives for increased throughput/volume?	N/A	No	87.5%	90.9%
			79.2% Individual 12.5% Group, 12.5% Nonincentive	81.8% Individual 9.1% Group, 9.1% No Incentive
PATIENTS, CARE SPACE, DISPOSITION				
9. Average daily patient volume		203	179	243
10. Annual emergency department (ED) volume		74,120	65,775	89,161
11. Average ED Length of Stay (LOS) for:	Admitted patients	7.4	6.3	6.5
	Observation patients	6.1	9.6	5.1
	Discharged patients	3.3	3.2	3.2
12. Average number of boarders in the ED per 24 hrs period		64.5	51.8	93.5
13. ED size (square footage)	Patients per square foot per year	24,902	23,307	29,250
		3.0	3.3	3.5
14. Number of ED beds	Patients per ED bed/day	33.0	39.2	44.2
		6.2	4.6	5.5
15. Number of hospital beds		635	474	566
16. ED discharge rate		44.3%	73.0%	72.1%
17. ED left without being seen (LWBS) rate		3.4%	4.3%	3.0%
18. ED left without completing treatment (LWCT) rate		0.9%	1.3%	0.8%
19. Do you have an observation unit?	If yes, is it staffed by EM physicians?	Yes	41.7%	54.5%
		Yes	37.5%	25.0%

* percentages are reported as percent "yes" responses
 ** N/R = not reported

20. Admission rates?	Inpatient (Regular or inpatient observation admit)	21.6%	24.0%	21.9%
	ED Observation Unit	N/A	14.4%	24.7%
21. Percentage of admitted hospital patients from the ED?		52.0%	61.5%	62.3%
22. Hospital average operating occupancy (percentage bed occupancy)		81.0%	79.8%	78.0%
23. Are you part of a research institution or academic medical center?		Yes	91.7%	90.9%
	If yes which (include the name):	Cooper University Hospital		
24. Trauma center designation		Level 1	1.15	1.3

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REPORTED DATA		CALCULATED DATA			
DOCUMENTATION & BILLING			Response	All Depts	Similar Pt Volume
25. Hospital case mix index (CMI)			1.52	1.58	1.5
26. ED case mix index (CMI)			1.76	1.69	1.87
27. ED APC level distribution	Level 1		0.6%	2.7%	1.0%
	Level 2		19.2%	7.4%	8.3%
	Level 3		45.5%	31.0%	27.3%
	Level 4		33.2%	32.8%	37.9%
	Level 5		4.5%	23.3%	20.0%
28. What is your Payer mix (%):	Medicaid		9.5%	23.6%	28.2%
	Medicare only		7.5%	22.1%	19.7%
	Insured		12.8%	35.6%	28.1%
	Self Pay		69.8%	15.6%	21.0%
	Other		<1%	3.2%	3.6%
29. Physician documentation methods?	Free hand written		No	12.5%	0.0%
	Written template		No	12.5%	18.2%
	Computer free-type		No	33.3%	27.3%
	Computer template		Yes	62.5%	54.5%
	Scribe		No	4.2%	0.0%
	Dictated		No	25.0%	9.1%
	Other		No	4.3%	9.1%
	Please note the brand of any system that you use:		Epic	21.4%Tsystem 14.3%Epic 14.3%Cerner 7.1%PICIS 7.1%Medhost 7.1%InternalDevelop 7.1%Forerun 7.1%Quadrated 7.1%ePowerDoc 7.1%Dragon/Powernote	28.3%Tsystem 14.3%Medhost 14.3%Quadrated 14.3%ePowerDoc 14.3%Cerner 14.3%Epic
Note:					
TURN AROUND TIME					
30. Average turn around time (TAT) in minutes:	CBC		271.0	48.5	59.0
	Chem 10		256.0	69.0	78.0
	CXR		44.5	61.4	50.0
	Troponin		173.0	65.5	68.4
	Urinalysis		183.0	75.9	79.0
	BNP		130.0	79.4	89.6
	Abdominal CT		305.0	175.4	201.6
31. Percentage of patients with imaging that get a Xray			18.7%	37.3%	32.7%
32. Percentage of patients that get a CT			17.5%	18.6%	17.0%
33. Percentage of patients that get a MRI			1.5%	1.5%	1.1%
34. Percent of patients with lab testing			53.5%	56.1%	49.4%
PROCESS IMPROVEMENT					
35.	<i>Patient flow</i>	If Yes, was it successful?	Yes; 8/2012; Yes	82.6%	60.0%
	<i>Patient space utilization</i>		Yes; 8/2012; Yes	56.5%	40.0%
	<i>Fast Track</i>		No	52.2%	40.0%
	<i>Observation Medicine</i>		No	43.5%	40.0%
	<i>Laboratory</i>		No	69.6%	60.0%
	<i>Radiology</i>		No	56.5%	60.0%
	<i>Consultant Communication</i>		No	43.5%	30.0%
	<i>Admission Process</i>		No	78.3%	80.0%
	<i>Triage</i>		No	78.3%	80.0%
<i>Other:</i>		Yes; Many years; Yes			

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REPORTED DATA		CALCULATED DATA			
TRIAGE			Response	All Depts	Similar Pt Volume
36. ED Triage Models Used	Nursing triage		Yes	87.5%	100.0%
	Direct to room		No	62.5%	54.5%
	Physician triage		No	4.2%	0.0%
	A combination of the above (if so, which)		No	54.2%	54.5%
	Explanation:		N/A		
	Other:		N/A		
37. Have you changed your triage model in the past 10 years?			Yes	79.2%	63.6%
If yes, what was the change			Full triage to "Quick Look." Reduced the amount of data collected in triage thus reducing triage time.	73.3% Direct to room 53.3% Other changes 33.3% Combination 6.7% Physician triage	71.4% Direct to room 57.1% Combination 42.3% Other changes 0% Physician triage
38. If yes to question 37, what was your average LOS (in hours) before the change?					
	Admitted Patients		7.00	6.3	6.2
	ED Obs Patients (if applicable)		3.30	3.3	3.3
	Discharged Patients		N/R	3.6	3.6
39. If yes to question 37, what was your average LOS (in hours) 1 year after the change?					
	Admitted patients	Admitted Pt LOS Reduction	8.40	6.0	6.2
			-1.40	0.3	0.0
	ED Obs patients (if applicable)	ED Obs Pt LOS Reduction	2.70	2.7	2.7
			0.60	0.6	0.6
Discharged patients	Discharged Pt LOS Reduction	N/R	2.9	2.8	
		N/R	0.6	0.8	
40. Do you have case managers available to your ED?			Yes	86.4%	80.0%
41. Are you able to:					
	See that a particular patient has previously been in your (or another ED) within the past 12 months?		Yes	100.0%	100.0%
	Quantify the number of visits they have had in the prior 12 months?		Yes	95.8%	90.9%
	Sort these patients out from your total patient population?		Yes	73.9%	63.6%

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ACS AND AHFS MANAGEMENT		Response	All Depts	Similar Pt Volume	
42. What is your troponin assay (type and manufacturer)?		Roche Elecsys T	61% Troponin I 39% Troponin T	80% Troponin I 20% Troponin T	
43. Estimated ROMI Troponin Interval (hours)		6.10	4.9	5.1	
44. What proportion of patients with acute decompensated heart failure exacerbations do you discharge home?		0.0%	8.2%	4.4%	
45. Do you ever use CCTA for your R/O ACS patients?		No	21.7%	9.1%	
46. Do you routinely risk stratify ED patients, being considered for ACS as the cause of their symptoms, to establish a pre-testing probability?		No	79.2%	90.9%	
47. Does your department have an established definition for a "low risk" patient amongst those being evaluated for ACS?		Yes	43.5%	72.7%	
48. How do you identify patients who should receive an EKG within 10 min of arrival in ED?		CP=chest pain Assoc.Sx=associated symptoms	Triage Protocol	41.7% CP+Age+Assoc.Sx 25% CP Only 20.8% CP+Assoc.Sx 12.5%CP+Age	45.5% CP+Age+Assoc.Sx 18.2% CP Only 18.2% CP+Assoc.Sx 18.2%CP+Age
49. What are the top 3 provocative testing or coronary imaging modalities used by your institution?	1		Persantine Stress w/ Tech	37.5% Stress Echo 33.3% ETT 25% Nuclear 4.1% Cath	45.5% ETT 36.4% Nuclear 18.2% Stress Echo 0% Cath
	2		Exercise Stress Echo	52.2% Nuclear 34.8% Stress Echo 8.8% Cath 4.3% ETT	40.0 % Stress Echo 40.0% Nuclear 20.0% Cath 0% ETT
	3	Exercise Stress Echo w/ Tech	36.4% Nuclear 27.3% Stress Echo 18.2% ETT 18.3% Cath	50.0% Stress Echo 40.0% Nuclear 10.0% ETT 0% Cath	
50. Of the patients who are referred for provocative testing, what percentage receive this:	During their ED Stay	2.8%	3.6%	4.0%	
	Through an observation unit stay	97.2%	71.6%	76.1%	
	During an inpatient admission	N/A	24.9%	22.0%	
51. For low-risk ED patients being evaluated for potential ACS, what is your hospital system's first-line provocative test and/or coronary imaging?		Exercise Stress Echo	40.9% Nuclear 31.8% Stress 22.7% Stress Echo 4.5% Cath	45.5% Nuclear 27.3% Stress 27.3% Stress Echo 0% Cath	
52. Do you have criteria to guide the use of provocative ischemia and coronary imaging modalities available to you, for the evaluation of myocardial ischemia?		No	25.0%	27.3%	