

The Price of Starting Docusate: A Cost-Analysis of an Urban Community Hospital

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BACKGROUND

Docusate remains a commonly prescribed laxative in the hospital despite conclusive evidence displaying a lack of efficacy. This leads to directly harming patients when their constipation is inadequately treated or prevented. Additionally, this leads to unnecessary costs to the health systems, pharmacy, and nursing departments due to the cost-per-dose and administration costs. The aim of our study is to assess the cost of starting docusate as a new prescription on admitted patients. Our goal is to then use this data to support interventions leading to decreased docusate usage and eventual removal from the hospital formulary.

METHODS

An Electronic Medical Record usage report of docusate and docusate-senna was generated from January 1st to April 21st. This timeframe was used to estimate yearly costs. This was further divided by department and floor to identify hotspots. This report only included patients who were started on docusate. Patients already receiving docusate prior to admission were excluded. Administrations that occurred in rehab or skilled nursing facility settings were also omitted. For the cost analysis, a price of \$0.04 was used for each docusate pill. As shown in prior studies, a time period of 45 seconds was used to estimate the time required for a nurse to administer the drug. Midpoint salary for nursing staff on most floors and units is listed on the hospital website at \$38.59/hour. This was used to calculate nursing cost.

Graph 1. Total and Estimated Administrations of Docusate with Associated Costs

Unit	Total Doses	Estimated Annualized Doses	Drug Cost (\$)	Estimated Yearly Drug Cost (\$)	Estimated Annualized Nursing Hours	Estimated Annualized Nursing Cost (\$)	Estimated Annualized Total Cost (\$)
TOTAL	7808	25610	312.32	1024.41	320.1	12353.74	13378.15
Med/Surg Floor	3150	10332	126	413.28	129.2	4983.90	5397.18
LV4E	128	420	5.12	16.79	5.2	202.52	219.31
LV4W	110	361	4.4	14.43	4.5	174.04	188.47
LV7E	284	932	11.36	37.26	11.6	449.34	486.60
LV7W	123	403	4.92	16.14	5.0	194.61	210.75
NT4N	431	1414	17.24	56.55	17.7	681.92	738.47
NT4S	441	1446	17.64	57.86	18.1	697.75	755.60
NT5N	385	1263	15.4	50.51	15.8	609.14	659.66
NT5S	379	1243	15.16	49.72	15.5	599.65	649.37
NT6N	210	689	8.4	27.55	8.6	332.26	359.81
NT6S	287	941	11.48	37.65	11.8	454.09	491.74
NT8X	372	1220	14.88	48.81	15.3	588.57	637.38
Stepdown Unit	1920	6298	76.8	251.90	78.7	3037.80	3289.71
LV5E	1124	3687	44.96	147.47	46.1	1778.38	1925.85
LV5W	521	1709	20.84	68.36	21.4	824.32	892.68
LV6E	141	462	5.64	18.50	5.8	223.09	241.59
LV6W	134	440	5.36	17.58	5.5	212.01	229.59
Critical Care Unit	1430	4690	57.2	187.62	58.6	2262.53	2450.15
CC4C	252	827	10.08	33.06	10.3	398.71	431.77
CC4N	225	738	9	29.52	9.2	355.99	385.51
CC4S	320	1050	12.8	41.98	13.1	506.30	548.28
CC5C	92	302	3.68	12.07	3.8	145.56	157.63
CC5N	402	1319	16.08	52.74	16.5	636.04	688.78
CC5S	139	456	5.56	18.24	5.7	219.92	238.16
Psych	191	626	7.64	25.06	7.8	302.20	327.26
CRC	16	52	0.64	2.10	0.7	25.32	27.41
LV9X	132	433	5.28	17.32	5.4	208.85	226.17
NT7L	26	85	1.04	3.41	1.1	41.14	44.55
NT7X	17	56	0.68	2.23	0.7	26.90	29.13
Labor & Delivery	1151	3775	46.04	151.01	47.2	1821.10	1972.11
LDRU	19	62	0.76	2.49	0.8	30.06	32.55
LF3X	564	1850	22.56	74.00	23.1	892.36	966.35
LF4X	568	1863	22.72	74.52	23.3	898.68	973.21
Other	138	453	5.52	18.11	5.7	218.34	236.45
AEMC ED	16	52	0.64	2.10	0.7	25.32	27.41
AMB1	3	10	0.12	0.39	0.1	4.75	5.14
HLDA	83	272	3.32	10.89	3.4	131.32	142.21
SPUS	36	118	1.44	4.72	1.5	56.96	61.68

RESULTS

A total of 7,808 new administrations of docusate were generated within our inclusion criteria with a total estimate of 25,610 administrations per year (Table 1). Administrations were highest on the general medical/surgical floor. At a price of \$0.04, the annualized drug cost was estimated at \$1,024.41. Given an estimated administration times and given average listed pay rates for nursing staff, this costs \$12,353.74. In total, the cost of starting docusate in the hospital costs approximately \$13,378.15 over the course of one year.

CONCLUSION

In our single center cost analysis, we have shown that starting a patient on docusate, an ineffective medication, is associated with significant cost. Our estimation is not without limitation. This analysis did not include patients who were already on docusate as an outpatient. It also did not include the number of patients who continue receiving docusate after discharge. It also does not include patients with prolonged hospitalizations due to side effects from docusate or inadequate bowel regimen. Given these limitations, our final total of \$13,378.15 likely only represents a small fraction of the actual cost of docusate. At a time of rising healthcare costs, it is imperative that hospital systems work to limit usage of docusate and, if possible, remove from formulary entirely.