

PURPOSE

To assess US hospital costs of esophageal candidiasis (EC) across clinically relevant subgroups.

METHODS

Economic outcomes extracted from the 2003 Nationwide Inpatient Sample (NIS) were compared for patients with and without EC within the top 20 most commonly assigned DRGs for the disease. Total hospital costs were calculated by multiplying the total hospital charges in the 2003 MEDPAR file by corresponding hospital cost-to-charge ratios from the Centers for Medicare and Medicaid Services (CMS) Hospital Cost Report Information System.

RESULTS

39,786 EC patients were identified across 258 DRGs. Mean age was 59.9; 47.4% were male, 59.3% Caucasian. The mean and median length of stay (LOS) was 10 and 7 days, respectively. The mean and median total hospital charge was \$41,678 and \$22,754, respectively. 64.4% of all EC cases identified fell in the top 20 most commonly assigned DRGs. Within this subset, 76.3% of EC cases were assigned to 19 non-HIV-related DRGs. The mean LOS, total hospital charges, and total hospital costs were significantly higher for EC patients within these non-HIV-related DRGs; 8.1 vs. 5.4, $p < 0.001$; \$31,198 vs. \$19,235, $p < 0.001$; and \$8,731 vs. \$5,498, $p < 0.001$, respectively. The remaining 23.7% of EC cases were assigned to the HIV-related DRG. The mean total hospital charges for EC patients in HIV-related DRG were comparable to those of non-EC cases. However, LOS and total hospital costs were significantly higher for EC patients; \$40,254 vs. \$37,443, $p = .1$; 8.9 vs. 8.3, $p < 0.05$; \$11,064 vs. \$9,272, $p < .001$, respectively.

CONCLUSIONS

EC affects a wide range of patient groups and has a negative economic impact within non-HIV-related hospitalizations. Improved treatment and preventive care strategies may help lessen the costs incurred to hospitals.

Hospital Costs Of Esophageal Candidiasis: The Economic Impact of Esophageal Candidiasis within Hospital Expenditures across Patient Subgroups

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Table 1: Esophageal Candidiasis Patient Characteristics

Patient Characteristics	
Patients, unweighted	8,315
Patients, weighted	39,786
Age, mean (median)	59.9 (62.0)
Race – n (%)	
White	17,924 (59.3%)
Black	7,956 (26.3%)
Asian	3,265 (10.8%)
Hispanic	390 (1.3%)
Native American	101 (0.3%)
Other	610 (2.0%)
Gender – n (%)	
Male	18,842 (47.4%)
Female	20,922 (52.6%)
Hospital Charges, mean (median)	\$41,678 (\$22,754)
Length of Hospital Stay, mean (median)	10.0 (7.0)

Table 2: Contribution of Various DRGs to Total Cases of Esophageal Candidiasis for HIV and Non-HIV-related DRGs

	Cases	
	EC	Non-EC
HIV-Related DRG		
HIV with Major Related Condition	6,076	79,013
Non-HIV-Related DRG		
Esophagitis, Gastroent & Misc Digest Disorders Age >17 w/ CC	4,690	918,447
G.I. Hemorrhage w/CC	2,730	497,167
Chronic Obstructive Pulmonary Disease	1,527	683,876
Nutritional & Misc Metabolic Disorders Age >17 w/CC	1,486	492,295
Simple Pneumonia & Pleurisy Age >17 w/CC	1,437	996,336
Respiratory Infections & Inflammations Age >17 w/CC	871	267,526
Septicemia Age >17	775	336,641
Heart Failure & Shock	711	1,029,945
Diabetes Age >35	652	228,508
Renal Failure	590	267,644
Complicated Peptic Ulcer	582	54,183
Red Blood Cell Disorders Age >17	577	229,398
Other Digestive System Diagnoses Age >17 w/CC	506	223,589
Disorders Of Pancreas Except Malignancy	454	239,786
Respiratory System Diagnosis With Ventilator Support	431	217,597
Rehabilitation	424	450,101
Digestive Malignancy w/CC	406	73,770
Esophagitis, Gastroent & Misc Digest Disorders Age >17 w/o CC	372	348,261
Kidney & Urinary Tract Infections Age >17 w/CC	362	420,135
TOTAL	25,659	8,054,218

Table 3: Total Hospital Charges And Length Of Stay By HIV And Non-HIV DRGs For The Top 20 Most Commonly Assigned DRGs

	EC	Non-EC	p-value
Total			
Cases, weighted	25,661	8,054,219	
Length of Hospital Stay, mean	8.4	5.4	<0.001
Hospital Charges, mean	33,362	\$19,444	<0.001
HIV-related DRGs			
Cases, weighted	6,076	79,013	
Length of Hospital Stay, mean	8.9	8.3	0.023
Hospital Charges, mean	\$40,254	\$37,443	0.10
Non-HIV-related DRGs			
Cases, weighted	19,585	7,975,707	
Length of Hospital Stay, mean	8.1	5.4	<0.001
Hospital Charges, mean	\$31,198	\$19,235	<0.001

Table 4: Estimated Total Hospital Costs by HIV and Non-HIV DRGs for the Top 20 Most Commonly Assigned DRG

	EC	Non-EC	p-value
Total			
Cases, weighted	13,114	4,595,014	
Hospital Costs, mean	\$9,118	\$5,512	<0.001
Adjusted by Age, Gender, Race	\$8,884	\$5,519	<0.001
HIV-related DRGs			
Cases, weighted	1,355	18,083	
Hospital Costs, mean	\$11,064	\$9,272	<0.001
Adjusted by Age, Gender, Race	\$11,112	\$9,268	<0.001
Non-HIV DRGs			
Cases, weighted	11,759	4,576,963	
Hospital Costs, mean	\$8,731	\$5,498	<0.001
Adjusted by Age, Gender, Race	\$8,696	\$5,504	<0.001

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