



SWSC 2020 On-Demand Meeting Abstracts

30. IMPROVED PATIENT OUTCOMES AND REDUCED COST IN TREATING ACUTE BILIARY DISORDERS WITH A SHIFT-BASED ACUTE CARE SURGERY MODEL COMPARED TO TRADITIONAL GENERAL SURGERY CALL

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Background: There is recent evidence that emergency general surgery patients do better when treated at hospitals with acute care surgeons. Concurrently, concern for surgeon burnout and patient safety have led to several busy referral centers adopting shift-based models. We explored the difference in outcomes for acute biliary disorders, which are common surgical emergencies, at the same institution in 12 hour shift model by dedicated acute care surgeons (ACS) compared to traditional 24hr general surgery call (TRAD) during the same period.

Methods: September 2017 to June 2018 represented a transition from TRAD to ACS at an academic tertiary referral center. A retrospective review of patients admitted with acute biliary disease during this period was performed. Demographics, laboratory values, time to operation, operative details, length of stay, complications, and cost were compared using Chi-Square test and Mann-Whitney U test (IBM Statistics SPSS 25).

Results: Demographics and clinical presentation were similar between groups. Conversion to an open procedure (1.4% vs 3.1%), readmission (2.8% vs 7.7%) and other complications were similar between ACS and TRAD groups. While operative time was longer in ACS group, hospital length of stay (LOS) and both operating room and overall costs were decreased when compared with the TRAD group.

Conclusion: This is the first study to compare patient outcomes with TRAD & ACS head-to-head concurrently at the same institution. Patient outcomes in acute biliary disorders were similar, however hospital stay and cost were significantly reduced with the transition to a shift-based ACS model.

Timeliness to OR, OR time, Hospital Length of Stay (LOS) and Cost

	ACS	TRAD	P-VALUE
ER to Surgical Consult (minutes)	425.4	309.02	0.150
Surgical Consult to OR (minutes)	1699.31	2541.75	0.46
OR time	69.5	66.15	0.029
Hospital LOS (days)	0.73 + 1.02	2.44 + 3.1	0.001
OR Case cost (\$)	730.42 + 301.91	1,031.81 + 584.77	<0.001
Total Cost	\$ 2,183.16	\$ 5,866.40	<0.001