Clinical and Economic Validation of the International Study Group of Pancreatic Fistula (ISGPF) Classification Scheme

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Objective: The authors sought to validate the ISGPF classification scheme in a large cohort of patients following pancreaticoduodenectomy (PD) in a pancreaticobiliary surgical specialty unit.

Summary Background Data: Definitions of postoperative pancreatic fistula vary widely, precluding accurate comparisons of surgical techniques and experiences. The ISGPF has proposed a classification scheme for pancreatic fistula based on clinical parameters; yet it has not been rigorously tested or validated.

Methods: Between October 2001 and 2005, 176 consecutive patients underwent PD with a single drain placed. Pancreatic fistula was defined by ISGPF criteria. Cases were divided into four categories: no fistula; biochemical fistula without clinical sequelae (grade A), fistula requiring any therapeutic intervention (grade B), and fistula with severe clinical sequelae (grade C). Clinical and economic outcomes were analyzed across all grades.

Results: More than two thirds of all patients had no evidence of fistula. Grade A fistulas occurred 15% of the time, grade B 12%, and grade C 3%. All measurable outcomes were equivalent between the no fistula and grade A classes. Conversely, costs, duration of stay, ICU duration, and disposition acuity progressively increased from grade A to C. Resource utilization similarly escalated by grade.

Conclusions: Biochemical evidence of pancreatic fistula alone has no clinical consequence and does not result in increased resource utilization. Increasing fistula grades have negative clinical and economic impacts on patients and their healthcare resources. These findings validate the ISGPF classification scheme for pancreatic fistula.