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### Results of a Multidisciplinary Preoperative Assessment Process for High-Risk Orthopedic Patients

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**Background:** Preoperative evaluation prior to elective orthopedic surgery is important to understand risk and facilitate optimal surgical planning. An evaluation process was implemented to improve risk assessment of patients with high-risk clinical characteristics under consideration for elective intermediate-risk orthopedic procedures.

**Purpose:** Patient characteristics and preoperative clinical evaluation data were reviewed by a multidisciplinary group that included internal medicine, anesthesia, and orthopedics. Surgical provision outcomes are presented for total knee/hip arthroplasties in the first year of the high-risk process.

**Description:** Patients considered for total knee or hip arthroplasty were screened (patient evaluation, chart review, or both) to identify clinical comorbidities associated with adverse surgical outcomes. High surgical-risk characteristics of referred patients included cardiopulmonary factors, wound healing concerns, liver cirrhosis, and other comorbidities. Identified patients received chart review and preoperative medical evaluation by select providers. Subsequent multidisciplinary panel reviews provided recommendations, such as: delay surgery for additional evaluation, do not offer surgery based on clinical risk, or proceed to surgery with patient-specific surgical planning. Recommendations were communicated to patients for surgical or conservative management.

**Results:** The **Table** shows results for the 50 patients considered for hip/knee replacement who completed high-risk evaluations in year 1 of the quality improvement project.

**TABLE**  
Results of multidisciplinary preoperative screening

Procedure (N)	Surgery offered	Surgery received	Medical cancellations	Patient cancellations
Total hip (19)	18 (94.7%)	12 (66.7%)	1 (5.6%)	5 (27.8%)
Total knee (31)	24 (77.4%)	14 (58.3%)	2 (8.3%)	8 (33.3%)

**Conclusions:** A significant number of patients were not offered surgery; the denial rates were higher among patients assessed for knee replacement. Similar percentages of knee and hip arthroplasty patients actually received surgery with a small number canceling due to new medical problems. Most cancellations were due to patient choice with the majority stating that the surgical risks outweighed potential benefits.

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