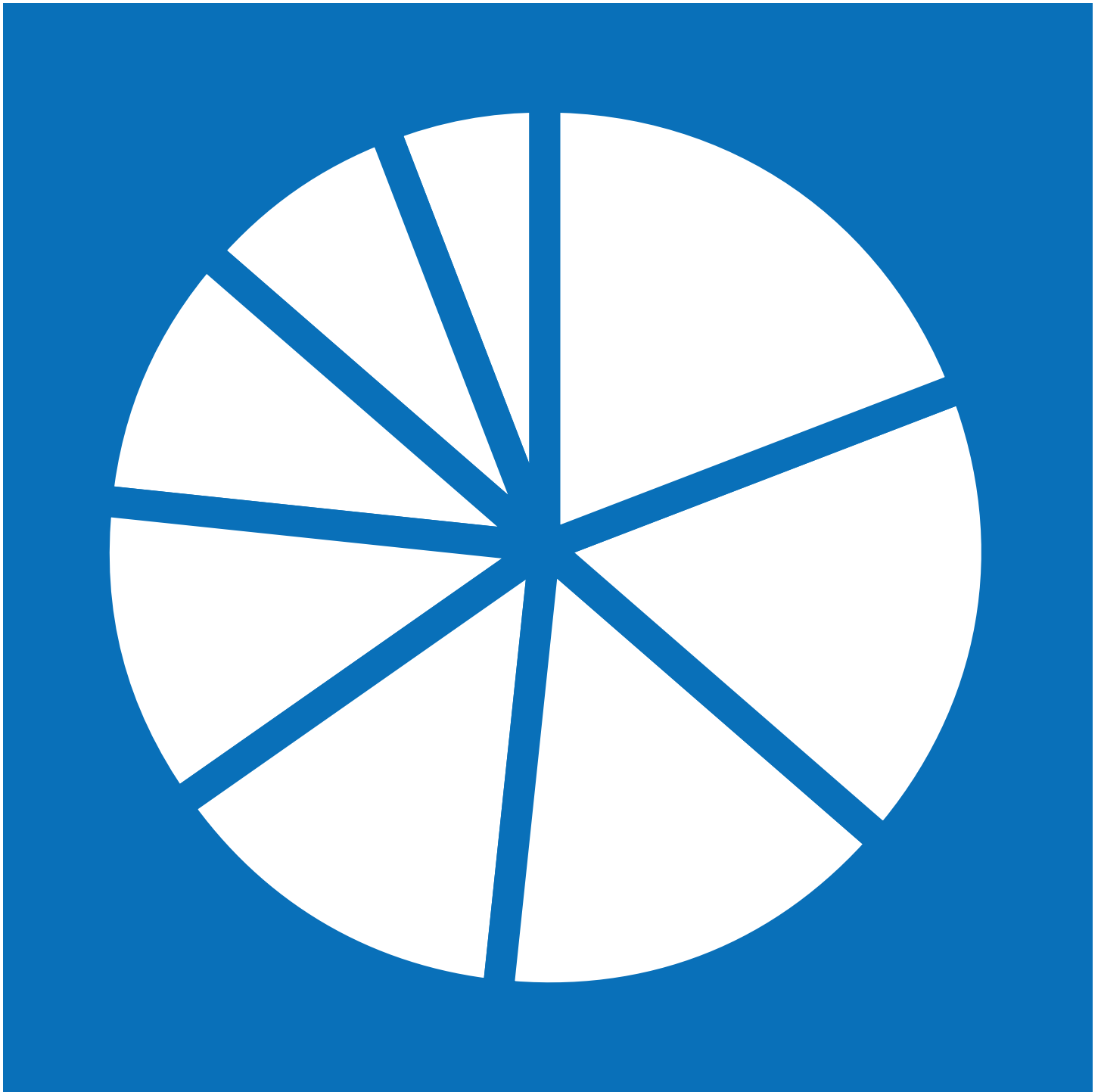


General Surgery

Specialty
Report



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Report Highlights

- The majority of surgical treatment claims occur in inpatient operative settings.
- Gastrointestinal procedures are the top procedure type implicated in surgical treatment claims, followed by hernia-related procedures.
- About one-quarter of surgical treatment claims involve laparoscopic procedures, most of which are cholecystectomies.
- The top injuries in surgical treatment claims are injuries that require additional/unplanned surgery; punctures, perforations, and tears; infections; death; and organ or nerve damage.
- Diagnosis-related claims account for only a small percentage of general surgery claims; however, 75 percent of these claims are categorized as high clinical severity, with more than half resulting in death.
- One-third of diagnosis-related general surgery claims involve issues related to malignancies, particularly failure to diagnose colorectal tumors.

Introduction

This report is an analysis of the aggregated data from MedPro Group's general surgery claims opened between 2004 and 2013. All claims included in this analysis identify a general surgeon as the primary responsible service. Claims in which another surgical specialty is identified as the primary responsible service are not included.

This report is designed to provide our insureds with detailed claims data to assist them in purposefully focusing their risk management and patient safety efforts.

Data are based on claim counts, not on dollars paid (unless otherwise noted). The type of claims and the details associated with them should not be interpreted as an actuarial study or financial statement of dollars paid; however, the information may be referenced for issues of relativity.

A Note About MedPro Group Data

MedPro Group has entered into a partnership with CRICO Strategies, a division of the Risk Management Foundation of the Harvard Medical Institutions. Using CRICO's sophisticated coding taxonomy to code claims data, MedPro Group is better able to identify clinical areas of risk vulnerability.

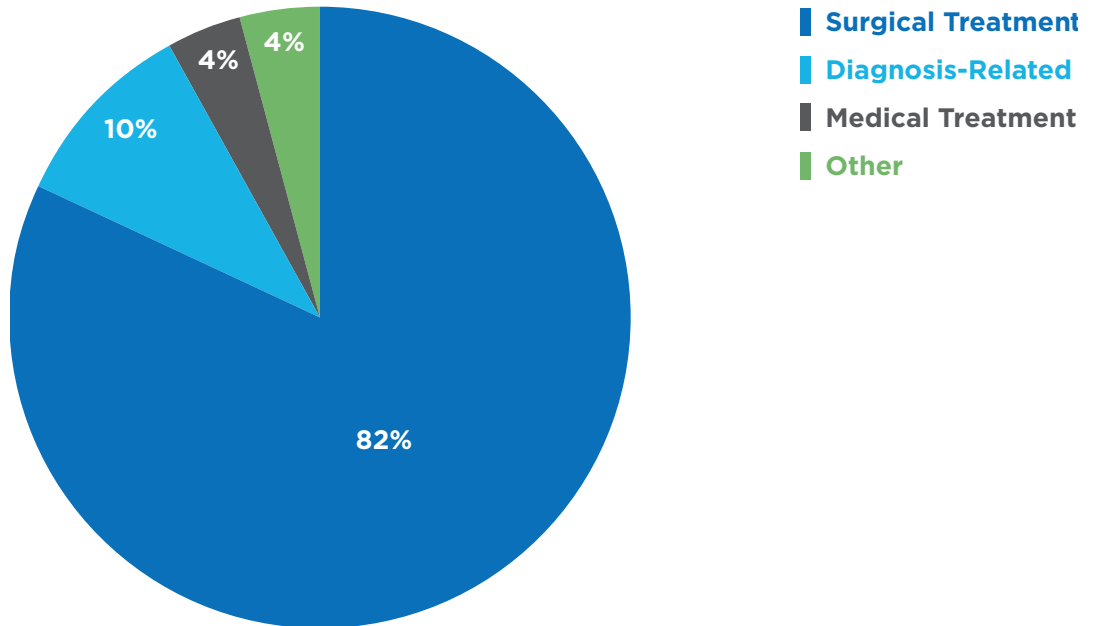
All data in this report represent a snapshot of MedPro Group's experience with general surgery claims, including an analysis of risk factors that drive these claims.

General Surgery Claims — Overview

Most general surgery claims opened between 2004 and 2013 are related to the surgical process, which includes the preoperative management of patients, the surgical procedure, immediate postoperative recovery needs, and postoperative management of patients.

Figure 1 shows the volume of general surgery claims by allegation category.

Figure 1.
Claim Volume by Allegation
Category, 2004–2013



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Diagnosis-related claims primarily involve allegations of failure to diagnose or delay in diagnosis of malignancies, procedural lacerations/perforations, or vascular incidents.

Medical treatment claims are broad in scope and mostly associated with care that occurs in a patient's hospital room or in a physician's office.

Only 18 percent of all allegations against general surgery providers fall outside of the surgical treatment category. Allegations related to diagnosis and medical treatment account for the majority of the remaining claim volume (14 percent). The other 4 percent of claims involve allegations related to:

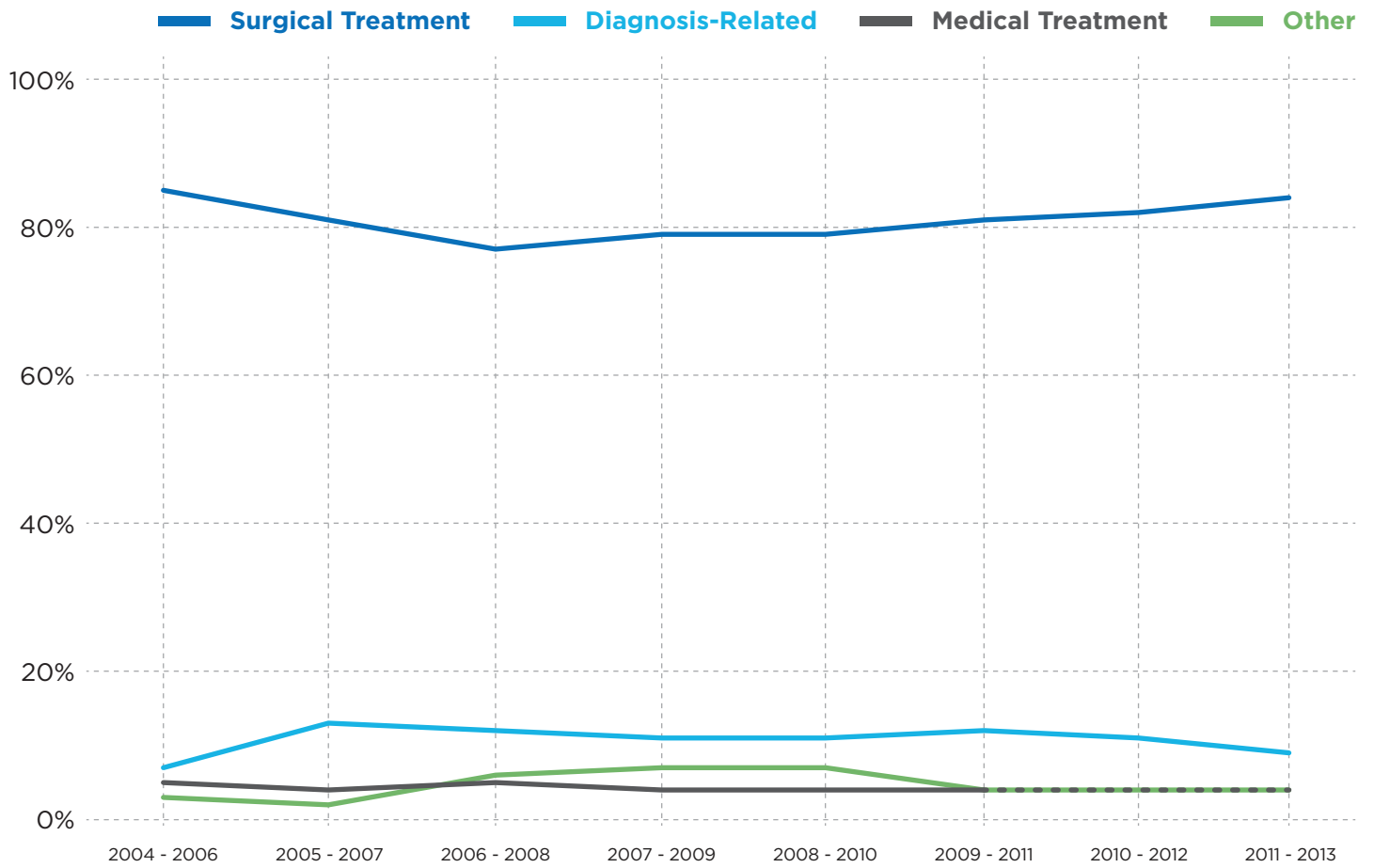
- Communication lapses, particularly in regard to obtaining informed consent for additional procedures performed during the scheduled procedure
- Medication issues, which primarily are associated with management of patients' medication regimens throughout the surgical care continuum
- Patient environment issues, almost all of which are related to infection prevention and patient burns in the operating room (OR) setting

Most of the analysis in this report is based on surgical treatment allegations, unless otherwise noted.

General Surgery Claims — Distribution of Allegations

Figure 2 shows the distribution of general surgery allegation categories over a 10-year period. Data are grouped in overlapping 3-year increments for ease of viewing trends over the years.

Figure 2. Distribution of Allegations, 2004–2013



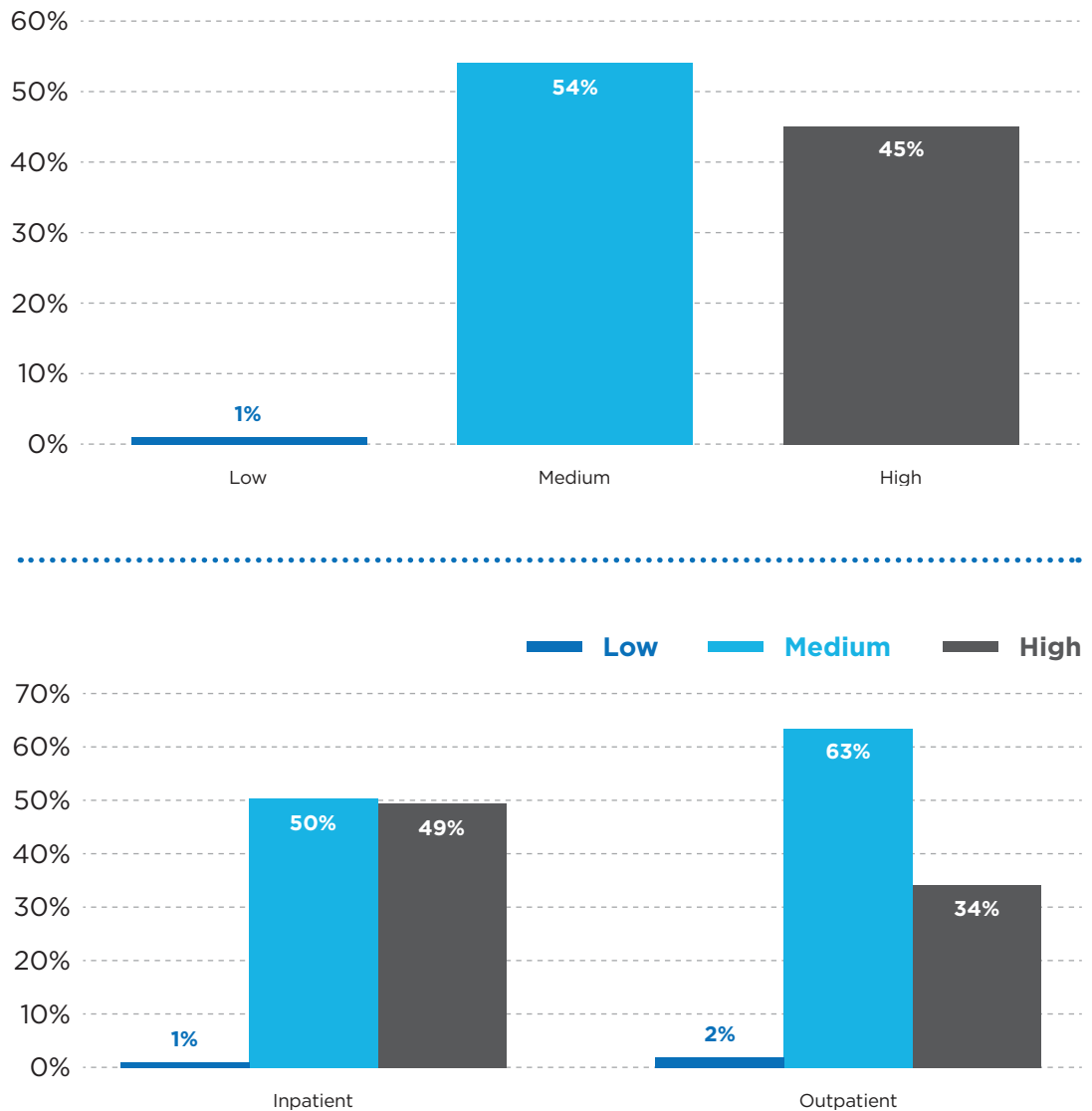
General Surgery Claims — Severity

As shown in Figure 3, almost half of general surgery claims are categorized as high clinical severity (which includes claims involving death or permanent injury). Two-thirds of total incurred dollars for all general surgery claims are tied to high-severity claims. (NOTE: Total incurred dollars = indemnity plus expense dollars reserved on open claims and paid on closed claims.)

Most often, high-severity surgical claims are associated with allegations of improper performance of surgery that results in death, hemorrhage, or puncture/perforation — particularly in laparoscopic procedures.

Of note, almost half of the inpatient general surgery cases fall into the high-severity category, while only about one-third of the outpatient cases reach this level.

Figure 3.
Clinical Severity of Claims:
Overall and by Practice
Setting, 2004–2013



NOTE: Any totals not equal to 100 percent are the result of rounding.

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High-severity surgical claims often involve breakdowns in the continuum of care designed to prioritize patient safety. Examples of these breakdowns include failure to report new findings, failure to identify the provider in charge of patient care, failure to adhere to policies and procedures, and workflow issues occurring during off hours (such as nights and weekends).

General Surgery Claims — Practice Setting

QUICK FACT

Average total incurred dollars per claim is similar between inpatient and outpatient settings.

More than two-thirds of general surgery claims are associated with care provided in inpatient settings (see Figure 4). The majority of inpatient claims correlate to care provided in the surgical area (see Figure 5). Further, 99 percent of all claims associated with the surgical area involve the OR, while only 1 percent are directly related to care provided in the postanesthesia care unit (PACU).

Three-fourths of outpatient claims are associated with care provided in ambulatory surgery centers, while the remainder are linked to care provided in physician offices or clinics.

The percentage of claims associated with inpatient and outpatient settings changed very little over the 10 years analyzed, as Figure 6 shows.

Figure 4.
Claim Volume by Practice Setting, 2004-2013

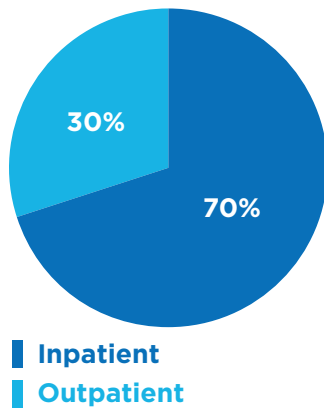


Figure 5.
Claim Volume by Specific Location, 2004-2013

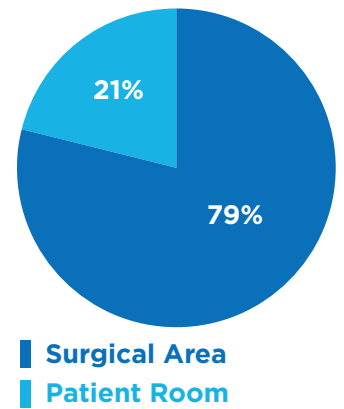
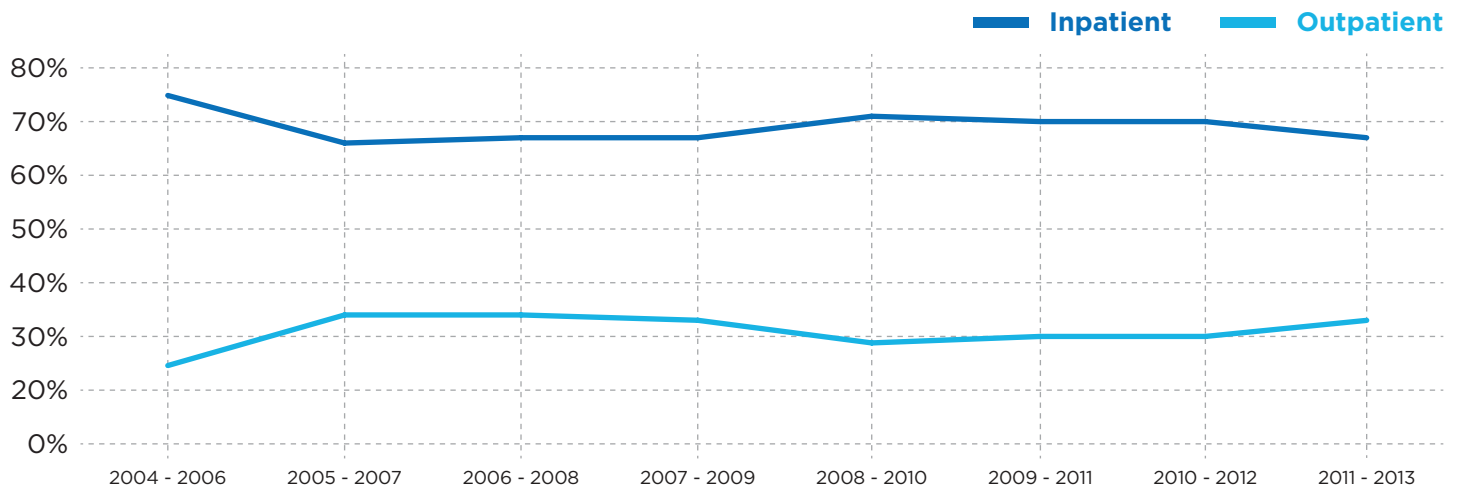


Figure 6. Distribution of Claim Volume by Practice Setting Over a 10-Year Period, 2004-2013



General Surgery Claims — Patient Factors

The majority of general surgery claims involve adults ages 30 to 64 (see Figure 7), with slightly more than half of these claims involving patients between the ages of 30 and 49. Additionally, a larger percentage of claimants are female (see Figure 8).

Figure 7. Claim Volume by Patient Age, 2004-2013

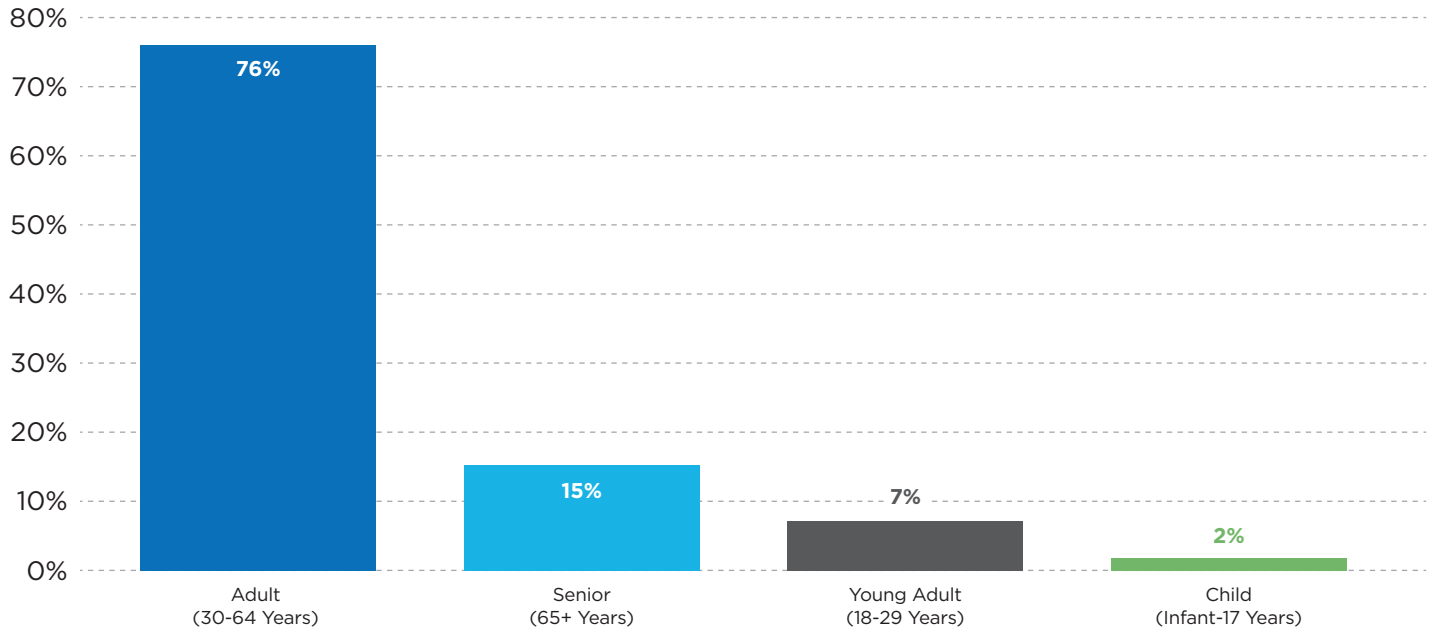
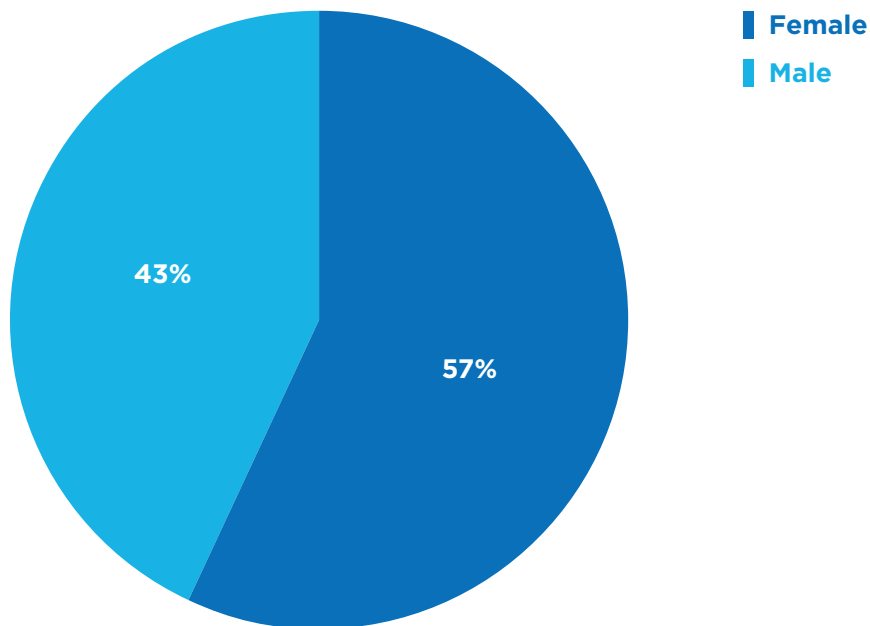


Figure 8.
Claim Volume by Patient
Gender, 2004-2013



Surgical Treatment Claims

Allegation Subcategories

QUICK FACT

Communication issues are common in surgical treatment claims, especially in circumstances in which multiple providers are assessing the patient's condition.

As noted previously, most general surgery claims opened between 2004 and 2013 relate to surgical treatment. Figure 9 provides a breakdown of allegation subcategories within the surgical treatment claims. Issues associated with the technical performance of surgery account for two-thirds of these claims.

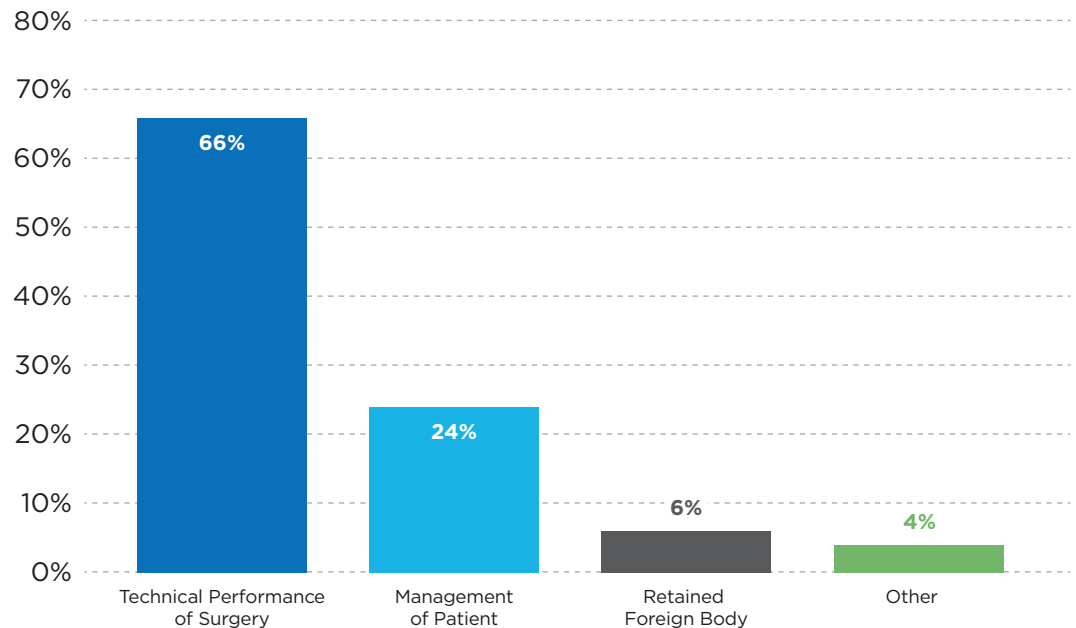
The subcategory referred to as “management of patient” is reflective of all phases of the surgical continuum, except for the technical performance of surgery. “Management of patient” includes, but is not limited to, preoperative patient assessment issues and postsurgical events in which a known complication arises (such as infection or bleeding), but providers do not adequately treat the complication, which leads to further injury.

The “management of patient” subcategory also includes wrong site surgeries; however, this data set had very few of those claims.

Of note, the percentage of claims related to retained foreign bodies has decreased over the 10 years of data represented in this report.

The “other” subcategory spans additional situations, including allegations of delay in surgery or unnecessary surgery.

Figure 9.
Surgical Treatment Claims:
Allegation Subcategories,
2004-2013



Claim Analysis: Improper Management of Surgical Patient

A patient underwent laparoscopic Roux-en-Y gastric bypass. During the immediate postoperative days, the patient experienced tachycardia and significant abdominal pain. An abdominal computed tomography (CT) scan revealed fluid in the abdomen, but the results were not immediately relayed to the surgeon.

Over the next 2 days, the patient's condition deteriorated, but neither the nursing staff nor the lab directly notified the surgeon about the critical test results. Ultimately, the patient required surgery

after developing respiratory distress, metabolic acidosis, septic shock, and acute renal failure.

Surgery revealed that the gastrojejunostomy had failed. A third surgery was required 3 days later due to increasing pain. During the third surgery, a perforation in the transverse colon was discovered.

The patient required multiple subsequent surgeries and suffered severe weight loss, skin breakdown, and permanent nerve damage as a result of malnutrition.

Risk Management Issues for This Claim

- Inadequate patient assessment, including failure to elevate concerns related to the patient's deteriorating condition
 - Inadequate postoperative management of the patient due to the lack of a timely response to ongoing patient symptoms
 - Inadequate communication between providers regarding critical test results and deterioration of the patient's condition
 - Lack of adherence to policies and procedures for reporting critical test results
-

Top Procedures Associated With Surgical Treatment Claims

Figure 10 shows that gastrointestinal (GI) procedures are associated with more than half of the surgical treatment claims. Examples of GI procedures include appendectomies, colectomies, and hepatic surgeries. Hernia-related procedures account for the next largest procedure category. The data show no significant difference in top procedures when comparing inpatient and outpatient settings.

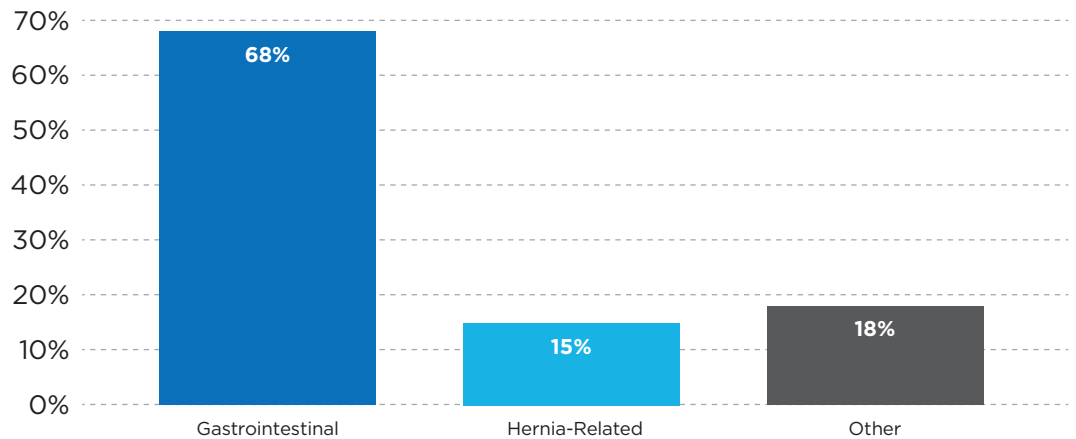
Figure 10.

Surgical Treatment Claims:
Top Procedures, 2004–2013



About one-fourth of surgical treatment claims involve laparoscopic procedures, most of which are GI related. Cholecystectomies account for more than 75 percent of the claims involving laparoscopic GI procedures.

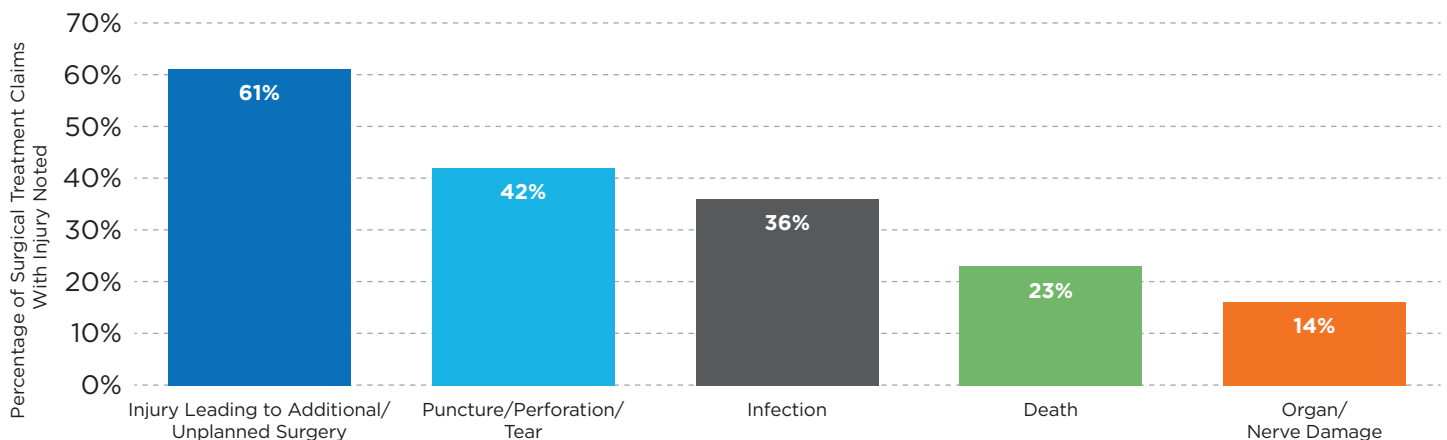
In laparoscopic cholecystectomy claims, the most common injuries are associated with the gallbladder and/or common bile duct. Perforations of the small intestine also are common in these claims.



Top Injuries Associated With Surgical Treatment Claims

Figure 11 shows the top patient injuries associated with surgical treatment claims. Laparoscopic procedures are involved in approximately one-third of the claims in which a need for additional/unplanned surgery was identified. The majority of the laparoscopic procedures were cholecystectomies.

Figure 11. Surgical Treatment Claims: Top Patient Injuries, 2004–2013



NOTE: A claim can have one or more injuries identified.

Claim Analysis: Improper Performance of Laparoscopic Cholecystectomy

A patient with right upper quadrant pain and gallstones consented to laparoscopic cholecystectomy. The informed consent documentation did not specifically include the risk of biliary injury.

In an attempt to avoid biliary structures, the surgeon initiated a dome dissection but converted to a base dissection upon visualizing inflammation and extensive adhesions at the surgical site.

The cystic duct was bound in adhesions, but the surgeon continued the laparoscopic approach and did not order an intraoperative cholangiogram. The surgery lasted much longer than expected.

Postoperatively, the patient did well and was discharged, but returned 3 days later with severe abdominal distension. Infection and a biliary injury were considered; however, despite the difficult surgery, the surgeon did not investigate for a potential bile leak. After approximately 1 week, an endoscopic retrograde cholangiopancreatography (ERCP) showed a common bile duct injury, but surgery was delayed due to severe inflammation.

When surgery did take place, the entire biliary duct system was found to be damaged (right duct retracted, left duct clipped, and common bile duct absent). A hepaticojejunostomy was required.

Risk Management Issues for This Claim

- Technical skill issues related to misidentification of an anatomical structure
 - Inadequate postoperative management of the patient, including a narrow diagnostic focus and failure to select the most appropriate treatment course when postoperative complications were identified
 - Inadequate informed consent for the procedure
-

Top Contributing Factors in Surgical Treatment Claims

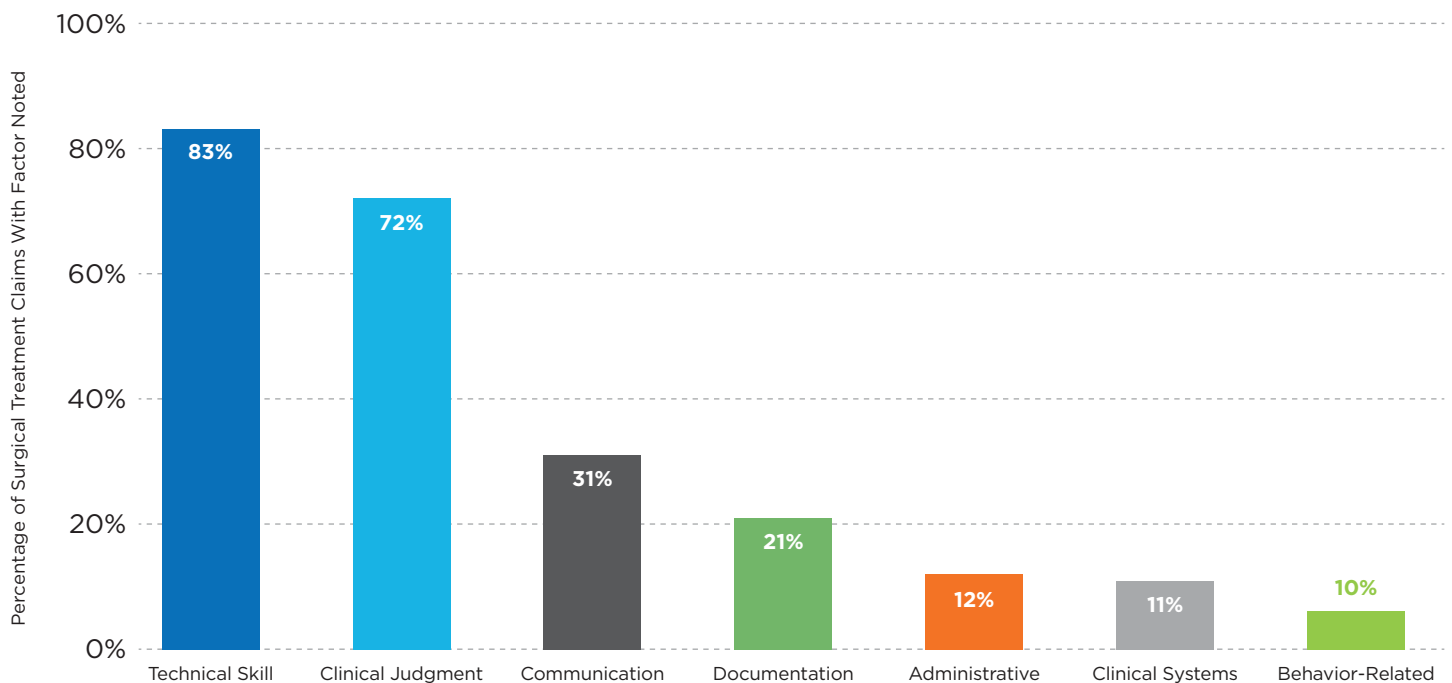
Contributing factors are broad areas of concern that may have contributed to allegations, injuries, or initiation of claims. These factors reflect issues that might be amenable to loss-prevention strategies. A claim can have one or more contributing factors.

Technical Skill

Figure 12 shows the top contributing factors in surgical treatment claims. Technical skill issues — the broad category of skill associated with the performance of surgery — are a frequent and persistent factor across the intraoperative portion of the surgical treatment continuum.

Many of the claims with identified technical skill issues involve known complications of the procedure; however, some claims involve poor procedural technique, including misidentification of anatomical structures (most often seen in the laparoscopic procedures).

Figure 12. Top Contributing Factors in Surgical Treatment Claims, 2004–2013



RISK STRATEGIES

Ensure that provider privileges are based on training, credentials, and competency.

Enhance technical surgical skills through ongoing performance improvement efforts, such as mentoring, proctoring, and continuing education.

Carefully consider the patient, procedure, and location. Review patient selection criteria for each procedure, reconcile patient medications, and use evidence-based guidelines.

Clinical Judgment

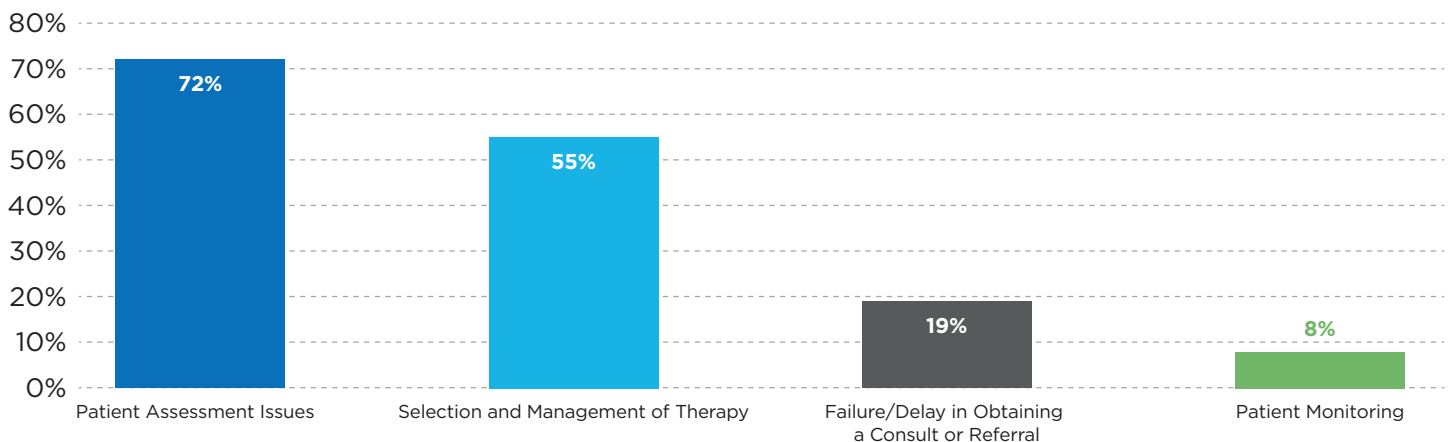
Clinical judgment also is a common contributing factor in surgical treatment claims. Clinical judgment refers to the cognitive decisions providers make as part of patient assessment during all phases of the surgical treatment continuum.

Issues with clinical judgment most frequently involve inadequate patient assessment, such as:

- Failing to order or delay in ordering diagnostic testing
- Ordering a premature postoperative discharge
- Failing to rule out abnormal findings
- Failing to establish a differential diagnosis
- Failing to note new or updated clinical information

Clinical judgment issues also include inappropriate selection of the surgical/invasive procedure, situations in which a provider proceeds with a conservative approach when the patient's condition warrants a more aggressive procedure, or situations in which surgery is commenced without the benefit of all required preoperative diagnostic testing (see Figure 13).

Figures 13. Factors That Contribute to Clinical Judgment Issues, 2004–2013



RISK STRATEGIES

Perform complete patient assessments and ensure timely ordering of tests and consults to prevent problems associated with ruling out or documenting abnormal findings.

Implement and utilize clinical pathways to standardize processes and support quality care.

Consider the use of decision support systems, consultations, and group decision-making to support clinical reasoning.

Communication

Communication factors include risks associated with communication among providers and between providers and patients/families. For the latter, half of the issues involve the informed consent process. The most pressing issue is related to obtaining informed consent prior to treatment — specifically, failing to inform the patient of a procedure’s potential risks, failing to educate the patient about other viable treatment options, and/or failing to identify the provider who will perform the surgery (resident or surgeon).

Additionally, poor rapport between providers and their patients contributes to breakdowns in the communication process. These breakdowns often lead to patients not fully understanding informed consent matters, discharge instructions, and information about follow-up appointments.

Gaps in communication also occur when established procedures for transmitting patient clinical information to other providers or care settings are not followed.

Overreliance on electronic health record (EHR) systems, at the expense of verbal discussions, also can contribute to communication failures among providers — as can clinical system failures (e.g., an inadequate process for reporting critical results directly from the lab to the bedside caregiver).



RISK STRATEGIES

Implement protocols for team-based communication, including protocols for care transitions, telephone triage, and communication with radiology providers regarding incidental findings on diagnostic studies.

Communicate adequate and appropriate information to patients. Conduct informed consent, provide patient education, and encourage patients to participate in their care.

Use comprehension techniques, such as “teach-back” or “repeat-back,” to gauge patient understanding and reduce the risk of miscommunication.

Documentation and Administrative

Documentation and administrative issues round out the top five contributing factors in surgical treatment claims. Documentation factors primarily reflect insufficient documentation within patient records (e.g., lack of clinical rationale to support treatment decisions).

The most common administrative factors involve following established policies/procedures. Claim scenarios that involve failure to follow policies/procedures are varied. Examples include failure to adhere to sponge count processes and failure to perform required vital sign checks.



RISK STRATEGIES

Document a complete, concise, and accurate operative report the day of the procedure.

Participate actively in surgical team timeouts prior to commencement of surgeries/procedures.

Following surgical procedures, hold team debriefing/huddle sessions to identify opportunities for improvement.

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A number of claims in this claim set involve intraoperative injuries that went unrecognized during the postoperative period (e.g., bowel perforations). Other claims in this claim set involve missed intraoperative findings (e.g., an additional tumor in the colon or a tumor in the pancreas). Almost 80 percent of the diagnosis-related claims that are specifically associated with procedures occurred in inpatient settings.

Diagnosis-Related Claims

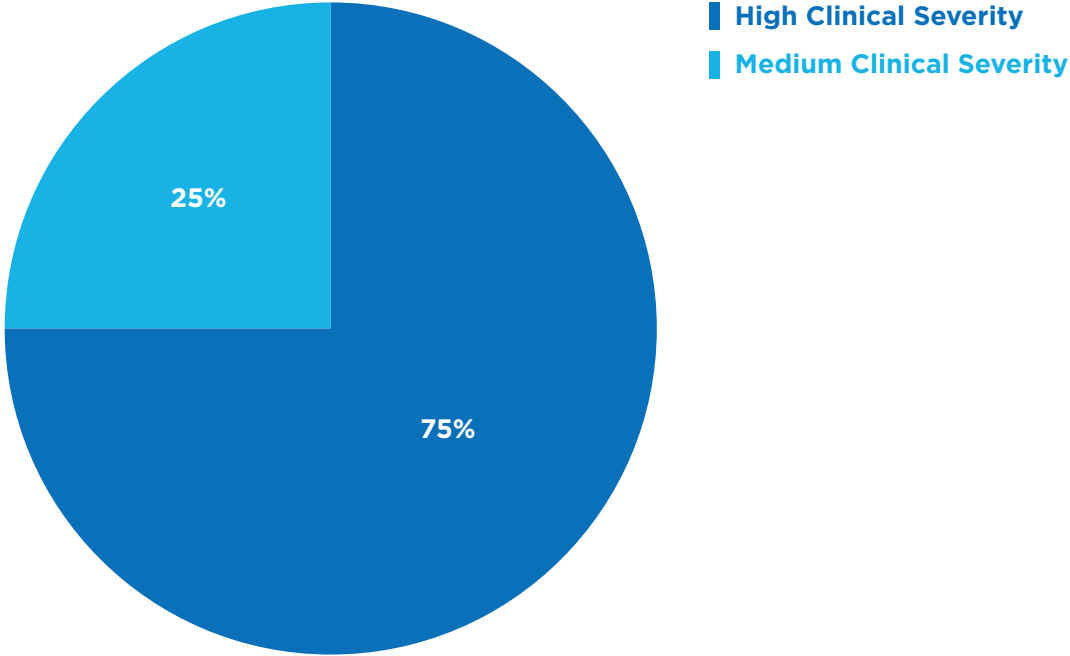
Although diagnosis-related allegations represent just 10 percent of the general surgery claim volume, dollars spent on these claims and surgical treatment claims are similar in terms of average total incurred dollars per claim.

Further, as Figure 14 shows, 75 percent of the diagnosis-related claims are categorized as high clinical severity, with more than half resulting in death.

The conditions implicated in diagnosis-related claims are diverse. Malignancies account for one-third of the claims. Diagnostic failures in claims involving cancer primarily relate to missed findings of colorectal tumors with an associated absence of clinical correlation of symptoms with additional diagnostic testing.

Clinical judgment issues occur in almost 100 percent of diagnosis-related claims. Most often, these issues involve failure to order or delay in ordering diagnostic tests, misinterpretation of diagnostic studies, failure to rule out abnormal findings, or maintaining a narrow diagnostic focus.

Figure 14.
Diagnosis-Related Claims by Severity, 2004-2013



NOTE: This data set did not include any diagnosis-related claims categorized as low clinical severity.

Claim Analysis: Delay in Diagnosis of Metastatic Colon Cancer

A patient underwent colon resection after being diagnosed with diverticulitis with a colonic stricture. Intraoperatively, a large sigmoid mass was identified and resected. Postoperatively, however, the pathology results — which identified the mass as metastatic colon cancer — were not called to the surgeon or placed in the patient’s paper chart on the inpatient unit, as facility policy required. However, the results were uploaded to the EHR within 2 days of the patient’s surgery.

The patient was discharged from the hospital and sent home. Confusing postoperative instructions to both the patient and the surgeon’s office staff resulted in staff not scheduling the patient for a follow-up appointment until 6 months later. For unknown reasons, the patient did not return to the surgeon’s office,

even after 6 months. Further, no flag appeared on the office record to notify the surgeon or the staff that (a) the patient had missed her appointment, and (b) the postoperative pathology results had not been communicated to the patient.

The surgeon dictated the discharge summary 2 months after the patient’s surgery, but did not retrieve a copy of the final pathology results from the EHR. In the summary, he noted only a diagnosis of chronic sigmoid diverticulitis with stricture.

Two years later, the patient did return to the office with complaints of abdominal pain and weight loss. Diagnostic testing revealed an ovarian mass consistent with metastatic colon carcinoma. The patient died within 1 year.

Risk Management Issues for This Claim

- Inadequate discharge instructions to the patient regarding the importance of follow-up appointments
 - Communication lapses among providers (i.e., the surgeon, lab staff, and nursing staff) regarding diagnostic test results
 - Lack of a policy for reporting/communicating diagnostic test results as part of postoperative follow-up
 - Inadequate systems for patient follow-up, including lack of a system in the hospital and in the office practice to confirm whether all test results have been received
 - Lack of an office-based process to (a) identify when critical information is not communicated because of a missed or cancelled patient appointment, and (b) determine when direct contact with a patient is necessary
-

> QUICK FACT

Allegations related to managing a patient's postoperative course of treatment often involve care that occurs outside of the surgical situation, either in a physician's office (as part of the follow-up process) or as part of a subsequent inpatient hospitalization.

Medical Treatment Claims

As stated earlier, general surgery claims that involve medical treatment allegations are broad in scope, but they most often are related to management of a patient's postoperative course of treatment.

Medical treatment allegations are distinct from surgical treatment allegations because they do not involve the performance of surgery. Rather, allegations associated with medical treatment primarily involve managing care needs that develop postoperatively. Nonsurgical procedures, such as colonoscopies and placement of endotracheal tubes, are included within this set of allegations.

Examples of conditions cited in medical treatment claims include bowel obstructions, respiratory distress, and nonhealing wounds.

Patient assessment issues, communication breakdowns, and documentation issues (related to capturing the clinical rationale for treatment) are common contributing factors in medical treatment claims.

Claim Analysis: Improper Performance of Procedure and Management of Postoperative Care

A patient who had a history of smoking, alcohol abuse, obesity, and methicillin-resistant *Staphylococcus aureus* (MRSA) underwent a colonoscopy due to a complaint of bloody stools. Toward the end of the procedure, a perforation was noted, and the patient was taken to the OR for surgical repair.

One dose of Levaquin® was administered preoperatively, but no postoperative antibiotics were prescribed. Four days after the surgery, while the patient was still in the hospital, he was taken back to the OR for

repair of ruptured sutures. Culture results 1 day later revealed a staph infection.

The surgeon consulted a pharmacist for an antibiotic regimen recommendation due to the unavailability of an infectious disease consult. One week later, the patient was taken back to the OR for emergent repair of wound evisceration. The patient subsequently was transferred to another facility for a higher level of care; he underwent months of treatment for MRSA and wound care, as well as several additional surgeries.

Risk Management Issues for This Claim

- Poor technique during the colonoscopy resulting in several small tears throughout the colon
- Inappropriate selection and management of a postoperative antibiotic regimen
- Deterioration of the patient's condition over the course of a holiday weekend, with decreased staffing noted as a contributing factor

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