A Ten Year Overview of Medical & Surgical Cases

Data Insight

2023

MedPro Group

MLMIC
MLMIC Insurance Company
a Berkshire Hathaway company

Introduction

This publication contains an analysis of aggregated data from clinically coded medical and surgical cases opened between 2012-2021.

Keep in mind…

The purpose of this report is to assist in understanding better the factors that may have contributed to **cases brought against insured medical and surgical practitioners, hospitals and facilities** (dental and senior care cases are excluded).

Our data system, and analysis, rolls all claims/suits related to an individual patient event into one case for coding purposes. Therefore, a case may be made up of one or more individual claims/suits and multiple defendant types such as hospital, physician, and other healthcare professionals.

Cases that involve attorney representations at depositions, State Board actions, and general liability cases are not included.

This analysis is designed to provide insured doctors, healthcare professionals, hospitals, health systems, and associated risk management staff with detailed case data to assist them in purposefully focusing their risk management and patient safety efforts.

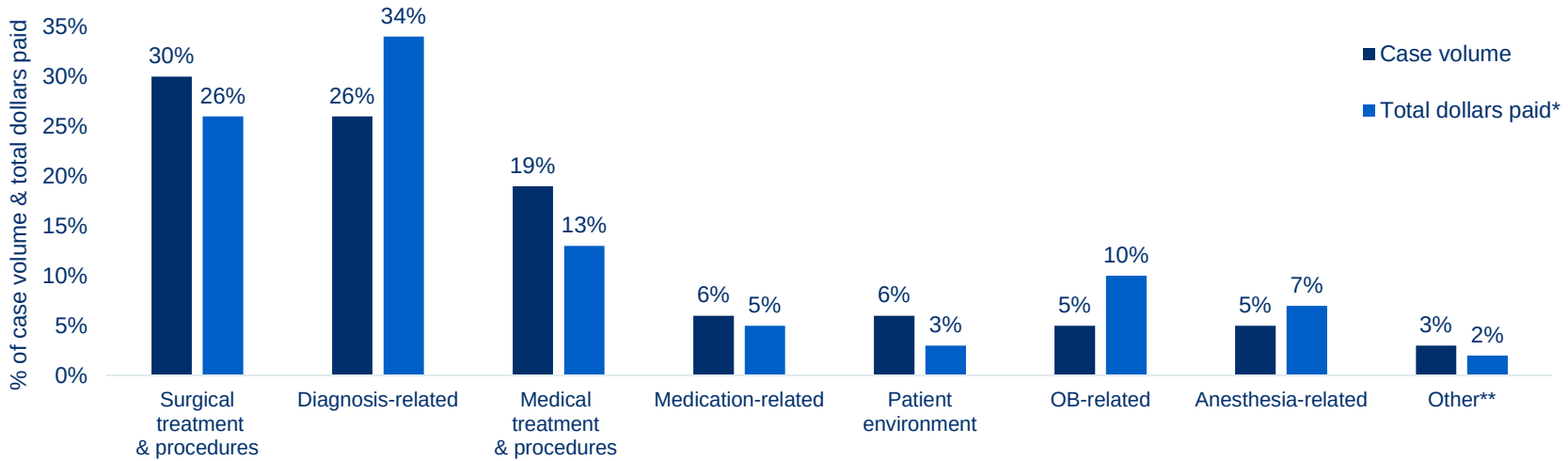
Key Points - Clinically Coded Data

- **Distribution of the five most common allegation categories across rolling three-year timeframes is relatively consistent**.
  - Surgical allegations are most common, followed closely by those which are diagnosis-related. Medical, patient environment and medication-related allegations round out the top five allegation categories.
  - Medical treatment and patient environment cases do appear to be increasing as a percentage of the overall case volume. Medical treatment is inclusive of broad-scope non-surgical, non-medication and non-OB-related cases. Patient environment primarily reflects patient falls and other safety-related events.
- **Although diagnosis-related cases account for one-third of total dollars paid, OB and anesthesia-related cases are, on average, the most costly to defend**. Diagnosis-related allegations encompass wrong diagnoses, failures/delays, and misdiagnoses. There are key opportunities to reduce errors along the diagnostic process of care, especially during the initial patient assessment phase.
- Although the percentage of high clinical severity cases opened each year is slightly declining, the **average cost to resolve these is rapidly increasing**.
- **The primary responsible service in each case is the specialty that is deemed to be most responsible for the resulting patient outcome.** In keeping with the volume of surgical cases, surgical specialties are most commonly noted, but followed closely by a variety of medical specialties and nursing staff.
- **“Roles”** are also identified; they **reflect the specific position within the specialty service team that was involved at the time of the event**. As would be expected, attending/consulting roles are by far the most commonly noted.
- **Contributing factors are multi-layered issues or failures in the process of care** that appear to have contributed to the patient’s outcome, and/or to the initiation of the case, or had a significant impact on case resolution. The **distribution of the five most common factors across rolling three-year timeframes is relatively consistent**.
  - Clinical judgment factors are, not surprisingly, most often identified, followed by communication, technical skill, behavior-related issues and administrative factors.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625)

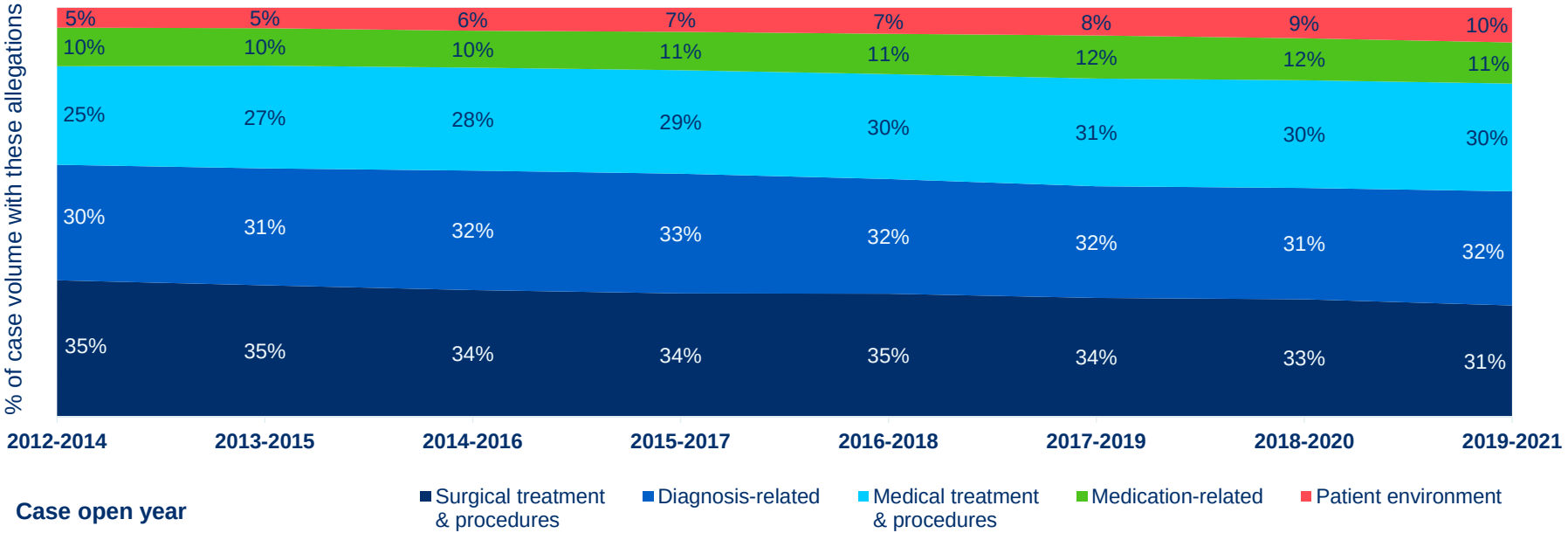
Major Allegation Categories & Financial Severity

Each case reflects one major allegation category. Categories are designed to enable the grouping and analysis of similar cases and to drive focused risk mitigation efforts. The coding taxonomy includes **detailed allegation sub-categories; insight into these is noted later in this report.** Surgical and diagnosis-related cases are most common, and although diagnosis-related cases account for one-third of total dollars paid, **OB and anesthesia-related cases are, on average, the most costly to defend**.



MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); *Total dollars paid = expense + indemnity; **Other includes allegations for which no significant case volume exists

Distribution of Top Five Major Allegation Categories Over Time



Overall, the **distribution of the five most common allegation categories across rolling three-year timeframes is relatively consistent**. Medical treatment and patient environment (primarily falls and other safety-related events) cases do appear to be increasing as a percentage of the overall case volume.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625)

Clinical Severity*

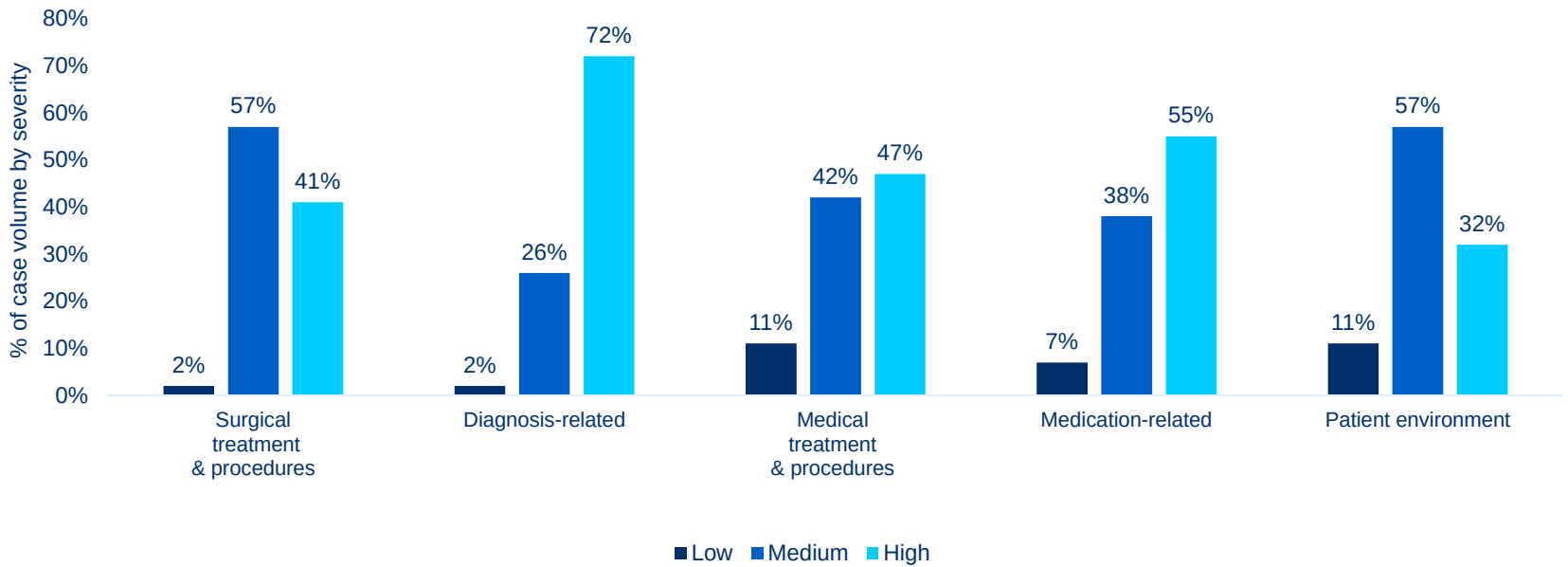
Clinical Severity Categories	Sub-categories	% of case volume
LOW	Emotional Injury Only	6%
	Temporary Insignificant Injury	
MEDIUM	Temporary Minor Injury	41%
	Temporary Major Injury	
	Permanent Minor Injury	
HIGH	Significant Permanent Injury	53%
	Major Permanent Injury	
	Grave Injury	
	Death	

Typically, the higher the clinical severity, the higher the indemnity payments are, and the more frequently payment occurs.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); *Severity codes reflect National Association of Insurance Commissioners (NAIC) injury severity scale

Clinical Severity*: Focus on Top Five Major Allegation Categories

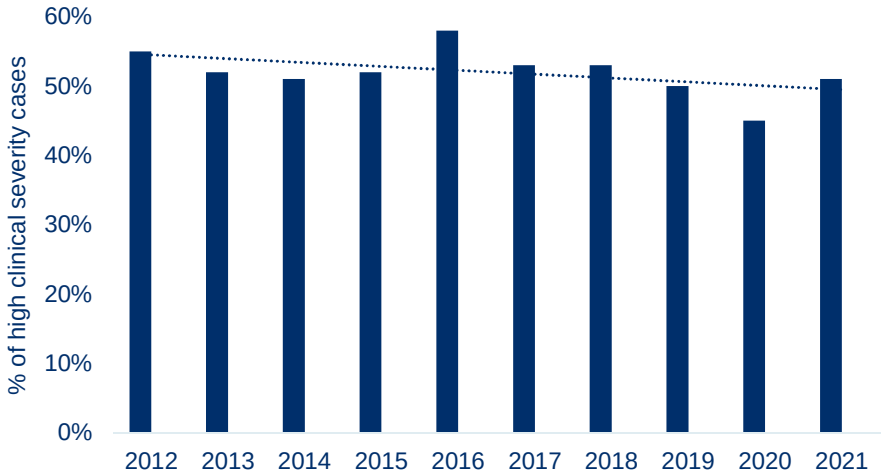
The percentage of diagnosis-related cases which reflect a high clinical severity patient outcome far surpasses that of other allegations.
The only exception is OB-related cases (74% of those are high severity).



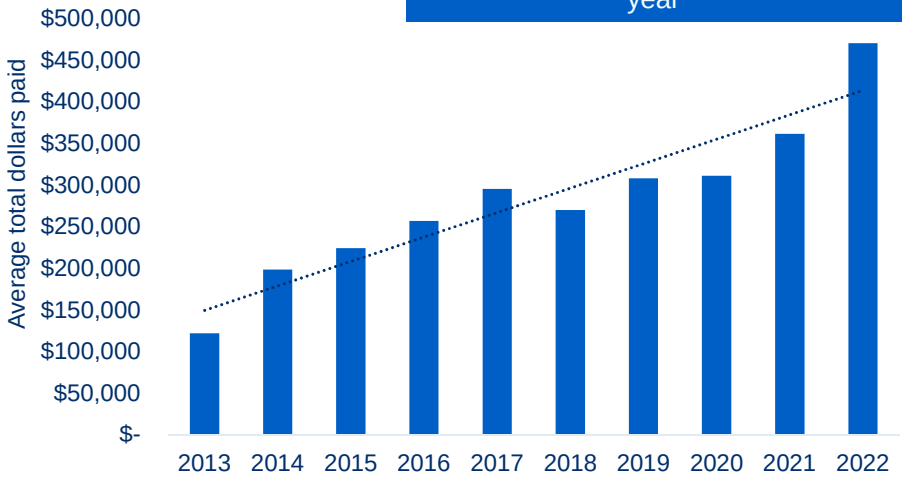
MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); *Severity codes reflect National Association of Insurance Commissioners (NAIC) injury severity scale

Clinical* & Financial Severity

High clinical severity cases by open year



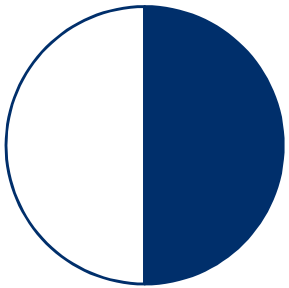
High clinical severity closed cases – average financial** severity by closed year



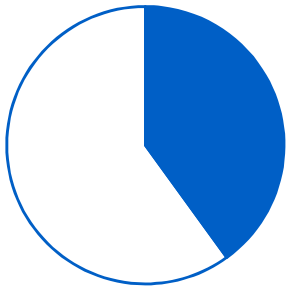
Although across the years the percentage of high clinical severity cases in this data set **opened each year is slightly declining,** the **average cost to resolve** these cases is **rapidly increasing**.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); *Severity codes reflect National Association of Insurance Commissioners (NAIC) injury severity scale (high severity N=11.696); **Total dollars paid = expense + indemnity (high severity closed case N=10,195)

Claimant Type & Location



Ambulatory
50%



Inpatient
40%

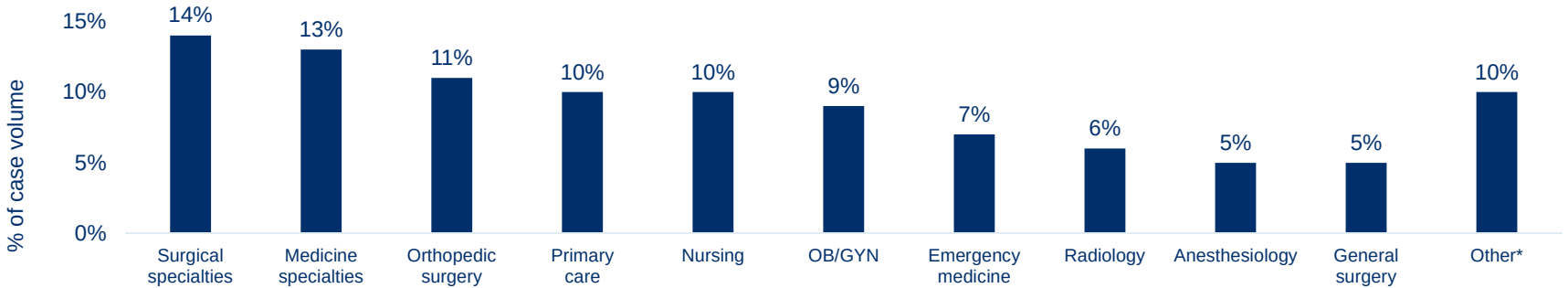
Emergency
10%

Top Locations	% of case volume
Office/clinic	26%
Patient room/ICU	17%
Inpatient surgery	15%
Ambulatory surgery	11%
Emergency department	10%

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625)

Primary Responsible Services

The **primary responsible service** in each case is the **specialty that is deemed to be most responsible** for the resulting patient outcome.



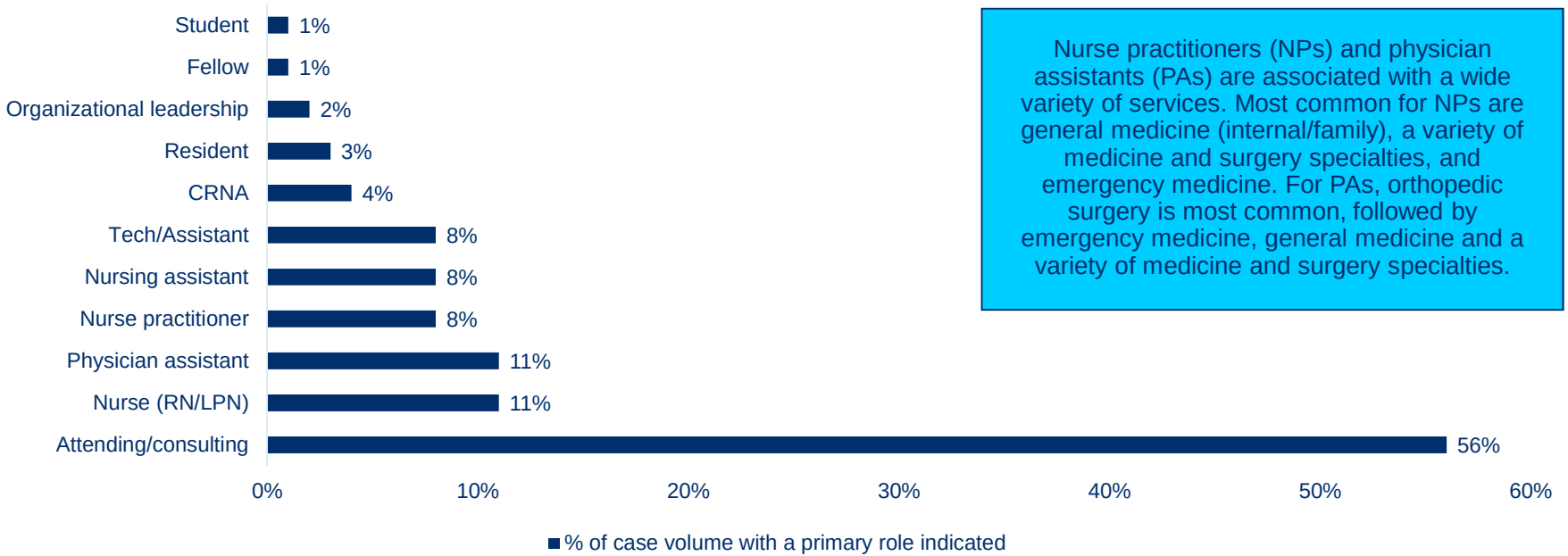
Surgical & medical specialty details

Surgical specialties**	**Medical specialties****
Ophthalmology (23%)	Cardiology (14%)
Plastics (16%)	Gastroenterology (14%)
Urology (14%)	Dermatology (12%)
Otolaryngology (12%)	Medical hospitalist (12%)
Podiatry (11%)	Pain medicine (11%)
Vascular (7%)	Neurology (7%)
Other* (17%)	Other* (30%)

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625);
*Other includes services for which no significant case volume exists;
**As a percentage of the case volumes for surgical specialties and medical specialties categories

Primary Responsible Services: Focus on Primary Roles*

The **primary responsible service** in each case is the **specialty that is deemed to be most responsible** for the resulting patient outcome. "**Roles**" reflect the **specific position within the specialty service team that was involved at the time of the event**. There may be multiple primary roles within the same service team (i.e., a physician assistant and an attending/consult – both practicing medicine under the emergency medicine responsible service).



Nurse practitioners (NPs) and physician assistants (PAs) are associated with a wide variety of services. Most common for NPs are general medicine (internal/family), a variety of medicine and surgery specialties, and emergency medicine. For PAs, orthopedic surgery is most common, followed by emergency medicine, general medicine and a variety of medicine and surgery specialties.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); *Identification of roles has been an evolving available code for several years and was enhanced and made mandatory in July 2021, therefore not all cases coded prior to that date have a role indicated (those with a role: N=8403)

Contributing Factors

“Contributing factors reflect both provider and patient issues. They denote breakdowns in technical skill, clinical judgment, communication, behavior, systems, environment, equipment/tools, and teamwork. The majority are relevant across clinical specialties, settings, and disciplines; thus, they identify opportunities for broad remediation.”

CRICO Strategies. (2020). The Power to Predict: Leveraging Medical Malpractice Data to Reduce Patient Harm and Financial Loss. Retrieved from https://www.candello.com/Insights/Candello-Reports/Power-to-Predict.

Contributing Factors

Despite best intentions, processes designed for safe patient outcomes can, and do, fail.

Contributing factors are multi-layered issues or failures in the process of care that appear to have contributed to the patient's outcome, and/or to the initiation of the case, or had a significant impact on case resolution.

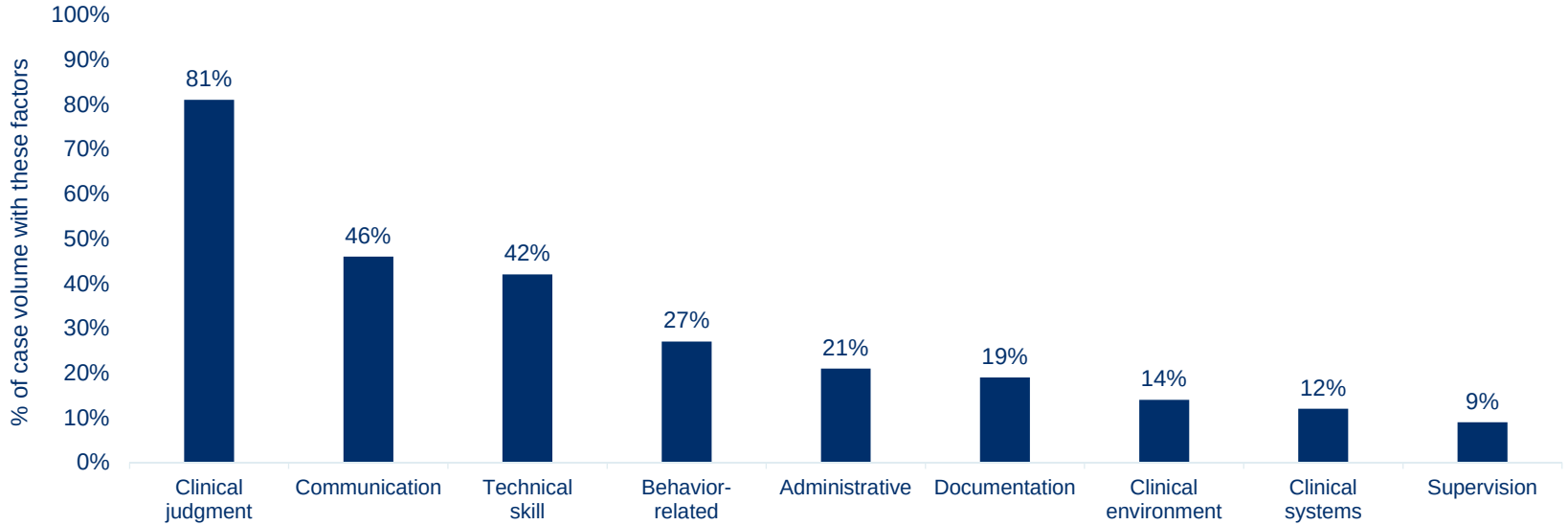
Multiple factors are identified in each case because generally, there is not just one issue that leads to these cases, but rather a combination of issues.

Administrative | **Behavior-related** | **Clinical environment** | **Clinical judgment** | **Clinical systems** | **Communication** | **Documentation** | **Supervision** | **Technical skill**

Contributing Factor Category Definitions

Administrative	Factors related to medical records (other than documentation), reporting, staffing, ethics, policy/protocols, regulatory
Behavior-related	Factors related to patient non-adherence to treatment or behavior that offsets care; also provider behavior including breach of confidentiality or sexual misconduct
Clinical environment	Factors related to workflow, physical conditions and “off-hours” conditions (weekends/holidays/nights)
Clinical judgment	Factors related to patient assessment, selection and management of therapy, patient monitoring, failure/delay in obtaining a consult, failure to ensure patient safety (falls, burns, etc), choice of practice setting, failure to question/follow an order, practice beyond scope
Clinical systems	Factors related to coordination of care, failure/delay in ordering test, reporting findings, follow-up systems, patient identification, specimen handling, nosocomial infections
Communication	Factors related to communication among providers, between patient/family and providers, via electronic communication (texting, email, etc), and telehealth/tele-radiology
Documentation	Factors related to mechanics, insufficiency, content
Supervision	Factors related to supervision of nursing, house staff, advanced practice clinicians
Technical skill	Factors related to improper use of equipment, medication errors, retained foreign bodies, technical performance of procedures

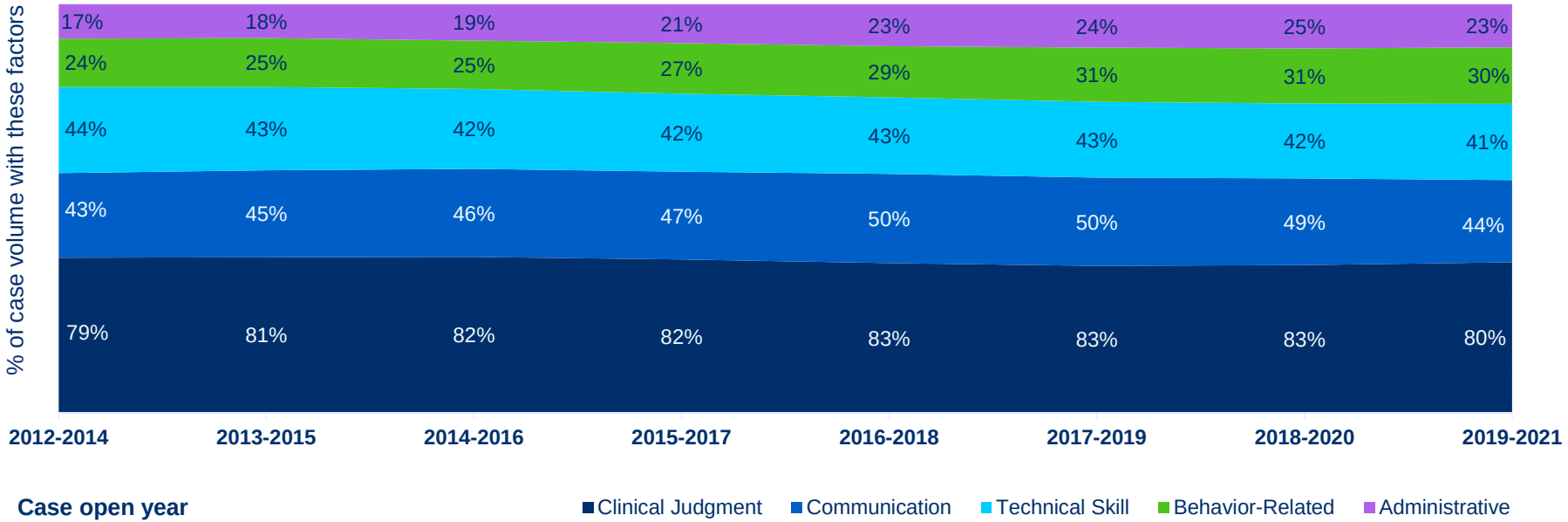
Most Common Contributing Factor Categories



Not unexpectedly, more than **three-fourths of all cases note clinical judgment factors.** These cases are reflective of provider clinical decision-making (patient assessments, obtaining consults, etc.). Also of note, an increasing (but still few) number of cases are **beginning to reflect Covid-related influences***, most often treatment and/or access to care which was impacted/delayed by pandemic conditions.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); More than one factor per case, therefore totals >100%; *Environmental contributing factor (overall just 1% of cases reflect an Environmental factor, which also includes building and weather-related safety/security issues)

Distribution of Top Five Factor Categories Over Time



While the distribution of these top (most common) factors across rolling three-year timeframes is relatively consistent, take note of even slight increases over time as indicators of emerging risk issues.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); More than one factor per case, therefore totals >100%

Contributing Factors as Primary Drivers: Focus on Clinical Judgment

Contributing factors are **multi-layered issues or failures in the process of care** that appear to have contributed to the patient's outcome, initiation of the case, or had a significant impact on case resolution. Factors can now be identified as the **primary driver (most impactful influence)** and are **linked to responsible services** in each case.* This visual reflects **those cases in which a CLINICAL JUDGMENT factor is the primary driver.**

Most common clinical judgment as primary factor details	% of clinical judgment cases with these details	Top three most common responsible services linked to each factor detail (1st, 2nd, 3rd)		
Failure to appreciate/reconcile relevant sign/symptom/test result	**32%**	Emergency medicine	Orthopedic surgery & Nursing	Obstetrics
Selection/management most appropriate surgical/invasive procedure	**25%**	Orthopedic surgery	General surgery	Gynecology
Failure/delay in ordering diagnostic test	**16%**	Emergency medicine	Primary care	Orthopedic surgery
Failure to establish differential diagnosis	**13%**	Emergency medicine	Primary care	Orthopedic surgery
Misinterpretation of diagnostic studies	**12%**	Radiology	Pathology	Obstetrics, Emergency medicine & Orthopedic surgery

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); More than one factor per case, therefore totals >100%; *Identification of primary drivers and linking to services available for all cases coded after July 2021 (N=5746)

Contributing Factors as Primary Drivers: Focus on Technical Skill

Contributing factors are **multi-layered issues or failures in the process of care** that appear to have contributed to the patient's outcome, initiation of the case, or had a significant impact on case resolution. Factors can now be identified as the **primary driver (most impactful influence)** and are **linked to responsible services** in each case.* This visual reflects **those cases in which a TECHNICAL SKILL factor is the primary driver.**

Most common technical skill as primary factor details	% of technical skill cases with these details	Top three most common responsible services linked to each factor detail (1st, 2nd, 3rd)		
Recognition/management of known complications	**56%**	Orthopedic surgery	Anesthesiology	General surgery
Poor technique	**24%**	Orthopedic surgery	General surgery	Anesthesiology
Improperly utilized equipment	**6%**	Orthopedic surgery	Nursing	Anesthesiology
Misidentification of anatomical structure	**5%**	General surgery	Orthopedic	Gynecology & Neurosurgery

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); More than one factor per case, therefore totals >100%; *Identification of primary drivers and linking to services available for all cases coded after July 2021 (N=5746)

Contributing Factors as Primary Drivers: Focus on Communication

Contributing factors are **multi-layered issues or failures in the process of care** that appear to have contributed to the patient's outcome, initiation of the case, or had a significant impact on case resolution. Factors can now be identified as the **primary driver (most impactful influence)** and are **linked to responsible services** in each case.* This visual reflects **those cases in which a COMMUNICATION factor is the primary driver.**

Most common communication as primary factor details	% of communication cases with these details	Top three most common responsible services linked to each factor detail (1st, 2nd, 3rd)		
Suboptimal communication among providers – about patient condition	**30%**	Nursing	Anesthesiology	Radiology
Suboptimal communication with patients/families – about expectations	**13%**	Orthopedic surgery	Ophthalmology	Plastic surgery & Anesthesiology
Failure to read medical record	**10%**	Primary care	Emergency medicine	General surgery
Inadequate informed consent process for surgical/invasive procedures	**8%**	Orthopedic surgery	Gynecology	Ophthalmology
Suboptimal communication among providers – failure to escalate concerns	**5%**	Nursing	Anesthesiology	Emergency, Primary care & obstetrics
Inadequate patient education – about follow-up instructions	**5%**	Primary care	Emergency medicine & Gynecology	Dermatology

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); More than one factor per case, therefore totals >100%; *Identification of primary drivers and linking to services available for all cases coded after July 2021 (N=5746)

Contributing Factors as Primary Drivers: Focus on Behavior-Related

Contributing factors are **multi-layered issues or failures in the process of care** that appear to have contributed to the patient's outcome, initiation of the case, or had a significant impact on case resolution. Factors can now be identified as the **primary driver (most impactful influence)** and are **linked to responsible services** in each case.* This visual reflects **those cases in which a BEHAVIOR-RELATED factor is the primary driver.**

Most common behavior-related as primary factor details	% of behavior-related cases with these details	Notes
Patient non-adherence to treatment regimen	**20%**	These patient-related behavior factors reflect issues which, for the most part, are beyond the control of a healthcare provider. However, consider that those involving patient non-adherence to treatment might be a result of suboptimal communication with and education of patients/families as to the importance of continuing care.
Patient dissatisfaction – seeking other providers	**13%**	
Patient non-adherence to scheduled follow-up call/appointment	**12%**	

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); More than one factor per case, therefore totals >100%; *Identification of primary drivers and linking to services available for all cases coded after July 2021 (N=5746)

Contributing Factors as Primary Drivers: Focus on Administrative

Contributing factors are **multi-layered issues or failures in the process of care** that appear to have contributed to the patient's outcome, initiation of the case, or had a significant impact on case resolution. Factors can now be identified as the **primary driver (most impactful influence)** and are **linked to responsible services** in each case.* This visual reflects **those cases in which an ADMINISTRATIVE factor is the primary driver.**

Most common administrative as primary factor details	% of administrative cases with these details	Top three most common responsible services linked to each factor detail (1st, 2nd, 3rd)		
Policy/protocol not followed	**47%**	Nursing	Emergency medicine, Radiology & Anesthesiology	Obstetrics
Staff training/education	**14%**	Nursing	Radiology	Primary care
Need for policy/protocol	**13%**	Leadership/ Administration	Nursing	Radiology
Credentialing issues	**5%**	Leadership/ Administration	Emergency medicine	Primary care

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); More than one factor per case, therefore totals >100%; *Identification of primary drivers and linking to services available for all cases coded after July 2021 (N=5746)

Contributing Factors as Primary Drivers: Focus on Other Common Factors

Contributing factors are **multi-layered issues or failures in the process of care** that appear to have contributed to the patient's outcome, initiation of the case, or had a significant impact on case resolution. Factors can now be identified as the **primary driver (most impactful influence)** and are **linked to responsible services** in each case.* This visual reflects **those cases in which other factors are primary drivers.**

Other factors	Most common other primary factor details	% of each "other factor" cases with these details	Top three most common responsible services linked to each factor detail (1st, 2nd, 3rd)		
Documentation	Insufficient/lack of documentation – about clinical findings	**70%**	Nursing	Gynecology	Primary care
Clinical environment	Events occurring during nights/weekends/holidays	**85%**	Note: although these factors are beyond the control of individual healthcare providers, risk mitigation efforts should focus on recognizing that ease of access to resources/consultants, etc. might be different than during weekday hours.		
Clinical systems	Lack of/failure in patient follow-up processes related to diagnostic testing	**30%**	Primary care	Gynecology	Urology surgery
	Failure/delay in reporting diagnostic findings	**29%**	Radiology	Emergency medicine	Primary care
Supervision	Inadequate supervision of advanced practice clinicians	**33%**	Anesthesiology	Emergency medicine	Orthopedic surgery

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); More than one factor per case, therefore totals >100%; *Identification of primary drivers and linking to services available for all cases coded after July 2021 (N=5746)

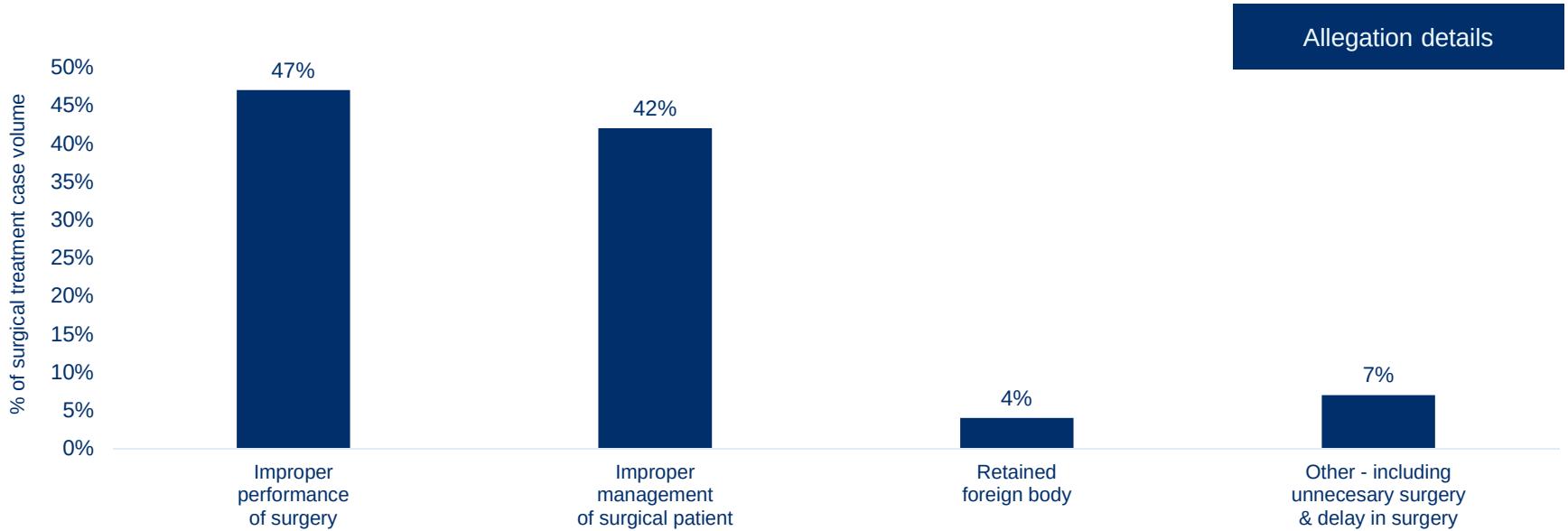
Contributing Factors: Focus on Primary Drivers of Financial Severity

Administrative	Policy/protocol not followed
Clinical judgment	Management of labor & delivery
	Misinterpretation of diagnostic studies
	Choice of practice setting (inpatient vs ambulatory)
	Inadequate patient assessment (history & physical)
	Narrow diagnostic focus
	Failure/delay in obtaining consult/referral
	Failure/delay in ordering diagnostic test
	Failure to appreciate/reconcile relevant sign/symptom/test result
Communication	Failure to read medical record
	Suboptimal communication among providers – about patient condition
Technical skill	Misidentification of anatomical structure
	Improperly utilized equipment
	Poor technique

More than half of all cases with any of these primary driver contributing factors closed with indemnity paid.*

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); *Identification of primary drivers available for all cases coded after July 2021 (N=5746) and only factors with >/=65 cases each are included in this visual; More than one factor per case

Focus on Surgical Treatment Allegations

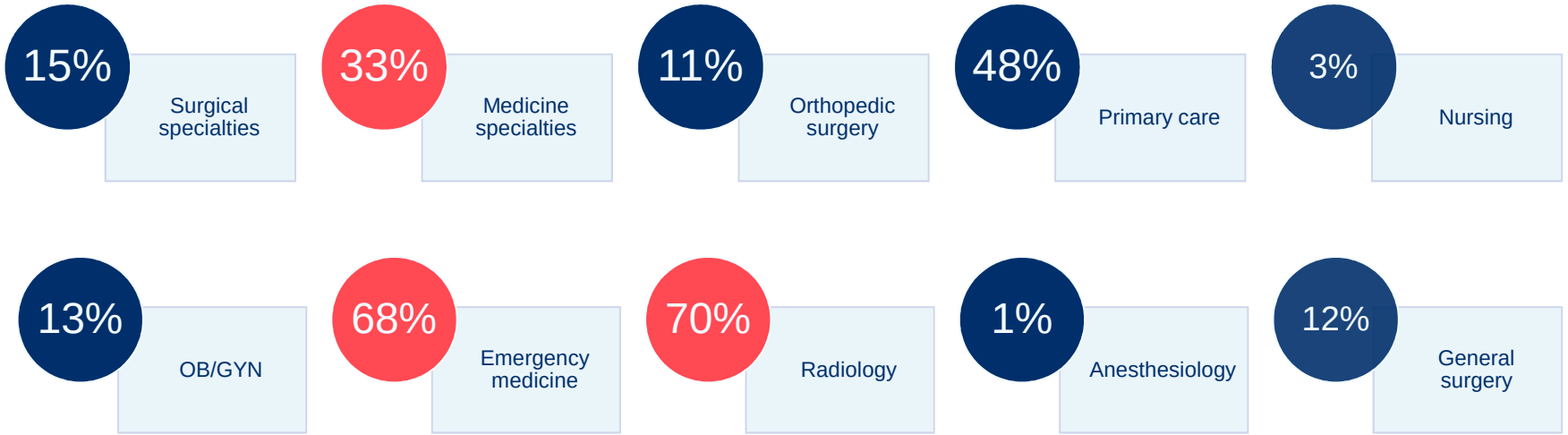


Cases involving the management of surgical patients, including pre-, intra-, and post-operatively, are often related to the surgical team's response to developing complications. While complications of procedures may have been the result of procedural error, the failure to timely recognize and/or monitor/manage the issue prevents the opportunity for early mitigation of the risk of serious adverse outcome.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625)

Focus on Diagnosis-Related Allegations

Diagnosis-related allegations encompass wrong diagnoses, failures/delays, and misdiagnoses. Below are the portions of **each primary responsible service's cases which are diagnosis-related.** Highlighted in red are those services for which diagnostic allegations account for at least one-third of case volume.



MedPro Group + MLMIC cases opened 2012-2021 (N=22,625)

Focus on Diagnosis-Related Allegations

Diagnosis-related allegations encompass wrong diagnoses, failures/delays, and misdiagnoses. Note the key opportunities to reduce diagnostic errors along the diagnostic process of care* below.

Phase 1

Initial diagnostic assessment

84%
of cases

- Patient notes problem & seeks care
- History & physical
- Patient assessed, symptoms evaluated
- Differential diagnosis established
- Diagnostic testing ordered

Phase 2

Testing and results processing

35%
of cases

- Performance of diagnostic tests
- Interpretation of diagnostic test results
- Test results transmitted to/received by ordering provider

Phase 3

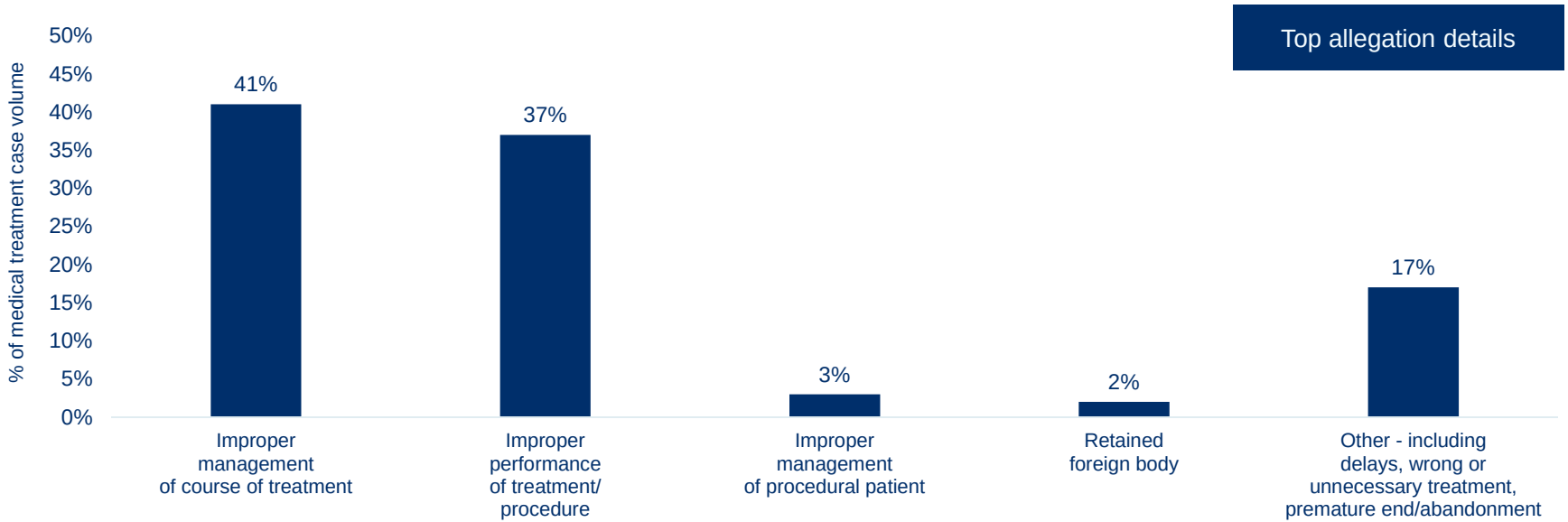
Follow-up and coordination

62%
of cases

- Physician follows-up with patient
- Referrals/Consults
- Patient information communicated among care team
- Patient compliance with follow-up plan

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625); *Each step reflects a combination of contributing factors; diagnostic process of care algorithm courtesy of Candello, a division of CRICO Strategies

Focus on Medical Treatment Allegations



Procedural performance cases can be impacted by delayed recognition of complications, while management cases most often reflect issues with selection of the most appropriate course of treatment for the patient, and appreciating and reconciling symptoms and test results.

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625)

Focus on Other Common Allegations

As a reminder, surgical and diagnosis-related cases are most common, and although diagnosis-related cases account for one-third of total dollars paid, **OB and anesthesia-related cases are, on average, the most costly to defend**.

Other allegations	Most common other allegation details	% of each "other allegation" category with these details
Medication-related	Management of medication regimens	**59%**
	Ordering, administration, dispensing errors	**24%**
Patient environment	Patient falls	**71%**
	Other safety events, including burns, infections, positioning-related injuries	**24%**
OB-related	Delay in treatment of fetal distress	**27%**
	Management of pregnancy	**15%**
	Improper performance of vaginal delivery	**15%**
Anesthesia-related	Improper management of anesthesia patient	**32%**
	Improper performance of anesthesia procedure	**27%**
	Tooth/teeth damage related to intubation/extubation	**21%**

MedPro Group + MLMIC cases opened 2012-2021 (N=22,625)

MedPro Advantage: Online Resources

Find us online at www.medpro.com/dynamic-risk-tools

Tools & resources

Educational opportunities

Consulting information

Videos

eRisk Hub Cybersecurity Resource

Follow MedPro on LinkedIn and Twitter (@MedProProtector)

Education

- Materials and resources to educate followers about prevalent and emerging healthcare risks

Awareness

- Information about current trends related to patient safety and risk management

Promotion

- Promotion of new resources and educational opportunities

Why MLMIC: Resources For Our Insureds

Find us online at https://www.mlmic.com/why-mlmic

Follow MLMIC on LinkedIn and Twitter (@MLMIC)

Risk Protect: a comprehensive initiative designed to actively address and aggressively manage specific areas of risk through services such as MLMIC's unique on-site risk management surveys/audits and tailored and targeted risk management educational programs

24/7 Hotline: offers immediate access to experienced, knowledgeable professionals who can provide advice and guidance on health-law concerns and risk management issues, valuable resources, review of legal documents and forms pertaining to risk management issues, and more

MLMIC CME+: offers access to an ever-growing library of New York-focused risk management courses and CME programs.

MedPro Group & MLMIC Data

MedPro and MLMIC are partnered with Candello, a national medical malpractice data collaborative and division of CRICO, the medical malpractice insurer for the Harvard-affiliated medical institutions.

Derived from the essence of the word candela, a unit of luminous intensity that emits a clear direction, Candello's best-in-class taxonomy, data, and tools provide unique insights into the clinical and financial risks that lead to harm and loss.

Using Candello's sophisticated coding taxonomy to code claims data, MedPro and MLMIC are better able to highlight the critical intersection between quality and patient safety and provide insights into minimizing losses and improving outcomes.

Leveraging our extensive claims data, we help our insureds stay aware of risk trends by specialty and across a variety of practice settings. Data analyses examine allegations and contributing factors, including human factors and healthcare system flaws that result in patient harm. Insight gained from claims data analyses also allows us to develop targeted programs and tools to help our insureds minimize risk.