

# Radiology

## Claims Data Snapshot

2025

# Introduction

INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | CONTRIBUTING FACTORS | FOCUSED DATA ANALYSIS | RISK MITIGATION

**This publication begins with insight into frequency and financial severity profiles by specialty. Then follows an analysis of aggregated data from clinically coded cases opened between 2014-2023 in which Radiology is identified as the primary responsible service.**

Also included are Interventional Radiology, NeuroRadiology and Nuclear Medicine. See page 6 for more detail related to overall case volume.

## Keep in mind...

A clinically coded malpractice case can have more than one responsible service, but the “primary responsible service” is the specialty that is deemed to be most responsible for the resulting patient outcome.

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.

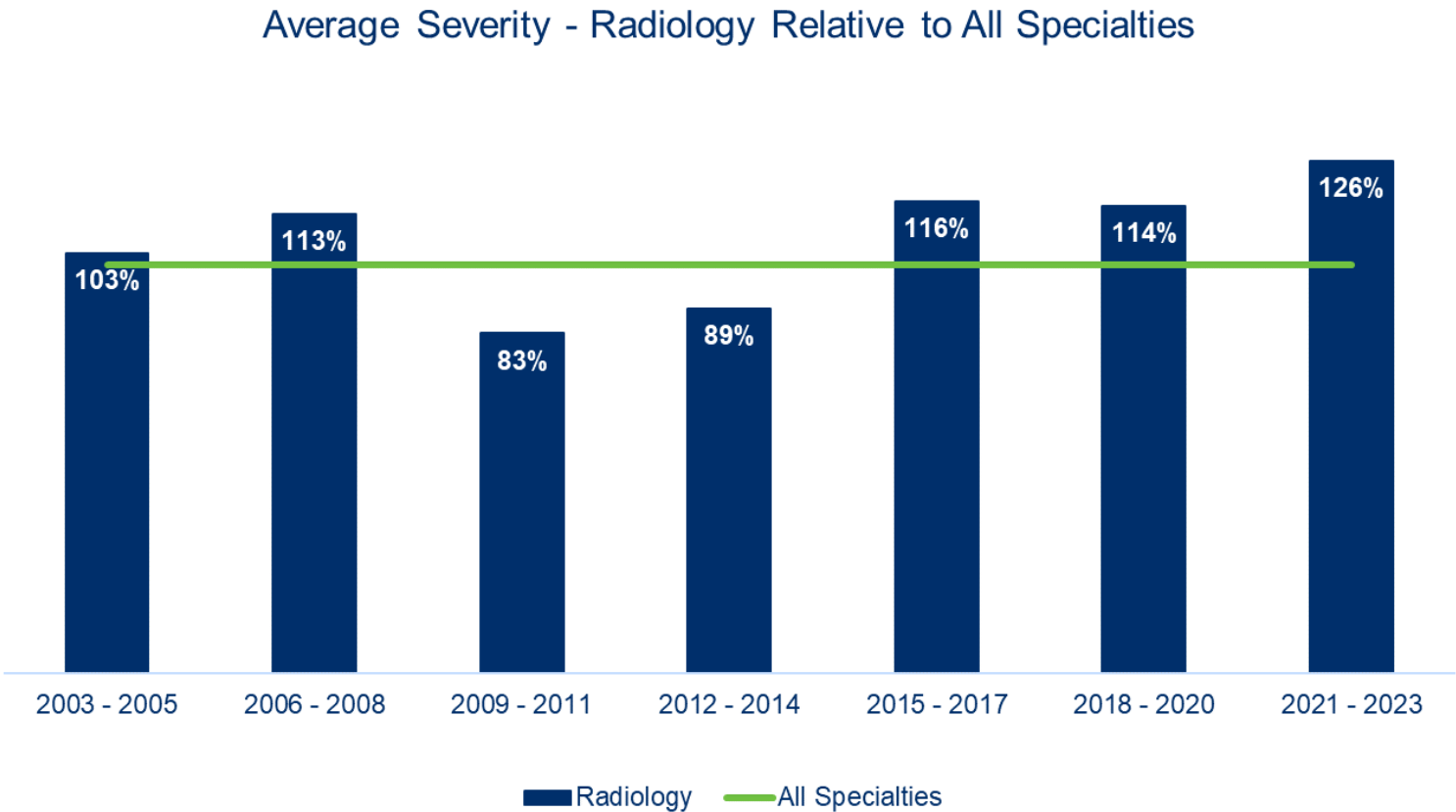
# Specialty benchmarking

Specialties have different frequency and financial severity profiles which combine to produce differing risk levels.

Severity Tier	High	Hematology/Oncology, Pathology, Pediatrics	Anesthesiology, Neurology	Emergency Medicine, Neurosurgery, OB/GYN
	Medium	Family Medicine, Nephrology, Physiatry, Urgent Care	Cardiology, ENT, Gastroenterology, Internal Medicine	Cardiovascular Surgery, General Surgery, Orthopedic Surgery, Radiology, Urology
	Low	Allergy, Dermatology, Occupational Medicine, Psychiatry, Rheumatology	Ophthalmology, Plastic Surgery, Pulmonology	Hospitalists
		Low	Medium	High
		Frequency Tier		

# Specialty trends – Radiology

Radiology has an average financial severity per case and a higher claim frequency compared to all specialties.



Frequency Tier
High
Medium
Low

# Key Points - Clinically Coded Data

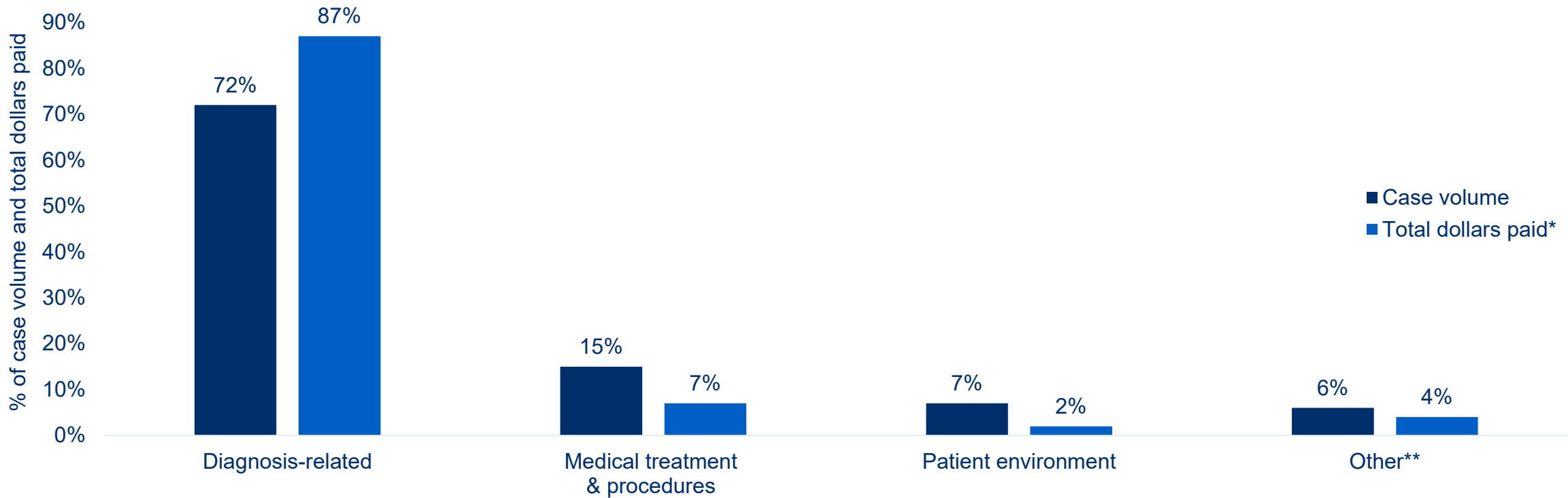
INTRODUCTION | **KEY POINTS** | GENERAL DATA ANALYSIS | CONTRIBUTING FACTORS | FOCUSED DATA ANALYSIS | RISK MITIGATION

- Diagnosis-related allegations account for almost three-fourths of Radiology case volume and the majority of dollars paid\*. Cancers are most commonly missed, followed by fractures and traumatic injuries. These cases commonly reflect breaks all along the diagnostic process of care continuum, but most often during the diagnostic process phase of test performance, interpretation and communication of results.
- Medical treatment allegations most often involve procedural-related issues. Mammogram-related cases and breast and kidney biopsies are most common. These procedural cases can be impacted by delayed recognition of complications, while management cases most often reflect issues with selection of the most appropriate procedure for the patient, and appreciating and reconciling symptoms and test results.
- Patient environment cases, while only accounting for 7% of the case volume, should still be considered in terms of ensuring adequate patient safety processes are in place to protect patients from falls, burns, and other injuries during the performance of procedures and diagnostic testing.
- Contributing factors, which 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, provide valuable insight into risk mitigation opportunities. Although there is just one service noted to be primarily responsible for the patient's outcome, there is often an overlap of errors and missteps along the continuum of care. More than half of all Radiology cases involve a contributorily responsible medical or surgical specialty. Multiple contributing factors can be applied to every case; not all of them are applicable to the Radiology team. Clinical judgment factors, specifically misinterpretation of diagnostic studies and an overall narrow diagnostic focus, are key drivers of clinical Radiology case severity.

# Major Allegations & 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.

See footnote below for the distribution of Radiology specialties included in this analysis.

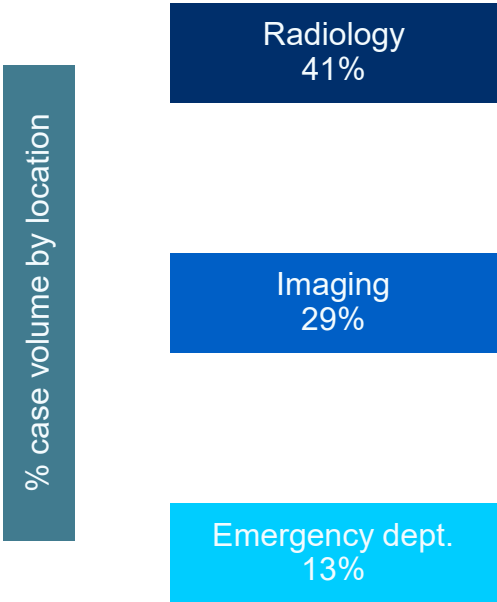


MedPro Group + MLMIC cases opened 2014-2023, Radiology as responsible service (total N=1475; Radiology=1305; Interventional Radiology=160; Interventional NeuroRadiology=6; Nuclear Medicine=4) ); \*Total dollars paid = expense + indemnity; \*\*Other includes allegations for which no significant case volume exists

# Clinical Severity\* & Most Common Locations

INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | CONTRIBUTING FACTORS | FOCUSED DATA ANALYSIS | RISK MITIGATION

Clinical severity* categories	Sub-categories	% of case volume	Definitions
LOW	Emotional Injury Only	4%	Mental distress or suffering that is generally temporary; includes HIPAA violations, discrimination, involuntary stay
	Temporary Insignificant Injury		Lacerations, contusions, minor scars, rash; no delay in recovery
MEDIUM	Temporary Minor Injury	34%	Infection, fracture set improperly or a fall in the facility, where recovery is complete but delayed
	Temporary Major Injury		Burns, drug side effect; recovery delayed
	Permanent Minor Injury		Loss of fingers or loss or damage to organs; includes non-disabling injuries
HIGH	Significant Permanent Injury	62%	Deafness, loss of limb, loss of eye or loss of one kidney or lung
	Major Permanent Injury		Paraplegia, blindness, loss of two limbs or brain damage
	Grave Injury		Quadriplegia, severe brain damage, life-long care or fatal prognosis
	Death		Death
		22%	% of cases resulting in patient death



# Contributing Factors

INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | **CONTRIBUTING FACTORS** | FOCUSED DATA ANALYSIS | RISK MITIGATION

## 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.

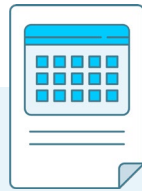
**Multiple factors are identified in each case** because generally, there is not just one issue that leads to these cases, but rather a combination of issues.



Administrative



Behavior-related



Clinical environment



Clinical judgment



Clinical systems



Communication



Documentation



Supervision



Technical skill



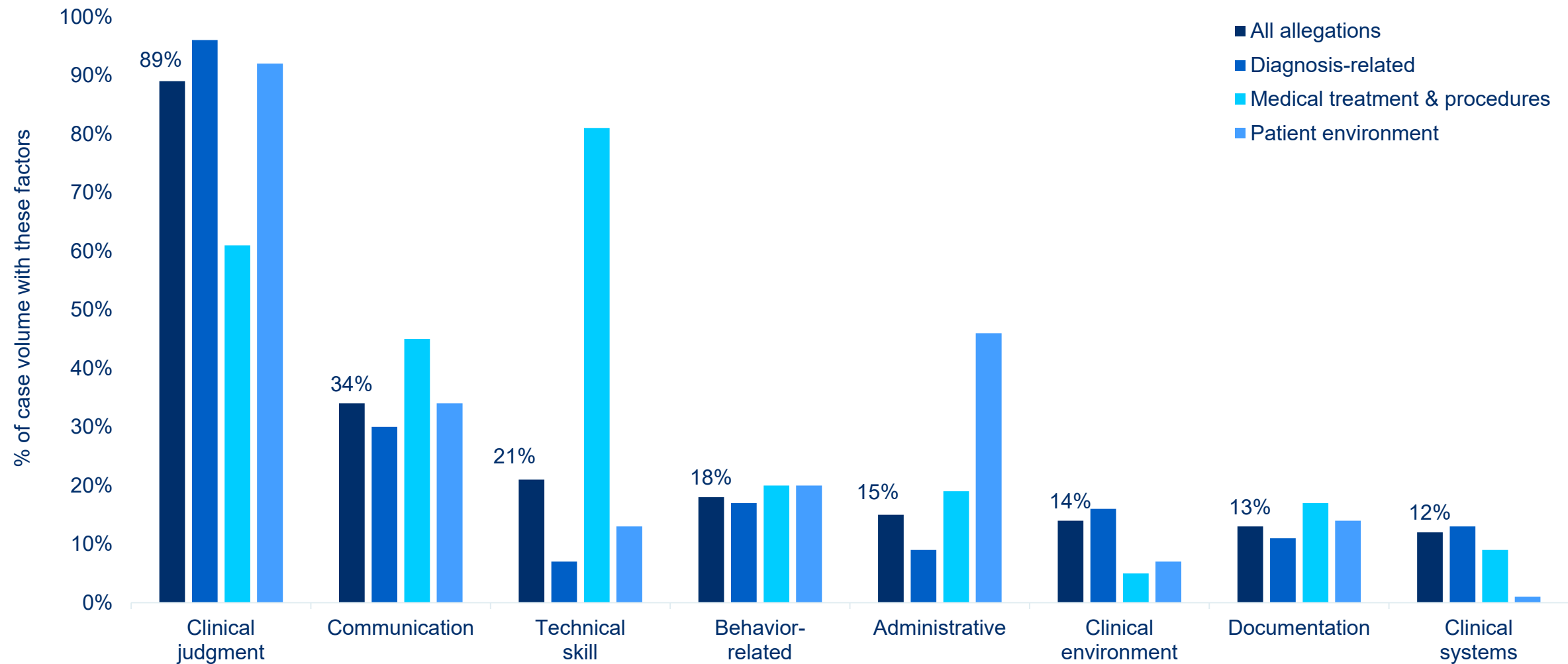
# Contributing Factor Category Definitions

INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | **CONTRIBUTING FACTORS** | FOCUSED DATA ANALYSIS | RISK MITIGATION

Administrative	Factors related to reporting of adverse events, adequacy of staffing, staff education/training, ethics, failure to follow and/or need for policy/protocols
Behavior-related	Factors related to patient nonadherence 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, diagnostic decision-making, 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 by Allegation

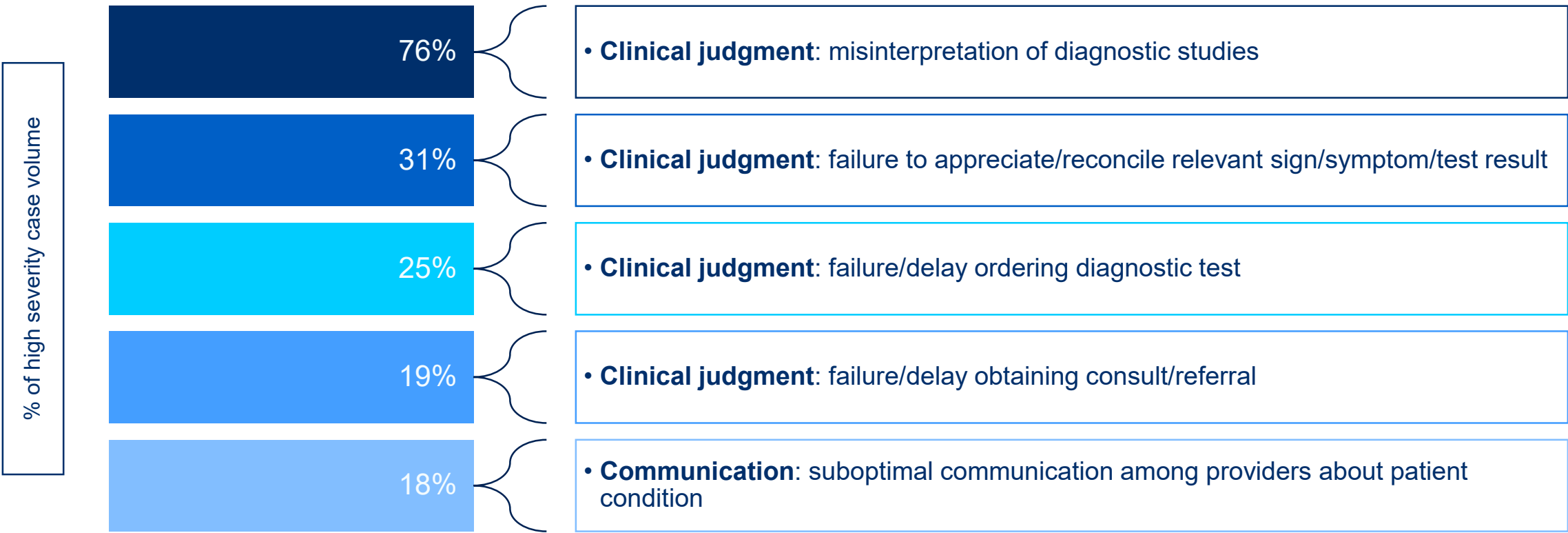
INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | CONTRIBUTING FACTORS | FOCUSED DATA ANALYSIS | RISK MITIGATION



MedPro Group + MLMIC cases opened 2014-2023, Radiology as responsible service (N=1475); More than one factor per case, therefore totals >100%

# Focus on Most Common Drivers of Clinical Severity

INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | CONTRIBUTING FACTORS | FOCUSED DATA ANALYSIS | RISK MITIGATION

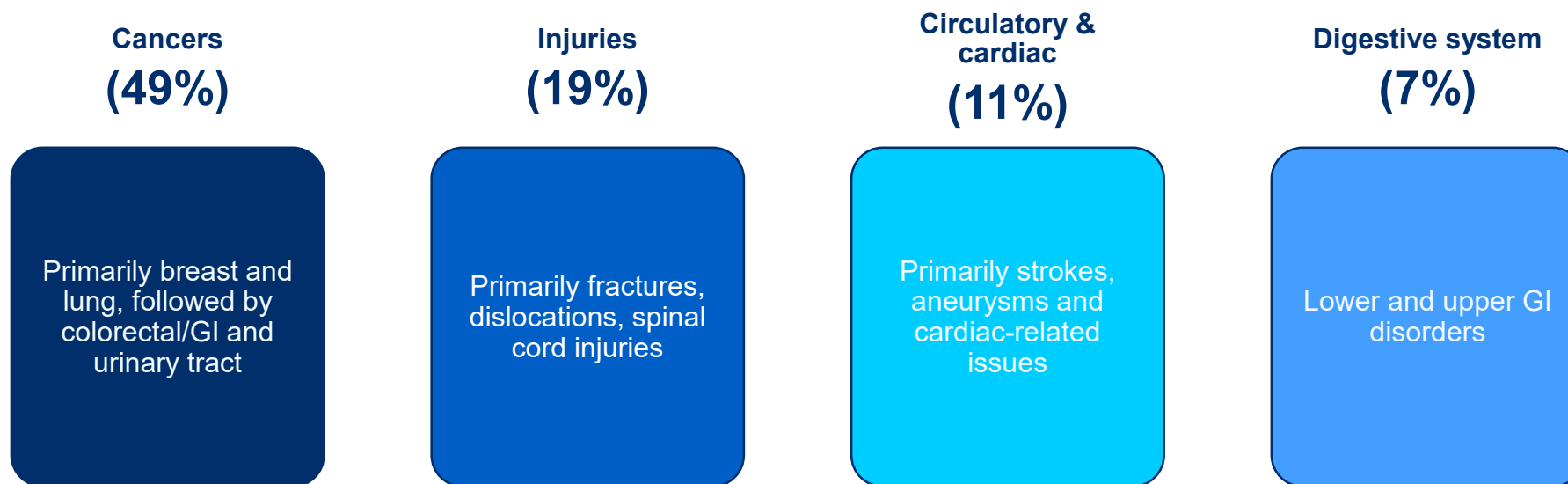


Although there is just one service noted to be primarily responsible for the patient’s outcome, there is often an overlap of errors and missteps along the continuum of care. More than half of all Radiology cases involve a contributorily responsible medical or surgical specialty. Multiple contributing factors can be applied to every case; not all of them are applicable to the Radiology team. Clinical judgment factors, specifically misinterpretation of diagnostic studies and an overall narrow diagnostic focus, are key drivers of clinical Radiology case severity.

# Focus on Diagnosis-Related Allegations

INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | CONTRIBUTING FACTORS | **FOCUSED DATA ANALYSIS** | RISK MITIGATION

Diagnosis-related allegations encompass wrong diagnoses, failures/delays, and misdiagnoses. See below for the top diagnoses\* noted in these cases.



# Focus on Diagnosis-Related Allegations

INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | CONTRIBUTING FACTORS | **FOCUSED DATA ANALYSIS** | RISK MITIGATION

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

<b>Initial diagnostic assessment</b>  <b>60% of cases</b>	Patient notes problem & seeks care
	History & physical
	Patient assessed, symptoms evaluated
	Differential diagnosis established
	Diagnostic testing ordered

## Phase 2

<b>Testing and results processing</b>  <b>91% of cases</b>	Performance of diagnostic tests
	Interpretation of diagnostic test results
	Test results transmitted to/received by ordering provider

## Phase 3

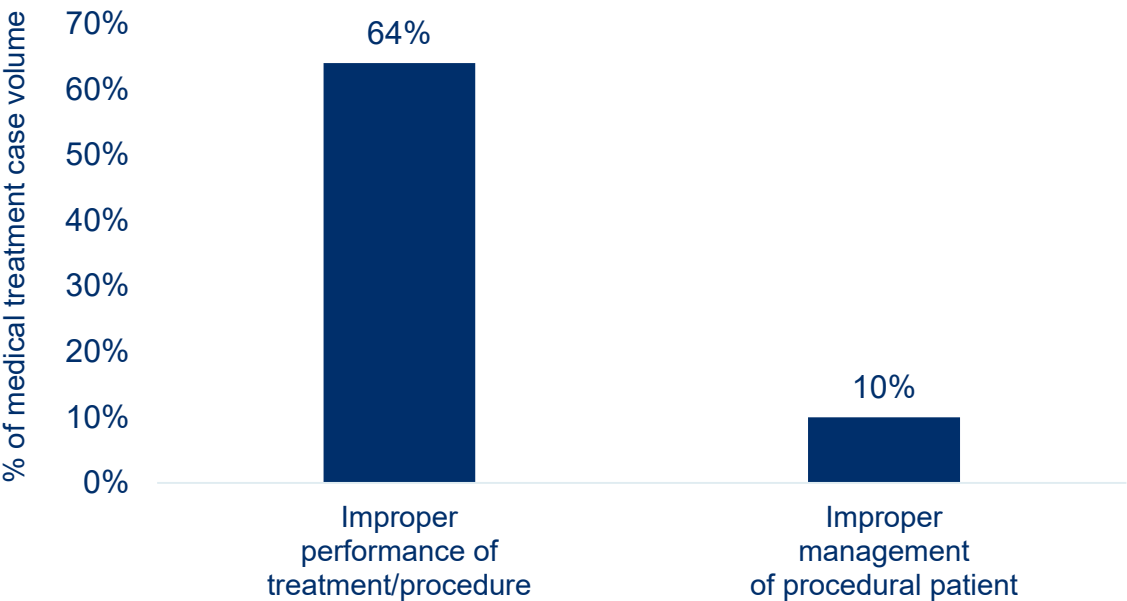
<b>Follow-up and coordination</b>  <b>45% of cases</b>	Physician follows-up with patient
	Referrals/Consults
	Patient information communicated among care team
	Patient compliance with follow-up plan

Reminder: Although there is just one service noted to be primarily responsible for the patient’s outcome, there is often an overlap of errors and missteps along the continuum of care. More than half of all Radiology cases involve a contributorily responsible medical or surgical specialty. Multiple contributing factors can be applied to every case; not all of them are applicable to the Radiology team.

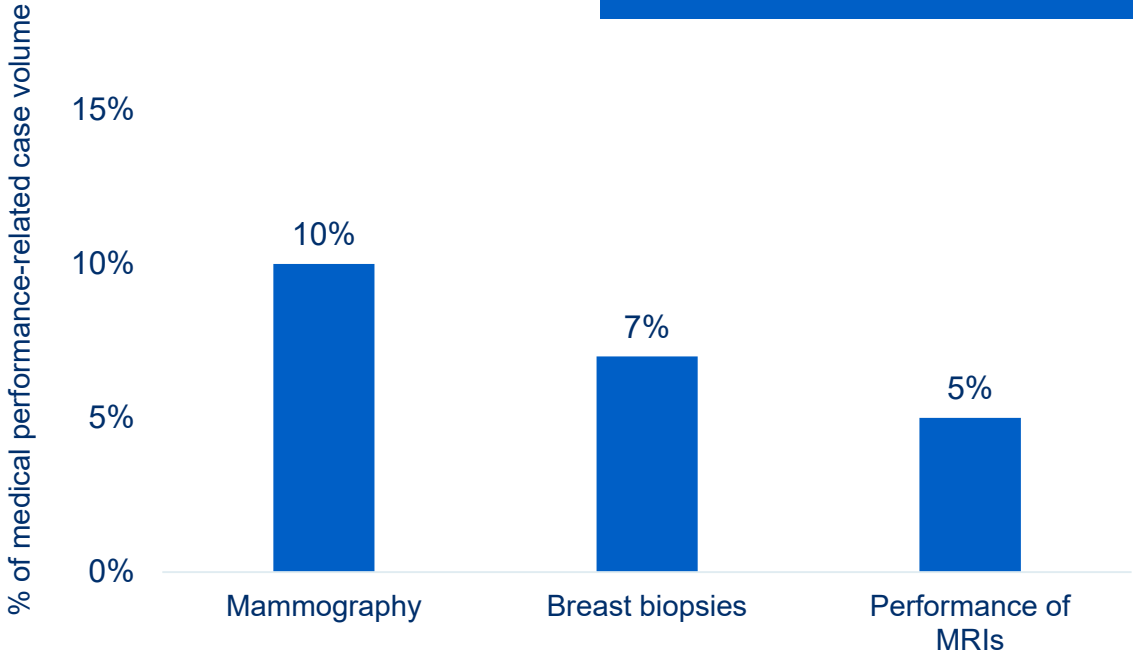
MedPro Group + MLMIC cases opened 2014-2023, Radiology as responsible service (N=1475); \*each step reflects a combination of contributing factors; diagnostic process of care algorithm courtesy of Candello, a division of CRICO Strategies

# Focus on Medical Treatment Allegations

Top allegation details



Top procedures involved



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.

# Focus on Patient Environment Allegations



While patient falls are most commonly noted in the patient environment allegations, the “other” category reflects scenarios such as burns sustained during procedures or improper positioning resulting in musculoskeletal injuries.

# Risk Mitigation Strategies

INTRODUCTION | KEY POINTS | GENERAL DATA ANALYSIS | CONTRIBUTING FACTORS | FOCUSED DATA ANALYSIS | **RISK MITIGATION**

- **Ongoing evaluation of procedural skills and competency with equipment is critically important.**
- **Conduct a thorough assessment of the patient pre-procedure.**
  - Ensure that all testing and specialty evaluations are available for review prior to initiation of the procedure; in an ambulatory setting, these details might not always be as readily available as in the inpatient setting.
  - Maintain a consistent post-procedure assessment process.
- **Communicate with each other.**
  - Sometimes, small pieces of information that alone seem insignificant but in combination are crucial to the diagnostic process, can aid in the formation of differential diagnoses. For example, radiologists' access to the patient's medical history and to the ordering physician's clinical rationale for the test can be critically valuable.
  - Talk also to the patient/family, elicit a comprehensive patient history and conduct a thorough informed consent with the patient.
- **Engage patients as active participants in their care.**
  - Consider the patient's health literacy and other comprehension barriers.
  - Ensure adherence to processes designed so that patients are notified of test results.
  - Recognize that patient satisfaction with treatment outcomes can be influenced by a thorough informed consent and education process.
- **Document.**
  - Insufficient documentation about clinical findings, including the radiologist's documentation that ordering providers were notified of critical test results, can impact the defensibility of a subsequent malpractice case. Discrepancies or gaps in the details/timing make it much more difficult to build a supportive framework for defense against potential malpractice cases.



# 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.



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