

Medico-legal risk associated with diagnostic testing

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Research Question

What are the medico-legal risks and contributing factors associated with diagnostic testing?

Extraction Criteria

Population: all physicians

Interval: 2019-2021 (3 years)

Status of cases: Closed

Case type: College complaints, civil legal actions

Interventions: diagnostic imaging interventions, diagnostic interventions and laboratory investigations

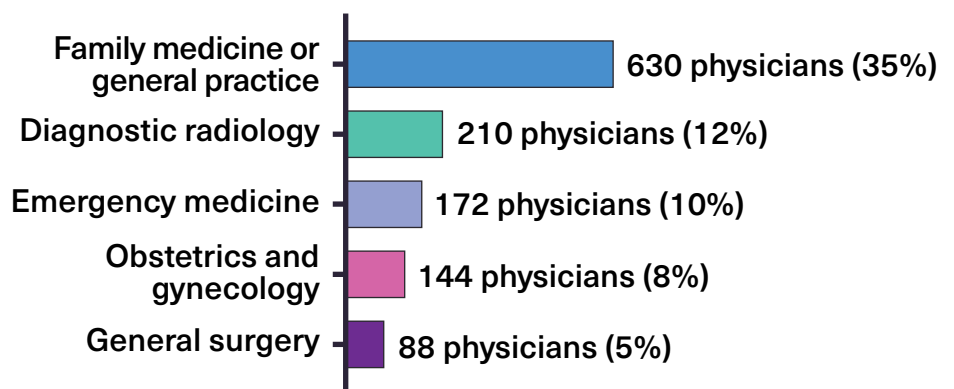
Setting: Any

Results

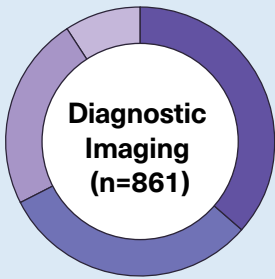
There were **1,429** Canadian Medical Protective Association medico-legal cases that met the criteria for analysis.

Most frequent physician specialty (n=1,811 physicians)

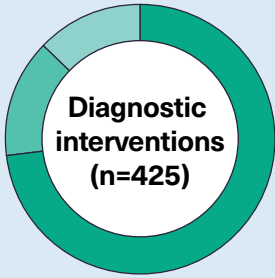
1,811 physicians were involved in the 1,429 cases. Cases may involve more than one physician.



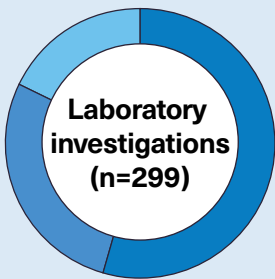
Type of Interventions (n=1,664 interventions)



- X-rays – 334
- Ultrasounds – 284
- Computerized tomography – 212
- Magnetic resonance imaging – 82

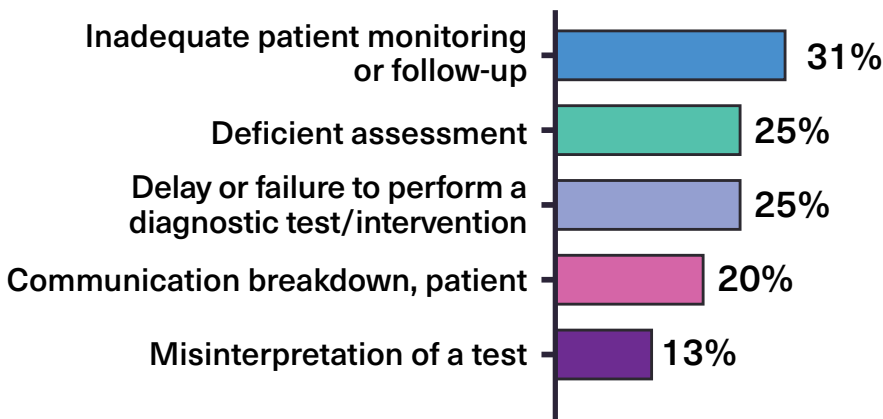


- Biopsy – 228
- Inspections: colonoscopies, cystoscopies – 115
- Electrocardiograms, cardiac stress testing and monitoring – 74



- Blood testing – 219
- Cultures: blood, throat, urine – 42
- Urine and stool testing – 38

Contributing factors to Diagnostic error:



Note: Contributing factors are based on peer expert criticism

Patient Impact

53%
(758/1,429)

of cases had a diagnostic error, including misdiagnosis, a missed diagnosis, or a delay in diagnosis

64%
(936/1,468)

of patients experienced a harmful incident.

An incident is categorized as harmful when a patient suffers healthcare-related harm, and peer experts were critical of the clinical care a patient received.

Of the 936 patients:

- 116 patients experienced severe harm (e.g., major surgery, intensive care unit admission)
- 109 patients died

Patient Presenting Conditions

Presenting Condition Category	Frequency
Neoplasms <ul style="list-style-type: none"> Breast, prostate, colorectal cancers 	447
Diseases of the genitourinary system <ul style="list-style-type: none"> Calculus of the kidney, ureter Hyperplasia of prostate Ovarian cysts 	224
Diseases of the circulatory system <ul style="list-style-type: none"> Ischemic heart disease and myocardial infarction Arrhythmias Cerebral infarction and haemorrhage 	215
Injuries <ul style="list-style-type: none"> Fractures, sprains Head injuries 	186
Infections <ul style="list-style-type: none"> Pneumonia Sepsis 	165

Key Findings



Adequate patient follow-up



Thorough clinical examination



Appropriate diagnostic testing



Communication with patients



Increased patient safety

Risk reduction reminders



Create a robust follow-up system so that results are received, reviewed, and acted on in a reasonable period of time.



Engage and train staff members on their role in managing patient test results.



For workshops and learning resources, visit www.cmpa-acpm.ca

For more information, contact research@cmpa.org

