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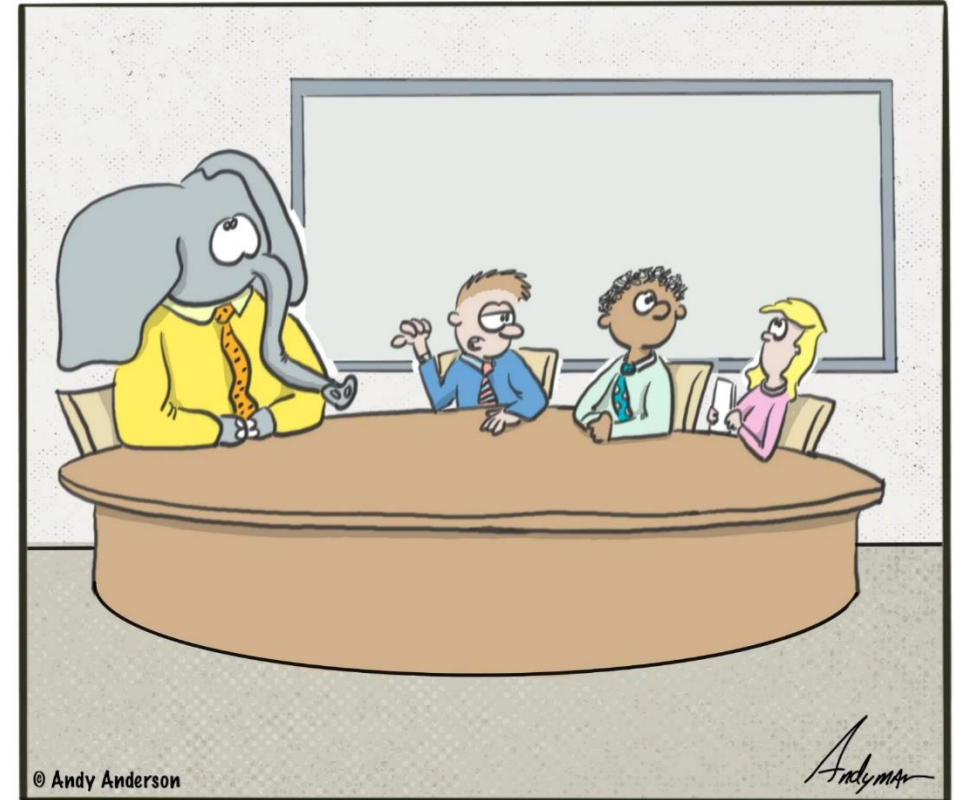
Radiology Malpractice: Meet the Elephant in the Reading Room

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Professor and Chair
Department of Radiology
University of Mississippi School of Medicine

Elephant in the Reading Room?

The expression "**the elephant in the room**" (or "**the elephant in the living room**")^{[2][3]} is a **metaphorical idiom** in **English** for an important or enormous topic, question, or controversial issue that is obvious or that everyone knows about but no one mentions or wants to **discuss** because it makes at least some of them uncomfortable and is personally, socially, or politically embarrassing, controversial, inflammatory, or dangerous. The metaphorical elephant represents an obvious problem or difficult situation that people do not want to talk about. ^{[1][4][5]}



SO WE'RE NOT GOING TO DISCUSS IT?



Disclosures

Consulting and Other Financial Relationships

- Ethos Medical, Inc. (Advisor and Shareholder)

Fiduciary Relationships

- Board of Chancellors, American College of Radiology

The opinions expressed herein are my own.



Disclosures



ARRS Leonard Berlin Scholarship

Richard Duszak, MD

Emory University School of Medicine

Dr. Duszak aims to fill gaps in scholarship and teaching by developing a deeper and broader understanding of the contributors to and drivers of malpractice litigation and better disseminating such knowledge to reduce radiologists' collective malpractice exposure and improve the quality and value of radiology services to patients.

[Learn more about the Leonard Berlin Scholarship](#) 

ONLINE COURSE AVAILABLE ON-DEMAND

Radiology Malpractice and Risk Management



ARRS
Your Medical Imaging Society
CONNECT • LEARN • ADVANCE



Agenda

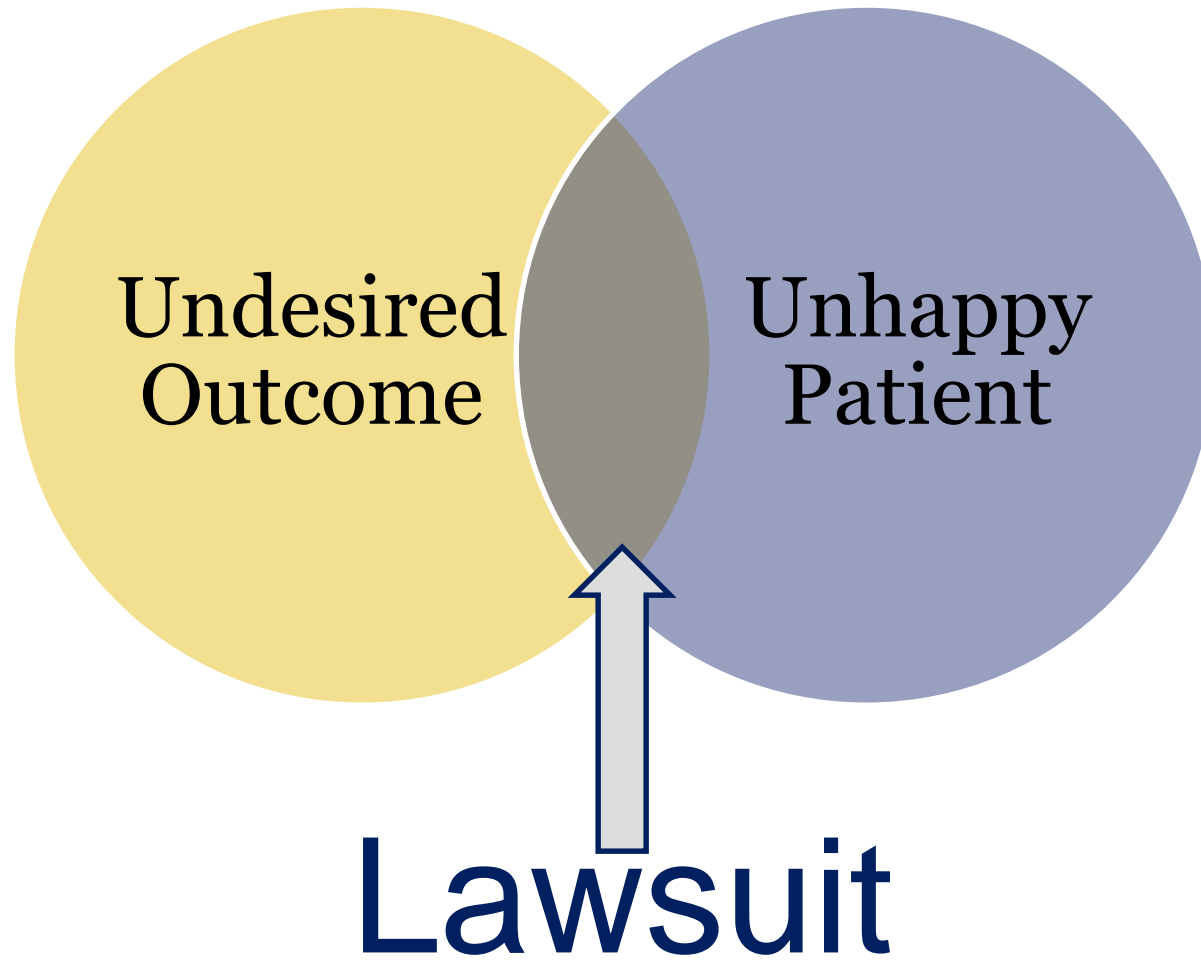
- Risk management
- Facts and figures
- Expert witnesses
- Preventing and defending “the miss”
- Physician wellness



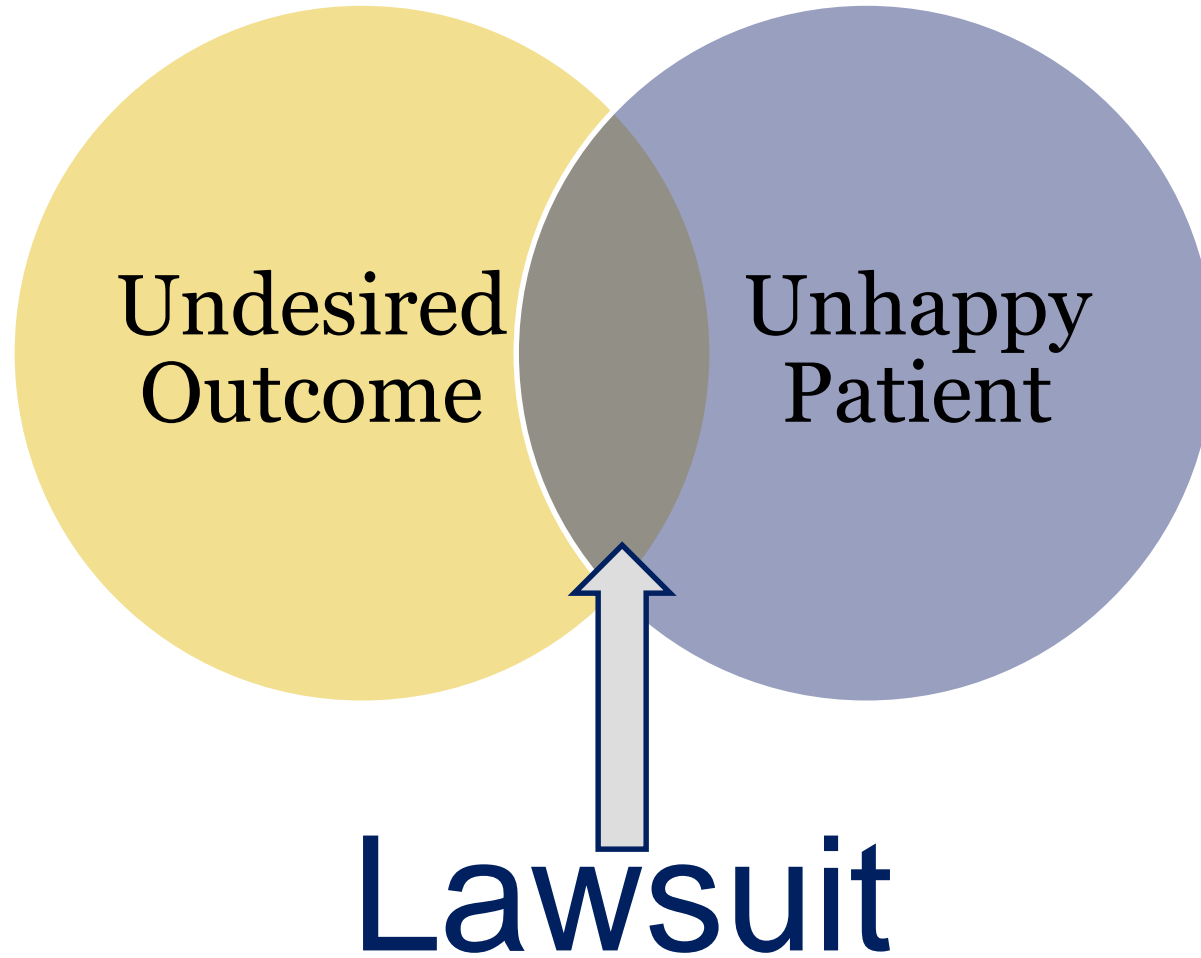
Why Lawsuits Occur



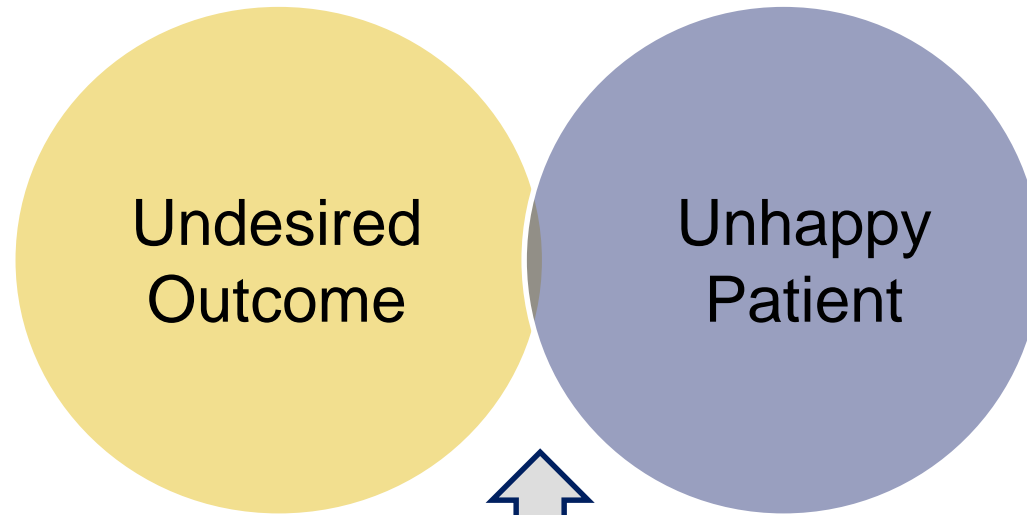
Why Lawsuits Occur



How to Mitigate Risk



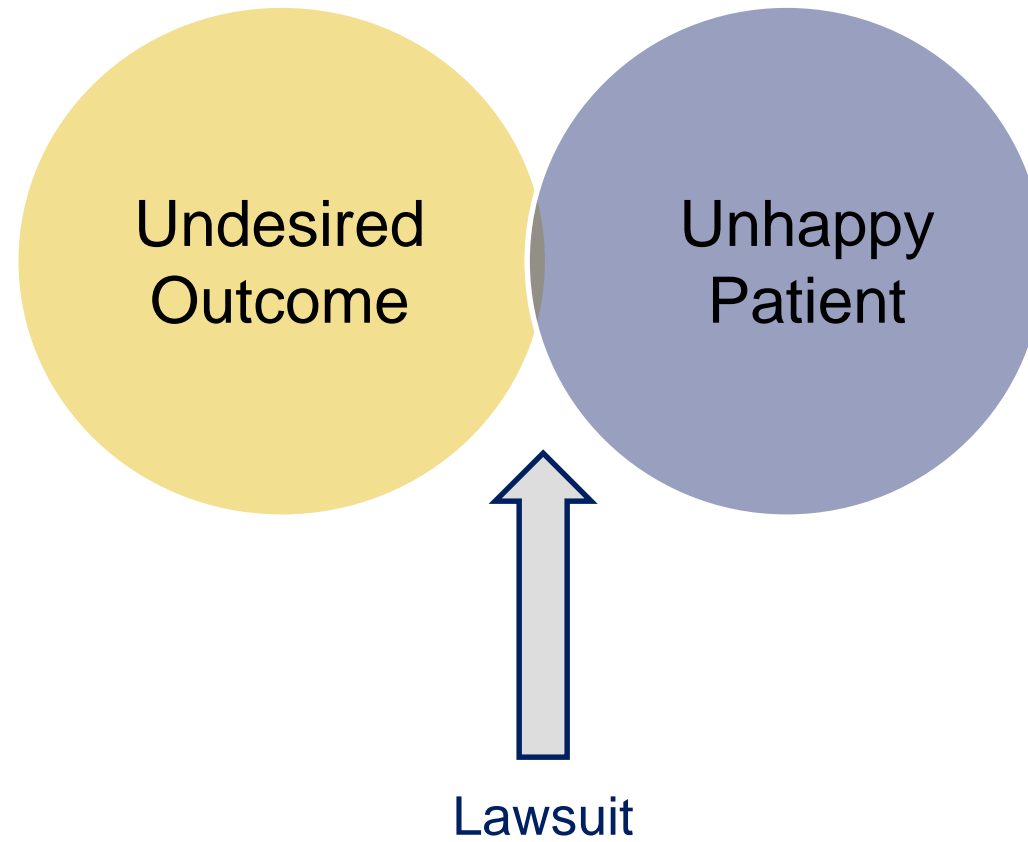
How to Mitigate Risk



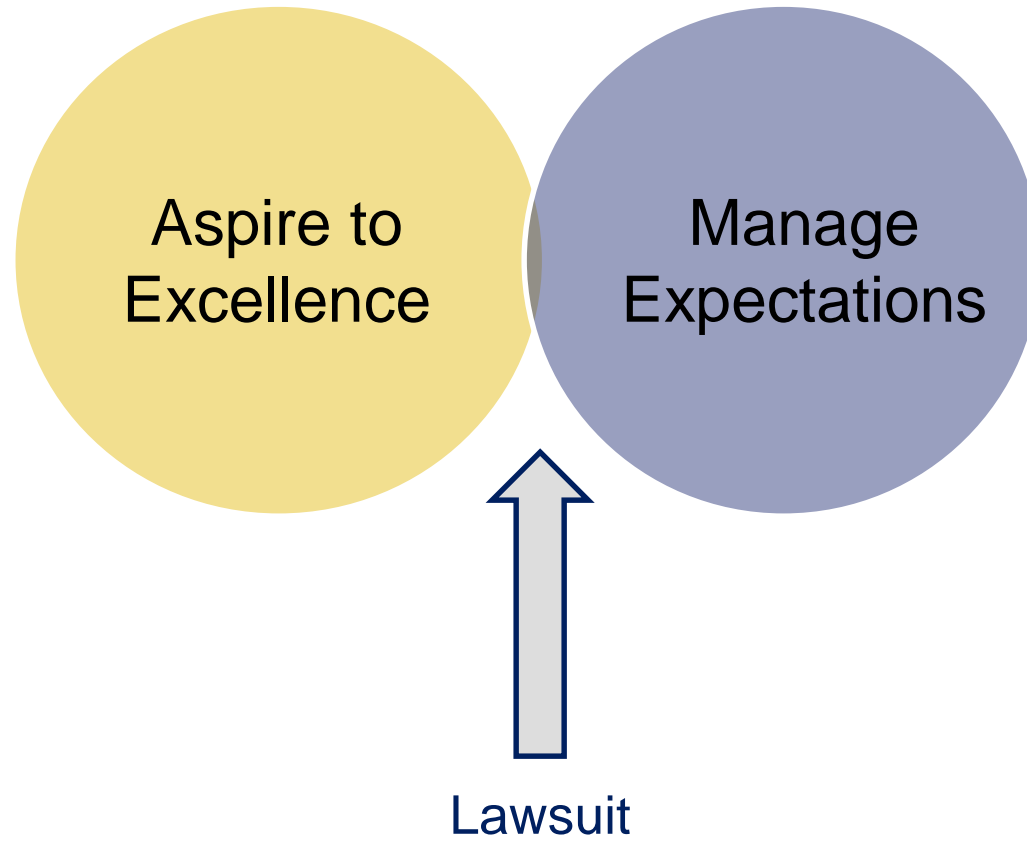
Lawsuit



How to Mitigate Risk



How to Mitigate Risk



Public Scrutiny is High

TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM

Health care in the United States is not as safe as it should be--and can be. At least 44,000 people, and perhaps as many as 98,000 people, die in hospitals each year as a result of medical errors that could have been prevented, according to estimates from two major studies. Even using the lower estimate, preventable medical errors in hospitals exceed attributable deaths to such feared threats as motor-vehicle wrecks, breast cancer, and AIDS.



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Sensationalism Sells



“The equivalent of three jumbo jets
crashing every single day.”

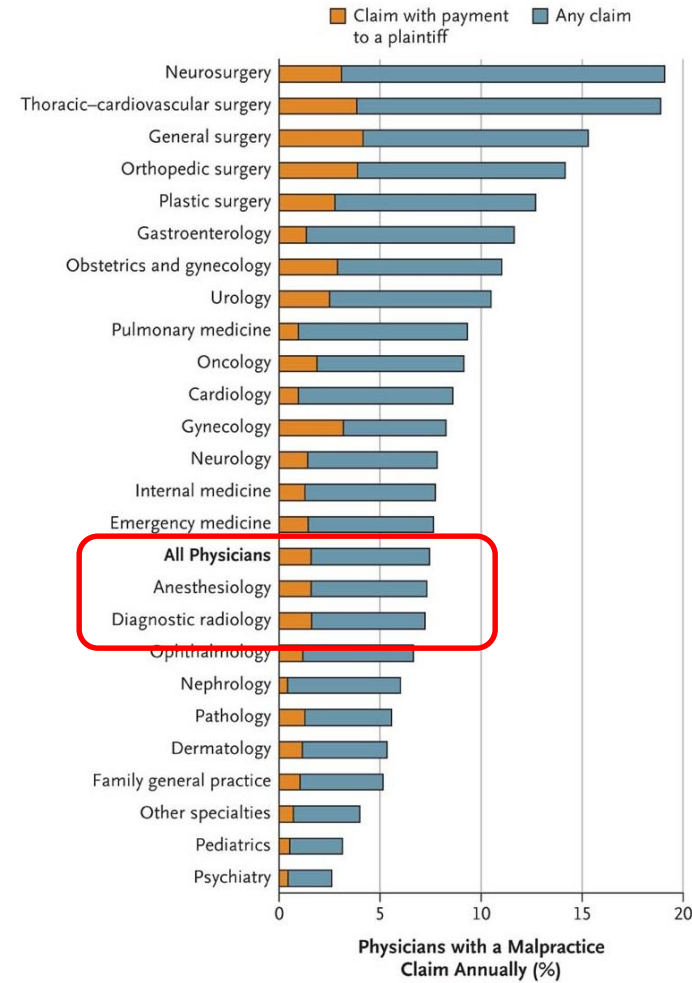


What Does this Mean for You?



Will You Be Sued?

Proportion of physicians facing a malpractice claim annually, according to specialty.



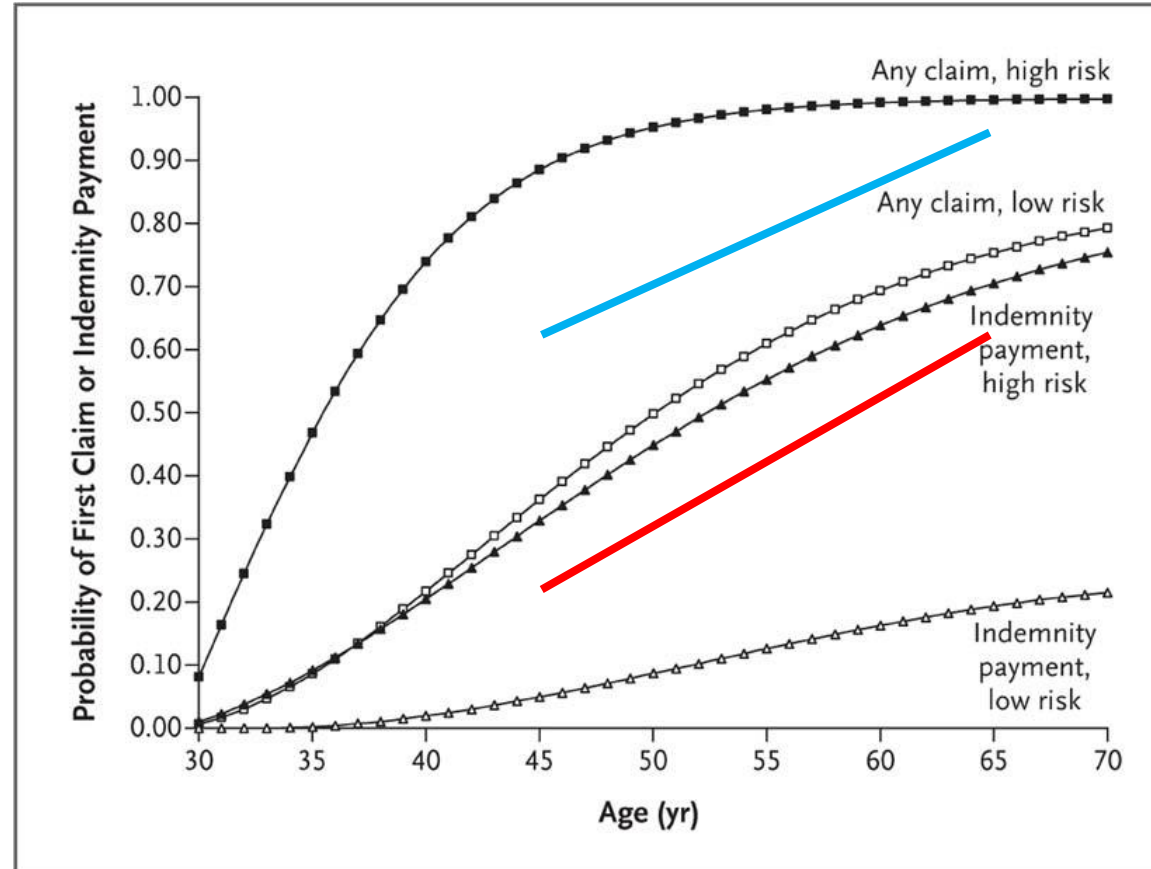
But That's Just One Year...

Cumulative Career Probability

Radiology Estimates

- Age 45-65

- Any claim:
- 57%-90%
- Payment
- 17%-53%



How Long Will It Last?

Mean time to
resolution
(per claim):

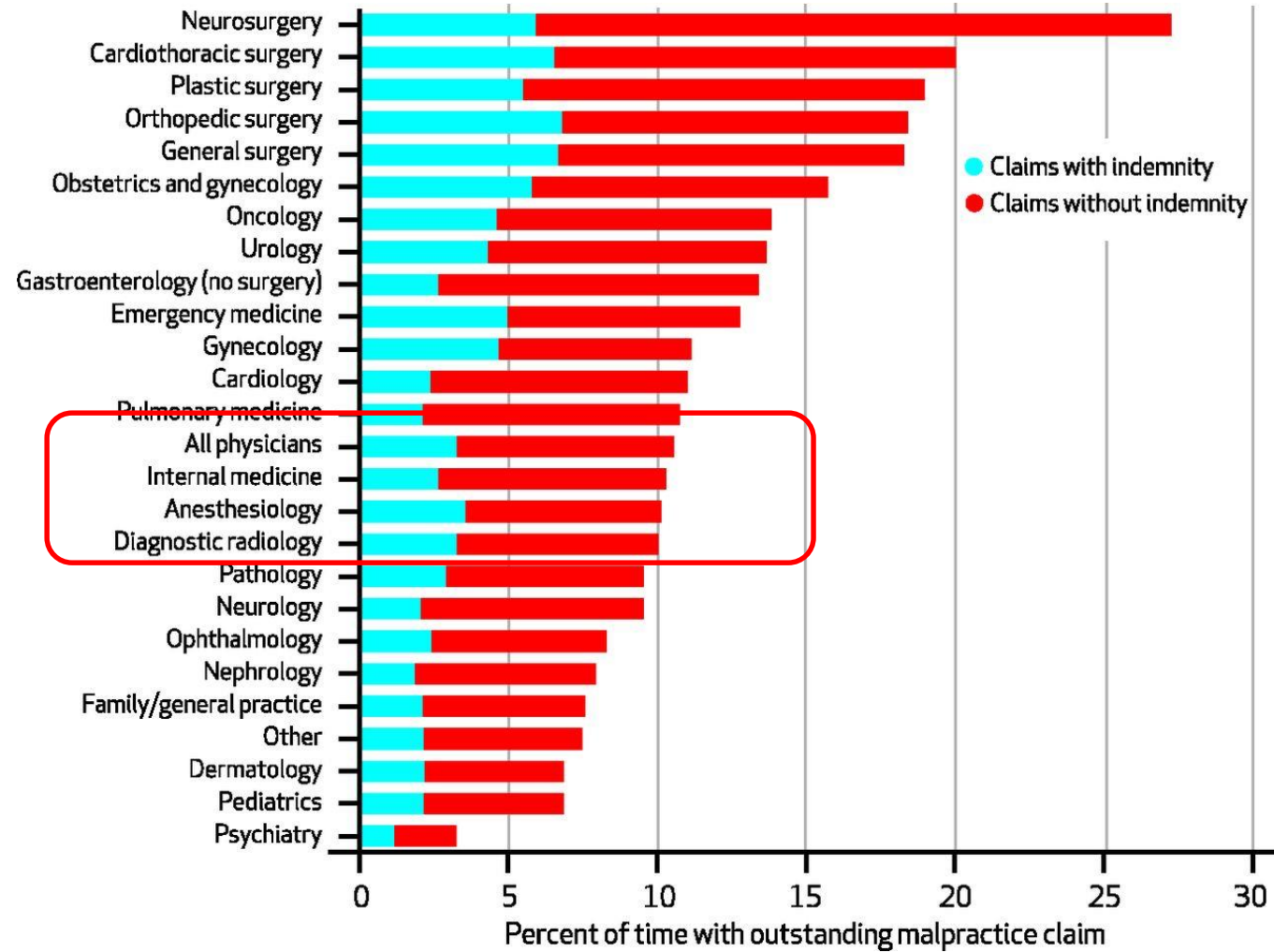
20.3 months

Mean Time To Resolution Of Malpractice Claims, By Claim Characteristics

Characteristic	Mean time to resolution, months	
	Unadjusted	Adjusted
PHYSICIAN AGE (YEARS)		
30-39 (ref)	15.0	16.4
40-49	19.5	20.4****
50 or older	21.8	21.1****
SPECIALTY		
Anesthesiology (ref)	16.5	19.5
Cardiology	19.9	21.1
Dermatology	12.6	18.4
Diagnostic radiology	16.6	19.1
Emergency medicine	16.7	15.4
Family/general practice	18.0	20.6
General surgery	18.1	20.1
Gynecology	18.4	21.2
Internal medicine	21.8	22.1**
Nephrology	11.6	13.5****
Neurology	15.7	17.9
Neurosurgery	22.3	19.4
Obstetrics	21.2	22.7***
Oncology	17.3	15.1
Ophthalmology	17.0	20.1
Pathology	25.3	20.6
Pediatrics	24.1	24.5**
Plastic surgery	20.4	21.0
Psychiatry	18.7	19.0
Pulmonary medicine	16.5	16.3**
Cardiothoracic surgery	16.9	17.2**
Urology	19.4	22.1**
Gastroenterology	19.1	20.1
Orthopedic surgery	21.1	21.9**
Other specialties	14.9	16.1****



How Long Will It Last?



Getting Better?

Table 2. Annual Rates of Paid Medical Malpractice Claims per 1000 Physician-years

Specialty	Rate of Paid Medical Malpractice Claims					Difference in Mean Rate From Period 1 to Period 4	
	1992-2014 (All Periods)	1992-1996 (Period 1)	1997-2002 (Period 2)	2003-2008 (Period 3)	2009-2014 (Period 4)	Difference in Mean Rate From Period 1 to Period 4	Percentage Change ^a
All specialties	14.1	20.1	17.5	13.2	8.9	-11.2	-55.7
Anesthesiology	11.7	15.4	13.7	10.8	8.6	-6.8	-44.2
Cardiology	15.9	15.6	18.0	16.6	13.5	-2.1	-13.5
Colon and rectal surgery	34.1	38.3	39.3	35.1	27.6	-10.7	-27.9
Dermatology	11.6	17.3	15.2	10.6	6.2	-11.1	-64.2
Emergency medicine	18.8	24.3	24.4	18.6	13.0	-11.3	-46.5
Family medicine	14.3	22.3	18.4	13.0	8.2	-14.1	-63.2
Gastroenterology	15.8	18.5	18.0	16.5	12.1	-6.4	-34.6
General practice	21.9	29.0	23.2	16.7	12.6	-16.4	-56.6
General surgery	30.0	34.4	34.3	29.9	22.2	-12.2	-35.5
Internal medicine	7.1	8.9	8.5	7.1	4.8	-4.1	-46.1
Neurology	9.5	13.1	12.0	9.4	5.8	-7.3	-55.7
Neurosurgery	53.1	66.0	61.2	53.9	37.3	-28.7	-43.5
Obstetrics and gynecology	42.5	57.6	51.5	40.0	25.9	-31.7	-55.0
Ophthalmology	15.5	18.9	18.1	15.7	10.2	-8.7	-46.0
Orthopedics	40.9	56.5	51.1	36.7	25.0	-31.5	-55.8
Otolaryngology	24.4	33.0	29.3	21.9	16.4	-16.6	-50.3
Pathology	6.9	9.1	8.4	6.1	4.5	-4.6	-50.5
Pediatrics	4.9	9.9	5.9	4.0	2.4	-7.5	-75.8
Plastic surgery	48.5	64.8	71.3	43.1	26.0	-38.8	-59.9
Psychiatry	4.3	7.0	5.0	3.4	2.5	-4.5	-64.3
Pulmonology	10.5	14.0	13.5	10.0	7.2	-6.8	-48.6
Radiology	18.9	22.3	22.7	18.7	13.7	-8.6	-38.6
Thoracic surgery	46.7	90.6	72.5	37.2	24.0	-66.6	-73.5
Urology	25.6	30.3	32.3	23.7	17.8	-12.5	-41.3
Other	7.1	11.3	8.6	6.7	4.6	-6.7	-59.3

^a The percentage change was statistically significant for all specialties except cardiology ($P = .15$ for cardiology; $P = .001$ for colon and rectal surgery, and $P < .001$ for all other specialties).



Or Worse?

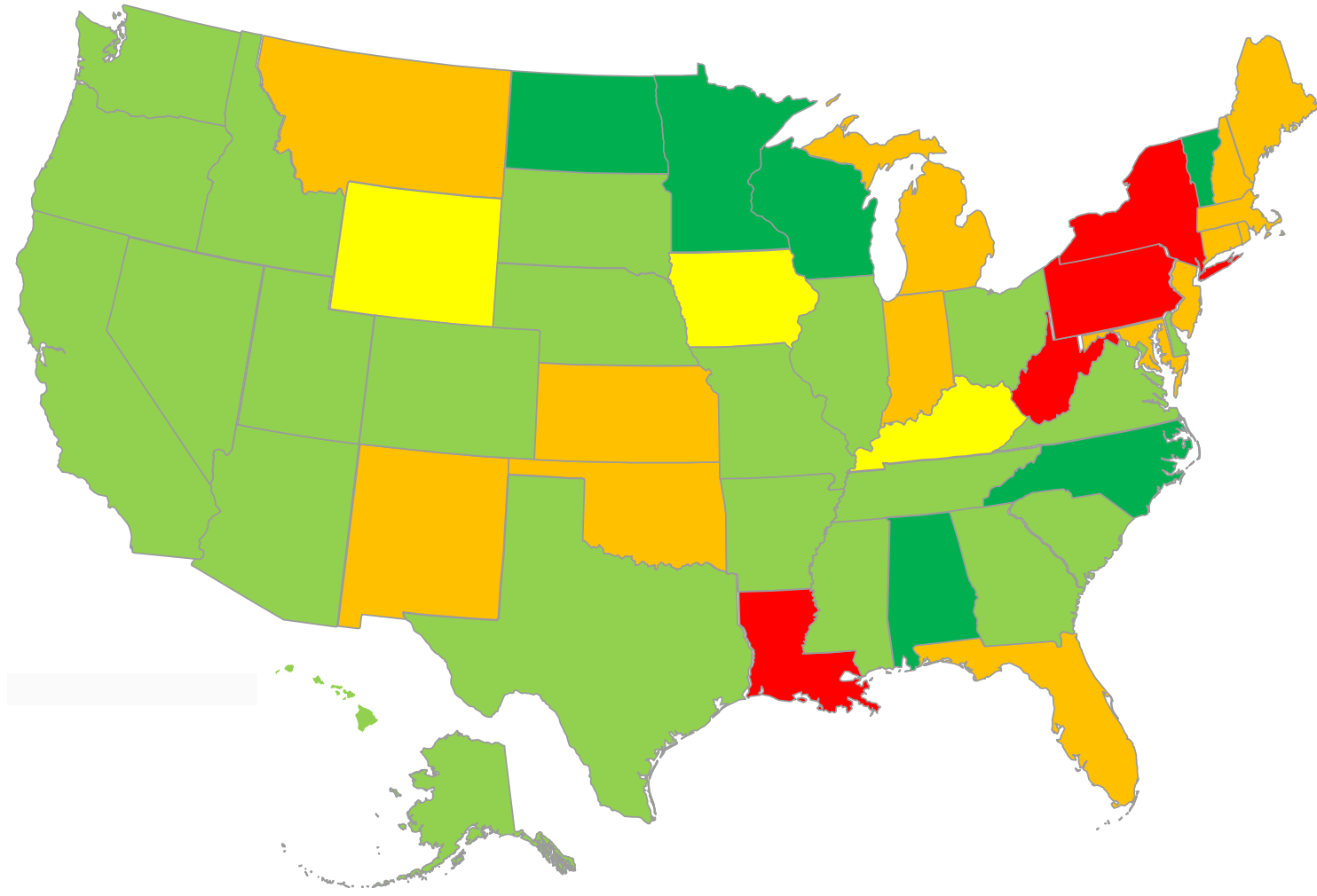
Table 3. Medical Malpractice Payment Amounts for 280 368 Paid Claims*

Specialty	Mean Malpractice Payment, \$					Difference in Mean From Period 1 to Period 4, \$ (%)	P Value for Difference (Period 1 vs Period 4)
	1992-2014 (All Periods)	1992-1996 (Period 1)	1997-2002 (Period 2)	2003-2008 (Period 3)	2009-2014 (Period 4)		
All specialties	329 565	286 751	323 263	360 260	353 473	66 722 (23.3)	<.001
Anesthesiology	377 499	313 201	392 702	439 839	354 038	40 837 (13.0)	.02
Cardiology	365 029	337 605	367 949	376 668	368 350	30 745 (9.1)	.21
Colon and rectal surgery	337 976	283 112	357 682	348 264	345 438	62 326 (22.0)	.12
Dermatology	189 065	161 512	187 426	194 672	228 966	67 454 (41.8)	.007
Emergency medicine	309 411	249 107	313 948	340 495	314 052	64 945 (26.1)	<.001
Family medicine	290 698	237 669	293 272	319 030	319 382	81 713 (34.4)	<.001
Gastroenterology	349 013	276 128	338 441	374 369	390 538	114 410 (41.4)	<.001
General practice	231 622	218 350	239 537	246 261	235 781	17 431 (8.0)	.36
General surgery	298 625	266 715	282 220	325 521	329 437	62 722 (23.5)	<.001
Internal medicine	318 071	280 725	313 128	340 505	333 540	52 815 (18.8)	<.001
Neurology	431 049	405 348	419 079	445 823	459 857	54 509 (13.4)	.19
Neurosurgery	469 222	445 182	457 919	488 756	487 043	41 861 (9.4)	.14
Obstetrics and gynecology	432 959	387 186	421 171	485 590	447 034	59 848 (15.5)	<.001
Ophthalmology	244 039	208 766	239 441	256 043	283 275	74 509 (35.7)	<.001
Orthopedics	258 763	227 154	255 000	281 487	283 979	56 825 (25.0)	<.001
Otolaryngology	282 822	239 823	282 124	313 848	304 347	64 524 (26.9)	<.001
Pathology	411 529	335 249	427 356	432 229	473 957	138 708 (41.4)	.005
Pediatrics	413 974	370 817	445 167	434 960	413 324	42 507 (11.5)	.25
Plastic surgery	189 219	169 614	171 337	219 955	210 062	40 448 (23.8)	.05
Psychiatry	238 909	234 220	215 446	257 020	269 870	35 650 (15.2)	.001
Pulmonology	348 066	328 593	345 025	354 323	363 177	34 584 (10.5)	<.001
Radiology	333 422	268 429	335 087	357 770	366 009	97 580 (36.4)	.26
Thoracic surgery	380 402	322 493	381 230	407 339	423 929	101 436 (31.5)	<.001
Urology	273 290	234 757	234 503	318 484	330 114	95 357 (40.6)	.001
Other	331 709	281 417	324 508	354 585	367 363	85 946 (30.5)	<.001

* All payment amounts were adjusted to 2014 dollars based on the Consumer Price Index.



Location, Location, Location

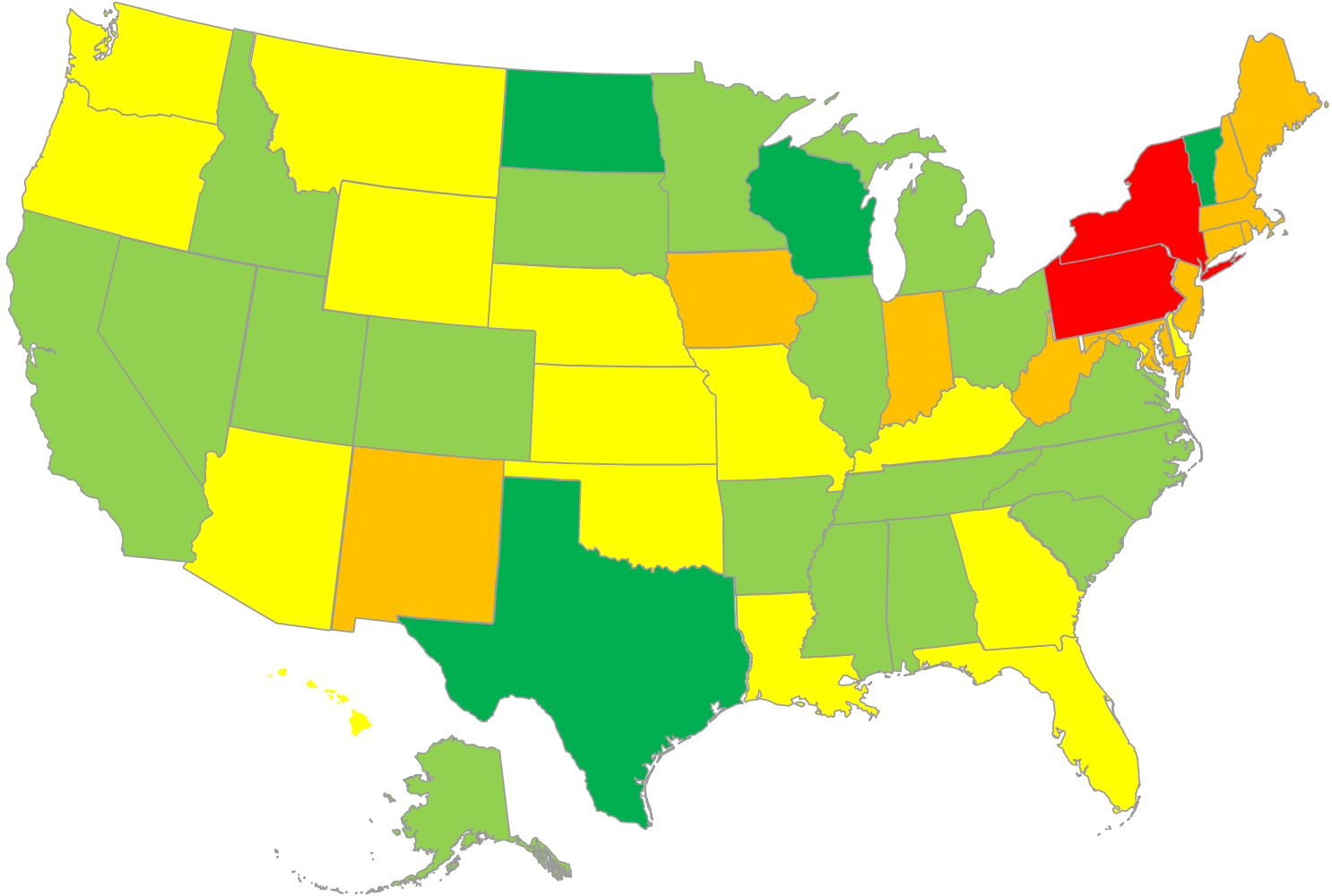


123

Counts per 100,000 population	
0.00	1.25
1.25	2.50
2.50	3.00
3.00	5.00
5.00	7.00



Location, Location, Location



Dollars per 100,000 population	
0	374,999
375,000	749,999
750,000	1,249,999
1,250,000	2,499,999
2,500,000	4,000,000



Key Exceptions



Is Defensive Medicine Protective?

Table 3 | Estimated effect of increased physician spending on subsequent malpractice risk, within physician analysis

Specialty	Absolute % change in malpractice claim rate* (95% CI)	P value†
Internal medicine	-2.1 (-3.4 to -0.8)	0.001
Internal medicine subspecialty	-2.4 (-4.7 to -0.1)	0.04
Family medicine	-1.2 (-3.0 to 0.6)	0.18
Pediatrics	-1.3 (-2.1 to -0.4)	0.003
General surgery	-3.4 (-4.6 to -2.1)	<0.001
Surgical subspecialty	-1.9 (-3.0 to -0.9)	<0.001
Obstetrics and gynecology	-1.3 (-2.3 to -0.4)	0.01

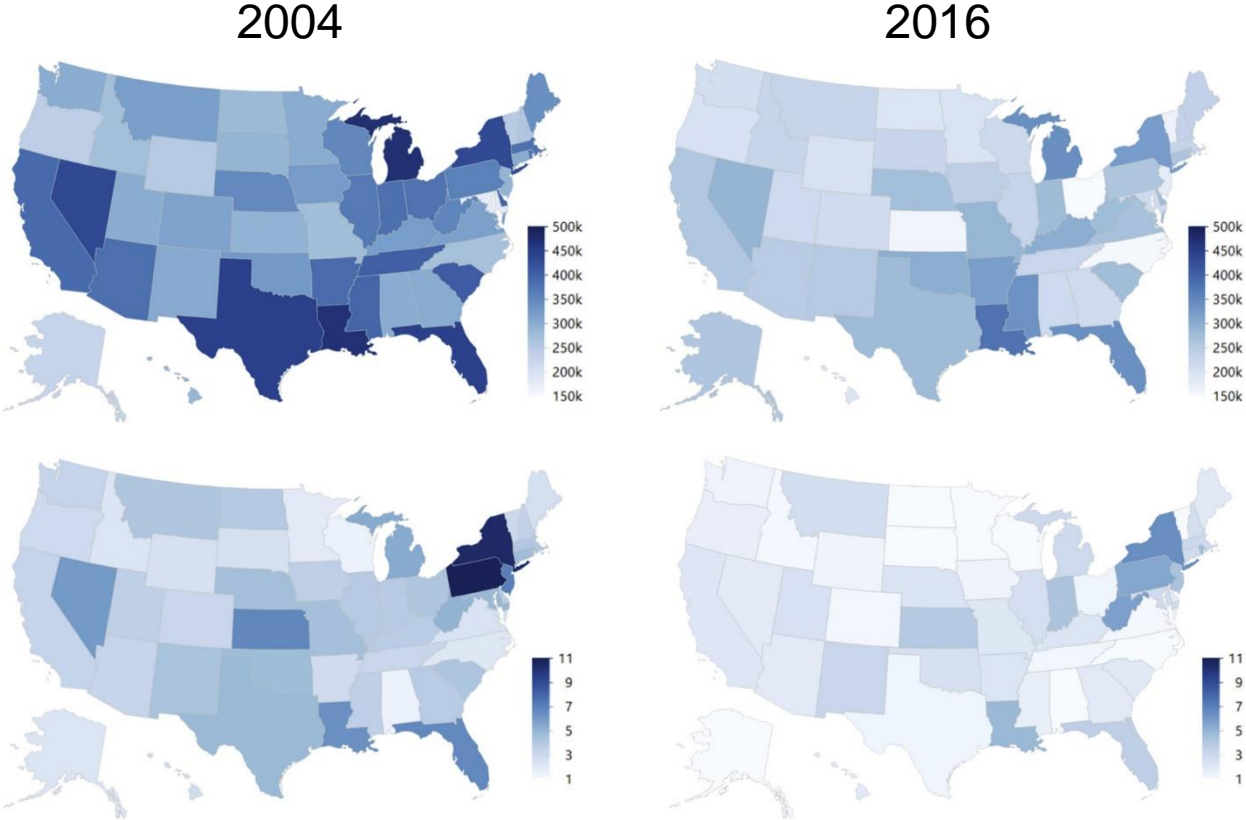
Table reports effect of increasing physician hospital spending from bottom fifth to top fifth on the probability a physician experiences an event that leads to a subsequent malpractice claim. The model was estimated with physician fixed effects (that is, a within physician analysis) and therefore accounted for the possibility that within a specialty and even after adjustment for patient case mix and diagnosis related group, unobserved patient characteristics may be associated with both higher use of healthcare resources by physicians and risk of malpractice claims. The model estimated the effect of physician spending on subsequent malpractice claims by studying changes in spending and malpractice claims within physicians over time.

*Associated with increase in physician spending from bottom to top fifth.

†Two sided *t* tests.



Do Malpractice Claims Drive Imaging Utilization?

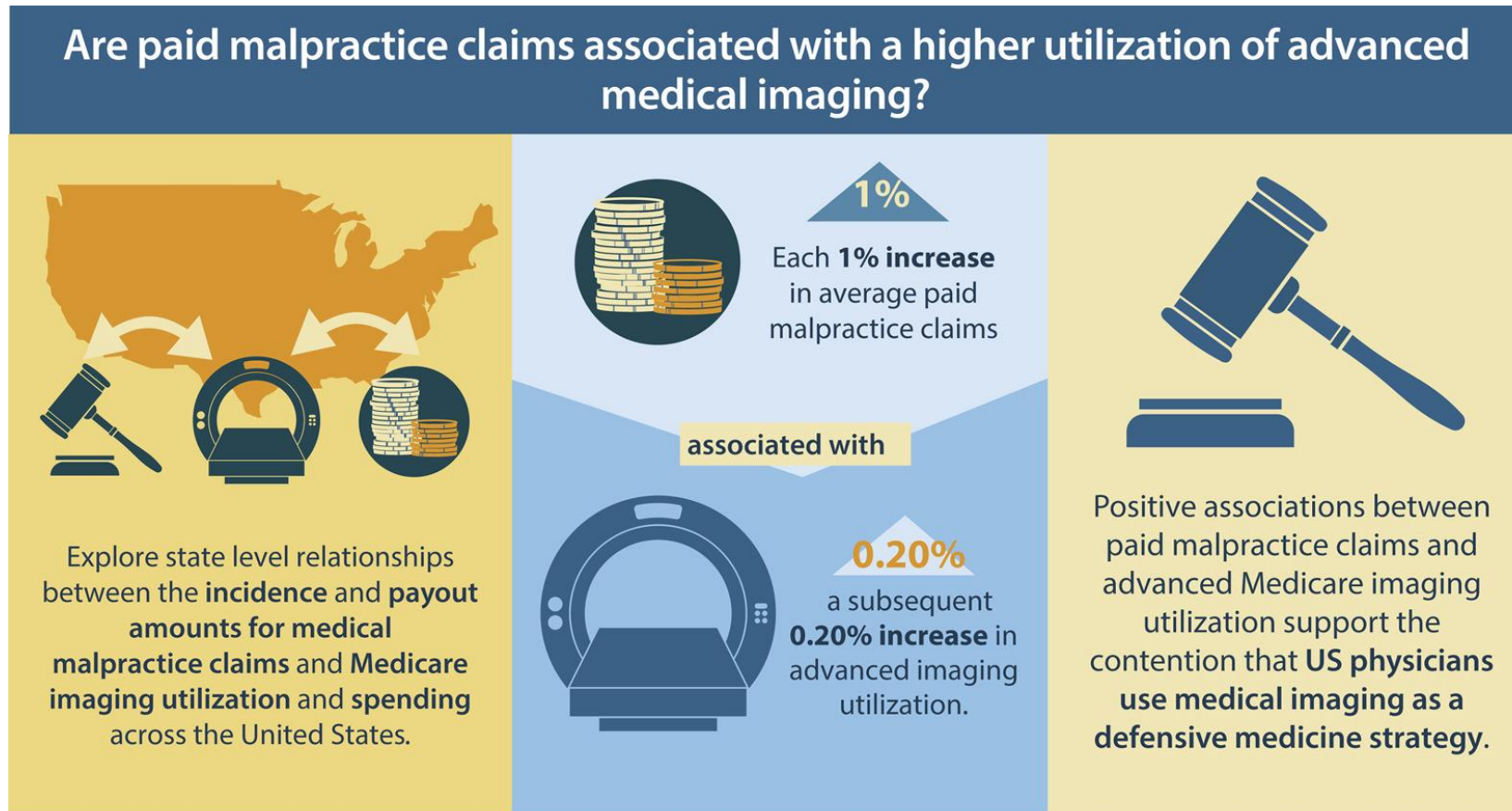


Imaging utilization rates per 100,000 beneficiaries.

Paid malpractice claims per 100,000 population.



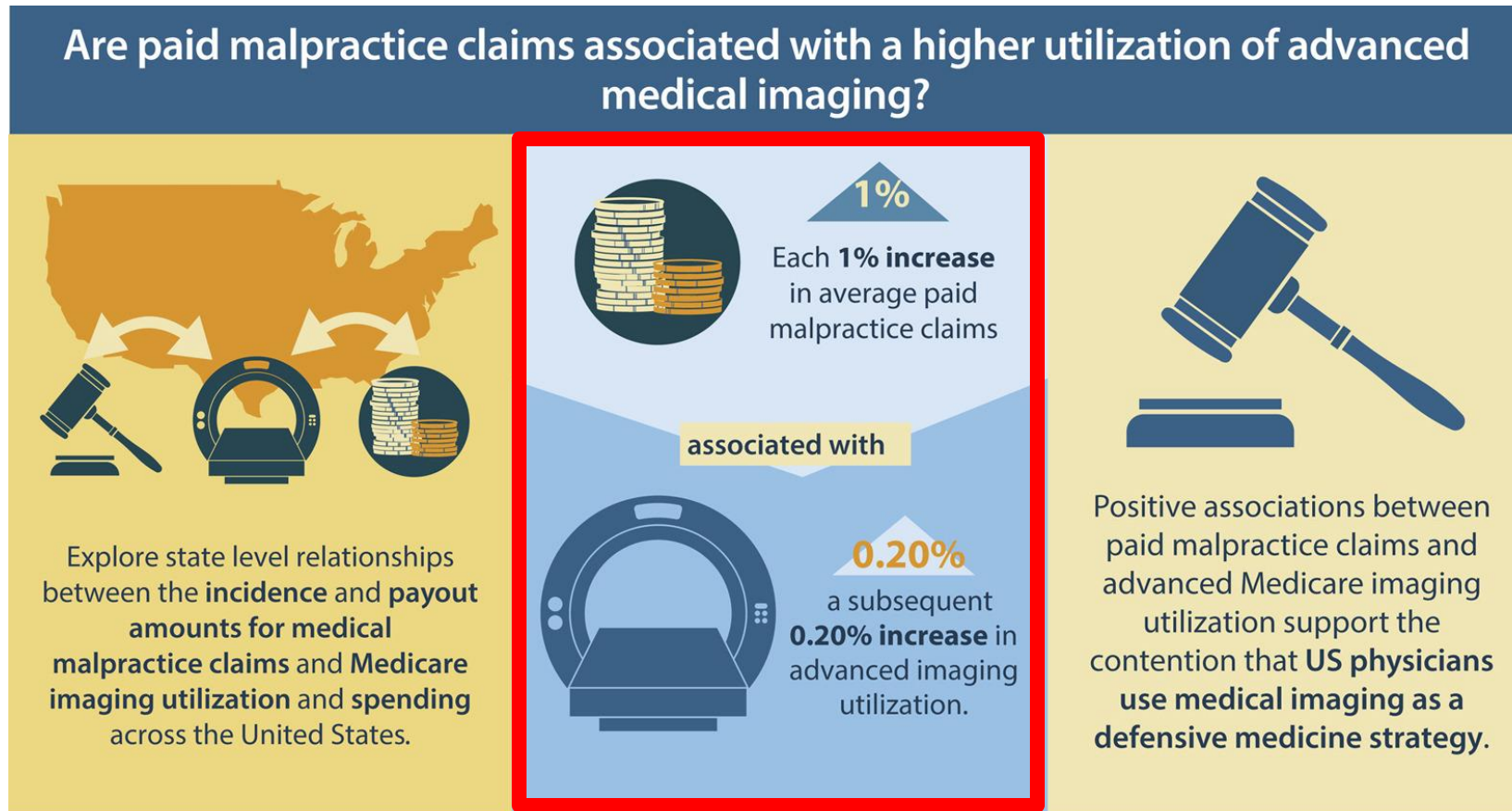
Do Malpractice Claims Drive Imaging Utilization?



JACR VISUAL ABSTRACT



Do Malpractice Claims Drive Imaging Utilization?



JACR VISUAL ABSTRACT



Criteria for Malpractice Claim

- Duty
 - Breach
 - Causation
 - Damages
-
- A meritorious claim should require **all** four



Criteria for Malpractice Claim

- Duty
 - Exists when a health care entity or provider undertakes care or treatment of a patient



Criteria for Malpractice Claim

- Duty
 - Exists when a health care entity or provider undertakes care or treatment of a patient
- Breach
 - Provider failed to conform to the relevant **standard of care**



Criteria for Malpractice Claim

- Duty
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- Breach
 - Provider failed to conform to the relevant **standard of care**
- Causation
 - That breach was a proximate cause of the injury



Criteria for Malpractice Claim

- Duty
 - Exists when a health care entity or provider undertakes care or treatment of a patient
- Breach
 - Provider failed to conform to the relevant **standard of care**
- Causation
 - That breach was a proximate cause of the injury
- Damages
 - Without damages, there is no basis for judgment, regardless of negligence



The Standard of Care

- Definition varies by jurisdiction, but typically relate to behavior of an “ordinary,” “reasonable,” or “prudent” physician
- “...that course of action which a reasonably prudent [professional] in the defendant’s specialty would have taken under the same or similar circumstances”



Who Determines the Standard of Care?

- The jury does



Juries are Unpredictable

- Worried about a brain tumor, Plaintiff Judith Richardson Haimes underwent a brain CT examination at Temple University Hospital
- The jury rendered a verdict of \$988,000 against radiologist Dr. Judith Hart and Temple University Hospital

Court of Common Pleas of Pennsylvania, Philadelphia County.

Judith HAIMES, Plaintiff,

v.

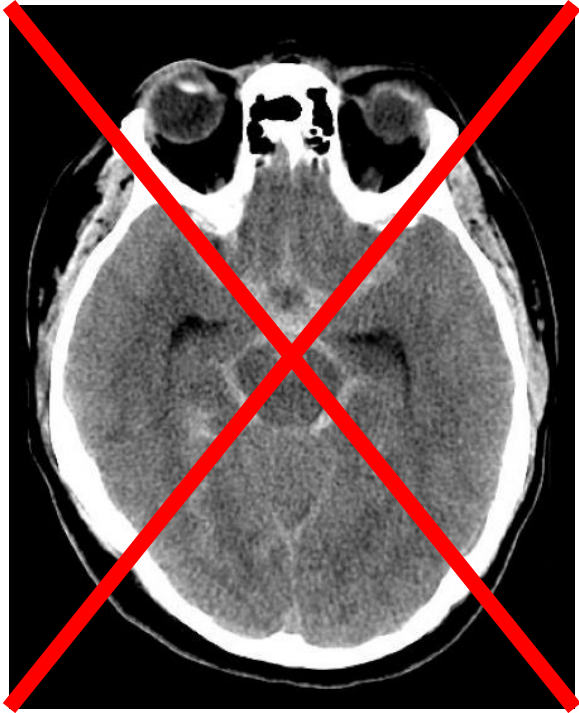
TEMPLE UNIVERSITY HOSPITAL, Defendant,

No. 4408.

Decided Aug. 7, 1986.



Juries are Unpredictable



Los Angeles Times

Says Her Powers Vanished : 'Psychic' Awarded \$988,000 in Hospital CAT-Scan Lawsuit

March 30, 1986 | Associated Press

PHILADELPHIA — A woman who claimed a CAT scan she received at a hospital in 1976 made her unable to use her psychic powers was awarded \$988,000 by a jury last week.

The eight-member Common Pleas Court jury deliberated about 45 minutes before awarding Judith Richardson Haines \$600,000 plus \$388,000 in interest on her malpractice claim against Temple University Hospital.



Who Determines the Standard of Care?

- The jury does
- Based on the opinions of dueling experts

A: Are you saying, Doctor, that every time a radiologist misses a diagnosis on an X ray, he or she is guilty of malpractice?

W: Yes.



Radiology Expert Witness Considerations



ACR Practice Parameter on the Physician Expert Witness in Radiology and Radiation Oncology, 2017

<p>The American College of Radiology (ACR) has a long history of providing guidance to radiologists, nuclear medicine physicians, and radiation oncologists. The College's expertise is based on the collective experience of its members, who are leaders in their respective fields. The College's mission is to advance the practice of radiology, nuclear medicine, and radiation oncology through education, research, and advocacy. The College's practice parameters are developed through a rigorous process of consultation and consensus, and are intended to provide guidance to practitioners in their respective fields. The College's practice parameters are developed through a rigorous process of consultation and consensus, and are intended to provide guidance to practitioners in their respective fields.</p> <p>ACR PRACTICE PARAMETER ON THE PHYSICIAN EXPERT WITNESS IN RADIOLOGY AND RADIATION ONCOLOGY</p> <p>PREAMBLE</p> <p>This document is an educational tool designed to assist practitioners in providing appropriate radiologic care for patients. Practice Parameters and Technical Standards are not enforceable rules or requirements of practice and are not intended to establish a legal standard of care. For these reasons and those set forth below, the American College of Radiology and our collaborating medical specialty societies neither endorse nor disavow the use of these documents in litigation in which the clinical decisions of a practitioner are called into question.</p> <p>The ultimate judgment regarding the propriety of any specific procedure or course of action must be made by the practitioner in light of all the circumstances presented. Thus, an approach that differs from the guidance in this document, including those that do not necessarily apply the same standard of care, to the contrary, a conscientious practitioner may responsibly adopt a course of action different from that set forth in this document when, in the reasonable judgment of the practitioner, such course of action is indicated by the condition of the patient, limitations of available resources, or advances in knowledge or technology subsequent to publication of the document. However, a practitioner who departs from the guidance in this document without the guidance in this document is advised to document in the patient record information sufficient to explain the approach taken.</p> <p>The practice of medicine involves not only the science, but also the art of dealing with the prevention, diagnosis, alleviation, and treatment of disease. The variety and complexity of human conditions make it impossible to always reach the most appropriate diagnosis or to predict with certainty a particular response to treatment. Therefore, it should be recognized that advances in the guidance in this document will not always be achieved, diagnosis or a successful outcome. All that should be expected is that the practitioner will follow a reasonable course of action based on current knowledge, available resources, and the needs of the patient to deliver effective and safe medical care. The sole purpose of this document is to assist practitioners in achieving this objective.</p> <p>ACR PRACTICE PARAMETER Expert Witness Radiology and RO</p>	<p>I. INTRODUCTION</p> <p>For the purpose of this practice parameter, radiology is defined as diagnostic radiology, interventional radiology, nuclear medicine, radiation oncology, and medical physics. For the scope of this practice parameter, radiologists and radiology oncologists include diagnostic radiologists, interventional radiologists, nuclear medicine physicians, and radiation oncologists. The medical physicist follows the ACR-ACRPM Practice Parameter on the Expert Witness in Medical Physics [1].</p> <p>Radiologists and radiation oncologists are frequently called upon to serve as medical expert witnesses in a variety of legal proceedings that may include cases of alleged medical malpractice, personal injury, product liability, workers' compensation, and criminal law, and have an obligation to do so in the appropriate circumstances. This obligation includes not only the review of documents, radiologic images, records of treatment, and/or procedures but also the willingness to give sworn testimony by deposition or in court. The public interest requires readily available, objective, and unbiased medical expert testimony. The expert witness should be qualified for the role and follow clear and consistent guidelines. The American College of Radiology (ACR) recognizes the diverse role of the judge in determining admissibility of expert testimony, as well as the difficulty in setting the balance between variations of viewpoints and their ramifications, which furthers its goal to help that appears in the Notes section after the references.</p> <p>Medical expert witness testimony is indicated in any legal proceeding in which the court needs an objective physician who is not a party to the case, has no personal interest in the outcome of the case, and has expertise in the matter at hand to help explain the issues.</p> <p>II. QUALIFICATIONS AND RESPONSIBILITIES OF THE EXPERT WITNESS</p> <p>The expert witness should be a physician with the following qualifications:</p> <ul style="list-style-type: none"> Unless otherwise stipulated by applicable state law, training and active engagement at the time of the incident under review and for a reasonable period of time in the practice of the radiologic specialty or subspecialty relating to the testimony. Certification in Radiology, Diagnostic Radiology, Interventional Radiology, Diagnostic Radiology (DR), Therapeutic Radiology, Nuclear Radiology, or Radiation Oncology by the American Board of Radiology, the American Osteopathic Board of Radiology, the American Board of Nuclear Medicine, the Royal College of Physicians and Surgeons of Canada, or the College des Médecins de Québec, Participation in Maintenance of Certification (MOC) by the relevant body, if they have a time limited board certification. Qualification in medicine involves not only the science, but also the art of dealing with the prevention, diagnosis, alleviation, and treatment of disease. The variety and complexity of human conditions make it impossible to always reach the most appropriate diagnosis or to predict with certainty a particular response to treatment. Therefore, it should be recognized that advances in the guidance in this document will not always be achieved, diagnosis or a successful outcome. All that should be expected is that the practitioner will follow a reasonable course of action based on current knowledge, available resources, and the needs of the patient to deliver effective and safe medical care. The sole purpose of this document is to assist practitioners in achieving this objective. <p>III. REQUISITES OF AN EXPERT WITNESS</p> <p>A. The role of the expert witness is to help the trier of fact analyze the issues in dispute necessary to decide the case. The expert witness is expected and should be able to render an opinion regarding the reasonableness of the conduct of the parties in the circumstances at hand. Depending on the legal issues being tried, this may include an opinion about a defendant doctor's training and experience, the relevant standard of care, the relevance of particular imaging techniques, interventional procedures, or radiation therapy treatment to causation of damage; or the adequacy of the technical equipment used.</p> <p>ACR PRACTICE PARAMETER Expert Witness Radiology and RO</p>	<p>In a medical liability case, the expert opinion should be based on all relevant clinical and radiologic information available at the time of the incident, not on retrospective information, facts, and results of imaging studies performed after the incident, especially if used to avoid being influenced by hindsight and human bias [2,3]. Mechanisms to reduce bias have been well studied in the literature [4]. It should be recognized that physicians with different levels of expertise may still possess within the standard of care:</p> <p>B. Recommended Guidelines of Conduct for the Radiologist and Radiation Oncologist Expert Witness</p> <ol style="list-style-type: none"> 1. Although the nature of legal proceedings is adversarial, the expert witness must not be impartial and objective, if possible. 2. In a medical liability case, the expert witness should be familiar with the relevant standard of care. Care must be taken to distinguish between the expert's personal opinion and the standard of care. 3. The expert witness should review all relevant medical information in order to assure an informed and fair opinion. Images and other relevant materials reviewed by the expert witness should be the original images and other relevant materials used by the interpreter or master physician in the case. If original images or other relevant materials are not available, good-quality copies of the originals may be acceptable. In cases involving images originally interpreted using a picture archiving and communications system (PACS), the expert witness review should consider the original archiving and communication system (ACS) used by the interpreting physician. 4. The expert witness should be prepared to explain the basis of an opinion and should take care that professed testimony will be scientifically valid and applicable to the facts at issue, can be so has been tested, and has withstood or reasonably could withstand a peer review. The expert witness should be familiar with and be prepared to address the known or potential limitations regarding an opinion, as well as the signs to which that opinion is accepted in the medical community. 5. Compensation of the expert witness should reflect the time and effort involved. In-kind compensation for expert testimony by the outcome of the case (contingency fee) is prohibited. 6. The expert witness should strive to minimize all potential sources of conflict and disclosure bias when reviewing case materials, images and other relevant materials presented in a blinded fashion to the expert in a multiphasic format, ensuring the reliability of the opinion rendered by the expert. <p>An individual holding an official capacity with the College who testifies in a legal proceeding must exercise great care in distinguishing his or her personal opinion and the policy position of the College (see Link), that appears in the Notes section after the references.</p> <p>The expert witness can be held accountable for statements made during a legal proceeding. Expert witness testimony may be reviewed and evaluated by medical boards and professional societies.</p> <p>ACKNOWLEDGEMENTS</p> <p>This practice parameter was revised according to the process described under the heading <i>The Process for Developing ACR Practice Parameters and Technical Standards on the ACR Website</i> (http://www.acr.org/About/ACR/PracticeParametersandTechnicalStandards). By the Committee on Practice Parameters – General, Small, Emergency and/or Rural Practice, and the Committee on Practice Parameters – Radiation Oncology of the American College of Radiology.</p> <p>Revising Committee Candice J. Johnson, MD, Chair Alan C. Hartford, MD, PhD, FACR Jamal C. Robbins, MD</p> <p>Jeffrey D. Robinson, MD, MBA Robert Thaler, MD</p> <p>ACR PRACTICE PARAMETER Expert Witness Radiology and RO</p>	<ol style="list-style-type: none"> 4. D'Amico DJ, Hershman CE, Agarwal G, et al. Expert witness blinding strategies to mitigate bias in radiology malpractice cases: a comprehensive review of the literature. <i>Journal of the American College of Radiology</i>. JACR. 2014;12(9):868-877. 5. Hertz L. Can a radiologist be compelled to testify as an expert witness? <i>AM J Roentgenol</i>. 2005;182(1):26-32. <p>Additional articles that are not cited in the document but that the committee recommends for further reading on this topic:</p> <p>Harkin J, Hoffman DC, Shukla WJ, Cox J. When does expert witness testimony constitute a violation of the ACR Code of Ethics? <i>JACR</i>. 2006;3:252-258.</p> <p>Buckle L. Billing false witness. <i>AJR</i>. 2005;180:1515-1521.</p> <p>Harkin J. The multi-state expert witness. <i>AJR</i>. 2002;181:28-33.</p> <p>D'Amico DJ, Chockvick J, Ginn W, Top 10 tips for a Radiology Medical and Expert. <i>JAM</i>. 2007;322:2923.</p> <p>Eley JA, Swiler PE, Rubin AJ, Corbridge W, Liu JK. Comparison of plaintiff and defendant expert witness qualifications in malpractice litigation in interventional surgery. <i>Journal of Neurosurgery</i>. 2014;121(1):181-190.</p> <p>Johnson JC, Szatmari M. The expert witness in medical malpractice litigation: through the looking glass. <i>Journal of Child Neurology</i>. 2012;27(6):848-851.</p> <p>Kopra AB. Malpractice in radiation oncology: redefining the role of the medical expert. <i>Int J Radiat Oncol Biol Phys</i>. 2010;106:848-849.</p> <p>Stuker FF, Eley JA, Brandt S, Szatmari M, Felby AJ. Expert witness testimony guidelines: identifying areas for improvement. <i>Oncology</i>. <i>Best and most cited work series: Official Journal of American Academy of Oncology</i>. <i>Pract and Oncol</i>. 2013;13(2):207-210.</p> <p>Walton K, Elliott K, Maricko S, Houston P, Rizzo J. Malpractice in radiation oncology: redefining the role of the medical expert. <i>Int J Radiat Oncol Biol Phys</i>. 2005;63:1254-1255.</p> <p>NOTES</p> <p>¹ These practice parameters do not apply to participant witnesses such as a doctor who is a party to the case. However, in some jurisdictions (California, for example) a defendant doctor can be deposed both as a defendant and as an expert [5].</p> <p>The policies of the College as a matter of public record and, if relevant, may be appropriately cited in testimony. Also, the fact that an individual holds an official position with the College may be an appropriate part of his or her qualifications as an expert witness. However, the College does not assume to specific action by the Board of Chiropractors, does not take a position on the merits of particular cases. A witness who holds an official capacity with the College must therefore be at pains to make clear that his or her testimony represents his or her personal views and must not state or imply in any opinion or observation of legal testimony that he or she is speaking as a representative of the College or in conformity with the views of the College on the merits of a particular case (1997, 1997, 2007, ACR Resolution 7-6).</p> <p>² Practice parameters and technical standards are published annually with an effective date of October 1 in the year in which they are revised or approved by the ACR Council. For practice parameters and technical standards published before 1999, the effective date was January 1, following the year in which the practice parameter or technical standard was amended, revised or approved by the ACR Council.</p> <p>Development Chairpersons for this Practice Parameter 2002 (Revisions 4-7) November 2007 (Revisions 8-11) Revised 2012 (Revisions 12) Amended 2014 (Revisions 13) Revised 2017 (Revisions 14) Amended 2018 (Revisions 15)</p> <p>ACR PRACTICE PARAMETER Expert Witness Radiology and RO</p>	<p>Committee on Practice Parameters – General, Small, Emergency and/or Rural Practice (ACR Committee responsible for monitoring the draft through the process)</p> <p>Sayed AB, MD, Chair Maria A. Amodeo, MD, FACR Greg Bellizzi, MD Louise J. Biepp, MD Christopher M. Deamus, MD, PhD Roman A. Chankil, MD Charles F. Johnson, MD Candice A. Johnson, MD</p> <p>Padraig A. Amodeo, MD PJ S. Kemp, MD Ernest R. Kozmin, MD Steven McLean, MD, PhD Steven C. Fisher, MD, MBA, FRCR Ognjenko S. Stankic, MD Elizabeth W. Johnson, MD Jennifer L. French, MD</p> <p>Committee on Practice Parameters – Radiation Oncology (ACR Committee responsible for monitoring the draft through the process)</p> <p>Alan C. Hartford, MD, PhD, FACR, Chair Nathan L.J. Hanna, MD Chao-Wen Cheng, PhD, FAJRM Nancy A. Elkovich, MD, FACR Beth A. Erickson, MD, FRCR Joshua A. Jarvis, MD, PhD Bill W. Loo, MD, PhD Jeff M. Michalski, MD, MBA, FACR</p> <p>Christopher H. Pope, MD James H. Schneider, MD Robert Thaler, MD Suzanne L. Wahlen, MD, FACR Ying-Ying Peng Sun S. Yoon, MD, PhD Rowan L. Zalk, MD</p> <p>Robert S. Piant, Jr., MD, FACR, Chair, Commission on General, Small, Emergency and/or Rural Practice Seth A. Rosenthal, MD, FACR, Chair, Commission on Radiation Oncology Jacqueline A. Huda, MD, FRCR, Chair, Commission on Quality and Safety Matthew S. Tulchinsky, MD, FACR, Chair, Committee on Practice Parameters and Technical Standards</p> <p>Committee Revising Committee Neil U. 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Radiology Experts Should Avoid Bias

- “In a medical liability case, the expert opinion should be based on all relevant clinical and radiologic information available at the time of the incident now under review.”
- “Information, facts, and results of imaging studies performed after the incident generally should not be used to formulate an opinion.”



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This is Not Science!

- Scientists ideally focus solely on the evidence without the influence of the parties' goals.
- Attorneys work in an adversarial system and look to sway the trier of fact with the most articulate, understandable, presentable, and persuasive expert, rather than the best scientist.



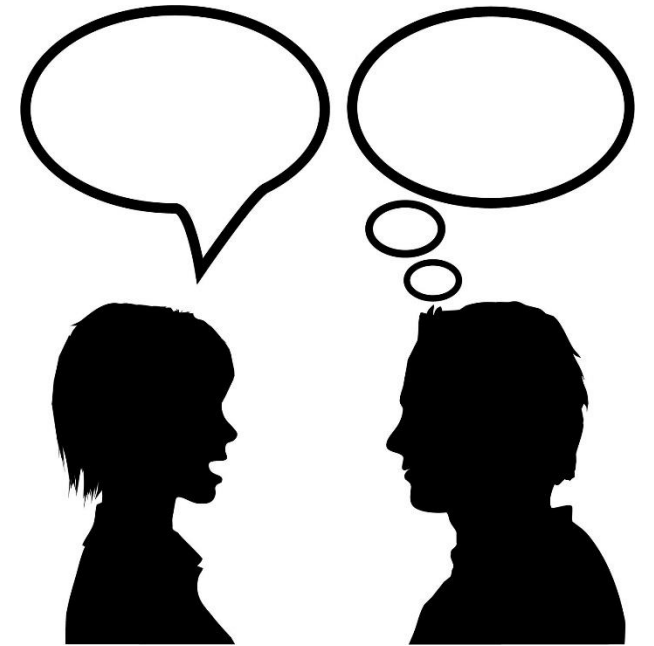
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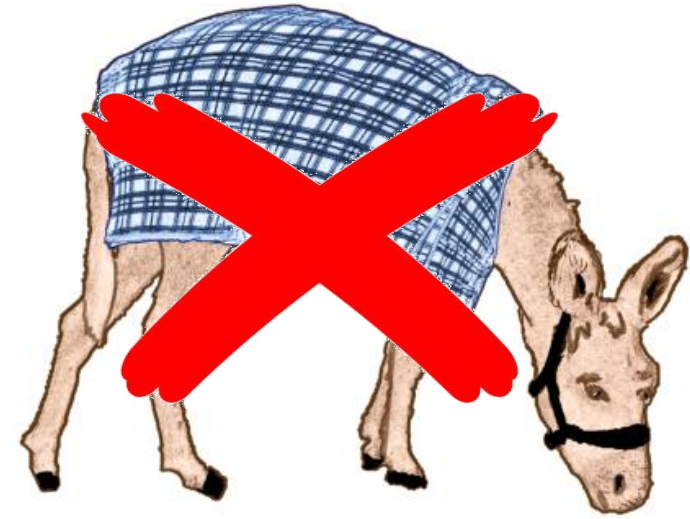
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If You Ever Have to Testify...

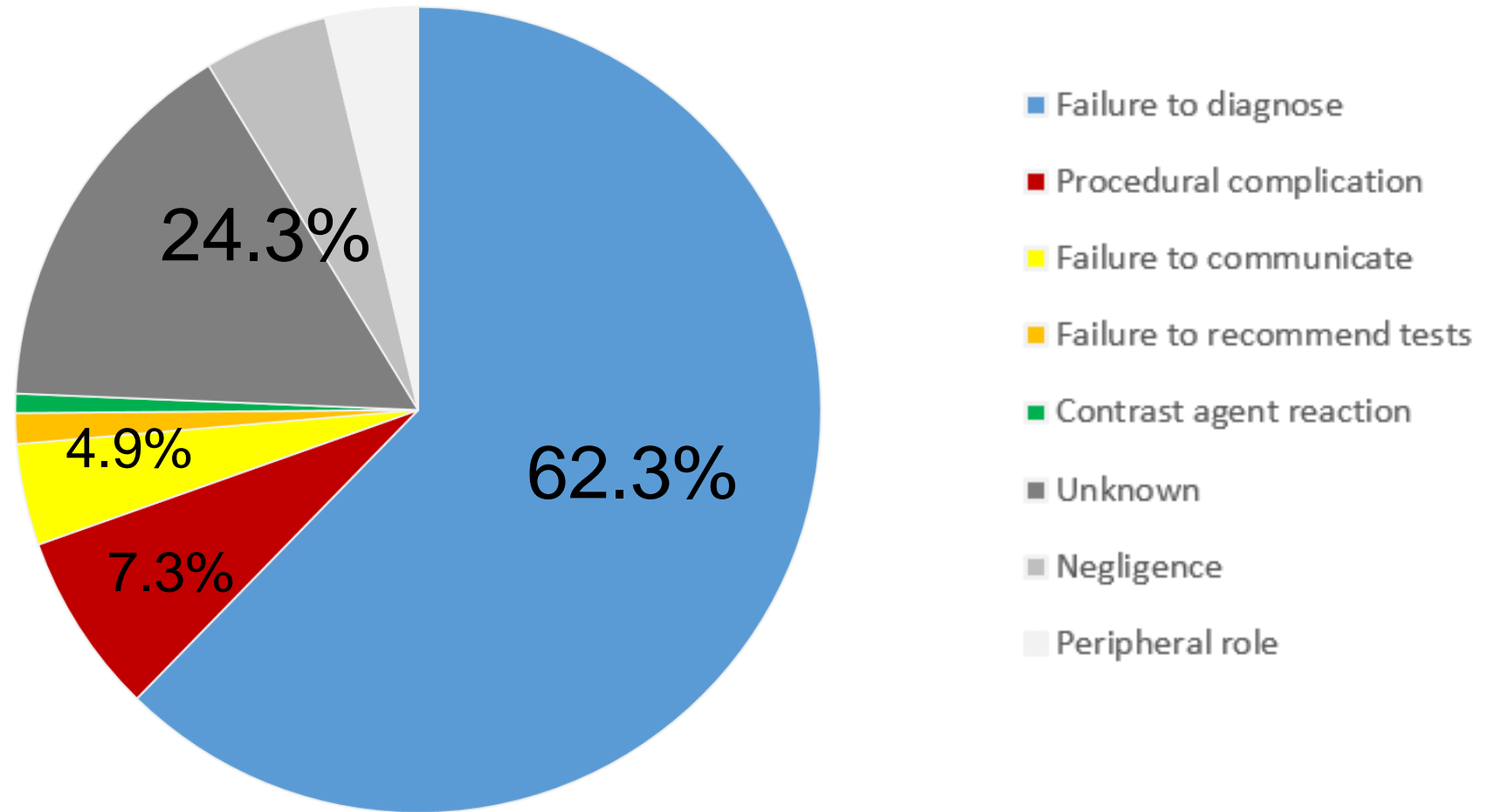
CYA



Where to Watch Out



Allegations Against 8,401 Radiologists



Distribution of malpractice claims against radiologists, by allegation (n=4,793)



For More Information...

Radiology Malpractice and Risk Management

This course discusses the current medical malpractice environment, focusing on issues facing both diagnostic and interventional radiologists and also highlights risk management opportunities for all within radiology. Course preparation and production was funded by the ARRS Berlin Scholarship.

Earn credit at your own pace through June 4, 2023 and continue to access your videos until June 5, 2030. See below for learning outcomes and a list of modules.



This course offers **3.5 CME and SA-CME** Credits following completion of an online assessment.

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Module 1

- Separating Fact from Fiction

Module 2

- Perception and Interpretation: A “Miss” Does Not Always Mean Malpractice

Module 3

- Mitigating Malpractice Risk through Improved Communication

Module 4

- Informed Consent and Complications: Malpractice Considerations

Module 5

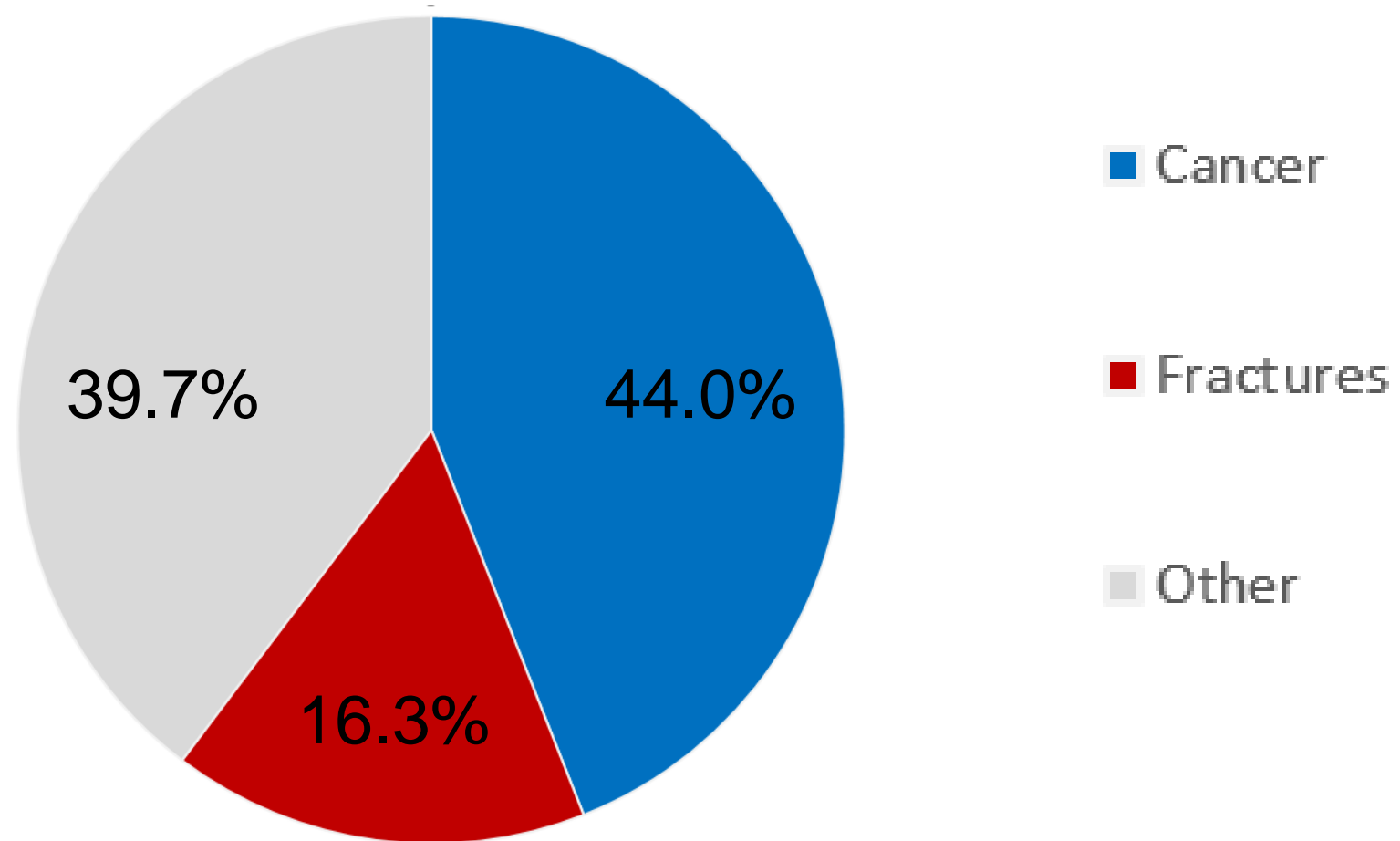
- The Expert Witness: Friend, Foe, or You?

Module 6

- You’ve Been Named in a Lawsuit: What to Expect



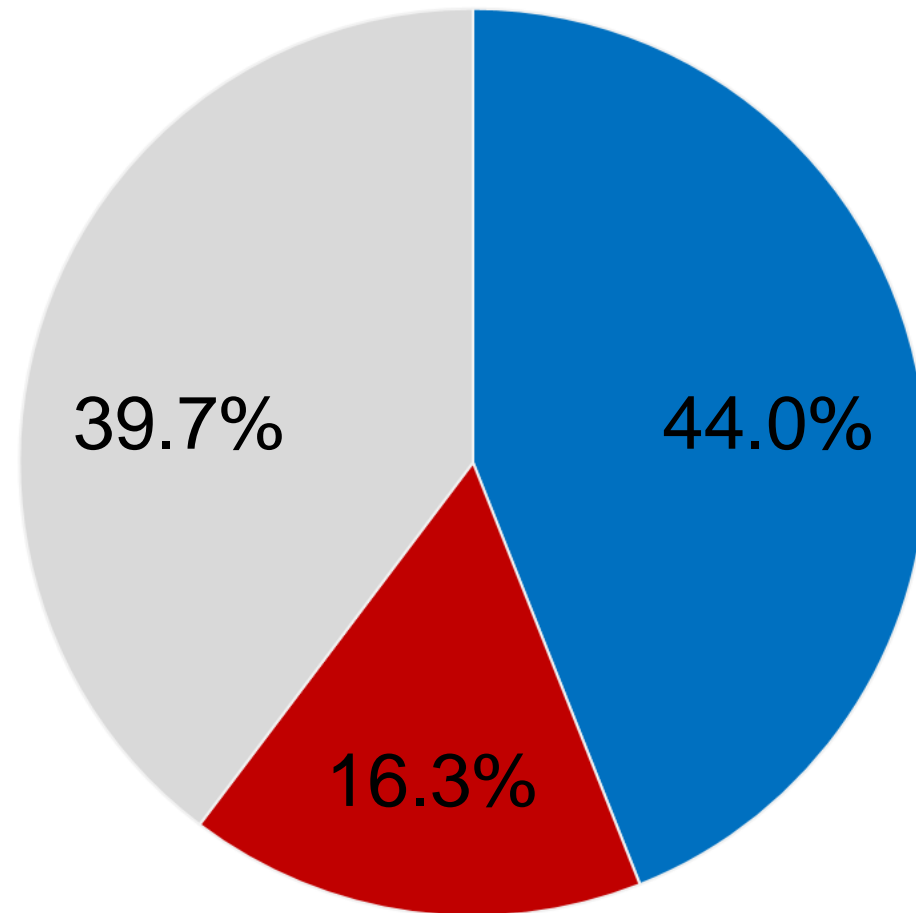
Primary Diagnosis-Related Allegations



Primary diagnosis in radiology malpractice claims involving diagnosis-related allegations (n=504)



Primary Diagnosis-Related Allegations



“Missed cancers”

- 47.8% Breast
- 23.4% Lung
- 4.8% Brain
- 4.3% Colon
- 3.3% Renal
- 3.3% Lymphoma

Primary diagnosis in radiology malpractice claims involving diagnosis-related allegations (n=504)



“Misses” are Actually Pretty Common

Of 2,145 radiographic examinations each interpreted by two radiologists, diagnostic error rates varied by body region and ranged from 15.9% to 38.0%.

Table I: Error Rates by Type of Examination

	Original	Copy	Difference	No. of Cases
Chest	33.2	37.1	-3.9	536
Skull	35.0	38.7	-3.7	137
Body surveys	26.2	29.8	-3.6	84
Hips and pelvis	35.7	38.5	-2.8	70
Extremities	31.0	33.6	-2.6	375
Vascular	37.5	39.3	-1.8	112
Gastrointestinal	25.5	26.2	-0.7	145
Abdomen	33.1	33.1	0.0	130
Biliary	15.9	15.9	0.0	69
Excretory urography— genitourinary	28.8	27.7	1.1	94
Other	38.0	34.6	3.4	29



These Cases are Tough to Defend

Malpractice Issues in Radiology

Defending the “Missed” Radiographic Diagnosis

Leonard Berlin¹



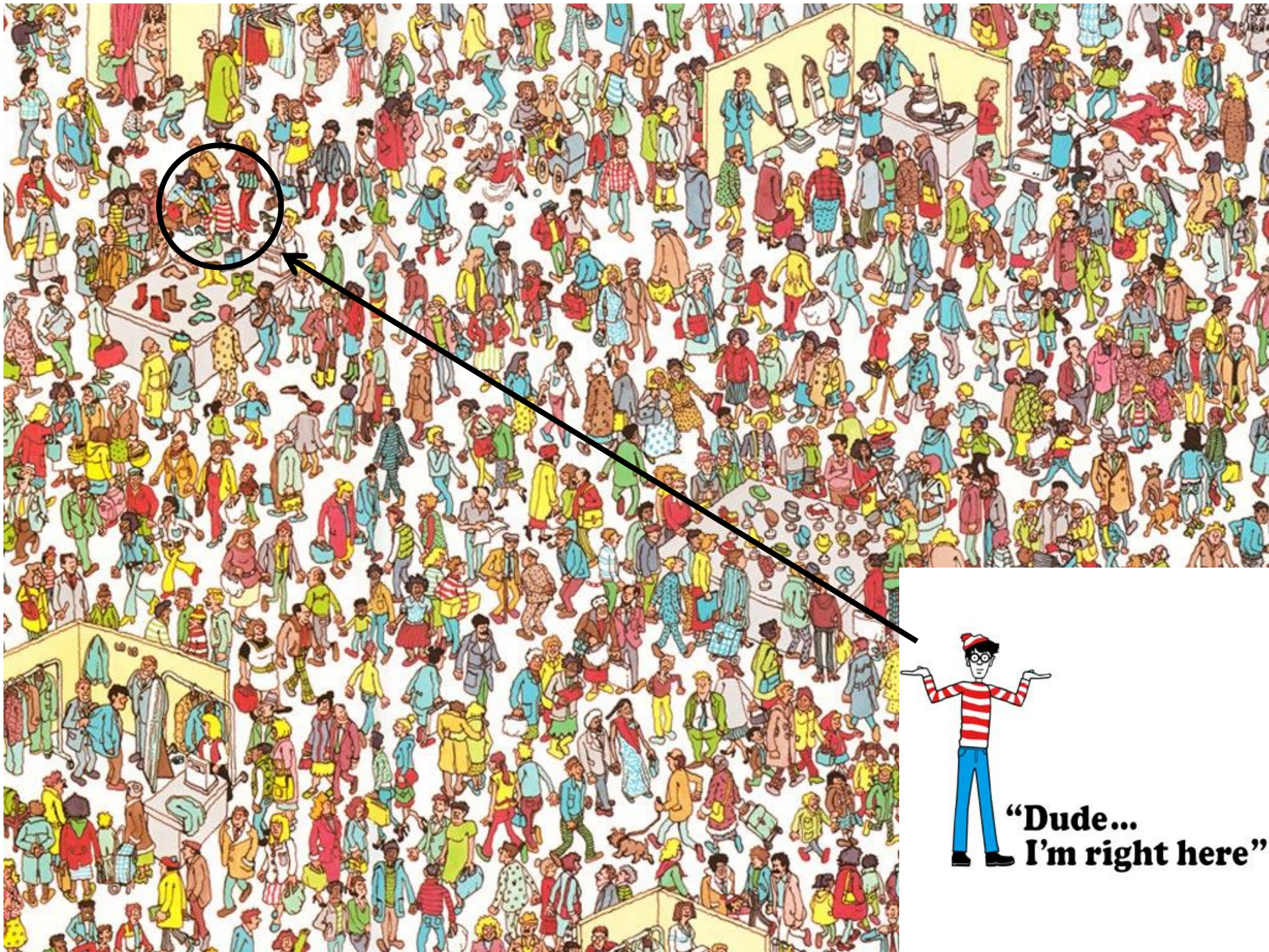
The Answer is On the Film



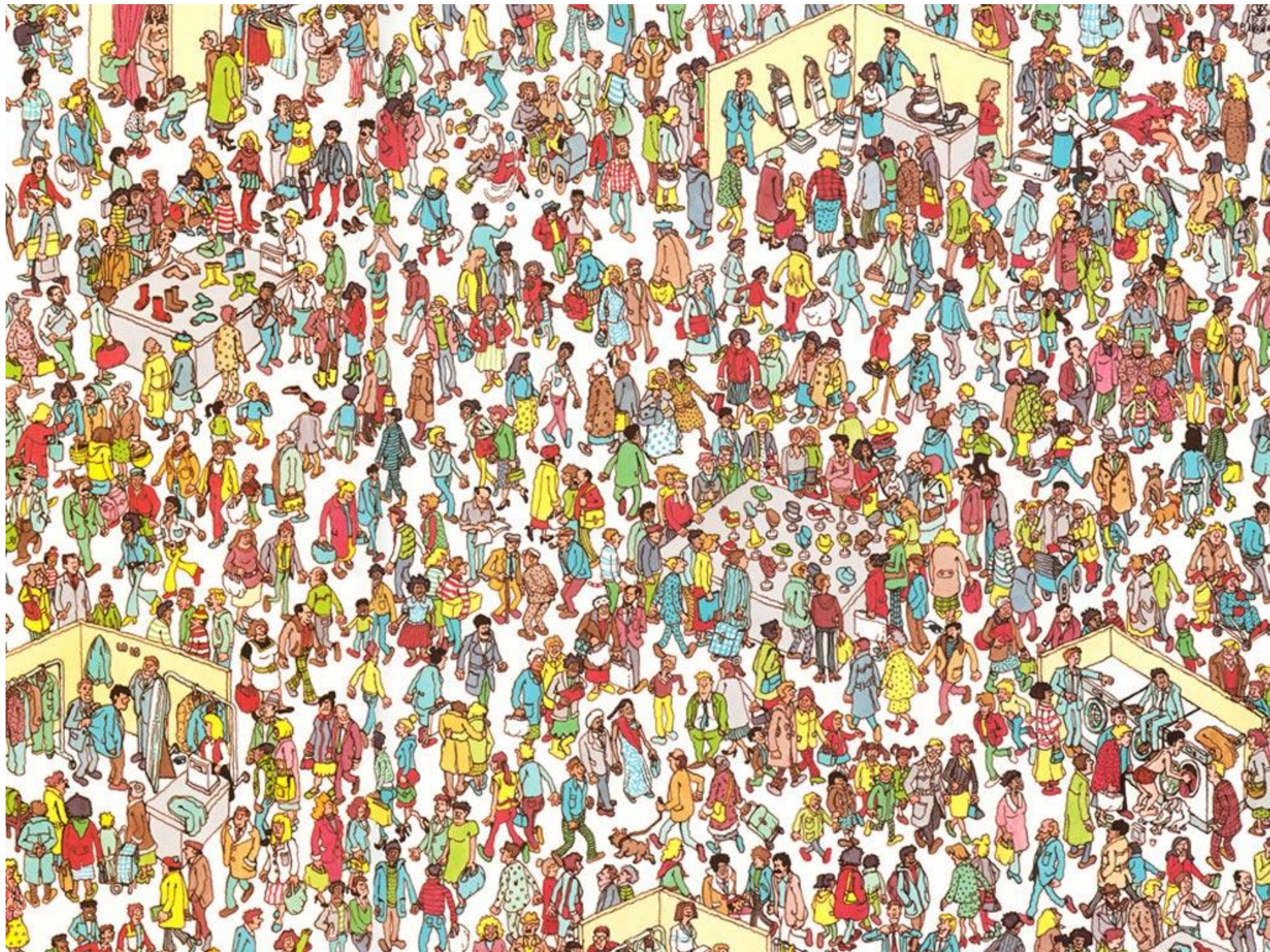
Hindsight Bias

“...the tendency for people with knowledge of the actual outcome of a case to believe falsely that they would have predicted the outcome.”

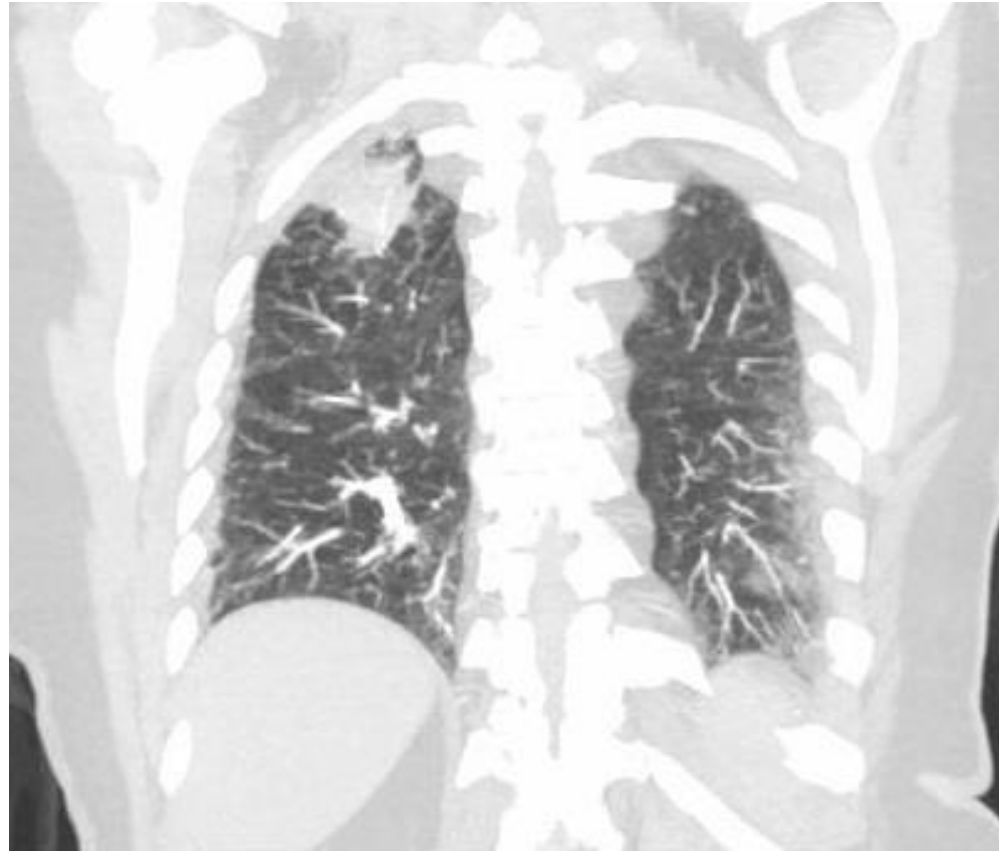
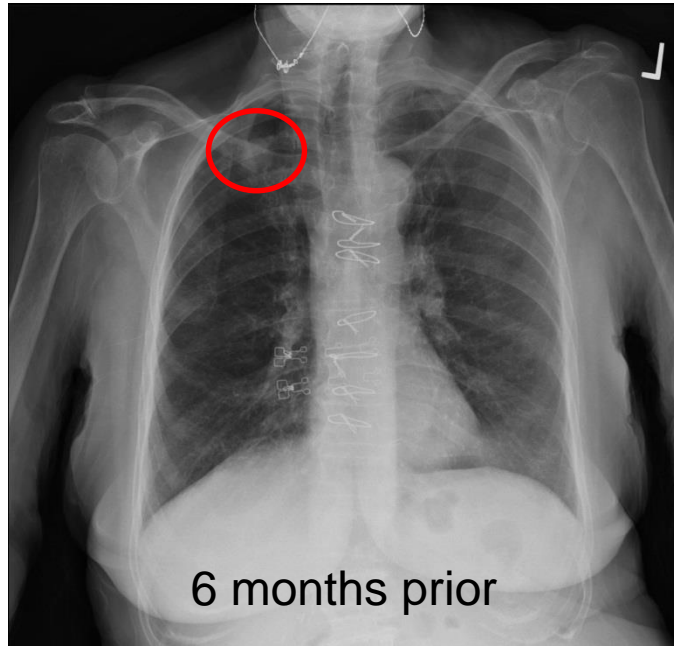




**"Dude...
I'm right here"**



Where's Waldo?



Hindsight Bias in Lung Cancer Detection

- Cooperative Early Lung Cancer Group (NCI)
- 4,618 high risk patients underwent chest radiography at 4-month intervals over 6 years
- Interpreted by academic thoracic radiologists as lung cancer screening studies
- 92 lung cancers identified
- 85 “had their cancer detected only by chest radiography”



Hindsight Bias in Lung Cancer Detection

- Once a cancer was diagnosed, old studies were reviewed
- Most neoplasms were now—in retrospect—identifiable
 - Peripheral tumors: 90%
 - Perihilar tumors: 75%



Satisfaction of Search

- The detection of one abnormality interferes with that of others



Can you find 17 differences?

Missing Flag, Princess Crown, Princess Hands in Pockets, Princess Missing Ball, Turtle with Ball, Castle Wall Missing Windows, Bird with Stick, Rabbit with Sunglasses, Pool missing Ripples, Beaver's Hammer Upside Down, Duck with Hat, Beach Ball Missing Stripes, Prince's Bathing Suit, Pool Tent with Extra Stripes, Pool Tent Doors Open, Scuba Mask Missing, Beaver Cape Tied Differently



Satisfaction of Search

- Skeletal radiography
- 15 cases with one abnormality and 15 cases with two or more abnormalities
- Single abnormality case average detection:
 - 11.25 **75%**
- Multiple abnormality case average detection:
 - 11.72 for 1st finding **78% → 41%**
 - 6.12 for 2nd and 3rd findings



Satisfaction of Search

Don't get blinded
by pathology!



Errors are More Likely When Rushed

Average rate of “major misses”:

- 10.0% at “normal speed”
- 26.6% at “fast speed”

Table 2. Results data

Radiologist	Normal Reporting Time (min: sec)	Fast Reporting Time (min: sec)	Major Miss at Normal Speed (%)	Major Miss at Fast Speed (%)
1	9: 00	4: 30	8.3	33
2	9: 36	4: 48	8.3	25
3	5: 00	2: 30	25	16.6
4	15: 20	7: 40	8.3	41.6
5	11: 52	5: 56	0	16.6
Mean or average	10: 9	5: 5	10	26.6



Volume Carries Risk

Malpractice Issues in Radiology

Liability of Interpreting Too Many Radiographs

Once discovery proceedings commenced, the court approved a demand by the plaintiff's attorney that the defendant radiologist disclose the number of cases interpreted by the defendant radiologist on the day during which the radiologist had interpreted the plaintiff's mammography. The number was 162.

An expert radiologist retained by the plaintiff testified in deposition that the "national average" number of radiologic procedures interpreted by a radiologist in 1 day was 50 and that any radiologist whose daily workload exceeded 100 procedures a day was breaching the standard of care. The expert then asserted that by interpreting 162 cases in 1 day, a radiologist would be exceeding the "national average by three times" and would therefore be conducting himself in a "reckless and wanton" manner.



This is Not Just Hypothetical

\$2M settlement after subpoena of radiologist's keystrokes finds lax CT reading

Marty Stempniak | January 20, 2020 | Care Delivery



“If we were to assume that he did nothing but open them up and immediately start reading them, he spent half a second looking at each image. That’s two images per second, and that is insanity.”

Lawyers recently extracted a \$2 million settlement from one Dallas-based hospital chain after a subpoena proved that radiologist Steven Fuhr spent less than a second interpreting CT images.



Physician Wellness

“Although patients are the first and obvious victims of medical mistakes, doctors are wounded by the same errors: they are the second victims.”



Second Victim Effect

- Malpractice litigation contributes to physician self-doubt, burnout, and depression.

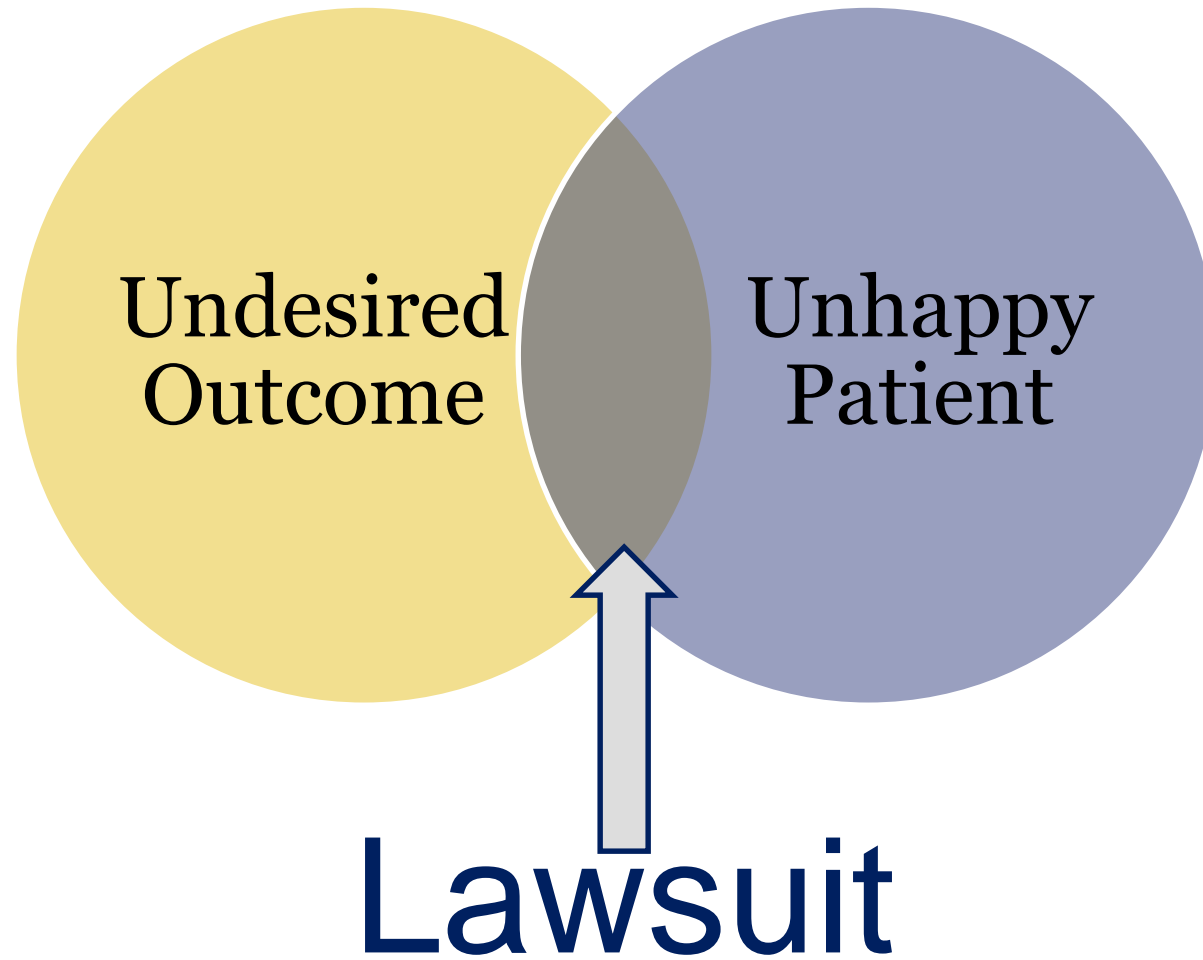


Second Victim Effect by Proxy

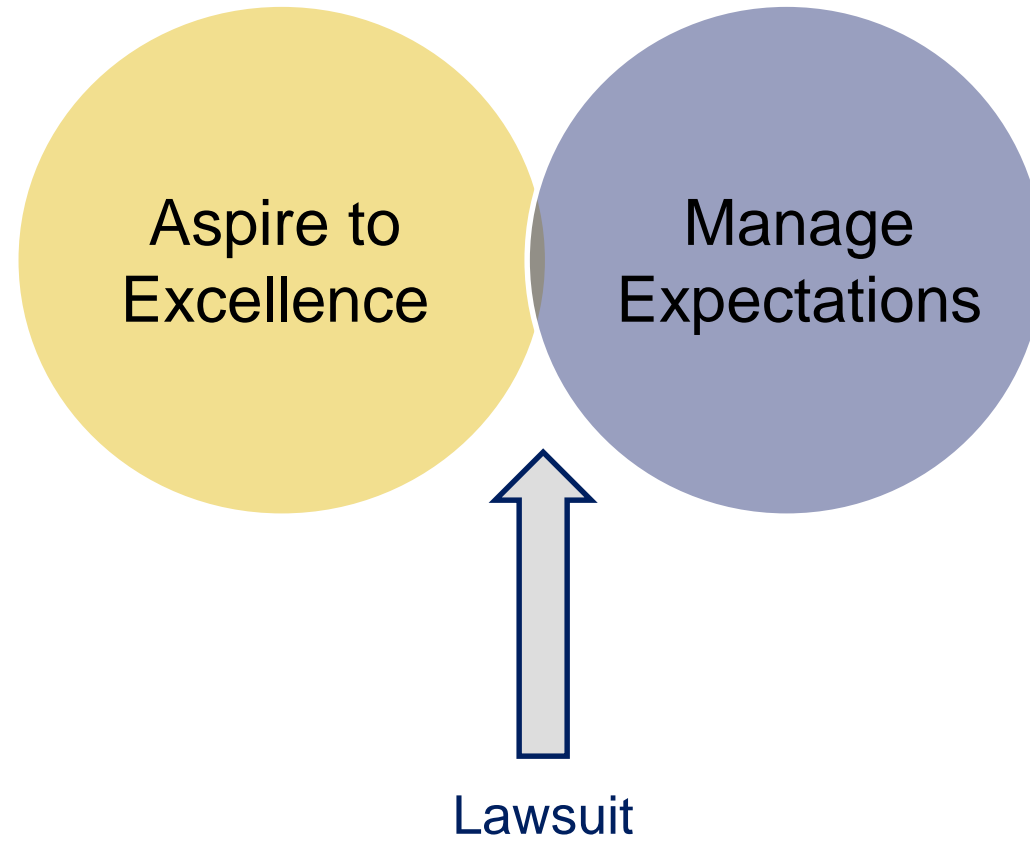
- The specter of malpractice litigation influences physicians' emotions, thinking, and behavior.



Take Home



Take Home



Thank You!

rduszak@umc.edu

 [@RichDuszak](https://twitter.com/RichDuszak)

