


# Pediatric radiology malpractice claims — characteristics and comparison to adult radiology claims

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**Abstract** Medical malpractice is the primary method by which people who believe they have suffered an injury in the course of medical care seek compensation in the United States and Canada. An increasing body of research demonstrates that failure to correctly diagnose is the most common allegation made in malpractice claims against radiologists. Since the 1994 survey by the Society of Chairmen of Radiology in Children's Hospitals (SCORCH), no other published studies have specifically examined the frequency or clinical context of malpractice claims against pediatric radiologists or arising from pediatric imaging interpretation. We hypothesize that the frequency, character and outcome of malpractice claims made against pediatric radiologists differ from those seen in general radiology practice. We searched the Controlled Risk Insurance Co. (CRICO) Strategies' Comparative Benchmarking System (CBS), a private repository of approximately 350,000 open and closed medical malpractice claims in the United States, for claims related to pediatric radiology. We further queried these cases for the major allegation, the clinical environment in which the claim arose, the clinical severity of the alleged injury,

indemnity paid (if payment was made), primary imaging modality involved (if applicable) and primary International Classification of Diseases, 9th revision (ICD-9) diagnosis underlying the claim. There were a total of 27,056 fully coded claims of medical malpractice in the CBS database in the 5-year period between Jan. 1, 2010, and Dec. 31, 2014. Of these, 1,472 cases (5.4%) involved patients younger than 18 years. Radiology was the primary service responsible for 71/1,472 (4.8%) pediatric cases. There were statistically significant differences in average payout for pediatric radiology claims (\$314,671) compared to adult radiology claims (\$174,033). The allegations were primarily diagnosis-related in 70% of pediatric radiology claims. The most common imaging modality implicated in pediatric radiology claims was radiography. The highest payouts in pediatric radiology pertained to missed congenital and developmental anomalies (average \$1,222,932) such as developmental dysplasia of the hip and congenital central nervous system anomalies. More than half of pediatric radiology claims arose in the ambulatory setting. Pediatric radiology is not immune from claims of medical malpractice and these claims result in high monetary payouts, particularly for missed diagnoses of congenital and developmental anomalies. Our data suggest that efforts to reduce diagnostic error in the outpatient radiology setting, in the interpretation of radiographs, and in the improved diagnosis of fractures and congenital and developmental anomalies would be of particular benefit to the pediatric radiology community.

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## Introduction

Medical malpractice is the primary method by which people who believe they have suffered an injury in the course of medical care seek compensation in the United States and Canada [1]. Medical malpractice in the United States and Canada is a form of tort law, which has its origins in 19<sup>th</sup>-century English common law. In general, four legal elements need to be proved by patients alleging medical malpractice: (1) the existence of a legal duty on the part of the doctor to provide care or treatment to the patient, (2) a breach of this duty by a failure of the doctor to adhere to the “standard of care,” (3) evidence of a causal relationship between this breach of duty and the injury sustained by the patient and (4) the existence of damages resulting from said injury that the legal system can deliver compensation for [2, 3].

Harvey et al. [1] recently published a study of more than 300,000 medical malpractice cases in the United States demonstrating that radiology was the eighth most likely of 11 major medical subspecialties to be involved in a malpractice claim and ranked seventh highest in terms of total paid loss [1]. A recent study by Baker et al. [4] found that the likelihood of a radiologist defending a claim of medical practice by the age of 60 was 50% [4]. These studies and others have consistently demonstrated that a failure to correctly diagnose is the most common allegation made in malpractice claims against radiologists [1, 4, 5].

Although an increasing body of literature examines medical malpractice as it relates to radiology in general, there is a dearth of evidence regarding malpractice issues specific to the practice of pediatric radiology. A survey of the Society of Chairmen of Radiology in Children’s Hospitals (SCORCH) published in 1994 detailed a relatively low total number of 28 malpractice claims at 42 institutions between 1980 and 1992 [6]. Interestingly, the largest number of claims involved areas that the respondents self-reported as “low-risk,” e.g., routine chest and abdomen radiographs and gastrointestinal contrast procedures. Although there is an increasing body of important research on diagnostic error in pediatric radiology [7, 8], to our knowledge there have not been any further studies specifically examining the frequency or clinical context of malpractice claims against pediatric radiologists or arising from pediatric imaging interpretation since this survey was published more than 20 years ago.

Pediatric radiology differs from adult radiology in many respects, with distinct challenges including limited patient comprehension and cooperation, as well as a wide spectrum of disease entities, pathologies, and variations in

anatomy and development that can mimic disease. The heightened need for judicious use of imaging studies that require ionizing radiation or sedation is also a distinct challenge facing pediatric radiologists. Given these specific factors, we hypothesized that the frequency, character and outcome of malpractice claims made against pediatric radiologists differ from those seen in general radiology practice.

## Materials and methods

The institutional review board of Boston Children’s Hospital granted an exception for this study, which complied with the Health Insurance Portability and Accountability Act.

The Controlled Risk Insurance Co. (CRICO) Strategies’ Comparative Benchmarking System (CBS) is a private repository of approximately 350,000 open and closed medical malpractice claims from which our data were obtained. This database consists of claims arising from more than 165,000 physicians and 550 health care entities, including more than 30 academic and teaching hospitals covered by both captive and commercial insurers.

Seasoned clinicians who serve as clinical taxonomy specialists with specific training in CRICO’s proprietary coding taxonomy reviewed and coded each malpractice claim in the CBS database on the basis of a number of variables, including but not limited to the medical specialty primarily involved, the allegation, the clinical setting in which the claim arose, indemnity paid to claimant, whether a payment was made, and total paid loss (including indemnity payment, defense costs and legal expenses). The CBS database also includes a narrative case description for each claim.

We reviewed the CBS database for all unique closed malpractice claims over a 5-year period between Jan. 1, 2010, and Dec. 31, 2014. A closed case (claim/suit) is one that has come to a resolution (e.g., dropped/denied/dismissed; defense or plaintiff verdict). We included all closed claims in the review. We recorded the medical service primarily responsible for each claim; the 11 categories of medical services including anesthesiology, emergency medicine, internal medicine, nursing, obstetrics and gynecology, oral surgery and dentistry, pathology, pediatrics and neonatology, psychiatry, radiology, surgery and an additional category designated “other” that included claims primarily relating to the allied health services, nonclinical services and pharmacy.

For cases where radiology was deemed to be the medical service primarily responsible for the malpractice claim (designated “radiology claims” for the purposes of

this study), we further queried the database for the major allegation, the clinical environment in which the claim arose, the clinical severity of the alleged injury, indemnity paid (if payment was made), primary imaging modality involved (if applicable) and primary International Classification of Diseases, 9th revision (ICD-9) diagnosis underlying the claim. We also queried the database for the age of the patient, and we subcategorized cases where radiology was the medical service deemed primarily responsible for the claim and the patient was younger than 18 years at time of alleged injury as “pediatric radiology claims.” We excluded claims relating to obstetrics.

The clinical severity of injury asserted in each malpractice claim was graded as high, medium or low and was derived from the National Association of Insurance Commissioners scale [9]. Injuries resulting in death (including infant/fetal death), permanent grave disability, permanent major disability or permanent significant disability were graded as high severity. Injuries resulting in permanent minor disability, temporary major disability, or permanent minor disability were graded as medium severity. Injuries resulting in temporary insignificant disability or limited to emotional injury and claims that only involved legal issues but without any injury were graded as low severity.

We classified the claimant type as outpatient (including both hospital-based and ambulatory outpatient services), inpatient or emergency department, on the basis of the patient status giving rise to the claim. An additional category deemed “other” included cases not classified because of limited information or claims arising from employees or visitors.

We categorized the most frequent major allegations as diagnosis-related, medical or surgical treatment-related, obstetrics-related, medication-related, safety- and security-related, patient monitoring, or other. “Other” included claims relating to equipment, hospital policy and procedure, managed care, etc.

For the diagnosis-related allegations involving radiology and patients younger than 18 years (those designated “pediatric radiology claims”), we subcategorized the primary diagnosis giving rise to the claim according to whether the diagnosis represented a cancer, fracture, congenital/developmental anomaly or other etiology. Cases in which the primary diagnosis was unclassified because of limited information or multifocal injury were also classified as “other.”

Additionally, we assessed each case of a diagnosis-related allegation to conclude whether communication of imaging/test results was a contributory factor to the alleged malpractice action.

We analyzed data using descriptive statistical methodology and made intra-category comparisons on the basis of the frequency of cases and total indemnity payment using chi-square and student *t*-tests, respectively, with significance set at  $P \leq .05$ . All analyses were performed with Microsoft Excel 2010 (Microsoft Corp., Redmond, WA).

## Results

There were a total of 27,056 fully coded claims of medical malpractice in the CBS database in the 5-year period between Jan. 1, 2010, and Dec. 31, 2014. Of these, 25,584 of all malpractice cases (94.6%) related to patients ages 18 years and older; 1,472 cases (5.4%) involved patients younger than 18 years.

In 1,319 cases (4.9% of the total cohort), radiology was deemed to be the medical service primarily responsible for the claim. Of the 1,319 radiology cases, 71 involved claims where the patient was younger than 18 years (i.e. pediatric radiology claims). These pediatric radiology claims represented 5.4% of all claims against radiologists (71/1,319) and 4.8% of all medical malpractice claims for patients younger than 18 years (71/1,472; (Table 1). Radiology was deemed to be the

**Table 1** Number of pediatric malpractice cases and average total payout, ranked by primary responsible service

Top primary responsible services	Number of pediatric cases ( $n=1472$ )	% of pediatric cases	Average total payment
Pediatrics and neonatology	353	24%	\$418,885 (3)
Surgery	336	23%	\$274,321 (8)
Medicine	216	15%	\$207,746 (10)
Emergency	174	12%	\$315,335 (6)
Nursing	103	7%	\$353,899 (4)
Radiology	71	5%	\$314,671 (7)
Anesthesiology	54	4%	\$316,790 (5)
Oral surgery/dentistry	52	4%	\$18,232 (14)
Psychiatry	36	2%	\$162,618 (11)

**Table 2** Pediatric radiology claims listed by severity category

Clinical severity category	Number of pediatric radiology cases (n=71)	Percentage of pediatric radiology cases	Average total payment
Low	2	3%	\$139,819
*both cases related to emotional injury only			
Medium	34	48%	\$107,814
• Permanent minor disability	14	20%	\$188,196
• Temporary major disability	9	13%	\$109,492
• Temporary minor disability	11	15%	\$4135
High	35	49%	\$525,610
• Death	10	14%	\$104,598
• Permanent grave disability	4	6%	\$612,452
• Permanent major disability	6	8%	\$1,231,949
• Permanent significant disability	15	21%	\$500,591

medical service primarily responsible for the allegation of malpractice in 1,248/25,584 cases where the patient was 18 years or older (4.9%; “adult radiology claims”).

In terms of monetary payments, the average payout for the 1,248 adult radiology claims was \$174,033 compared to an average payout of \$314,671 for all pediatric radiology claims. A two-tailed *t*-test demonstrated a statistically significant difference between the average adult radiology payouts and average pediatric radiology payout (*P*=0.02). The average payout for all medical malpractice claims in pediatric patients was \$311,865 compared to an average payout of \$144,645 for all medical malpractice claims in adults; however this difference did not reach statistical significance.

In terms of injury severity, of the 71 pediatric radiology claims, 48% were classified as medium severity (with average payout of \$107,814) and 49% were classified as high severity (with average payout of \$525,610), including 10 cases (14%)

resulting in death (Table 2). The average payout for pediatric radiology cases resulting in death was \$104,598. A two-tailed *t*-test demonstrated a borderline statistically significant difference between the average payout for low- and medium-severity injuries (\$109,592) versus high-severity injuries (\$525,610) in pediatric radiology claims (*P*=0.05).

Seventy percent of pediatric radiology claims had diagnosis-related major allegations, 15% were medical treatment-related and 14% were classified as “other,” including cases related to major allegation of safety and security, medication, patient monitoring, surgical treatment, equipment issues and communication (Table 3).

Of the 50 pediatric cases that were diagnosis-related, 24% were related to misdiagnosis of a fracture, 16% to misdiagnosis of a congenital or developmental anomaly (most frequently hip-related) and 14% to cancer misdiagnosis (Table 4, Appendix Table 9). In contrast, 44% of malpractice claims for adult radiology related to cancer misdiagnosis (Table 5).

**Table 3** Pediatric radiology claims listed by nature of allegation

Major allegation category	Number of cases (n=71)	Percentage of cases	Average total payment
Diagnosis-related	50	70%	\$331,157
Medical treatment-related	11	15%	\$435,040
Improper performance	9	13%	\$530,906
Delay in treatment	1	1%	\$7288
Improper management/treatment course	1	1%	\$0
Other*	10	14%	\$99,834

\*Other includes safety and security, medication-related, patient monitoring, surgical therapy, communication and equipment-related major allegation

**Table 4** Pediatric radiology malpractice claims related to diagnostic error (50 of 71)

Top final diagnoses	Number of cases (n=50)	Percentage of cases	Average total payment
Fractures	12	24%	\$106,083
Congenital/developmental anomalies (hip, other MSK, neuro)	8	16%	\$1,222,932
Cancer (leukemia, lymphoma, bone, CNS, other)	7	14%	\$62,241
Other (GI, GU, respiratory, MSK deformity)	13	26%	\$155,112

MSK musculoskeletal, CNS central nervous system, GI gastrointestinal, GU genitourinary

**Table 5** Adult radiology malpractice claims related to diagnostic error (721 of 1248)

Top final diagnoses	Number of cases (n=721)	Percentage of cases	Average total payment
Cancer	317	44%	\$245,720
Fractures	98	14%	\$65,846
Disease of digestive system	53	7%	\$234,389
Complications	38	5%	\$250,443
Cerebrovascular disease	34	5%	\$269,951
Diseases of the nervous system	24	3%	\$478,873
Diseases of the vascular system	21	3%	\$403,938

Of the cases related to diagnostic error, there was a statistically significant difference between the proportion of pediatric radiology claims pertaining to fractures (12/50) compared to the proportion in adults (98/721) ( $X^2=4.1$ ,  $P<0.05$ ). There was also a statistically significant difference between the proportion of pediatric radiology claims pertaining to cancer (7/50) compared to the proportion in adults (317/721) ( $X^2=17.2$ ,  $P<0.05$ ).

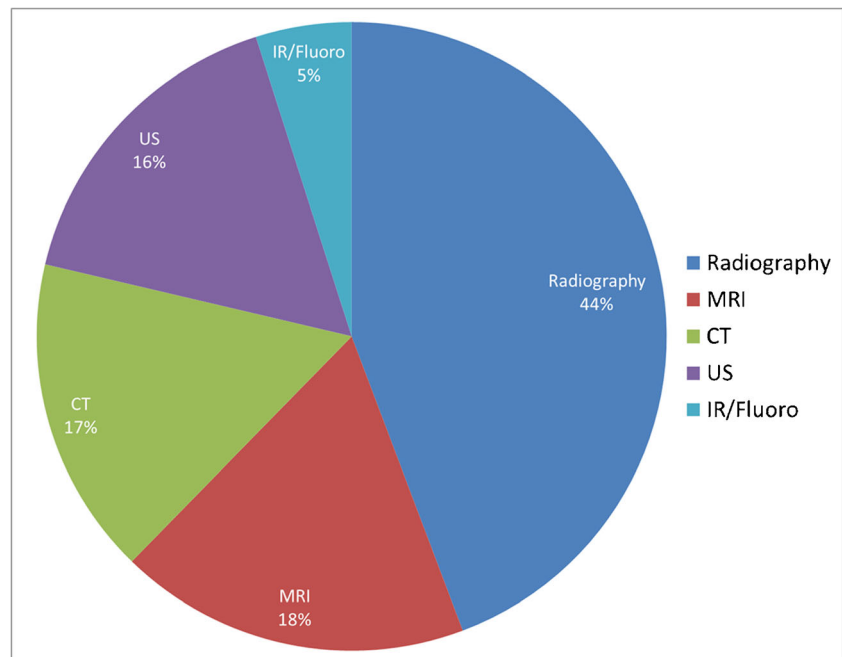
In 61 of the 71 pediatric radiology claims, it was possible to determine the primary imaging modality underlying the claim. The most common imaging modality implicated in pediatric radiology claims was radiography ( $n=27$ ), followed by MRI ( $n=11$ ), CT ( $n=10$ ), ultrasound ( $n=10$ ) and interventional/fluoroscopy ( $n=3$ ; Fig. 1).

Forty-one of the 71 (58%) pediatric radiology claims arose in the ambulatory setting, 18/71 (25%) in the inpatient setting and 12/71 (17%) in the emergency setting. Claims arising in the emergency setting had a higher average payout (\$575,068) compared to claims arising in the ambulatory setting (\$281,737) or the inpatient setting (\$216,214; Table 6).

We reviewed the 71 pediatric radiology claims for contributory factors; clinical judgment was deemed to be a contributory factor in 75% of cases (Table 7). Misinterpretation of diagnostic studies was the leading clinical judgment factor, being cited in 59% of the pediatric radiology claims (Table 8). A narrow diagnostic focus, failure/delay in ordering a diagnostic test or obtaining a consult or referral, an over-reliance on negative investigations in patients with ongoing symptoms, and misinterpretation of patient monitoring were some of the other judgment factors involved (Table 8). Multiple clinical judgment factors might be identified in a case.

Communication factors were a contributing factor in 30% of pediatric radiology claims. Of the cases ( $n=21$ ) where communication factors were implicated, 38% referred to communication among providers about the patient's condition, 19% communication between providers and the patient or family members, 14% other communications among providers (not regarding patient condition) and 14% patient/family education or follow-up instructions.

Documentation was implicated in 11/71 (15%) of pediatric radiology claims (Table 7). One-third of these cases ( $n=11$ ) consisted of insufficient documentation of informed consent,

**Fig. 1** Pediatric radiology malpractice claims by modality ( $n=61$ )

**Table 6** Pediatric radiology malpractice claims by claimant type

Claimant type	Number of pediatric cases	% of pediatric cases	Average total payout
Emergency department	12	17%	\$575,068
Ambulatory	41	58%	\$281,737
Inpatient	18	25%	\$216,214
Total	71	100%	\$314,703

18% alleged insufficient documentation of clinical findings and 18% alleged inaccurate documentation.

**Discussion**

Of all medical specialties, radiology was the sixth most common source of medical malpractice claims for patients younger than 18 years, behind pediatrics and neonatology, surgery, medicine, emergency medicine and nursing. Pediatric radiology claims had the seventh highest average payout among all pediatric malpractice claims behind pharmacy, pathology, pediatrics and neonatology, nursing, anesthesiology and emergency medicine. Our data showed diagnostic error to be the most common cause of pediatric radiology malpractice claims, which is in line with many prior studies identifying diagnostic error as the most common cause of malpractice suits against other groups of radiologists [5]. Misdiagnosis of fractures was implicated in a

**Table 7** Contributory factors in pediatric and adult radiology malpractice claims\*

Contributing factor	Number of pediatric cases (n=71)	Percentage of pediatric cases	Number of adult cases (n=1,248)	Percentage of adult cases
Clinical judgment	53	75%	855	69%
Communication	21	30%	302	24%
Technical skill	16	23%	288	23%
Behavior-related	11	15%	136	11%
Documentation	11	15%	155	12%
Clinical systems	9	13%	192	15%
Non-insured reimbursement issues	9	13%	152	12%
Administrative	7	10%	216	17%
Clinical environment	4	6%	0	0%
Equipment	0	0%	101	8%

\*One case often has multiple contributing factors identified

**Table 8** Clinical judgment factors implicated in pediatric radiology malpractice claims\*

Top clinical judgment factors	Number of pediatric radiology cases (n=71)	Percentage of pediatric radiology cases
Misinterpretation of diagnostic studies	42	59.2%
Narrow diagnostic focus — relying on previous provider’s diagnosis	8	11.3%
Failure/delay in ordering diagnostic tests	8	11.3%
Failure/delay in obtaining consult/referral	8	11.3%
Narrow diagnostic focus — failure to establish differential diagnosis	4	5.6%
Over-reliance on negative findings in patients with ongoing symptoms	4	5.6%
Patient monitoring and physiological status	4	5.6%

\*One case often has multiple contributing factors identified

quarter of pediatric radiology claims. Misdiagnosis of cancer was only implicated in 14% of pediatric radiology claims. Fifty-eight percent of pediatric radiology claims arose in the ambulatory setting.

It is interesting to note both similarities and differences between the character of pediatric radiology claims and adult radiology claims included in the CRICO database. The proportion of cases where radiology was deemed the service primarily responsible was strikingly similar for both pediatric malpractice (5%) and adult malpractice claims (5%). Diagnostic error was the most common major allegation against radiologists for both pediatric claims (70%) and adult claims (58%). Another similarity was the high proportion of claims arising in the outpatient setting — 58% for pediatric radiology claims compared to 66% for adult radiology claims.

This high proportion of claims arising in the ambulatory setting might simply represent an overall greater number of studies being performed there as opposed inpatient and emergency settings. However, in our experience pediatric radiologists working in an outpatient location often lack detailed clinical information that is more readily available via the electronic medical record or via direct provider-to-provider communication in the inpatient or emergency setting. Many previous studies have implicated insufficient clinical data available to the interpreting radiologist as a potential cause for diagnostic error [10–12] and this could be particularly relevant in the outpatient setting.

One of the most notable differences between adult radiology claims and pediatric radiology claims in our database was the difference in monetary payout. The average payout for a pediatric radiology claim (\$314,671) was almost twice the average adult radiology payout. The highest payouts in pediatric radiology pertained to missed congenital and developmental anomalies (average \$1,222,932) such as developmental dysplasia of the hip and congenital central nervous system anomalies. These conditions might not severely limit life expectancy, but a missed or delayed diagnosis can lead to significant physical and intellectual disability and the high monetary payouts awarded by the judicial system reflect the life-long economic costs, both to the patient and family and to society of misdiagnosing such conditions.

Another difference between the pediatric radiology and adult radiology claims is that misdiagnosis of cancer was a less prevalent major allegation in pediatric radiology claims (14%) compared to adult radiology claims (44%). This might be partly explained by the overall lower incidence of malignancy in the pediatric population. However, it is an important distinction to be aware of, particularly when much research carried out in malpractice and error as it pertains to radiology in general focuses on the misdiagnosis of cancer. In contrast, misdiagnosis of a fracture was alleged in 24% of pediatric radiology cases compared to 14% of adult cases.

Another peculiarity of the pediatric data is that the payouts for misdiagnosis of pediatric cancer (average \$62,241) are much lower than other pediatric radiology payouts described above and also much lower than misdiagnosis of adult cancers (\$245,720). We speculate that lower payouts for misdiagnosis of pediatric cancer can be partly explained by the fact that a delayed diagnosis often does not significantly alter treatment decisions or long-term outcomes/life expectancy for the most common pediatric malignancies. In monetary terms, morbidity might trump mortality in pediatric malpractice.

In contrast, the average payout for a missed fracture in the pediatric radiology group (\$106,083) is significantly higher than a missed fracture in the adult radiology group (\$65,846). We believe this reflects the economic assessment of high potential morbidity that a missed pediatric fracture can carry for an extended life expectancy, such as growth arrest and limb-length discrepancy.

It is interesting to note that the humble radiograph was responsible for more than half of the pediatric radiology claims in cases where a responsible modality could be identified. This is in keeping with the results of the 1994 SCORCH survey [6], and while initially this might seem counterintuitive for the modern era, this probably reflects the reality that plain films continue to

be the most frequent and among the most challenging imaging studies that pediatric radiologists interpret.

Our study has a number of limitations. The database did not include information on whether the radiologists named in the claim had a certificate of additional qualification (CAQ) in pediatric radiology. It would be interesting to obtain such data to assess whether there are differences in claims against those radiologists with and without the CAQ. Second, the database only includes approximately 30% of malpractice claims in the United States. However the institutions included do represent a broad cross-section of both academic and private systems so we are confident that our data are widely applicable. Third, the claims in this data set are categorized on the basis of the primary service responsible. In addition to the 71 pediatric cases where radiology was deemed the primary responsible service, there were an additional 45 pediatric cases in which radiology was involved as secondary service. Unfortunately we were unable to perform additional analyses on this group. These results do not include malpractice claims where a radiologist was involved in a secondary manner and therefore might underestimate the total number of claims/malpractice burden facing pediatric radiologists.

## Conclusion

Pediatric radiology is not immune from claims of medical malpractice, and successful claims result in high monetary payouts, particularly for missed diagnoses of congenital and developmental anomalies. Claims related to radiographs constitute more than half of pediatric radiology claims. A diagnostic error is the most commonly implicated cause of a successful pediatric radiology malpractice claim. Therefore we believe that as a specialty we need to continue to bolster efforts toward awareness of diagnostic error, to carry out further research to better understand the causes for diagnostic error in pediatric radiology and to implement further strategies to decrease the rate of diagnostic error and provide the highest-quality care for our patients. Our data suggest focusing such efforts in the outpatient radiology setting, focusing on the distinct challenges of pediatric radiographic interpretation and emphasizing the correct diagnosis of fractures and congenital/developmental anomalies might be of particular benefit to the pediatric radiology community.

**Compliance with ethical standards**

**Conflicts of interest** None

## Appendix

**Table 9** 50 cases of pediatric radiology diagnosis-related claims listed by ICD-9 code

Final diagnosis code	Final diagnosis	Number of cases
747.81	ARTERIOVENOUS MALFORMATION BRAIN	1
741.90	SPINA BIFIDA WITHOUT HYDOCEPHALUS	1
742.2	BRAIN REDUCTION DEFORMITIES	1
754.31	CONGENITAL HIP DISLOCATION BILATERAL	2
755.50	UNSPECIFIED ANOMALY-UPPER LIMB	1
755.60	ANOMALY OF LOWER LIMB	1
755.63	CONGENITAL DEFORMITY HIP	1
430	SUBARACHNOID HEMORRHAGE WITHOUT INJURY	1
429.2	CARDIOVASCULAR DISEASE, UNSPECIFIED	1
540.1	ACUTE APPENDICITIS-ABSCESS	2
541	APPENDICITIS, UNQUALIFIED	1
569.89	RUPTURE OF COLON	1
608.2	TORSION OF TESTIS	2
590.80	PYELONEPHRITIS, UNSPECIFIED	1
599.0	URINARY TRACT INFECTION	1
719.46	PAIN LOWER LEG/KNEE	1
732.1	OSTEOCHONDROSIS, HIP	1
732.2	SLIPPED FEMORAL EPIPHYSIS	1
336.1	VASCULAR MYELOPATHIES	1
486	PNEUMONIA, ORGANISM UNSPECIFIED	1
513.0	ABSCESS OF LUNG	1
709.2	SCAR CONDITION/FIBROSIS SKIN	1
998.2	PUNCTURE/LACERATION DURING PROCEDURE	1
998.9	UNSPECIFIED COMPLICATION OF PROCEDURE (NOC)	1
802.0	FRACTURE NASAL BONES CLOSED	1
807.00	FRACTURE RIBS UNSPECIFIED	1
808.8	FRACTURE PELVIS UNSPECIFIED	1
810.00	FRACTURE OF CLAVICLE, CLOSED UNSPECIFIED	1
812.00	FRACTURE UPPER END HUMERUS, UNSPECIFIED	1
812.40	FRACTURE HUMERUS LOWER END	2
813.01	FRACTURE OLECRANON PROCESS OF ULNA	1
813.42	FRACTURE RADIUS DISTAL END	1
814.0	FRACTURE WRIST	1
814.01	FRACTURE NAVICULAR OF WRIST	1
820.01	FRACTURE EPIPHYSIS, CAPITAL	1
801.21	CLOSED SKULL BASE FRACTURE	1
835.00	DISLOCATION HIP CLOSED	1
806.25	THORACIC T7-T12	1
844.2	SPRAIN/STRAIN CRUCIATE LIGAMENT	1
225.0	BENIGN NEOLASM BRAIN	1
202.8	OTHER LYMPHOMAS	1
204.00	LEUKEMIA LYMPHOID ACUTE	1
171.9	MALIGNANT NEOPLASM CONNECTIVE TISSUE SITE UNSPECIFIED	1
191.9	MALIGNANT NEOPLASM BRAIN, UNSPECIFIED	1
237.5	NEOPLASM BRAIN/SPINAL CORD	1
239.2	NEOPLASM UNSPECIFIED SKIN/BONE	1



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