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Infectious Disease Malpractice: Emergency Department Cases, Pearls, and Pitfalls

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Infectious diseases account for a significant percentage of emergency department (ED) visits each year and are frequent sources of litigation. A plaintiff verdict or settlement is usually based on a delay in diagnosis and subsequent substandard treatment. It is important to recognize specific infectious entities early to avoid medical-legal exposure. We present five cases of infectious disease malpractice that highlight pearls and pitfalls.

Case #1

In *Anonymous Woman v. Anonymous Physician and Anonymous Nurse*, a 40-year-old female was referred from her primary care physician to the ED after presenting with five days of headache, fever, and body aches. An initial evaluation consisting of a lumbar puncture, urinalysis, and blood cultures was performed, and she was discharged with blood cultures pending after the other tests were negative. Two days later, the blood cultures grew group B streptococcus. A nurse was instructed to call the patient back, but was unsuccessful after two attempts at the home number on different days — no attempt was made to contact the primary care doctor who referred the patient. The physician stated that the nurse was instructed to call the patient back for treatment, while the nurse stated that the culture results were thought to be a contaminant and the call was meant to see how the patient was doing. The patient returned six days after the initial visit with worsening symptoms and was admitted for treatment of endocarditis. The patient was also found to have aortic regurgitation and valvular disease, expected to require a valve replacement. The defense claimed that the damage was

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pre-existing and not worsened by the delay in diagnosis and treatment, but a $1.2 million settlement was reached.[1]

Infective endocarditis is an inflammation of the lining of the heart or its valves with an infectious agent, usually bacteria. Diagnosis is challenging, and untreated disease is associated with significant complications and a mortality rate approaching 100%.[2] The above case illustrates two excellent points. The first concerns follow-up. The follow-up call was delegated to a nurse, and the physician and nurse gave conflicting statements on the purpose of the calls. Additionally, the primary care doctor was not contacted as another means of reaching the patient. In the end, the patient was never reached with the results and it would be difficult to say that every effort had been made to contact the patient. There are a plethora of cases in which blood culture results were inadequately communicated. These cases universally result in court settlements or payouts. It is imperative that the ED have a follow-up protocol that is 100% compliant. Interestingly, the defense argument was that the damage was already done, not that the delay was the patient's fault for not giving a reliable phone number or checking her messages.

The second point is that infective endocarditis bears special consideration as a diagnosis that is both difficult to make and dangerous to miss. Patients typically present with vague constitutional symptoms and fevers. The median age of onset is 67, although this can occur at much younger ages based on other co-morbidities or IV drug abuse,[3] and the median time from symptom onset to diagnosis is eight days.[4]

Diagnosis has been standardized with the Duke criteria, which are quoted at approximately 90% sensitivity. They consist of two major and six minor criteria. The major criteria are blood cultures (the presence of typical bacteria from two separate blood cultures or in persistently positive blood cultures) and evidence of echocardiographic involvement. The minor criteria are a predisposition to the disease, fever (> 38° C), vascular phenomena, immunologic phenomena, suggestive echocardiogram, and suggestive microbiologic findings.[5] In 2000, these criteria were modified to drop suggestive echocardiogram findings as a minor criterion and divide cases into one of three categories — definite infective endocarditis (two major criteria; one major and three minor; or five minor), possible (one major and one minor; or three minor), or rejected (due to a firm alternative diagnosis, resolution of the syndrome with four or less days of antibiotics, no pathologic evidence on autopsy or surgery, or not meeting the criteria above).[6]

While most of the criteria are self evident, one deserves additional discussion. Predisposition to the disease is anything that allows bacteria to accumulate on the endocardium and is generally due to an anatomic valvular defect, causing turbulent flow that injures the endothelium, a foreign object such as a mechanical valve, or injection drug use. A thorough history or review of records can provide one of the criteria, along with raising the clinician's index of suspicion. Along with the formal diagnostic criteria, lab findings of anemia, hematuria, and elevated ESR, CRP, or procalcitonin have been identifed as being strongly associated with the disease but nonspecific.[2]

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As noted above, patients are at risk of significant morbidity and mortality if the disease is not identified and treated with a prolonged course of antibiotics. Along with the ill effects of prolonged bacteremia, the disease process can result in direct damage to the heart or valves, with heart failure or arrhythmias as a result. Additionally, fragments of the bacteria and clot that cling to the heart valve can break off and embolize, causing infarction or abscess in any area of the body, including the lungs, the mesentery, the eyes, and the brain, with the most common CNS complication being a middle cerebral artery embolic stroke.[2,3] These devastating complications can be minimized or avoided with admission for IV antibiotics as well as early surgical removal of the bacterial vegetation in higher risk cases.

Case #2

In *Thompson v. Gopala et al*, a 31-year-old female was brought by ambulance to the ED with vomiting and painful swelling of her right hand. In the ED, she was initially diagnosed with cellulitis and sepsis and admitted to the intensive care unit (ICU). At the time of admission, she was noted to be lethargic and confused. In addition, she was tachycardic and the middle and ring fingers of her right hand were blue. The record mentions spider bite as a possible etiology. The patient was treated in the ICU for three days under several physicians with continued decline until she was transferred to another facility for treatment of necrotizing fasciitis. The patient underwent multiple surgeries, including amputation of the middle and ring fingers of her right hand, and was left with significant scarring and deformity. After the patient filed suit against multiple physicians, the emergency physician and the hospital reached a settlement for $80,000, another physician received summary judgment, and the remaining physicians claimed no negligence and received a defense verdict in the trial.[7]

Necrotizing soft-tissue infections (NSTI) are a group of illnesses characterized by extensive necrosis, sytemic toxicity, and high mortality.[2] While the treatment involves a multidisciplinary team, early diagnosis is critical in minimizing morbidity and mortality. Despite the potential for serious morbidity and a mortality rate of 25-35%,[8] necrotizing fasciitis can be clinically unimpressive early in the course. The infection typically begins with penetration of the subcutaneous tissue by external trauma or direct spread from a perforated viscus, although spontaneous development can occur in rare cases. Bacteria multiply, invade tissue, and release exotoxins that result in tissue ischemia, liquefaction necrosis, and systemic toxicity.[9,10] As blood vessels are destroyed via vasculitis and thrombosis, ischemia develops and facilitates further bacterial growth, with infection spreading as fast as one inch per hour.[2] As the infection progresses, gangrene of the skin, subcutaneous fat, fascia, and muscle can develop as the vascular supply is further compromised.[9] Since development of skin findings requires the loss of large numbers of capillary beds, early infections may have few overlying skin changes.[11]

As a result, the clinician must maintain a high index of suspicion for the entity. Typically, these infections are associated with risk factors of advanced age, diabetes mellitus, alcoholism, peripheral vascular disease, heart disease, renal failure, HIV, cancer, NSAID use, decubitus ulcers, chronic skin infections, IV drug abuse, and immune system impairment.[9] While the presence of any of these factors should heighten concern, their absence is not totally reassuring, as these infections can also occur in young, healthy individuals.[12] The classic symptoms of NSTIs are tissue pain, anxiety, and diaphoresis — pain is often out of proportion to the physical exam findings and pain out of proportion is a key finding in early diagnosis.[11,13] Crepitus from subcutaneous air may be present, but is not reliable, occurring in only 13-31% of patients.[14] While findings of cellulitis may predominate early in the course and mask the diagnosis, it becomes less subtle later in the course when the skin can develop bronze or brown discoloration, serosanguinous drainage, and bullae.[2] While imaging can help by showing subcutaneous gas (with CT much more sensitive than X-ray[15]), the diagnosis is predominantly a clinical one.

Once the diagnosis is suspected, rapid treatment is essential to avoid a bad outcome. The gold standard for diagnosis is surgical exploration, and the definitive treatment is surgical debridement — early surgical consultation is indicated for any suspected case of NSTI. In the ED, supportive care with aggressive fluid resuscitation is indicated, but vasoconstrictors should not be used unless absolutely necessary, as they may further decrease perfusion to ischemic tissue.[2] Additionally, broad spectrum antibiotics are indicated to limit spread of the disease and help treat the infection. The majority of NSTI are polymycrobial (type I) with Gram-positive cocci, Gram-negative rods, and anaerobes, with the remainder being monomicrobial infections with either group A Streptococcus

alone or with *S. aureus* (type II) or *Vibrio vulnificus* (Type III).[16-18] As a result, the recommended regimen includes vancomycin in combination with meropenem, piperacillin-tazobactam, or imipinem-cilastatin, with consideration of additional clindamycin to mitigate toxin production.[2]

NSTIs can be fast moving and deadly; any delay in definitive treatment can significantly impact outcomes. Early diagnosis is essential to decrease time to surgical management. In the case above, the patient was resuscitated in the ED, given antibiotics, and admitted to the intensive care setting, but surgical consultation was omitted in the initial workup. The delay of definitive treatment resulted in a prolonged ICU course and a worse outcome, and the emergency physician was held responsible for the delay. The diagnosis is difficult, clinical, and time sensitive, challenging the emergency physician to maintain a high index of suspicion and aggressively pursue the diagnosis.

Case #3

An epidural abscess is a rare infection of the central nervous system (CNS) (brain and spinal cord) that can be divided into either intracranial or spinal in nature, with the latter being relatively more common given the anatomy and worth discussing.[19] Accurate diagnosis and prompt treatment can ensure excellent outcomes with most cases. In *East Valley Fiduciary, Inc., by James Clark as Conservator for Sauvageau v. Iasis Healthcare Holdings, LLC, d/b/a Mountain Vista Medical Center, et al*, the case underscores the importance of keeping this diagnosis in mind, as well as the consequences of delayed recognition and treatment. A 50-year-old patient presented to the ED with complaints of shortness of breath, spinal pain, abdominal pain, and neurological symptoms of paresthesias and occasional numbness. She was eventually discharged home with care instructions for sciatica, myalgias, lumbar pain, and PO ciprofloxacin 500 mg BID for 10 days. The patient presented two days later to another hospital with similar complaints, in addition to sinus tachycardia, hypertension (HTN), congestive heart failure (CHF) exacerbation, chest pain, and an abnormal EKG. She was subsequently admitted, but transferred out two days later to undergo surgery for a spinal epidural abscess, which required more than a month of recovery time in the ICU. Within the next two years, the patient was admitted numerous times to the hospital for antibiotic treatment of her abscess. The patient continued to suffer permanent neurological sequelae of pain, paralysis, numbness, cognitive deficits, headaches, and unsteadiness. The patient claimed negligence by the ED physician, hospital, and interpretation of her MRI for failing to diagnose and appropriately manage her spinal epidural abscess when she first presented. Before the trial, an undisclosed settlement was reached with an ED physician.[20]

Spinal epidural abscesses typically present with non-specific signs and symptoms such as fever and generalized weakness. Only a few patients present with the classic triad of neurological deficit, spine pain, and fever. The diagnosis requires a high degree of clinical suspicion.[21] If an abscess is not initially diagnosed and treated, it can progress in a predictable neurological pattern of focal pain, shooting pain (root pain), sensory and muscle weakness, and, finally, complete paralysis.[22] The neurological sequelae can rapidly become irreversible, especially if the paralysis has been ongoing for more than 24 hours prior to surgical intervention.[21]

There are certain risk factors that may predispose individuals to the condition, such as epidural catheter placement, alcoholism, diabetes, HIV-positive status, trauma, overlying soft-tissue infection, bacteremia, and IV drug abuse, to name a few.[23] The median age of onset is 50 years old, although it can occur at any age.[24] The keys to diagnosis include having a high clinical suspicion and applying treatment guidelines that incorporate risk factor assessment, followed by definitive MRI imaging of the spinal column if the diagnosis is in serious consideration.[25] Although lab tests are infrequently helpful for the diagnosis and not necessary, elevation of inflammatory markers (ESR and CRP) and leukocytosis may strengthen the clinical suspicion before proceeding with an MRI, with definitive treatment centering around abscess drainage and an antibiotic regimen targeting the causative organism(s).[21] In the case above, the diagnosis was overlooked on the patient's initial presentation to the ED. She had neurological signs that were most likely attributed to sciatica, given her discharge home care instructions and presentation two days later to another ED — longer than the 24 hours in which neurological deficits quickly become permanent and prognosis is poor without surgical intervention.[21,26] The patient's underlying cause of her symptoms were eventually diagnosed and properly managed with a lengthy recovery period. Given the delay in the diagnosis of the spinal epidural abscess, the patient unnecessarily suffered irreversible neurological sequelae that prompted the lawsuit. Promptly recognizing and

instituting appropriate medical care for this rare infection of the CNS can prevent unwanted complications.

Case #4

When taking a patient's history, physicians routinely inquire about medication allergies, along with the type of reaction if the patient can recall it. Reactions can range from mild urticaria and pruritis to life-threatening anaphylaxis. In *George Martin, deceased, and Dorothy Martin v. John W. Zimmer, MD, and Coastal Orthopedics Associates*, a 79-year-old male received prophylactic vancomycin and oxacillin antiobiotcs prior to undergoing a knee arthroplasty. Despite the patient informing his physician of a "near-death" reaction to vancomycin in the past, the medication was given and a severe reaction followed that required nearly a year of recovery in the ICU, in addition to rehabilitation. The physician maintains that the reaction was not caused by vancomycin, but rather was due to an oxacillin allergy. In addition, the physician claimed there was no substantial evidence of causation with either medication. A verdict of $975,000 was returned, with a total judgment including interest in excess of $1 million.[27]

This case underscores the importance of eliciting a good history, never underestimating stated drug reactions, and paying careful attention to what patients say. Since penicillin is the most commonly reported medication allergy, the physician likely presumed the prior reaction to vancomycin was a pseudoallergy and simply a reaction associated with the infusion rate of the drug, ubiquitously known as "red man syndrome."[28,29] Red man syndrome, thought to be caused by histamine release, is rarely fatal, but can be confused with a true anaphylactic reaction because of their similar clinical presentations. Steps taken to mitigate such reactions have included PO H1 and H2 antagonist before drug infusion as well as limiting the rate of infusion.[30] True allergies are IgE mediated and need prior exposure to the medication for sensitization. The subsequent exposure to vancomycin in the aforementioned correlates with a severe allergic reaction, although the simultaneous administration of the oxacillin is confounding. Oxacillin would fall under the class of drugs for which the most reported allergies exist, and could be the culprit in the severe reaction the patient experienced.[28] Antibodies to either the antigenic betalactam ring or penicillin-specific R-chain are thought to cause the majority of allergic reactions to penicillin.[31] Because the structure of penicillin is shared by other antibiotics, the thought of cross reactivity with other drugs possessing similar antigenic features is of concern, especially with cephalosporins. Studies point toward the R-group being more antigenic than the betalactam structure, with cross reactivity more likely among first-generation rather than the latter-generation cephalosporins.[32] Even with a known penicillin allergy, studies reveal only a 1% overall cross reactivity with first-generation cephalosporin exposure and negligible reactivity with third- and newer-generation cephalosporins with disparate side chains.[32] Nevertheless, proper precautionary measures are still advised if administering a cephalosporin to penicillin-allergic patients, especially with cefadroxil. In particular, one study revealed a prevelance of 27% cross reactivity.[32]

It is also worth mentioning the carbapenems and the monobactam aztreonam. Multiple studies have shown only a 1% cross reactivity between confirmed penicillin allergy individuals and subsequent carbapenem challenges.[33] On the other hand, aztreonam has shown no cross reactivity with confirmed penicillin allergy patients, and administration is uneventful to the penicillin allergic.[34] Even with low cross reactivity, medications that are structurally similar to drugs to which a patient is allergic should be approached with the appropriate precautionary measures. The physician should never underestimate information from the history about allergic reactions and, most importantly, should listen carefully to the patient. Both of these measures can mitigate unfavorable outcomes.

Case #5

The spleen is an organ with a commonly known role of filtering the blood to process antigens in the initiation of the proper humoral and cell-mediated immune response — cleaning about 6% of the cardiac output.[35] The function of this organ can be compromised by either congenital or acquired causes and leaves an individual asplenic and at higher risk for infection. In the case *Mary Hedger, Administrator of the Estate of David Hedger v. Sean Collins*, a 77-year-old male with a past medical history of immune thrombocytopenic purpura (ITP) status post splenectomy presented to the ED with a fever of 103 ˚F and other indicators of infection. The ED physician at the time diagnosed the patient with influenza, obtained cultures, and consulted a heme-oncologist regarding the necessity of discharge antibiotics. The con-

sultant advised the ED physician that antibiotics were not needed and subsequently the patient was discharged home. In less than 24 hours, the patient's condition worsened and he presented again to a different ED where he ultimately died due to an overwhelming infection. Because of the patient's splenectomy, the plaintiff asserted that antibiotics initially should have been given. Both the ED physician and the consultant implied that the other was at fault, with the ED physician alleging that he followed the consultant's recommendation, and the consultant claiming that antibiotic advice was never discussed. A $750,000 verdict was reached, finding the ED physician and the consultant 30% and 70% responsible, respectively.[36]

The unfortunate consequence of overwhelming post splenectomy sepsis/infection (OPSI) in adults highlights the speed in which the patient can decompensate and the momentum in which proper medical intervention needs to be initiated. Asplenic patients are at risk for overwhelming sepsis due to encapsulated organisms, most commonly *Streptococcus pneumonia*, since these are normally cleared by a functional spleen.[37] The risk for OPSI in asplenic individuals is for a lifetime, and the use of daily prophylactic antibiotics in asymptomatic adults is debatable unless there are strong clinical indications such as a prior OPSI episode.[41] In the case discussed, the patient was diagnosed with influenza, was older than 65 years old, and was febrile. CDC guidelines would classify the patient by his age as at higher risk for complications associated with influenza in addition to being immunocompromised secondary to splenectomy.[38] Complications range from neurologic sequelae to lower respiratory tract infection/pneumonia with bacterial coninfection; the latter is more common in higher risk patients and accounts for one-quarter of all influenza-related deaths.[39] The diagnosis of OPSI should always be entertained when an asplenic patient presents with a fever, especially if the patient is not on a regimen of prophylactic antibiotics. A diagnosis of influenza and associated high-risk age group should also prompt the ED physician to assume that complications are present and that the patient can rapidly decompensate in a matter of hours unless appropriate treatment is initiated. Clinical indications to monitor closely include constant chills, high grade fever, and sequelae of significant bacteremia that might include petechiae and unstable vitals. Treatment disposition revolves around stabilization and instituting empiric antibiotics. If in OPSI, admission and IV vancomycin and ceftriaxone are the mainstays of treatment.[40] If not in OPSI, antibiotics are empirically started for any fever in an asplenic patient, as this can be a forebearer of impending OPSI, and it is even recommended that post-splenectomy patients have prescribed antibiotics on hand to take. Some of these include amoxicillin-clavulanate and cefuroxime.[41] The initial presentation of the patient in the case above with influenza, fever, post-splenectomy, and older than 65 years old should automatically register as high risk, with the institution of proper medical care without delay. The reliance on consultants can either be beneficial or detrimental. They are experts in their respective fields and can guide or misdirect, especially when the entire clinical picture or adequate communication is compromised such as in the busy ED. Ultimately, the ED physician should recognize such high-risk patients and initiate prompt medical intervention.

Summary

This article has presented five ED malpractice cases that illustrate pearls and pitfalls in the management of a variety of selected infectious disease diagnoses. It is important to consider infectious endocarditis, necrotizing fasciitis, and spinal epidural abscess to optimize early diagnosis and begin timely treatment. It is imperative to follow up all culture results. Antibiotic allergies are common, and the ED physician must astutely avoid provoking agents. The potential for overwhelming post-splenectomy sepsis must be recognized in any population at risk. Prompt administration of antibiotics is critical in ED infectious disease cases. ■

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Failure to Keep Boarded Psych Patients Safe Is Med/Malpractice Risk

Patient safety is EP's primary concern

Psychiatric patients boarded in EDs awaiting available beds present significant liability risks for emergency physicians (EPs) for several reasons, according to **Leslie Zun**, MD, MBA, chair of the Department of Emergency Medicine at Mount Sinai Hospital in Chicago, IL.

"We are the provider of last resort for many of these patients," he says. "We have to do medical clearance, determine if the problem is medical or psychiatric, and determine if the patient needs to be hospitalized."

The major liability risks for EPs involve failure to keep patients safe, including suicide in the ED, escape followed by suicide, and assault of staff or other patients, says **Paul S. Appelbaum**, MD, Dollard Professor of Psychiatry, Medicine, & Law and director of the Division of Law, Ethics, and Psychiatry at Columbia University's College of Physicians & Surgeons in New York, NY.

"Patient safety should be the primary concern while awaiting transfer to an inpatient bed," he underscores.

Alternatives to Hospitalization

Part of the problem is many chronically mentally ill individuals are uninsured, "which makes the matter even worse," says Zun, because the burden then gets placed on the EP as the safety net provider.

"It's rare that you see institutions or programs being added to serve the mentally ill," says Zun. "Rather, you quite frequently see reductions in services. That is quite concerning."

Trying to identify a site that can take the patient is often difficult or impossible for EPs. "All too often, EDs have a large population of psychiatric patients who have nowhere to go but the ED, and the patients are boarded in the ED for days," says **Michael Turturro**, MD, associate professor of emergency medicine at the University of Pittsburgh and chief of emergency Services at UPMC — Mercy Hospital in Pittsburgh.

Turturro urges EPs to partner with mobile crisis teams, or outpatient centers, and to look for alternatives to hospitalization when that is appropriate.

"Many EDs don't realize the type of resources that may be available, such as county and state programs," he says. Turturro recommends having someone specifically trained in managing behavioral health emergencies do a structured risk assessment to determine if the ED patient can be safely managed without hospitalization.

"EPs tend to be risk-averse," says Turturro. "They will assume hospitalization is always required if a patient expresses a fleeting thought of suicide. But in fact, that may not always be necessary."

UPMC — Mercy Hospital's ED brought in employees from a local outpatient crisis center to help determine which patients need hospitalization and which can be connected to outpatient resources.

"It's important to know they do have a safe environment to land in. But it's still a high-risk population, no matter what you do," Turturro says. "A structured risk assessment, while not foolproof, can be very helpful in finding the best environment for the patient."

Standard of Care

The legal standard of care does not change for an EP if the patient is a psychiatric patient — the EP still has to do what the typical EP would do in similar clinical circumstances, says **Joshua M. McCaig**, JD, a shareholder with Polsinelli in Kansas City, MO.

While psychiatric unit providers are held to a higher standard of care for psychiatric treatment than the EPs, the EP should, at a minimum, take the necessary steps to make sure that psychiatric patients are protected, safe, and not a danger to themselves or others, advises McCaig.

With regard to patient safety and treatment

of general medical issues, the applicable standard is likely to be that of a reasonable EP, says Appelbaum. However, when EPs undertake treatment of conditions outside their specialty, they could be held to the higher standard of a specialist in that area.

"Thus, to the extent that treatment is initiated in the ER, especially during prolonged boarding episodes, [EPs] may be held to a standard consistent with psychiatric practice," says Appelbaum. "Malpractice risk can be mitigated by psychiatric consultation or participation in the patient's treatment."

At Mount Sinai Hospital, the hospital's psychiatric service rounds on psychiatric patients boarded in the ED and makes treatment recommendations to ensure the patient is properly assessed and cared for. Dr. Zun says he believes this decreases legal risks.

If the patient's condition were treated in the ED, there's a possibility the patient would not need admission at all, says Zun, which raises the question as to whether EDs should do some acute stabilization or observation care for psychiatric patients.

"We would never let a medical patient sit in the ED without any treatment until they get a bed upstairs," says Zun. "Why is it O.K. for a psychiatric patient to sit there for days, getting minimal, if any, treatment for their illness?"

EPs should document the patient's condition upon arrival, document the circumstances in the facility at that time and why the patient could not be admitted, and order a psychiatric consultation, advises McCaig.

"Even if the consultation does not take place right away, at least it is ordered and shows a level of concern on the part of the physician," he says. "If there are no psychiatric services in the emergency department, document that and the steps taken to keep the patient safe."

The EP's documentation does not have to be extensive, but should include an evaluation of the patient's condition, including risk of harm to self or others; rationale for any treatment initiated, including decisions to defer treatment until transfer to an inpatient bed; and steps taken to ensure patient safety, says Appelbaum.

"If a decision is made not to initiate psychiatric treatment, the reasons should be documented, along with the measures taken to keep the patient safe in the interim," he says. ■

Sources

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Missed Radiology Finding? Process Needed to Inform Patients

Good communication prevents suits

An emergency physician (EP) caring for a 62-year-old man after a motor vehicle accident interpreted the chest X-ray as negative. The radiologist overreading the chest films the next day noted a left lung nodule, but the patient was never notified.

During a second ED visit, a large mass on the left lung was noted by the radiologist; but again, this was not communicated to the patient. "Even though the X-rays were obtained during ED visits, results in both situations were forwarded to the primary care physician, who failed to act on the findings," says **Jeanie Taylor**, RN, BSN, MS, vice president of risk services for Emergency Physicians Insurance Company (EPIC) in Roseville, CA.

The patient died of lung cancer two years later, and the family sued the EP, the radiologist, and the primary care physician. "The case settled for a large amount," says Taylor.[1]

EPs usually have the benefit of a radiologist

interpretation prior to patient discharge, with the exception of reading of plain films on nights, weekends, and holidays. "These may be read by the EP on duty, and then later overread by a radiologist," says Taylor.

Research suggests that EPs are very good at reading plain films, but more commonly overlook abnormalities on chest X-rays, such as nodules and masses.[2]

"The best way to avoid malpractice claims involving missed radiology findings is to be sure that when a miss occurs, you have a good process in place to notify the patient," says Taylor. She offers these risk-reducing strategies:

• EDs should have a consistent process to identify discordant interpretations and notify patients of these.

A specific person, or position, in the ED must be responsible to review and follow-up on discrepancies every day, including holidays and weekends.

Damages and claims can be averted if there is a robust follow-up system in place ensuring that cases in which there is a discrepancy between the EP and the radiologist are identified and acted upon, says Taylor.

"If such a process is lacking and key radiology findings fall through the cracks, identifying an effective defense strategy is challenging if a claim is filed," says Taylor.

• Radiology and the emergency department must agree on a protocol for critical findings.

Taylor says that when a lung nodule is incidentally identified by the radiologist, this should be considered a critical finding. "There are too many cases where a missed nodule is not communicated to a patient, and too often with deadly results," she says.

• EPs should not rely on the primary care provider to follow-up with the patient.

"It's really very simple. You ordered the test and you are responsible for the follow-up," says Taylor. "Relying on the patient's physician to notify the patient of test results from a test you ordered is just not a good practice, nor is it is a good defense if the patient is not notified."

Document all calls to the patient, whether they are part of your routine call-back process, or to notify the patient of a missed X-ray finding, she advises.

• EDs should make the EP's interpretation immediately available to the reading radiologist.

Electronic medical records and radiology archiving and communication systems can be helpful in ensuring appropriate follow-up, but can create problems if the ED has failed to amend its old process to work with the newer technology.

"When paper records and actual films were used, it was fairly easy for an EP to note their findings and attach it to the film for the radiologist to read the next morning," says Taylor.

Staff radiologists have the ability to go into the ED electronic record to review the EP's notes, but don't always take the extra time to do so.

"The fact is that if the radiologist has to go into the electronic ED record to retrieve the EP's interpretation, they may not take this extra step," she says. "Thus, they are unaware of what the EP told the patient."

If the radiologists have the EP's interpretation when they read the films, they know right away when a discrepant reading has occurred, such as a missed fracture.

"EDs need to work with their IT departments to ensure that the radiologist is provided with the EP's interpretation, instead of having to sign in and access the actual ED record, which can sometimes be cumbersome," says Taylor.

Stop Missed Fracture Suits

EDs should implement a process in which patients with fractures, or potential fractures, are called back the next day to ask how they are doing and ensure they are getting appropriate follow-up, advises Taylor.

"This allows an opportunity to intervene if the patient reports increased pain or other indications that something may have been missed," she explains. Here are some practices to consider to prevent claims alleging missed fractures:

• Explain to the patient that while you didn't see a fracture, a radiologist will also look at the films.

"Tell the patient that if the radiologist notices anything abnormal, you will let them know," says Taylor. "By communicating in this manner, you have set the stage for a missed finding."

If patient is later told that a fracture was identified by the radiologist, the patient will see the EP as the person who facilitated the fracture being identified, instead of the one who missed it, says Taylor.

• Treat injuries as if a fracture is present.

"Use splints and immobilization," says Taylor.

• If you are in doubt, contact the radiologist on call to read the films in real time.

"Being a 'nice guy' by trying not to bother on-call staff and physicians is not in your, or the

patient's, best interest," says Taylor.

• **Arrange timely follow-up.**

"Instructions for the patient to see their doctor in a week if their symptoms do not improve is not adequate," she warns. "And it will not protect you if there is a bad outcome and subsequent litigation." ■

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Source

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CNE/CME OBJECTIVES

After completing this activity, participants will be able to:

1. Identify legal issues related to emergency medicine practice;
2. Explain how the legal issues related to emergency medicine practice affect nurses, physicians, legal counsel, management, and patients; and
3. Integrate practical solutions to reduce risk into daily practice. ■

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HERE ARE THE STEPS YOU NEED TO TAKE TO EARN CREDIT FOR THIS ACTIVITY:

1. Read and study the activity, using the provided references for further research.

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CNE/CME QUESTIONS

1. Which is true regarding the standard of care an EP will be held to when caring for a boarded psychiatric patient, according to **Paul S. Appelbaum**, MD?
   A. For treatment of general medical issues, the applicable standard is likely to be that of a reasonable EP.
   B. The EP will always be held to a standard consistent with psychiatric practice, including treatment of general medical issues.
   C. EPs cannot be held to a standard consistent with psychiatric practice under any circumstances.
   D. EPs can only be held to a standard consistent with psychiatric practice if the hospital's psychiatric service makes treatment recommendations to ensure the patient is properly assessed and cared for.

2. Which is recommended for EPs to avoid malpractice claims involving missed fractures, according to **Jeanie Taylor**, RN, BSN, MS?
   A. EPs should not inform patients that a radiologist will also look at the films.
   B. EPs should avoid using splints and immobilization unless a fracture was identified on a film.
   C. It's sufficient for EPs to inform patients with suspected fractures to see their doctor in a week if symptoms have not improved.
   D. EDs should implement a process in which patients with potential fractures are called the following day.

3. Which is recommended to reduce legal risks involving boarded psychiatric patients, according to **Michael Turturro**, MD?
   A. EPs should not involve mobile crisis teams or outpatient centers in looking for alternatives to hospitalization.
   B. EPs should have someone trained in managing behavioral health emergencies do a structured risk assessment to determine if the ED patient can be safely managed without hospitalization.
   C. EPs should not specify why a patient could not be admitted in the medical record.
   D. EPs should avoid documenting decisions to defer treatment until transfer to an inpatient bed.

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