www.anadem.com • anadem@anadem.com • 800-633-0055

Case 2 Compliments of Anadem Inc.

Bouncebacks!

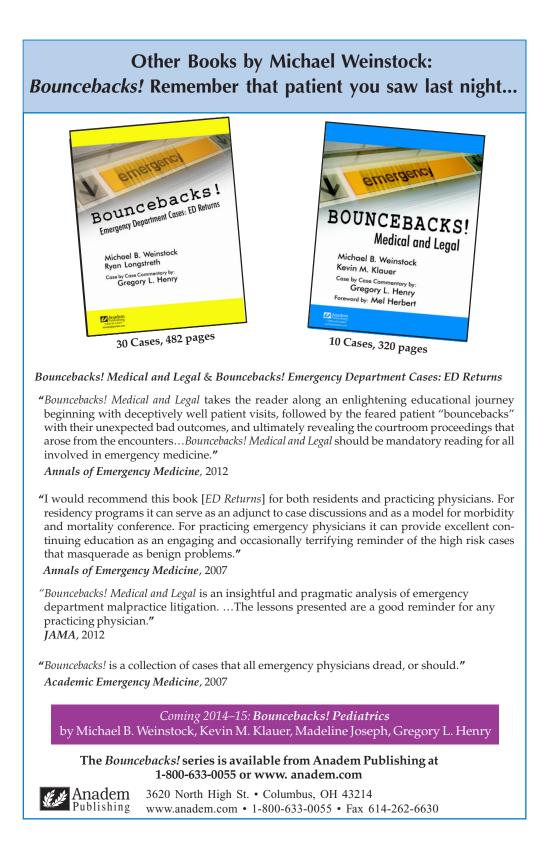
Medical and Legal

Michael B. Weinstock Kevin M. Klauer

Case by Case Commentary by:

Gregory L. Henry Foreword by: Mel Herbert

Publishing 1.800.633.0055 anadem@anadem.com





3620 North High Street Columbus, OH 43214 Tel: 1 (800) 633-0055 www.anadem.com

Bouncebacks! Medical & Legal

Michael B. Weinstock Kevin M. Klauer Commentary by Gregory L. Henry Illustrations by Hudson Meredith & Alyssa Klauer

Copyright © 2011 by Anadem Publishing, Inc. All rights reserved, including translation. This book is protected by copyright. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, or by any information storage and retrieval system without prior written permission from the copyright owner.

The product names, registered designs and patents referred to in this reference are in fact proprietary names or registered trademarks even though specific reference to this fact is not always included in this book. The listing of a drug name without designation as proprietary is not to be construed as a representation by the authors and publisher that it is in the public domain.

Bouncebacks! is based upon information from sources believed to be reliable. In developing this book the publisher, authors, contributors, reviewers, and editors have made substantial efforts to make sure that the regimens, drugs, and treatments are correct and are in accordance with currently accepted standards. Readers are cautioned to use their own judgment in making clinical decisions and, when appropriate, consult and compare information from other resources since ongoing research and clinical experience yield new information and since there is the possibility of human error in developing such a comprehensive resource as this. Attention should be paid to checking the product information supplied by drug manufacturers when prescribing or administering drugs, particularly if the prescriber is not familiar with the drug or does not regularly use it.

Readers should be aware that there are legitimate differences of opinion among physicians on both clinical and ethical/moral issues in treating patients. With this in mind, readers are urged to use individual judgment in making treatment decisions, recognizing the best interests of the patient and his/her own knowledge and understanding of these issues. The material in *Bouncebacks!* is not intended to substitute for the advice of a qualified attorney or other professional. You should consult a qualified professional for advice about your specific situation. Readers are cautioned to use their own judgment in making decisions on the issues covered in this book because there are on-going changes in these matters. The publisher, authors, reviewers, contributors, and editors disclaim any liability, loss or damage as a result, directly or indirectly, from using or applying any of the contents of *Bouncebacks!*

PRINTED IN THE UNITED STATES OF AMERICA

ISBN 978-1-890018-74-0



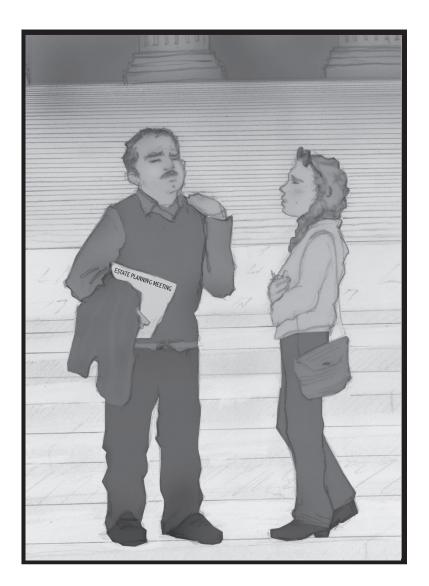
CASE 2

A 42 YEAR-OLD FIREMAN WITH SHOULDER PAIN: WHEN A LIFELINE BECOMES A NOOSE

Primary case author Michael Weinstock

PART 1-MEDICAL

I. The Patient's Story 39 II. The Doctor's Version (the ED Chart) 40 III. The Errors 41 a. Risk Management/Patient Safety Issues #1–4 41 Back to the Future 43 b. Risk Management/Patient Safety Issues #5–6 44 IV. The Bounceback 44 PART 2—LEGAL 47 II. Deposition/Trial Testimony 47 III. What Would Greg Do (WWGD)? 59 IV. The Verdict 61 V. The Appeal 62 VII. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VIII. Authors' Summary 69	II. The Doctor's Version (the ED Chart) 40 III. The Errors 41 a. Risk Management/Patient Safety Issues #1–4 41 Back to the Future 43 b. Risk Management/Patient Safety Issues #5–6 44 IV. The Bounceback 44 PART 2—LEGAL 47 II. Deposition/Trial Testimony 47 III. What Would Greg Do (WWGD)? 59 IV. The Verdict 61 V. The Appeal 62 VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63			
III. The Errors 41 a. Risk Management/Patient Safety Issues #1–4 41 Back to the Future 43 b. Risk Management/Patient Safety Issues #5–6 44 IV. The Bounceback 44 PART 2—LEGAL 47 II. Deposition/Trial Testimony 47 III. What Would Greg Do (WWGD)? 59 IV. The Verdict 61 V. The Appeal 62 VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VII. Medical Discussion—David Andrew Talan, MD 66	III. The Errors 41 a. Risk Management/Patient Safety Issues #1–4 41 Back to the Future 43 b. Risk Management/Patient Safety Issues #5–6 44 IV. The Bounceback 44 PART 2—LEGAL 47 II. Deposition/Trial Testimony 47 III. What Would Greg Do (WWGD)? 59 IV. The Verdict 61 V. The Appeal 62 VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VII. Medical Discussion—David Andrew Talan, MD 66	I.	The Patient's Story	39
 a. Risk Management/Patient Safety Issues #1–4	 a. Risk Management/Patient Safety Issues #1–4	II.	The Doctor's Version (the ED Chart)	40
Back to the Future43b. Risk Management/Patient Safety Issues #5–644IV. The Bounceback44PART 2—LEGAL47I. The Accusation/Cause of Action47II. Deposition/Trial Testimony47III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	Back to the Future43b. Risk Management/Patient Safety Issues #5–644IV. The Bounceback44PART 2—LEGAL47I. The Accusation/Cause of Action47II. Deposition/Trial Testimony47III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	III.	The Errors	41
b. Risk Management/Patient Safety Issues #5–6	b. Risk Management/Patient Safety Issues #5–6		a. Risk Management/Patient Safety Issues #1-4	41
IV. The Bounceback44PART 2—LEGALI. The Accusation/Cause of Action47II. Deposition/Trial Testimony47III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	IV. The Bounceback44PART 2—LEGALI. The Accusation/Cause of Action47II. Deposition/Trial Testimony47III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66		Back to the Future	43
PART 2—LEGAL I. The Accusation/Cause of Action 47 II. Deposition/Trial Testimony 47 III. What Would Greg Do (WWGD)? 59 IV. The Verdict 61 V. The Appeal 62 VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VII. Medical Discussion—David Andrew Talan, MD 66	PART 2—LEGAL I. The Accusation/Cause of Action 47 II. Deposition/Trial Testimony 47 III. What Would Greg Do (WWGD)? 59 IV. The Verdict 61 V. The Appeal 62 VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VII. Medical Discussion—David Andrew Talan, MD 66		b. Risk Management/Patient Safety Issues #5-6	44
I. The Accusation/Cause of Action47II. Deposition/Trial Testimony47III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	I. The Accusation/Cause of Action47II. Deposition/Trial Testimony47III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	IV.	The Bounceback	44
II. Deposition/Trial Testimony47III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	II. Deposition/Trial Testimony47III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	PART	2—LEGAL	
III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	III. What Would Greg Do (WWGD)?59IV. The Verdict61V. The Appeal62VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)63VII. Medical Discussion—David Andrew Talan, MD66	I.	The Accusation/Cause of Action	47
IV. The Verdict 61 V. The Appeal 62 VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VII. Medical Discussion—David Andrew Talan, MD 66	IV. The Verdict 61 V. The Appeal 62 VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VII. Medical Discussion—David Andrew Talan, MD 66	II.	Deposition/Trial Testimony	47
V. The Appeal	V. The Appeal	III.	What Would Greg Do (WWGD)?	59
VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VII. Medical Discussion—David Andrew Talan, MD	VI. Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview) 63 VII. Medical Discussion—David Andrew Talan, MD	IV.	The Verdict	61
VII. Medical Discussion—David Andrew Talan, MD	VII. Medical Discussion—David Andrew Talan, MD	V.	The Appeal	62
		VI.	Legal Analysis —Jennifer L'Hommedieu Stankus, MD, JD (Interview)	63
VIII Authors' Summary 69	VIII. Authors' Summary	VII.	Medical Discussion—David Andrew Talan, MD	66
viii. Tradicio Summary		VIII.	Authors' Summary	69



38 • Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

CASE 2

A 42 YEAR-OLD FIREMAN WITH SHOULDER PAIN: WHEN A LIFELINE BECOMES A NOOSE

This patient was initially seen by a Physician Assistant who performed a history and physical, made a diagnosis, spoke with the primary care physician, and still asked the physician to see the patient. The physician re-examined the patient and documented a thorough note.

Deep thoughts:

- 1. We are taught early in our careers that abdominal pain out of proportion to exam equals mesenteric ischemia. How about pain out of proportion to our diagnosis?
- 2. In addition to the HPI, what other historical information is important to obtain?
- 3. Does a referral from an urgent care or primary care physician obligate the ED doctor to perform certain tests?
- 4. How does a plaintiff's attorney use damages to garner sympathy from a jury?

I. The Patient's Story

David Lykins is a loving father of three boys and devoted husband to Jill, currently 15 weeks pregnant with their 4th. His career started as a firefighter and paramedic, working his way up to Battalion Chief. David likes to spend as much time as possible with his family—Jill brings the boys to the firehouse every few days, and he spends several hours with them. His friend remembers, "To the kids, the firehouse was a big playground ... he kept them running."

Co-worker John Bennett described David's approach as Battalion Chief: "He was very strict with us, but it was because he was concerned about our safety. You could tell he really cared. He was almost like a father, even though he was younger than [me]."

The following story of a squad run demonstrates David's decication to his job. On February 24, 1999, a 911 call dispatched the team to the scene of a worker with his leg caught in an auger, "wrapped around like a piece of spaghetti." Though this was a new situation, David took charge and directed everyone, including officers of his own rank. During the 45 minutes that it took to extricate the worker, the worker said, "David talked to me, as I was laying there, waiting to get untrapped. [He] asked me how many kids I had and what my name was and, you know,

tried to keep me conscious ... After my accident I was in the hospital and Mr. Lykins came after a run and just checked on me to see how I was doing. I was lucky to be alive."

In the beginning of March, 2000, David begins to have problems of his own. He has severe left shoulder pain and presents to the Emergency Department at Shady Valley Hospital.

II. The Doctor's Version (the following is the actual documentation of the provider)

Chief complaint per triage RN (March 2, 2000 at 10:30AM): c/o left shoulder pain ... (see below) Arrives via wheel chair (WC).

APRIVALITHAGE TIME 1030 APRI	VAL VIA: CARIBULATIONY ALWO CI EN	argency Medical Service	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	(nemobilized 1) Yes
CHEF COMPLAINT: YO JUF	Sculden PAN	in	when .	. Dyn A ans
INTIAL ASSESSMENTLY RANK OF	reportend,	aprimoon.	I)Pol,	AL .

Chief complaint (physician assistant, Ed Heller) at 10:45: This is a 42-year-old male who is a fire fighter for Fairtown. He says he was lifting patients yesterday. He complains of left shoulder pain. He says he is unable to move his left arm. He has had no trauma as far as a fall. He has done only lifting. He never had anything like this before. Review of systems is otherwise negative. There is no chest pain, shortness of breath, diarrhea or constipation. No dysuria. No numbness or tingling of the extremities. No peripheral edema.

PAST MEDICAL HISTORY:

Allergies: NKDA

Meds: None

PMH: He has a history of abdominal pain two weeks ago. CT scan was done. He does not know the results or what they were looking for. He is vomiting here possibly due to the pain.

- SH: Unremarkable
- FH: Unremarkable

Date: 3/2/00

VITAL	SIGNS				
Time	Temp(F)	Pulse	Resp	Syst	Diast
10:30	97.8	111	18	102	67

PHYSICAL EXAMINATION: The patient is alert and oriented. He is somewhat inappropriate as far as pain in relation to complaint and history. He refuses to move his arm. He is in an extreme amount of pain when I try to move his arm or touch him whether on his arm or on his clavicle. He has good grip. He is able to extend and flex his elbow and pronate and supinate. He has good distal light touch sensation, pulses and capillary refill.

TESTING (10:55): Left shoulder and clavicle XR: No fracture of shoulder or clavicle

EMERGENCY DEPARTMENT COURSE:

11:05 – Demerol 50mg, Phenergan 25mg IM

12:25 – Phenergan 25mg IM

12:50 - Repeat vitals: Pulse 102, Resp 16, BP 102/65

- **PROGRESS NOTE (PA Ed Heller):** I talked with Dr. Oster [the primary care doctor] who says the patient tends to sometimes overreact to his health care needs, and it does not surprise him that the gentleman will not move his arm and that his physical examination is not in proportion with his complaint and history.
- DIAGNOSIS (12:57): Left shoulder pain/strain
- **DISPOSITION:** Rx: Vicodin. Left arm in a sling with instructions to rest with no lifting. Apply ice and return to ED if worse. Soft diet. Dr. Oster will see him in the next two to three days.
- **ATTENDING NOTE** (actual documentation from ED attending physician, Dr. Timothy Vaughn): This is an attending note to accompany the dictation by the PA: He is a healthy male firefighter. He apparently has had some left shoulder pain after lifting patients over the last couple of days. It is very painful with range of motion and any palpation. He has no abdominal pain, chest pain or shortness of breath. Apparently, these symptoms started roughly at the same time. He has had no fever. He has had no skin breaks to that shoulder. He is very uncomfortable with any movement of his shoulder. On palpation, there is no erythema or swelling. His left upper extremity neurovascular examination is intact. The x-rays are normal. The patient is vomiting, and I do not have a good clue as to the cause of this, other than the pain from his shoulder. We have given him Phenergan on two occasions with some improvement. This looks to be more musculoskeletal, and certainly, I see no evidence of any referred pain. This is very joint specific. There is nothing on his examination or in his history that makes me think this is a septic joint.

Ed Heller PA Timothy Vaughn, DO

III. The Errors—Risk Management/Patient Safety Issues

>Authors' note: This seems like a straightforward shoulder strain, pain with motion and palpation. But is this the whole story?

Risk management/patient safety issue #1:

Error: Not reading nursing notes.

Discussion: Can you decipher the hieroglyphics recorded by the nurse? Neither could the doctor. We get "complains of left shoulder pain" (barely). There was no effort to speak with the nurse to discover what was recorded. Her deposition testimony on November 8, 2000 (8 months after the patient presented), finally revealed the answer:

Q. (plaintiff's lawyer): Please read slowly so I can understand

A. (triage nurse): "Complains of left shoulder pain, chills, fever."

Not reading the nurses'/triage notes is a common theme in medical malpractice cases.

✓ Teaching point: ALWAYS read the nurses' notes. If not able to be understood, speak with them personally.

Risk management/patient safety issue #2:

Error: History inconsistent with the proposed mechanism.

Discussion: It is recorded that the patient had been lifting—but when? How soon after the lifting did the pain start? It brings to mind one of my favorite anecdotes in the vomiting patient, "I ate at McDonald's last night." OK. So did 30 million other people! If a patient lifts all day, every day and has shoulder pain one of those days, it is important to correlate if the pain started when lifting or at some point after.

This documentation does not build a case for a reliable mechanism. After all, most patients will offer a convenient history, convenient for you and for them. It isn't to intentionally mislead you, it's just what makes sense; patients don't want to be sick and will often offer an excuse to lead you toward the most benign diagnosis. You can choose to accept it without qualification or pursue further history to verify its relevance.

✓ Teaching point: Just because most patients with shoulder pain have a strain, doesn't mean they all do.

Risk management/patient safety issue #3:

Error: Too narrow of a differential diagnosis.

Discussion: Could shoulder pain in a 42 year-old man be from a cardiac etiology? Absolutely! Questioning about exertional symptoms, associated symptoms of diaphoresis and dyspnea (which was recorded), and cardiac risk factors is advisable. An ECG is a simple and inexpensive screening test.

✓ Teaching point: Maintain a high index of suspicion for atypical presentations of lifethreatening diagnoses. Everyone is sick until you prove they aren't.

Risk management/patient safety issue #4:

Error: Including conjecture in the note.

Discussion: This point could be argued since it may be important to note that a "patient tends to sometimes overreact to his health care needs," but it does up the ante. We have a 42 year-old Battalion Chief with a new complaint of shoulder pain to the point that he needs to be brought back to his room in a wheelchair. That would be a serious overreaction. Additionally, how does this information factor into the medical decision-making process? Though not overtly stated, we can surmise from the note that for some reason, there was extra concern about this patient; who calls the PCP for a simple shoulder strain? If there was any doubt about the diagnosis before the call, it was laid to rest after learning about his "history" of overreaction.

✓ Teaching point: Be careful about including speculative comments in the chart. If you are right, it didn't matter anyway. If you are wrong, such comments will have a profound impact on your defense.

>Authors' note: Ever listen to Paul Harvey? "And now ... the rest of story." Well, this case also has a "rest of the story." As it turns out, our patient's pain actually started the day prior, on March 1. This is also part of the "ancient Egyptian writing" recorded by the triage nurse: "symptoms started yesterday afternoon."

March 1, 2000:

- 3:00 PM (one day before ED visit): David and his wife Jill have a meeting with a lawyer to discuss estate-planning matters. As they leave the office, David comments that his shoulder is bothering him.
- 11:00 PM: The pain is stronger and he has a low grade fever. Jill gives him two 800mg ibuprofen.

March 2, 2000:

• 8:00 AM: Jill calls Dr. Oster, the PCP, and finds out David cannot be seen until 11 AM. He is unable to wait that long, so is referred to an urgent care.

Back to the Future—The Urgent Care record per Dr. Benjamin Roth:

- Triage (9:39AM) Complains of intense pain left shoulder which began yesterday
- **History:** Pt works for fire dept, was lifting patients, pain started hours after. Has headache, nausea, vomiting and feels dehydrated. Pt. feels it is not cardiac related but like it's in the muscle. Pt. iced and took ibuprofen. Unable to move shoulder, had fever all night, couldn't sleep secondary to the pain.
- **PE:** Vitals: temp 97.5, pulse 116, resp 16, BP 120/78. Possibly swollen, extremely tender, no redness. ROM is zero. A&O X 3
- Urgent Care course: Vomited in clinic X 1
- Diagnosis: Severe left shoulder pain, needs septic arthritis ruled out
- Doctor note: Discussed with ER at Shady Valley. Will send him down there for evaluation.

Benjamin Roth, MD

>Authors' note: It is questionable if the ED doctor was aware that the patient was at the urgent care prior to the ED visit; he did note "This is very joint specific" but never specifically mentioned the referral. "There is nothing on his examination or in his history that makes me think this is a septic joint." Was this documented because of the concern of the urgent care doctor, because of a concern of David or Jill, or a concern of the ED doctor or PA? The same diagnosis that troubled the urgent care visit.

When the records were eventually subpoenaed, the hospital was unable to find the urgent care "call-in sheet" or the urgent care record that was sent with the patient. However, the plaintiff's attorney was able to find them both, blowing them up into 4×5 foot posters displayed during the trial.

Risk management/patient safety issue #5:

Error: Not speaking with the urgent care doctor.

Discussion: I have sent patients home without the testing recommended by the urgent care, but only after careful consideration and discussion with the patient and the family. For example, a child referred for brain scan after a fall has some radiation risk—with a parental expectation of imaging, they want to be involved in the decision-making process, but usually follow your recommendation to defer scanning.

Was the urgent care doctor's concern reasonable? To summarize, we have a healthy 42 year-old man with severe shoulder pain, fever (possibly masked by the use of ibuprofen at home) and no definitive mechanism suggesting a muscle strain. Searching for another cause of fever would be helpful. Does he have rhinorrhea and cough (typical in March). Further defining what is meant by fever would also be helpful (felt warm or recorded temperature of 100.4° with thermometer). Discovering the timing of an antipyretic can be helpful.

✓ Teaching point: When there is a difference of opinion, speaking with the transferring/ referring physician (urgent care or PCP doctor) may allow discovery of important information.

Risk management/patient safety issue #6:

Error: Lost records.

Discussion: Thou shall not kill. Do unto others as you would do unto yourself. Medical records should not be lost. These statements are all so obvious that they don't really justify the ink and parchment that they are printed on, unless somehow, they are not obeyed.

✓ **Teaching point:** A mechanism needs to exist to ensure that the records provided by the referring doctor are available to the treating ED physician.

>Authors' note: As a closing thought, assuming he was aware of the urgent care visit, kudos to the ED physician who did an independent examination, assessment and documentation of the patient. This could have easily been omitted in a patient with a "simple shoulder strain."

IV. The Bounceback

David is discharged from the ED at 12:57 PM, and his wife drives him to the pharmacy to pick up his prescription for Vicodin. On the way, they stop for gas. David vomits, then gets out of the car and urinates on the gas pump. When they arrive at home, David goes to bed. Jill can hear him moaning in pain.

- Midnight His pain is increasing, and David asks Jill for pain medicine.
- 2:00 AM He asks for more pain medication.
- 3:30 AM Jill calls Dr. Oster (PCP). An "on call" doctor returns the call and tells her to go back to the ED if worse or wait until the morning and see Dr. Oster first thing. David says he does

not want to return to the ED because they did not do anything for him when he was there earlier.

- 6:30 AM David is up and wants to take a bath before going to see Dr. Oster. Jill notices reddening and swelling of David's arm up to the shoulder. It looks like a bruise.
- 8:30 AM David presents to Dr. Oster's office with the complaint of shoulder pain and nausea. The pain is excruciating. "The patient is hyperventilating and is acutely ill appearing with edema over the left shoulder to the nipple and over the sternum, medially, but no discoloration, warmth or erythema. There is marked pain with motion of shoulder." He is sent immediately to ED.
- Per PCP, "Spoke with ED doctor who accepts the patient."

ED visit #2—March 3, 2000—Almost 22 hours after the initial ED discharge

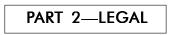
- 10:15 AM Temp 91.3, pulse 61, resp 20, BP 93/80. The ED team jumps into action.
- 10:25 AM David is seen by Dr. Timothy Vaughn (same doctor as yesterday): "Extremely illappearing and much worse than when I had seen him yesterday. Skin on chest is ecchymotic and some areas of necrosis and crepitation are noted underneath. We immediately initiated 2 large bore IV's."
- 10:40 AM Acute change in vitals: pulse increases to 145 and SBP drops to 70→IV fluids and dopamine
- 10:50 AM Blood cultures taken. Started on Timentin and Clindamycin.
- CBC is normal. Creatinine is 2.5. Elevated LFT's
- Assessment: Extremely critical condition with probable multi-system failure, probably from sepsis secondary to some underlying myofascial infection
- Dr. Anderson, general surgeon, is called to the ED to evaluate the patient and observes a discolored, darkened spot about the size of a fifty-cent piece which grows to the size of a softball in a short period of time.
- ED diagnosis:
 - 1. Acute soft tissue infection left side of chest
 - 2. Septic shock
 - 3. Multiple organ failure with acute renal and hepatic failure
- 11:30 AM Taken from the ED to CT scan suite to define extent of the process. Results show necrotizing fasciitis of left anterior chest wall and possibly upper, anterior mediastinum.

HOSPITAL COURSE:

- 12:15 AM From CT, the patient is immediately taken to surgery. Dr. Anderson performs extensive debridement of the left anterior chest wall. Following the surgery, Anderson was "a little encouraged" because the infection was not more extensive.
- David undergoes a second, "re-look" operation approximately 12 hours later. The infection has not extended beyond the margins of the first operation, no more necrotic tissue is discovered; it appears that the surgery has controlled the infection.
- David is found to have acute inflammation of the gall bladder and further surgery confirms this diagnosis, but also shows right colonic necrosis, which necessitates a right hemicolectomy. This is thought to be from the vasopressors.
- The renal failure worsens, requiring dialysis.

- He suffers extensive necrosis of the digits of both hands and feet.
- Diagnosis of ARDS—he remains on the ventilator.
- David continues a slow, but steady, downward spiral. After a multidisciplinary assessment, it is determined that he does not have a chance of recovering. This is discussed with the family, and comfort measures are taken.
- With his family in attendance, David expires on March 17, exactly 2 weeks after his bounceback visit.

FINAL DIAGNOSIS: Necrotizing myositis, septic shock, ARF, ARDS, multisystem organ failure



>Authors' note: How annoying is it when a patient presents from the urgent care with the work-up plan in hand? "The doctor sent me here for an MRI of my knee. ..." Really? On a Sunday? The wrinkle in this case is we don't know if the ED doctor was aware of the Urgent Care visit or the history of fevers. Additionally, the nurse's triage note was illegible. Both these issues were pivotal to the plaintiff's case.

There are two ways to look at this patient. Imagine hearing it presented in one sentence at an M&M conference:

- 1. This is a 42-year-old healthy fireman who was lifting patients and presents with shoulder pain, worse with movement. Impression: I see this patient every day. I see this patient ten times a day. I eat this patient for breakfast. ... ibuprofen, pain control, sling, bye bye. ...
- 2. This is a 42 year old healthy fireman who has fever and shoulder pain so severe that the range of motion is zero. He was sent from an urgent care to r/o septic arthritis. Impression: Now I'm not so sure ...

What happened at the gas station? La belle indifference: An apathetic demeanor observed in patients with necrotizing fasciitis/myositis:

"Mr. Jones, we're going to need to amputate your arm."

"OK, doctor-thanks."

Mr. Lykins was obviously in the throes of the disease at the initial ED visit, not even aware that urinating on a gas pump was out of the ordinary. Did the confusion start when he walked out the door of the ED or was it present, but unrecognized, during the initial ED encounter?

I. The Accusation/Cause of Action

Soon after David's death, his wife Jill filed a lawsuit against the initial ED doctor, the physician assistant, Shady Valley Hospital and the primary care doctor. The main allegation was failure to diagnose necrotizing fasciitis/myositis with the subsequent fatal sequelae. The case was not settled, but proceeded to a trial lasting four weeks.

In the first chapter, we included the judge's instructions to the jury and the opening statements. In this chapter, we advance directly to the courtroom drama, an epic struggle between a hard driving plaintiff's attorney who had been friends with the deceased and two of the foremost experts in emergency medicine: Greg Henry and Dave Talan, both experts for the defense at trial. All three have contributed to this chapter. We complete the presentation with the attorneys' closing arguments.

II. The Trial—The following is actual trial testimony, condensed from over 5,000 pages.

Cast of characters (names changed, except where noted):

The patient: David Lykins (actual name) ED physician-defendant: Timothy Vaughn Physician assistant: Ed Heller Primary care physician: Dr. Jerry Oster Urgent care physician: Benjamin Roth Plaintiff's attorney: Dwight Brannon (actual attorney) Defense attorney: Neil Freund (actual attorney) Defense expert witnesses: Greg Henry and Dave Talan (both board certified emergency medicine, both actual expert witnesses in this case)

Cross-examination of the defendant ED physician, Timothy Vaughn, by plaintiff's attorney, Mr. Brannon:

Q. You never read the triage nurse's note about David Lykins before he was discharged, did you?

- A. I—when a physician assistant presents a patient to us, it's my practice to look at the chart. I like to look at vital signs, medications, allergies, and I will glance at the triage note.
- Q. You did not read the triage note on David Lykins on March the 2nd, did you?
- A. I don't recall, sir.
- Q. And when you attempted to read it, you said you weren't able to make out anything but complaint of left shoulder pain, correct?
- A. If that is from my deposition, I would have to review that.
- Q. Right. I'll let you look at page ten of your deposition. Excuse me just a second while I get it. May I approach the witness, Your Honor?

The Court: Sure.

By Mr. Brannon:

Q. First of all, Dr. Vaughn, is that a true and accurate copy, at least an enlargement, of what you looked at on the date of your deposition?

- A. Yes, it is.
- Q. When I asked you what the triage nurse had said in her report on March 2nd, you indicated you did not know unless you read the report. Am I correct?
- A. I'm sorry. I don't follow your question.
- Q. Well, when I said "what did the triage notes tell you about David Lykins on March the 2nd?" what did you tell me?
- A. I'd have to look at my deposition, sir.
- Q. Did you tell me that you had no independent recollection other than the medical records?
- A. I don't understand your question.
- Q. Alright. Tell me today, tell the ladies and gentlemen of the jury, what did Nurse Mayo's triage note say about David Lykins, without looking at the report.
- A. He had left shoulder pain, fever, chills. He was pale.
- Q. Did you know that on March the 2nd when you treated David Lykins?
- A. Sir, I'm not sure what I recall about reading that chart.
- Q. Would you read your answer [from the deposition] to the ladies and gentlemen?
- A. (Reading his own deposition testimony): "The best I can tell is this, there is a complaint of complaint of left shoulder pain. Then, the next thing I can pick up is symptoms started yesterday afternoon. That's all I can read."
- Q. Well, you are not implying that at the time of your deposition in November of 2000, somehow there was some kind of trickery by showing up with copies you couldn't read but you could the original?
- A. That's not what I'm implying, sir. You asked if I could read those. I could not read the copies.

>Authors' note: This plaintiff's attorney is sharp! The defendant physician tried to imply that he had read the triage note but was tricked during the trial into admitting that, during his deposition testimony months earlier, he had *not* been able to read the nursing documentation of fever, thereby revealing he was not aware of the complaint of this symptom during the ED evaluation. Ouch!

The plaintiff's attorney next moves to the patient's severe shoulder pain. He tries to establish that the providers did not take *Mr*. Lykins' pain seriously. Of course, a lot of patients overreact to their pain in the ED. I had a patient tell me once that he has had pain so long he now uses a *logarithmic* pain scale ?! Is it possible to separate those patients who have organic disease from those seeking narcotics? In 1980, Waddell devised a set of physical signs to differentiate patients with the complaint of back pain.¹ Three or more physical signs on exam strongly suggest a non-organic component.

Waddell's signs:

- 1. Overreaction to the physical exam
- 2. Widespread superficial tenderness that does not correspond to an anatomical distribution
- 48 Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

- 3. Pain on axial loading of the skull or simultaneous rotation of the shoulders and pelvis
- 4. Severe limitation on straight leg raise in patients able to sit forward with legs extended
- 5. Weakness or sensory loss that does not correspond to a nerve root distribution

Was the severity of the pain a factor which should have prompted the doctor to make the diagnosis? The plaintiff's attorney thinks so.

Continuation of cross-examination of defendant ED physician, Dr. Vaughn, by plaintiff's attorney Mr. Brannon:

- Q. You saw excruciating pain, did you not?
- A. I saw a gentleman with severe left shoulder pain, correct.
- Q. Well, let's describe it. Let's describe it. I won't use my word. How did he seem to convey himself in regards to the amount of pain that he was in?
- A. He seemed to be in severe pain when the shoulder was moved.
- Q. Did he appear to be overreacting?
- A. No, sir, I would never make that assessment.
- Q. It's in your medical records, isn't it?
- A. I did not dictate that. I would never make that assessment of a patient. I've been doing this for nineteen years, and I've never accused anyone of overreacting or faking.
- Q. Didn'tDr...I'm sorry Mr. Heller (the PA) come to you and say that he had talked to his family physician and that this patient "sometimes tends to overreact to his health care needs"?
- A. At the end, sometime after Mr. Lykins had left and I saw Mr. Heller again, he did mention that the telephone conversation had occurred.
- Q. Did that help you close the book on your diagnosis here?
- A. No, sir.
- Q. And, in fact, your diagnosis of shoulder sprain/strain was not correct, was it?
- A. At the time, that was the diagnosis that I had arrived at, yes, sir.
- Q. Was that the correct diagnosis that you had arrived at?
- A. At that time, that was the correct diagnosis.
- Q. So, it's your testimony here today that you can state within terms of a reasonable medical probability that David Lykins had no septic process such as necrotizing fasciitis ongoing on March the 2nd of 2000?
- A. If that process was occurring, there were there were no external signs that would give us that indication.
- Q. Well, is vomiting a sign?
- A. Vomiting is a sign, yes, sir.
- Q. And past fever is a symptom?
- A. That would require some clarification. Many patients present to the emergency department complaining of fever.

- Q. That's fair enough. Did you go to him and talk to him and say, now, I've heard that you have had this past fever; can you clarify it for me? Did you do that?
- A. Yes, sir, I did.
- Q. Did you ask either Jill or David if they had taken a temperature for fever?
- A. Yes, I did.
- Q. What did they tell you?
- A. My -- my response to that is twofold. When I ask a patient if they have had a fever, the first question is, "have you checked it?" If they haven't checked it, I would document no fever. If they have checked it and it is less than a hundred degrees, I would still document no fever. I don't feel that is a clinically significant temperature.
- Q. Would you then ask if they have taken any medication for fever?
- A. I had reviewed the chart, and there was no medications listed.
- Q. Did you ask the patient? Did you ask David Lykins or Jill Lykins if he had taken any medication for the fever?
- A. That is asked at triage. I don't specifically ask that question again.
- Q. And at least at triage, they didn't report that he had Phenergan that day, did they? A. That's correct.
- Q. That would have been something for you to know?
- A. Yes, sir.
- Q. But you never asked the patient if he had had any medication, did you?
- A. I don't recall if I had asked or not.

Q. Alright. Now, chills and sweats, would that be an important thing to know about? A. In the face of a fever, yes.

>Authors' note: The patient had taken ibuprofen sometime before the visit, but the exact time is not documented. This is a tricky one, since many patients complain of fever, "My temperature was 98.7 but I normally run at 95 so that's a fever for me." Sometimes, they are wrong. Sometimes, they just want us to take them seriously, and sometimes, they have had a fever, which has been reduced by antipyretics.

Mr. Brannon prompted the defendant to admit that not only had he not read the nurse's notes, but that they contained essential information he should have been aware of. Additionally, the nurse's notes were not accurate, lacking any indication that the patient had received the medication Phenergan within the last several hours. The doctor admitted that the nurse's notes were inaccurate and that he did not independently ask about use of other medications, such as ibuprofen, which may have decreased the temperature.

During the trial, Mr. Brannon displayed a 4×5 foot poster defining the symptoms of necrotizing fasciitis for the jury. As we follow his questioning, he is going through all of the classic symptoms (fever, chills, severe pain, vomiting) to show the jury that these symptoms were present, but unrecognized, when the patient initially presented. The poster was

^{50 •} Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

actually a grease board with symptoms of necrotizing fasciitis and empty boxes next to each symptom. As he went through the testimony, he made a check mark next to each symptom present, but undocumented by the doctor.

On a side note, I thought the stories of 4×5 blow up posters were an urban legend meant to colorfully demonstrate a point to doctors in training. I will attest to the fact that this is no fable. I have more than 20 of them from this case still stacked on my back porch.

- Q. I'm not saying necessarily, but if you are considering throwing up, isn't it more likely that someone would throw up because they have an infection than because they have a shoulder sprain or strain?
- A. Not at all, sir. We see many people with orthopedic injuries with nausea and vomiting.
- Q. We? How many have you seen throw up from a shoulder sprain and strain?
- A. Again, sir, I --- I don't keep--- I don't keep numbers. I evaluate everybody individually.
- Q. Alright. Now, up here, is this a correct dictation of what you said?
- A. I—yes, sir, it is.
- Q. Would you read it to the ladies and gentlemen of the jury?
- A. The patient is vomiting, and I do not have a good clue as to the cause of this other than the pain from his shoulder.

>Authors' note: The hospital was not able to find either the telephone triage note or the urgent care form. This was brought up repeatedly throughout the trial and was later the "hook" of the plaintiff's closing arguments.

- Q. Did you see the Urgent Care form?
- A. No, sir, I didn't.
- Q. Did you see the phone form?

A. No, sir.

- Q. Did you see any indication that Jill had brought David into the emergency room to rule out either septic arthritis or a septic joint? Did you see that?
- A. At some point during our interaction, the Lykins' and I had discussed a septic joint. I'm not sure where that had come up. I have it dictated in my note. So, we talked about it.
- Q. And they didn't mention that we're here because of the doctor sending us straight down from Urgent Care to rule out a septic joint or arthritis or some kind of infection?
- A. Again, sir, I don't recall where that information came from.
- Q. So, you don't deny here today in front of the jury that either one of the Lykins or both told you they had come in to have an infection ruled out?
- A. That I don't recall.
- Q. You've seen Urgent Care forms before, haven't you?
- A. Yes, sir.

- Q. And you have read them and used them, haven't you?
- A. If the patients give them to us, we read them.
- Q. And you are saying you never got this?
- A. I never saw the Urgent Care form.
- Q. Okay. Would you read from the bottom of Dr. Roths' [documentation]?
- A. Severe left shoulder pain needs septic arthritis ruled out. Discussed with ER at [Shady Valley]. Will send him down there for evaluation.
- Q. What about the phone form?
- A. I did not see the phone form.

>Authors' note: The allegation that Mr. Lykins "Tends to sometimes overreact to his health care needs" was another frequent theme.

Direct examination of David Lykins' co-worker, John Bennett, by plaintiff's attorney, Mr. Brannon:

- Q. In the years that you worked with him, did you ever see him not do a job because of an injury, a sprain or a strain, or anything like that?
- A. No.
- Q. Did you ever hear him complain of an injury, sprain or strain?
- A. No
- Q. Was David Lykins a complainer; "I'm hurt, I'm sore, I'm sick"?
- A. Never
- Q. How about nausea, anything like that? Was he sick?
- A. No.
- Q. You knew people that worked with him. What was his reputation for truth and veracity?
- A. Everybody trusted him. You knew he meant what he said. He would say what he meant.

Mr. Brannon: Thank you. I have no further questions.

The Court: Thank you. Mr. Freund [defense attorney], cross-examine?

Defense: No questions, your honor.

>Authors' note: How did the defense rebut these arguments? The following are excerpts from two of the 12 defense expert witnesses (the plaintiff called 28 witnesses). Greg Henry is first and David Talan follows.

Direct examination of Greg Henry, expert witness for the defense, by defense attorney, Mr. Freund:

Q. For an emergency room physician, is history important?

A. Yes.

Q. And why?

A. History gives us at least some indication of the disease process which we're looking at.

- Q. Okay. And in this particular case, was there any history other than the fact that this gentleman may have hurt his shoulder lifting a heavy object?
- A. All we have is about a day and a half history of pain. The only thing we have related to it was lifting. And so at least on a temporal basis, on a time basis, they're related. We have no way of knowing whether those two are actually cause and effect.
- Q. As far as the gentleman's physical appearance, his complaint was significant pain in the left shoulder. Is that correct?
- A. Well, I don't want to use the term shoulder. It was up here. But it was somewhat broader than that. And that's why when they did his X-ray, they also X-rayed the clavicle, which is your collarbone, running from here to here. So, it was obviously not just a complaint of the shoulder, but of the upper chest area.
- Q. OK. Now, as far as the particular patient is concerned, he had been to an urgent care. Is that correct?
- A. Yes
- Q. And the urgent care physician believed that this individual may have what has been described as a septic joint or septic arthritis of the left shoulder. Is that correct?
- A. Right. He didn't have that. He never had that in the course of this process. But that was a thought.
- Q. Okay. Now, was that thought considered by Dr. Vaughn (the ED physician) and Mr. Heller (the ED PA) in the emergency room at Shady Valley Hospital on May 2?

Mr. Brannon: Object!

The Court: Overruled.

- A. Yeah, by the nature of the write-up, the pertinent positives and negatives included, it was obviously considered because they commented on the temperature and skin coloration that you would see with an acute joint. And the purpose of taking an X-ray is for looking for fluid in the joint, which you would see with an acute septic joint.
- Q. Okay. There's been some discussion, doctor, that Dr. Vaughn and Mr. Heller fell below the standard of care when they didn't stick a needle into the left shoulder joint and attempt to aspirate fluid. You're aware of that?
- A.Yes.
- Q. Okay. Would you tell the ladies and gentlemen whether or not Mr. Heller and Dr. Vaughn fell below the standard of care?
- A. Absolutely not! You don't go sticking needles into joints. Joints are sterile areas. You don't go put a needle into areas until you have something palpable. You've got to know where you're going with the needle. So you've got to be able to feel fluid collection, and there was none palpable in this case, nor was there any seen on the X-ray. So, to stick a needle into a joint without a reasonable probability of coming back with fluid would be malpractice.

>Authors' note: What follows are the "even if" arguments. For example, even if the doctors knew the urgent care had sent the patient, he still would have been sent home. Even if the doctor had deciphered the nurse's note of fever, he still would have been sent home.

These arguments speak to "causation," one of the two points a plaintiff needs to prove (together with standard of care). We know the patient was not correctly diagnosed, and these questions explore "would it have mattered?"

Continued direct examination of Dr. Henry, defense expert, by Mr. Freund, defense attorney:

- Q. Okay. Now, you are aware, of course, that Mr. and Mrs. Lykins were sent to Shady Valley Hospital [from an urgent care].
- A. Yes.
- Q. Alright. I want you to assume that Dr. Vaughn evaluated Mr. Lykins for what was described by Dr. Roth as a septic arthritis or septic joint.
- Mr.. Brannon: Object, your Honor.
- The Court: I don't know the question yet.
- Mr. Brannon: I apologize.

The court: If I could hear the question.

- Q. I want you to assume that Mr. Lykins was referred to Shady Valley Hospital to "rule out septic joint" or "septic arthritis." Just assume that as being true. When Dr. Vaughn and Mr. Heller evaluated this patient, is there an indication that they considered whether or not this individual had a septic joint?
- Mr. Brannon: Object! Asked and answered.

The Court: Permit it. Overruled!

- A. They checked those things which you would have with a septic joint. Again, this gentleman didn't have a septic joint.
- Q. The fact that Dr. Roth, who in his workup, thought [he] saw possibly a septic joint, does that mean that these physicians in doing their workup, taking their histories and doing their assessments and their physical examinations should rely on somebody else and their provisional diagnosis?
- A. They're obligated to do their own examination and come up with their own diagnosis.
- Q. Okay. Now, you are aware, of course, that this individual did present, in addition to pain, with nausea and vomiting and a history of fever. Is that correct?
- A. Yes.
- Q. Now, when the patient presented at Shady Valley Hospital on March 2 with a history of fever, what would you think about that?
- A. You take the temperature and see if they've actually got a fever.
- Q. Did they take the temperature and see if he actually had a fever?

A. Yes.

- Q. What was his temperature?
- A. It was within the normal range.
- Q. Alright. Now, are vitals important when you're trying to work a patient up and determine whether or not this patient is really sick?
- 54 Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

- A. Well, vital signs are an indicator. They're not a perfect indicator. But they are important in what we call the positive. They're not important in the negative.
- Q. Okay. Why are they called vitals?
- A. From the Latin vitae, meaning from the root is vitae, which we use for life.
- Q. Vitals in the emergency room were basically what?
- A. They were consistent with somebody in pain. Slight tachycardia. And otherwise they fell within the normal ranges.
- >Authors' note: Would a CBC have been helpful, as alleged by the plaintiff?
- Q. Alright. Let's assume for a moment that we accept the plaintiff's argument that a blood test should have been done on March 2, and there were clinical indications to do that test. What would a blood test have shown on the 2nd?
- A. Well, we know that it [the CBC] was normal when the patient was sick on the 3rd. So, within the realm of reasonable medical probability, it would have been normal the day before as well.
- >Authors' note: Did the doctor meet the standard of care?
- Q. Okay. Now, doctor, in your examination, you have determined that there was no redness, no swelling, no portal of entry, no marks, no discoloration of the left shoulder. It has been shouted out in this courtroom many, many times that these physicians, Dr. Vaughn and Mr. Heller should have been thinking infection.

Now, what was to lead these physicians to think infection, infection?

- Mr. Brannon: Object! He's not stating the facts underlying.
- The Court: Overruled!
- A. Nothing at this point in time. He looks very similar to other patients who have shoulder pain. I would not be thinking infection at this moment in time.
- Q. Do you send all patients out of the emergency room with a diagnosis?
- A. I send them out with a clinical impression at that moment in time, because I understand that a diagnosis is sometimes not arrived at with one visit. Now, certain things are easily diagnosed. If you come in with a cut finger, we can pretty much make the diagnosis of laceration. If you come in with vague abdominal pain, in less than 50 percent of cases can we give you a [specific] diagnosis.
- Q. As far as discharge, is it appropriate for a physician who has made a diagnosis to ask the patient to come back if the condition worsens? Is that usual or unusual?
- A. Standard. The assumption is that we're open 24 hours a day, seven days a week. We'd expect if there's a change, that you come back. That's just the standard discharge line on the chart.
- Q. Alright. Based upon your review of the record, from approximately 1:00 o'clock on, until presentation again the next morning, which would be March 3rd, maybe around 10:00, did the patient get worse?
- A. Oh, yes, dramatically worse. By the time they got in the next morning with the family practitioner, he was essentially in a pre-shock state.

- Q. One final question, then, doctor. As you have reviewed the case and as you have reviewed the depositions of the physicians, do you have an opinion, based upon standards of care and reasonable medical probability and certainty, whether or not these physicians acted reasonably and met the standard of care?
- A. Yes, my opinion is this is a very tragic and sad case, and my opinion is they met reasonable standards of care. I'm glad I wasn't the doctor who saw him because we will never know the outcome of the play until the [diagnosis] has actually presented itself.

Mr. Freund: No further questions.

Cross examination of defense expert witness, Dr. Henry, by plaintiff's attorney, Mr. Brannon:

- Q. Did you consider Dr. Roth's finding of possibly swelling and Mrs. Lykins' testimony that it looked swollen? [per the Urgent Care doctor's note and the testimony of Jill Lykins, David's wife, which is not reproduced here].
- A. I read them both. I've got to depend on two healthcare professionals who saw him at that moment in time. They did not feel it was [swollen].
- Q. Well, if they didn't do an adequate exam and Dr. Roth and Mrs. Lykins were correct, you would have a different opinion, wouldn't you?
- A. Not from Dr. Roth, because he said "possible." So, I don't know what to do with that. That's not one way or the other. Again, his wife isn't medically trained. So, I would have less credibility in [her impression] than I would people who are medically trained.
- Q. If I understand you correctly, March 2nd, when David Lykins came into the emergency room complaining of pain like he had never had before, giving a history of fever and chills, pale, screaming whenever he was touched, throwing up repeatedly, it was your opinion on examination or redirect by Mr. Freund that he wasn't sick. Is that correct?
- A. Absolutely not. That's a mischaracterization of the testimony.

Direct examination of Dr. Dave Talan, (ED physician triple boarded in EM, IM and ID) by defense attorney, Mr. Freund:

Q. Would you describe for the ladies and gentlemen of the jury the mortality from necrotizing fasciitis and myositis?

Mr. Brannon: Object!

The Court: Overruled.

- A. Both are obvioulsly bad, but the fasciitis, which is the fibrous covering over the muscles, is 30-50%, so that's not very good. But if the muscle is involved, the mortality is in the range of 80%.
- Q. Do you have an opinion upon reasonable medical certainty, as to whether the health care providers met the standard of care?
- A. Yes. It's my strong opinion that reasonable physicians and physician's assistants would not have made the diagnosis of necrotizing fasciitis or myositis on that date. Their care was consistent with the community standard of care. This is a very, very rare condition that lacked many of the important features that would lead a reasonable physician to make the diagnosis ... and that's it in a nutshell.

CLOSING STATEMENTS: The following are the shortened closing arguments from the plaintiff and defense attorneys. Plaintiff goes first, then defense:

Mr. Dwight Brannon (plaintiff's attorney):

What was the prize here? David Lykins wanted three things in his life. One, he wanted to do his very best for mankind. He wanted to be reasonable, responsible and accountable. He wanted security for his family. Worked hard at it. Triple jobs. And still had all that time for his family. Above all, he wanted to be there. He wanted to *be* there. Second, professionally, he wanted to give, he wanted to serve; it was obviously a token of his desire to serve mankind. Third, [serving] his community. This is about the community. Accountability, responsibility: Those aren't hollow terms.

And I ask you in light of the testimony of Dr. Roth [the urgent care physician] who threw him a lifeline, "David, go to the emergency room." And at the emergency room, ladies and gentlemen, the triage nurse didn't meet the standard of care. Then, Mr. Heller didn't meet the standard of care. Then, Dr. Vaughn didn't meet the standard of care. That's the lifeline. And then they called Dr. Oster [the PCP] to close the loop. They closed the loop all right. (Taking a piece of rope from his pocket and tying a large knot.) Instead of giving him a lifeline, they gave him a noose.

This case really needs no convincing. I ask the question what is fair, what is just, what is the standard of care? Ladies and gentlemen, I await your verdict so I can tell the captain that his trip is truly over, his prize is truly won, and that you will post the conscience of this community so that these defendants stop, look, and listen to ordinary people. Because this courtroom is for the victims. This courtroom is for ordinary people. I ask you to realize how important it is and what an important thing [it is] that you do here. I believe that with all my heart. Thank you, ladies and gentlemen.

Mr. Neil Freund (defense attorney):

Court: Mr. Freund, we're ready for the defense close

Mr. Freund: Thanks Judge.

When we selected you folks as jurors, I played a portion of the tape to show you the beautiful family of David and Jill Lykins. I did that for a reason, and I'd like to share that reason with you.

I know from my life's experiences how I react to the death of loved ones. I know how you react to the death of loved ones. And yet, we expect you to come in here and judge us fairly and impartially. We ask that of you. And I know how difficult that is because I have experienced loss. And then we bring you in here and ask you to decide the case on the facts.

I was thinking, okay. Now, how are we going to go about this? And I thought that we would approach it like the doctors approached this case. In fact, what you are doing in this courtroom is making a diagnosis. And how are you going to make that diagnosis? You're going to look at the facts. You are going to render a verdict, which is your diagnosis. And you are going to go about this the very same way that the doctors did when they made their diagnosis in this case.

Common sense and reason. That's how doctors make their decision based upon their medical training. That's how I ask you to make your decision when you go back and talk to each other and

deliberate with each other. Common sense and reason. Without hindsight or retrospect. Hindsight is 20/20. Put yourselves in the shoes of the caregivers. And what I mean by "put yourselves in the shoes of the caregivers" is simply, when you're judging my clients, judge them from the information they knew or should have known as the caregivers at that time. Independent of compassion or sympathy.

We have ranges on myositis from 80% fatality to as low as 20%. But you are being asked in this case to take the quantum leap that in this particular case with this particular individual that he would have survived this terrible deadly disease and not only that, but he would have survived it without disability. And you folks, when you are using your common sense, are going to reject that.

We didn't make the history up. Why is that important? Dr. Henry said in the emergency room, it's a snapshot at a particular moment in time. Everybody agrees; all the experts agreed that history was the most important part of the case. Alright. What history was given to Mr. Heller and Dr. Vaughn? He hurt himself lifting. That is the history that Dr. Roth got, and that's the history that we got at Shady Valley Hospital. None of the classic signs of redness, swelling, high temperature or vitals out of whack were present.

I thought I would just highlight some of the testimony that was actually given in this case. When I was asked to represent Dr. Vaughn, Mr. Heller and Shady Valley Hospital, I wanted to find the best experts to review this case. So, I got the literature and found out who wrote more than anybody else. That was Dr. Johns, an infectious disease specialist (name changed, testimony not included here). He's written more, studied it more and seems to know more than anybody else.

Then I thought, but Mr. Heller and Dr. Vaughn are not infectious disease physicians. They specialize in emergency medicine. Then I thought, okay, I wonder if there's anybody out there who is an infectious disease person and an emergency medicine person. That was Dr. Talan, the fellow from UCLA. Did you notice he had sandals on? I couldn't believe it. He's from California; it figures. I was hoping he would stay in the box and not come out!

But anyway, he is one of only two doctors in the United States who is double boarded in emergency medicine and infectious diseases. One of two, and I got him to review the case. He said the case was defensible.

Then, I thought, I need somebody local. So, I went to Ohio State and I had Dr. Hankman (name changed) review the case. Professor, in emergency medicine ... the works.

I'm going to do this some more. So, I sent the case to Dr. Henry. Now, Dr. Henry is from Ann Arbor. I wondered what the folks in Ohio will think about a guy from Michigan? I decided that he had the qualifications. Now, his qualifications were a little different, though, because he was boarded in emergency medicine. He also happened to be President of the whole United States of American College of Emergency Physicians, all 22,000 of them. He gave me a favorable review.

Did Mr. Lykins get worse between his discharge from the ER until he returned the next day? Yes. Actually, his condition changed very rapidly over several hours. Now, why does that make a difference? When they were discharged from the hospital at 1:00 o'clock in the early afternoon on the 2nd, they were given the specific instruction to return if the condition got worse. Well, it surely did get worse, and it got worse, according to Mrs. Lykins' own words, about midnight. Okay?

^{58 •} Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

Now, what are we supposed to conclude from going from 1:00 o'clock at the time of the discharge to about 10:00 o'clock the next day until there was a change in condition? Mr. Brannon spent a lot of time talking about the fact that [David Lykins] was a paramedic. Think about that. Here's an individual who, from the testimony of the plaintiff, we're supposed to believe that his eyes were rolling up when he was in our institution on the 2nd. He had every ambulance in Fairtown available to him if he would have chosen to call. But, if we're supposed to believe that his condition was so bad, why didn't he want to go back to the emergency room on the 2nd. It is reasonable to conclude that surgery wasn't indicated on the 2nd?

I had a very good medical professor, a rheumatologist, [who] told me, and it's true, that there are diseases where at one point in time you cannot make the diagnosis and, therefore, you need to see the patient repetitively in order to establish a diagnosis. That's common, very common.

Whether or not you accept the idea that he suffered a strain and that's why the strep A seeded in him or whether you believe that the strep A seeded for some other reason, when you go back and discuss this among yourselves and consider the signs and symptoms, what was there for these doctors and Mr. Heller to diagnose? You will decide that the signs and symptoms were not sufficient to even suspect infection, much less this deadly disease.

Then, take Dr. Anderson [the general surgeon at Shady Valley who took him to surgery on March 3rd] and plug in his testimony that he would not have done surgery on the 2nd. That he would not have cut on what looked to be perfectly viable tissue. You would agree that the earliest time a diagnosis could be made was probably at about 6:30 in the morning [of March 3rd] when he actually had the discoloration, the swelling, and puffiness in his pectoral area.

Probably in hindsight and retrospect, if I had something to do over again in this case, with my client, you know what [that] would be? I would tell Mr. Heller, "Ed, don't use the word 'overreact."

When you go back there and you are deciding about whether the doctors and folks at Shady Valley met the standard of care, judge these folks as the facts existed and as the signs and symptoms existed at that time. And if you do, I am convinced that you'll make a decision that's favorable to them. This is not a "send a message to the world" case. I expect that you'll treat Jill Lykins and her family fairly, and we simply ask the same.

So, ladies and gentlemen, it's been a long four weeks. I thank you kindly for your attention. I hope I haven't bored you too much, and I look forward to your verdict. Thank you very much.

III. What Would Greg Do (WWGD)?

Greg Henry, past president of The American College of Emergency Physicians (ACEP), Professor of Emergency Medicine at the University of Michigan, and CEO of Medical Practice Risk Assessment, has been an expert witness in over 2,000 malpractice cases.

Greg presents a unique viewpoint, since he was one of the defense experts in the case. Later in the chapter, another defense exert in the case, Dave Talan, triple boarded in EM, ID, and IM, discusses the evaluation and diagnosis of necrotizing fasciitis/myositis.

"Anyone reading this who thinks they couldn't have missed this case is either an idiot or a liar. This case represents what's wrong with the American system of justice. "

I want to take a slightly different approach to the analysis of this case. I know the outcome. I was a part of it. I was the expert witness for the defense.

This case represents what's wrong with the American system of justice. No one likes what happened. A good guy and a great father, an all-around credit to the community, died. Is anyone happy about this? No! But there is nothing that the doctor can do about it, and blame should not be cast for simply experiencing a horrible outcome.

There is something fundamentally wrong with the system where we cannot take care of a family without having to criminalize a physician. Dwight Brannon is a great attorney. He is smart. He is articulate, and I have great respect for his skills. Our interaction in this case was an epic struggle. The problem is, the system shouldn't work this way. I wasn't happy about knowing that if I did my job well, a family would not be compensated. But the final analysis was: this wasn't malpractice. Malpractice is not about him being a good guy or a bad guy. If he was Simon Legree, he still deserves medical care which comports with the standard of care. To find a villain in this case is to be going at it from the wrong direction. Dr. Talan and I are friends. He is brilliant on the stand. But again, the issue is not the presentational skills of Dr. Talan or myself. The issue is: did the physician act in such a way as to comport with the standard of care?

Anyone reading this who thinks he/she couldn't have missed this case is either an idiot or a liar. This is a young man. He was lifting. He has pain from the lifting. Pain can cause nausea and vomiting. He had tender muscles. To think that this man, a non-drug shooter, with no history of any major illness, should have a necrosis on a chest wall is almost beyond belief.

I first saw a case like this in the hospital as a freshman medical student in 1968. You can do the math on that, but that's a lot of years to see cases, and I have never seen another. To think that I would walk in and make this diagnosis is crazy. Secondly, it is astounding that the wife would take him home and on the way he would become encephalopathic, pee on a gas pump, and would not be immediately brought back. I think this strongly influenced the jury.

By the time this patient returned, he was a dead man walking. All the king's horses and all the king's men were not going to solve this problem. The tragedy of this case is the tragedy of America. We have fallen. We are now a country that is more concerned with process then with product. Why anyone believes we need lawyers and insurance companies to handle basic humanitarian needs is beyond me. It is an embarrassment to the society at large that this type of process occurs.

^{60 •} Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

IV. The Verdict

As reported by The Dayton Daily news, March 29–30, 2002 (combined articles, minimally edited and shortened). Note: Doctors' names have been changed to remain consistent within chapter. Written by Rob Modic:

DAYTON—An urgent-care doctor threw a "lifeline" to a Fairtown firefighter who had a deadly infection, but Shady Valley hospital and its staff turned it into a "noose" that killed the man, the lawyer for the firefighter's widow told a jury Thursday.

After 2½ hours of deliberations, a jury found for Shady Valley Hospital, an emergency room doctor, his assistant and a Fairtown doctor sued by the widow of a firefighter who died of a massive infection.

Mrs. Lykins later saw that a physician assistant, Ed Heller, had recorded that he had called Oster [the primary care physician] on March 2, 2000, who said Lykins "Tends to sometimes overreact to his health care needs." Oster denied he had said "overreact" and Heller said he mistakenly used the word. Plaintiff's attorney Dwight Brannon contended the remark caused the emergency room doctor and staff to doubt Lykins' claims of pain. But defense attorney Neil Freund countered that the conversation took place after doctors decided to discharge Lykins.

The eight-member Montgomery County Common Pleas jury, which needed at least six jurors to reach a verdict, gave six votes for the emergency room physician, Dr. Timothy A. Vaughn and his assistant, Heller. Four alternate jurors, who sat through the entire four-week trial, said they split 2–2.

Defense attorney Freund offered his condolences to Jill Lykins and claimed the victory that upheld the treatment David Lykins received as meeting the medical standards for care. "On behalf of Dr. Timothy Vaughn, Ed Heller and Shady Valley Hospital, we are grateful and thankful to the jury for their verdict," Freund said. "We believe the doctors associated with Shady Valley Hospital and all of the hospital staff give quality care within this community, and we are thankful that the jury agreed with us. This was a tragic case in which a fine family was devastated with a terrible disease, and we feel for the family and especially for Mrs. Jill Lykins and her children." Lykins' attorney, Brannon, said afterward that the case would be appealed.

Why did the defense win? The following are results of a *jury perception study* (conducted after the trial)

- Demographics:
 - o 53% female
 - o Age range: Young adult to sixties
 - o Education: 20% with bachelor's or graduate degrees
- Facts supporting David Lykins (plaintiff):
 - o The ED staff didn't take the situation seriously.
 - Vomiting should have indicated that David was suffering from more than a strained shoulder.

- ER staff did not communicate with each other in an efficient manner; they ignored the urgent care form, the telephone referral form and the triage nurse's notes.
- The fact that David was a paramedic should have factored into the diagnostic equation and led to a more proactive approach and recognition that he would not be exaggerating his condition.
- Facts supporting Shady Valley Hospital and defendants
 - Mr. Lykins should have gone right back to hospital when he woke up instead of taking a bath (loss of valuable time).
 - Necrotizing fasciitis is an extremely rare condition with limited window of diagnostic opportunity, and it would not be fair to hold the staff responsible for failing to diagnose it.

Thoughts of the actual attorneys:

Plaintiff's attorney, Mr. Dwight Brannon:

- "Biggest case I ever lost-Was out-experted-I shouldn't have lost it."
- "I have tried six cases of necrotizing faciitis. This was my first [loss]. I have won all the others. I would like an opportunity to re-try this case."
- Note: Per Mr. Brannon, the unrecovered plaintiff expenses for the preparation and conduct of the trial were approximately \$250,000.

Defense attorney, Mr. Neil Freund:

- "We got killed during the case, absolutely mauled by the newspapers."
- "According to Dr. Talan, expert witness for the defense: 9/10 or 10/10 ED physicians would have missed this diagnosis."

Authors' note: When I initially contacted Mr. Brannon, he told me he wanted a chance to re-try this case, and he got his wish. At the 2010 Essentials of Emergency Medicine conference in San Francisco, CA, a mock trial was held with several participants from the original trial, including Dwight Brannon as the plaintiff's attorney and Dave Talan as the defense expert. With Mel Herbert as the judge, Billy Mallon as the plaintiff's expert, and Scott Weingart as the volunteer physician defendant, the four week trial unfolded over the course of an hour. A true jury of his peers, composed of six emergency medicine physicians, one physician assistant and a nurse practitioner ruled again for the defendant, 6–2.

... but back to the original trial. This was not the end of the story.

V. The Appeal: The court's decision was appealed. The following is a brief summary of the 19-page appeals decision:

From our review of the record, we conclude that any errors committed by the trial court were harmless. We further conclude that the record does not support the claim of improper conduct on the part of the defendants, defense counsel, or the defense witnesses.

There is competent, credible evidence to suggest that David's diagnosis of strain/sprain on March 2 was reasonable and that the proper diagnosis could not be made until the following day, when the signs of discoloration and swelling appeared.

62 • Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

We have found no evidence in the record to demonstrate any relationship between the failure to retain [the urgent care] records and the treatment of David Lykins. In other words, the timing of the diagnosis and David's death were not caused by the hospital's failure to keep those forms. It is clear from the record that Heller and Vaughn ruled out septic arthritis in David's shoulder, as requested by the urgent-care physician. It is further undisputed that David did not have septic arthritis of the shoulder.

All of Lykins' assignments of error having been overruled, we affirm the judgment of the trial court. Judgment affirmed.

VI. Guest Interview—The Legal Analysis: Jennifer L'Hommedieu Stankus, MD, JD

- Former medical malpractice defense attorney and military magistrate
- Long-standing member of ACEP'S Medical-Legal Committee and Ethics Committee
- Contributing writer for ACEP News
- Adjunct professor at Regis University
- · Most importantly, a senior emergency medicine resident at the University of New Mexico

Note: We will hear from her again in Case 9.

Authors: You started out as a police officer then went to law school. Did it turn out to be what you expected?

JS: When I started out as a medical malpractice defense attorney, straight out of law school, I believed the law was black and white; if there was no clear negligence, there could be no verdict for a plaintiff. As a hospital attorney, it was my job to determine the standard of care, and subsequently who should win and lose. If I found the standard of care was breached, with resultant harm, I felt obligated to reach a settlement that would adequately, but not excessively, compensate the patient for the harm suffered, and the patient would thank me for my efforts. I could not have been more wrong on every front.

These cases are about the money at stake, not about determining if negligence occurred or not. The average cost of bringing a case to trial is \$100,000, usually paid out of pocket by the plaintiff's attorney. This is a huge risk. This impacts the award to the patient, as the attorney's contingency fees are subtracted from the settlement or judgment. Even with large awards, the patient is not compensated as much as one would expect. Standard of care is not always easy to determine; it is difficult for people to look only at a snapshot in time and remain objective. Even experts disagree, particularly in emotionally-charged cases such as this.

Authors: Let's cut right to the chase, does the fact that the patient died increase the chance of a verdict for the plaintiff?

JS: The worse the outcome, the better the plaintiff's chances. This case is horrific. The patient was a previously healthy, productive member of the community who was a loving father and husband. He went from a state of health to death in a matter of days. How can that be? How is it that a physician trained in emergency medicine could not see such an aggressive disease process? How could the patient be discharged with abnormal vital signs and told he had a mere shoulder strain, and within minutes of leaving become so encephalopathic that he urinated on a gas pump?

These are the questions that will go through the minds of the jurors. They are the questions that may go through the minds of other physicians. It is very difficult to get past the emotion of this vibrant firefighter's death and focus on the information available at the initial ED encounter. Even if necrotizing fasciitis was in the differential diagnosis, would it have changed the outcome? Dr. Talan argues no (below). Further, there was no physical sign of this disease, since it was likely deep in the muscle, not at the level of the skin. Labs may or may not have been useful. In hindsight, placing the patient in observation may have revealed the disease process, but with his symptoms at the time, this admission would not qualify at my hospital.

There have been many instances where juries render a verdict for the plaintiff, even where they believe that a physician was not negligent, merely because they wanted the patient or his or her family to have some compensation for their terrible loss ... and this was a terrible, terrible loss.

Authors: What were the biggest risk management mistakes at the initial visit? **JS:** Some have already been discussed, including knowledge of the referring physician's concerns, not inquiring when the triage note could not be read, inaccurate medication history from the nurse and discharge home with abnormal vital signs.

Two points deserve special mention. First, when things don't add up and the ED work-up is exhausted, strict instructions for return should be clearly communicated to the patient. The patient and family must feel comfortable about returning, and these discussions should be clearly and thoroughly documented in the medical record. I found it amazing that the patient's wife did not feel comfortable immediately returning to the ER, despite watching her husband urinate on a gas pump and vomit on the way home. That was a big change.

Second, never, ever, make a judgment about a patient or another provider in the medical record—ever. Not only is it unprofessional, but it is usually inaccurate. It makes the provider look uncaring, which fosters an assumption that the patient is not getting the best care. It is the "frequent flyers," chronic pain patients, drunks and "over-exaggerators" who are the most challenging because they need to be objectively examined every visit.

Authors: Did the involvement of a mid-level provider (MLP) increase the risk of a bad outcome?

JS: I don't think so in this case. But, anytime there is communication between providers about patients, particularly with an unclear diagnosis, there is a strong risk of framing or anchoring bias. Here, the MLP presented the patient as having a shoulder strain. The patient himself related his symptoms to lifting on the previous day. He did not tie in the fevers and chills.

In cases such as this, biases are difficult to escape. But again, where things do not add up, take a step back and try to think of what else could be going on. Ask the history questions again. Physical exam was not useful here in terms of making this diagnosis, except to the extent that there was zero range of motion and extreme tenderness to palpation, but that

64 • Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

wasn't until the following day. Still, pain out of proportion in a successful fireman is a bit unusual and probably deserves a second look (thus the second provider).

It is OK to tell a patient that you do not yet have a good explanation for what is going on and that is not unusual in many disease processes. Here, the patient's wife testified that the ED didn't do anything for her husband's condition, and she didn't feel that would change if she returned. Perhaps framing the aftercare instructions differently would have allowed her to feel more comfortable about returning.

Authors: Who is legally more responsible, the doctor or MLP?

JS: This depends upon state law. In some states, the MLP is acting under the physician's license, almost like a resident. In others, the MLP may practice independently. In this case it is a moot point, because the physician went and did his own exam and is therefore equally, if not more, responsible. The responsibility rests on the person with the highest level of training, who had direct involvement in the case.

Authors: Are you surprised by the jury's decision in this case?

JS: Absolutely. Even where the standard of care seems clear, one is not guaranteed a certain result. I agree with Dr. Henry that anyone could have missed this case, and that at the time of presentation, proper care was given.

Yet, there were so many things that a jury could have latched onto. The first was the sympathy factor, since this was a shocking, sudden, horrific loss. The second was the judgment about the patient in the medical record. It gave the impression that the patient was not taken seriously and raises the question whether or not the outcome could have been better with a more thorough and thoughtful evaluation; would the physician have gotten more labs such as a CBC, sed rate, CK, or CRP? How about a chest CT? Juries love to latch onto anything that will allow them to help a sympathetic cause. The images of the patient urinating on a gas pump and vomiting right after leaving the hospital are powerful.

Authors: How would you approach the plaintiff and defense strategies?

JS: In terms of winning this case, the plaintiff should not have focused so heavily on the recommendation from the urgent care physician because that wasn't the diagnosis anyway. He should have focused on what else it could have been, given that things didn't add up. He could have emphasized what other diagnostic imaging could have been ordered to find the diagnosis. I would have hammered [the point] that this patient's significant signs of disease were discounted, as evidenced by the fact that within minutes of discharge he was not able to function normally. Was there really such a big change within minutes? I would argue that the patient and family must have been made to feel that their problem was insignificant because they chose not to go back to the emergency department, even despite these significant changes.

To win a case, there should be clear and convincing negligence. Here, that wasn't the case. Further, there has to be harm caused by a delay in diagnosis. One of two leading experts in infectious disease testified that this process was such that the patient would not

have survived, regardless of the time of diagnosis. We are governed by a legal system in which physicians are afraid of being sued, even when they have met the standard of care or when the standard of care is not completely clear. Dr. Henry said, "This case represents what's wrong with the American system of justice." I agree.

VII. Medical Discussion—Diagnosis and Management of Necrotizing Fasciitis and Myositis

Guest author: David Andrew Talan, MD, FACEP, FIDSA

Professor of Medicine, UCLA School of Medicine Chair, Department of Emergency Medicine, Olive View-UCLA Medical Center Faculty, Division of Infectious Diseases, Olive View-UCLA Medical Center

Dr. Talan serves on the editorial boards of the Annals of Emergency Medicine, Emergency Medicine News and Pediatric Emergency Care and is a reviewer for Clinical Infectious Diseases, JAMA and The Medical Letter. Dr. Talan has written and researched extensively on infectious diseases. He is triple boarded in emergency medicine, infectious diseases and internal medicine.

I review cases both for plaintiffs and defense. I have opined and testified for both sides, although my opinions often do not support the case of the referring attorney. My academic niche is the intersection of emergency care and infectious diseases. I am primarily an emergency physician, but occasionally practice as an infectious diseases consultant, and as such, I am frequently asked to review medical-legal infectious disease cases that involve emergency department care.

This case is more than an intellectual exercise for me since I was actually a defense expert and testified at the trial. I felt that the care provided met with the applicable standard of care and that, even had the diagnosis of necrotizing myositis been suspected at the first emergency department visit, it was unlikely that Mr. Lykins would have survived.

In order to address the issue of negligence, one has to consider both the epidemiology and presentation of patients with necrotizing skin and soft tissue infections. Severe pain is a typical finding and was certainly present in this case. However, pain is an ubiquitous and non-specific symptom, and patients themselves frequently misdirect physicians by ascribing more logical explanations for it than a rare and otherwise occult infection.

As we witnessed in this case, Mr. Lykins, who certainly was well experienced in demanding physical activity and his body's response, consistently related his symptoms to mechanical lifting. Even later, when his infection was suspected, he pointed to a lifting injury. The emergency staff demonstrated diligence in contacting Mr. Lykins' primary care physician, and they certainly could not be blamed for his offering that Mr. Lykins sometimes "overreacts."

Certainly cynicism about a patient's complaint of pain is a common trap in evaluating parenteral drug abusers who are at risk for necrotizing fasciitis. In the absence of more

66 • Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose

specific findings of a skin and soft tissue infection, these explanations for the cause of Mr. Lykins' pain made diagnosis much more challenging.

A skin and soft tissue infection is suspected when there is a mechanism to acquire an infection and is accompanied by supportive findings. The lack of a predisposing factor, such as a wound, needle use, chronic lymphedema, vascular insufficiency or diabetes, was a compelling factor to direct the diagnosis away from infection.

The examinations recorded also were consistent in their description of the absence of redness, warmth, and swelling, the more specific hallmarks of infection. There were no signs of crepitance or soft tissue gas on X-ray, no other skin findings sometimes seen in necrotizing syndromes, such as hemorrhagic blebs and darkly discolored skin, and no evidence of compartment syndrome. Vomiting was present, but it is a non-specific symptom and one that would more commonly accompany severe pain due to a musculoskeletal injury than be one of only a few other symptoms of an occult infection.

The urgent care physician suspected a septic joint at the visit preceding the emergency department evaluation, and limitation of range of motion was present. However, as documented on examination and implied by the extent of the X-rays ordered, the area of tenderness extended well beyond the joint, and there were no local inflammatory findings.

Certainly, an emergency physician is not obligated to pursue a diagnosis made by a previous provider if he or she does not observe findings to support that diagnosis, particularly when this would require an invasive diagnostic procedure (i.e., arthrocentesis). In retrospect, we know that had the joint been tapped, it would have been negative anyway.

Knowledge of the patient's history of fever was a major issue in this case. I am not critical of the emergency department staff for not calling the urgent care physician since no reasonable expectation existed that he would be able to provide any information that would not be directly available from the patient and his wife. The emergency department nurse should record her notes legibly, and good practice dictates that a PA or doctor should read the nursing notes.

While it is natural in light of the subsequent tragic consequences of this case to be critical of the inconsistency among provider notes, ultimately providers have to independently confirm a patient's history. The emergency department attending physician specifically documented in his contemporaneous charting that Mr. Lykins "has not had fever" and that the patient was afebrile during his stay, and the physician clearly considered the diagnosis of a septic joint. Unless one concludes that the attending fabricated this history, in the absence of other findings to suggest infection, I think that his evaluation and diagnosis were reasonable.

Of note, an admitting physician later recorded that Mr. Lykins had a fever a few days before, which may have explained the apparent inconsistency of the histories and helped

explain the pathogenesis of the disease. Mr. Lykins was ultimately diagnosed with Group A streptococcus necrotizing myositis. This was a bacteremic infection that may have very well started out as a streptococcal pharyngitis, perhaps accompanied by fever, which then localized to an area of damaged tissue. Perhaps, this was due to the injury of the left shoulder Mr. Lykins described. Why some patients with terrible infections do not mount fever, even many hours after taking antipyretics, is one of the cruel ironies of human biology and a circumstance that can lead to delayed diagnosis, one that is generally over-represented in medical malpractice cases.

It was suggested that a complete blood count should have been sent for analysis, perhaps triggered by a history of fever, and its results would have led to an earlier diagnosis. Whereas this is possible, I think it's unlikely. Mr. Lykins' total white blood cell count would have likely been elevated, consistent with infection but also consistent with severe pain from a rotator-cuff tear. Similarly, the proportion of neutrophils could have been non-specifically elevated. The lab at this hospital did not report immature neutrophils, so that information would not have been available. The white blood cell count could also have been normal, since it was normal the next day despite progression of the infection.

A laboratory-based scoring system has been developed for the diagnosis of necrotizing fasciitis, called the Laboratory Risk Indicator for Necrotizing Fasciitis.² It consists of the following components: elevated white blood cell count, creatinine, C-reactive protein, glucose, decreased hemoglobin and decreased serum sodium. These components were largely derived from patients with clinically-obvious necrotizing infections and uncomplicated cellulitis, and therefore it is unclear if this index would be helpful at an earlier stage of disease in patients like Mr. Lykins, without local signs of a skin and soft tissue infection. The only diagnostic test that would have been of value is inspection of the deep tissue in the operating room—good luck getting a surgeon to take a patient without any local findings.

The treatment of a necrotizing skin and soft tissue infection is immediate surgical debridement or amputation of all non-viable tissue, antimicrobials and hemodynamic support. In this case the etiologic pathogen was Group A streptococcus, an organism that is susceptible to many antibiotics, including penicillin. Both clinical and experimental data support the adjunctive use of antibiotics that inhibit protein translation at the ribosome, such as clindamycin and linezolid, in order to block toxin production and kill organisms that are metabolically active but at stationary growth. Controversy exists around the efficacy of intravenous immunoglobulin (IVIG).

The reason that infectious diseases are among the most common diagnoses leading to malpractice suits is that they are potentially curable, provided that the diagnosis is suspected early enough. In this case had a surgeon been willing to take Mr. Lykins to the operating room to explore his shoulder area for evidence of necrotizing fasciitis on the evening of the first emergency department visit, it is likely that this diagnosis would have been confirmed about 24 hours earlier than it was. Logically, this would have increased Mr. Lykins' odds of surviving the infection.

However, his chance of survival would have to meet the legal standard of more likely than not (i.e., 51%), in order to be sufficient to support causation. No studies exist in which patients with suspected life-threatening infections were randomized to immediate or delayed therapy and then followed for their outcome. Therefore, causation is largely expert opinion based on:

- Known outcomes of the disease
- The health of the host
- The condition of the host and extent of the infection at the time of the possible earlier diagnosis
- The virulence and susceptibility of the infecting organism(s)
- The time difference between the possible earlier and actual treatment

In this case, the overall mortality associated with necrotizing fasciitis is about 30%.³ Prognosis is worse in patients with advanced age and co-morbidities and if shock is present. In this sense, causation would be supported since Mr. Lykins was in good health and, at the time of the first emergency department visit, he was hemodynamically stable. However, the deeper the infection, the worse the prognosis, and when it substantially involves the muscle, (necrotizing *myositis*), the mortality is much higher—one review suggests it is uniformly fatal.⁴

In addition, since debridement is the cornerstone of treatment, outcome also is greatly affected by the site of infection and the potential for tissue to be safely removed. In the case of truncal infections, as occurred here, options for amputation are limited. Since Mr. Lykins localized his symptoms to the shoulder and upper chest, even had he been diagnosed earlier, there was a very good chance he would not have survived.

VIII. Authors' Summary

What can we take away from this tragic case?

- Progress notes: Two were done and well done. There was a lot of data from which to defend this case. Of course, it's better if it doesn't even go to trial in the first place ...
- Always read the nurse's notes. A history of fever without alternative explanation may have prompted consideration of this disease entity.
- Be careful about using conjecture in the chart. Even the defense attorney told the jury that use of the word "overreact" was unfortunate. Think of it this way: if the patient actually is overreacting, it doesn't help you. And if the patient actually has something bad, it *definitely* hurts you.
- Ensure protocols exist so records are not inappropriately discarded. Pen your initials, date and time on the records before scanning into the chart.
- Discuss diagnostic uncertainty with the patient and the family so they know exactly when and why to return.

References

- 1. Waddell G, McCulloch JA, Kummel E, et al. Non-organic physical signs in low back pain. Spine 1980;5:117–25.
- Wong CH, Khin LW, Heng KS, et al. The LRINEC (Laboratory Risk Indicator for Necrotizing Fasciitis) score: a tool for distinguishing necrotizing fasciitis from other soft tissue infections. Crit Care Med 2004 Jul;32(7):1535–41.
- 3. Stevens DL. Invasive Group A streptococcus infections. Stevens DL. Clin Infect Dis 1992 Jan;14(1):2–11.
- 4. Yoder EL, Mendez J, Khatib R. Spontaneous gangrenous myositis induced by Streptococcus pyogenes: case report and review of the literature. Rev Infect Dis 1987;9[2]:382–5.

^{70 •} Case 2: A 42 Year-Old Fireman with Shoulder Pain: When a Lifeline Becomes a Noose