Tittle: Misdiagnosis of Small Bowel Obstruction in the Setting of Previous Abdominal Operations

The Case

A man in his mid-40s with a history of hypertension treated with atenolol and losartan, obesity, and an umbilical hernia repair, presented to the emergency department (ED) with abdominal pain. The ED physician documented 3 days of constant, non-radiating epigastric abdominal pain associated with nausea but no vomiting or diarrhea, fever, or chills. The triage nurse documented pain intensity 8 of 10, blood pressure 150-160 mm Hg systolic, and heart rate 70-100 beats per minute. The physical exam was notable for guarding and a small periumbilical knot, which was not new. Laboratory studies included a hemoglobin of 18.4 (i.e., slightly elevated) and leukocyte count of 8.4 with 75% neutrophils. Liver function tests were normal except for an elevated total bilirubin of 2.4, which was mostly indirect. The metabolic panel was normal except for borderline elevation of serum creatinine, higher than his baseline. Abdominal ultrasound showed fatty liver, mild ascites, and gallbladder sludge without gallstones.

While awaiting test results, the ED physician ordered a "GI cocktail," which provided no relief. Two small doses of intravenous morphine followed. A nurse documented his pain going from 8 to 10 before the morphine, then back to 8 afterwards. Repeat abdominal exam was unchanged. The patient was discharged home with a diagnosis of "cholelithiasis", prescriptions for ondansetron and hydrocodone/acetaminophen, and an outpatient referral to general surgery.

The following day, the patient's wife took him to another ED with similar symptoms, but this time the pain was documented as periumbilical. It was also noted that he had not been passing flatus. Vital signs and physical examination were similar, but a right lower quadrant scar was documented. Laboratory test results were also similar except that the hemoglobin was even higher as was the urine specific gravity at 1.039. Abdominal computed tomography (CT) demonstrated a high-grade small bowel obstruction with a small amount of free fluid or ascites. The patient was taken to the operating room for lysis of adhesions but died 3 days later. An autopsy listed the cause of death as multi-organ failure and sepsis caused by necrotic bowel and peritonitis from small bowel obstruction caused by a ventral abdominal hernia with adhesions.

Tittle: From Pain Relief to Risk: A Case of Suspected Opioid Overdose in a Pediatric Patient

The Case

A previously healthy 2-year-old male underwent uncomplicated urologic surgery for hypospadias repair. For pain control, the patient was initially prescribed a 5-day course of hydrocodone-acetaminophen 7.5-325 mg/15 mL solution. Instructions were to give the patient 2.2 mL (1.1 mg hydrocodone and 48 mg acetaminophen per dose) by mouth 4 times daily as needed for pain. Routine follow up was scheduled for 13 days after surgery.

Two days after surgery, the patient was brought to the Emergency Department (ED) due to inconsolable crying. The ED workup was unremarkable, and the patient was deemed appropriate for discharge. At this time, the patient's prescription for pain control was changed from hydrocodone-acetaminophen to oxycodone 1 mg/mL. Instructions were to give the patient 2.3 mL (0.2 mg/kg/dose) by mouth every 4 to 6 hours. The total quantity dispensed was 64.4 mL (4.6-day supply). Family education on the use of opioids or their adverse effects was not documented at the

time of initial discharge after surgery or upon discharge from the ED. Naloxone was not prescribed on either occasion.

Four days after discharge from the ED, the patient became apneic, cyanotic, and unresponsive at home. Emergency first responders were called to the scene and the patient's cardiac rhythm was determined to be pulseless electrical activity. First responders began cardiopulmonary resuscitation and administered naloxone and two doses of epinephrine. Upon arrival at the ED, continued resuscitation was unsuccessful, and the child was declared deceased. There was a high suspicion that the patient's cardiopulmonary arrest was due to opioid overdose.

Tittle: Mismanagement of Acute Decompensated Heart Failure with Hypertensive Emergency

The Case

The patient was a 55-year-old woman with a history of panic attacks, class III obesity, and previously untreated hypertension who presented to the emergency department (ED) for an episode of syncope while sitting at church. On arrival, the patient reported a prodrome of flushing, diaphoresis, and lightheadedness. She lost consciousness for an unknown length of time and awoke with a headache but no confusion. Initial vital signs included a severely elevated blood pressure (BP) of 218/177 mm Hg, borderline heart rate of 102 beats per minute, and low oxygen saturation of 90% on room air. Electrocardiography (ECG) showed sinus tachycardia without ischemic changes. She was given an intravenous (IV) bolus of one liter of normal saline and ibuprofen for her headache.

Laboratory testing was notable for creatinine 1.83 mg/dl with unknown baseline, brain natriuretic peptide (BNP) markedly elevated at 3723 pg/mL, and troponin-I elevated at 1.20 ng/mL. Computed tomography (CT) of the head without contrast was negative for acute intracranial processes, but the chest x-ray showed pulmonary edema. After these results, the working diagnosis changed to acute heart failure exacerbation and the patient was given furosemide 40 mg IV. To treat her hypertension, she was given two doses of labetalol 10 mg IV and admitted to the general ward after her systolic BP dropped below 160 mm Hg. The next morning, while she remained as a boarder in the ED awaiting transfer to the ward, the patient's systolic BP was again over 200 mm Hg, and she was given isosorbide mononitrate 60 mg by mouth. Her blood pressure failed to improve, and she developed oliguria. Cardiology was consulted and recommended to transfer the patient to the cardiac intensive care unit (ICU) for continuous nitroglycerin infusion.

After transfer to the ICU, a transthoracic echocardiogram showed global hypokinesis with an ejection fraction (EF) of about 20% (i.e., less than half the normal value). Despite nitroglycerin infusion, the patient developed worsening hypoxic respiratory failure and somnolence requiring intubation. Immediately after intubation, the patient suffered cardiac arrest; the initial rhythm was pulseless electrical activity (PEA). After two cycles of cardiopulmonary resuscitation (CPR), spontaneous circulation returned. Magnetic resonance imaging (MRI) of the head showed a left cerebellar hypodensity concerning for ischemic stroke, intraventricular hemorrhages in the right hemisphere, and signs of increased intracranial pressure. An external ventricular drain was emergently placed, but she failed to make meaningful neurologic improvement. The patient's spouse and children agreed to transition the goal of care to comfort, after which she was extubated and died.

Tittle: A Fatal Twist in Pseudohyperkalemia

The Case

A 54-year-old man with a history of tobacco use presented to the emergency department (ED) with a chief complaint of acute chest pain. The pain was intermittent, began 2-3 weeks prior, lasted several minutes to hours in duration, and radiated to his left arm. The patient thought the pain was related to his diet and put himself on a juice cleanse one week before his presentation. On arrival at the ED, he was afebrile, heart rate was 98 beats per minute (bpm), blood pressure was 103/87 mmHg, and oxygen saturation was normal on supplemental oxygen. On physical examination, the patient had bibasilar rales and 1+ bilateral lower extremity edema. His 12-lead electrocardiogram (ECG) demonstrated normal sinus rhythm and right bundle branch block (RBBB). There was also prolongation of the QT interval, flattened T waves, and small U waves that were not recognized by either the machine or the ED physician. Laboratory tests were notable for hyponatremia to 126 mEq/L, hyperkalemia to 5.9 mEq/L, elevated creatinine to 1.4 mg/dL, moderately elevated troponin, and normal serum magnesium and calcium. The lab sample was reported as hemolyzed, but this finding was not recognized by the treating physician. Chest x-ray revealed mild cardiomegaly and pulmonary vascular congestion.

The patient subsequently developed atrial fibrillation with rapid ventricular response at approximately 120 bpm. Cardiology was consulted and recommended initiation of heparin, amiodarone, and metoprolol. The patient also received treatment for hyperkalemia with albuterol, intravenous calcium, insulin with 50% dextrose, sodium bicarbonate, and furosemide. Soon after receiving these medications, he became unresponsive and pulseless. Torsades de pointes (TdP) was present on telemetry, though this was interpreted as ventricular fibrillation (VF) and treated with epinephrine, amiodarone, and sodium bicarbonate. Despite routine resuscitative efforts, return of spontaneous circulation was not achieved. Autopsy confirmed sudden cardiac arrest without myocardial infarction as the cause of death.

Tittle: Management of CSF Leaks After Elective Spine Surgery: Routine Laminectomy Leads to Fatal Discitis and Sepsis

The Case

A 70-year-old man underwent a L4-5 decompressive lumbar laminectomy and discectomy. The surgery was complicated by an intraoperative durotomy. Immediately after the operation, the surgeon informed the patient and instructed him to lie flat on his back for several days. The patient was subsequently discharged home. On postoperative day (POD) 6, the patient reported clear drainage from the surgical site. He was advised to continue to lie flat on his back until the drainage stopped. By POD 12, the patient noted ongoing clear fluid drainage, now accompanied by positional headaches. After re-evaluation by the spine surgical team, he was instructed to continue lying flat and to return the following day for further assessment. At the follow-up visit, the surgeon suspected a cerebrospinal fluid (CSF) leak based on examination. Bed rest was extended for another 5 days. However, drainage persisted, prompting further observation and a course of oral antibiotics.

On POD 22, at a subsequent clinic follow-up, the patient reported intermittent chills, continued drainage, and pain at the surgical site. Examination by the surgical team revealed a wound defect with "scant white/yellow liquid." Wound care was initiated with home health nurses performing wet-to-dry dressing changes. Peroxide-soaked sterile cotton was applied to the drainage site after manual expression of discharge. On POD 25, the wound appeared to have dehisced, and the patient was readmitted to the hospital for advanced wound care and intravenous antibiotics. On POD 29, the wound was explored but no dural defect was found. Intraoperative cultures were negative for bacteria. The patient was discharged, but his condition worsened over the following week, with increasing back pain. On POD 42, the patient was readmitted and diagnosed after magnetic resonance imaging (MRI) with discitis and osteomyelitis. He was diagnosed with sepsis, which did not respond to escalating antibiotic treatment. On POD 50, he died after an episode of aspiration and cardiopulmonary arrest.

Tittle: Neurological Red Flags: A Missed Stroke after Intermittent Episodes of Dizziness and Headache

The Case

A patient in his mid-30s with no significant past medical history other than some recent dental work presented to an emergency department (ED) with 3 weeks of intermittent left-sided headaches associated with listing or leaning to the left. On the day of presentation, he awoke with the same headache and balance issues but also about 15 minutes of difficulty speaking and moving, both of which resolved before arrival at the hospital. Vital signs were normal, and the ED provider also documented a normal neurologic exam, including normal finger-nose, heel-shin, balance, and tandem gait testing. Nystagmus was not documented but no maneuvers were performed. The electrocardiogram, blood chemistries, and complete blood count were all normal. Non-contrast computed tomography (CT) of the head was reported as normal, although later evaluation identified subtle abnormalities that were missed. No neurology consultation was obtained. The patient was discharged home with neurology follow-up and a final diagnostic impression of headache, dizziness, and sleep paralysis.

About 5 hours after being discharged from the ED, the patient’s wife witnessed him posturing or possibly having seizures and called 911. He required intubation in the field due to decreased consciousness and hypoventilation. The new ED physician at the same hospital documented no withdrawal to pain but some left arm motion. A stroke code was not initiated, but neurology was consulted. Repeat head CT showed evidence of a stroke in the left occipital lobe; CT angiography showed occlusion of the distal left posterior cerebral artery with suspected dissection of the left vertebral artery. An MRI showed multiple posterior circulation infarcts of various ages. About 6 hours after arrival, the patient was transferred to an interventional stroke center, which performed emergent thrombectomy, without any immediate improvement. The patient was left with a severe neurologic deficit.

Tittle: Hypoxemia after Emergency Intubation

The Case

A 19-month-old child was brought to the emergency department (ED) via ambulance after drowning in a private pool. Per emergency medical services (EMS) report, the patient went into cardiorespiratory arrest and cardiopulmonary resuscitation (CPR) was provided by the child's mother. The patient arrived at the ED with seizures, tachypneic with a respiratory rate of 30, blood pressure of 95/62, and SpO2 89% on a bag-mask device delivering 100% oxygen. Rapid sequence intubation was induced for airway protection. The team (nurses, physician, pharmacist, respiratory therapist) huddled before the procedure to ensure that they were ready. Emergency equipment, suction, bag-valve mask, and medications were all prepared. The entire team consented that everyone was ready for the intubation procedure. After intubation, endotracheal tube (ETT) placement was confirmed by auscultation of breath sounds and observation of chest rise and fall. Imaging was called to confirm ETT placement, and the ETT was connected to the mechanical ventilator. The patient's SpO2 did not improve and dropped to 15% after 10 minutes. The team decided to re-intubate the patient. The ETT was removed and another cycle of rapid sequence intubation induction was called. The second intubation was completed and another respiratory therapist came to assist and found that the mechanical ventilator was never connected to any oxygen source.

Tittle: Importance of Following Safe Practices for Infant Feeding and Handling Expressed Breast Milk

The Cases

Case #1:

A 29-day-old infant had an uneventful stay in the neonatal intensive care unit (NICU) after birth at 30 weeks gestation. He was fed exclusively with his mother`s expressed breast milk (EBM), partially orally, and the rest via gavage (nasogastric tube) feeding. The census in the step-down NICU was high, so each nurse was assigned 3 or 4 patients. This patient's nurse was busy feeding another baby; he cried inconsolably of hunger despite his next feeding not being due until 30 minutes later. Another nurse stepped in to help, and because she was in a hurry, she did not follow the unit's policy on scanning EBM step by step; she grabbed a bottle of milk provided by a different mother with a history of testing positive for hepatitis B surface antigen. The patient was fed EBM from the wrong mother, which resulted in exposure to potentially infectious breast milk. This error was not discovered until the patient's primary nurse returned to document the quantity of milk consumed. The infant had earlier received his first dose of the hepatitis B vaccine; however, because of the exposure, the infectious diseases specialist recommended giving him hepatitis B Immunoglobulin and scheduling him for follow-up laboratory testing for Hepatitis B surface antigen at the age of 9 to 15 months. The patient's family was included in a discussion to disclose the error, creating a safe space for questions that detailed the follow-up actions the medical team took after the error was disclosed and how the facility/NICU was planning to prevent similar errors in the future.

Case #2:

A 3-day-old male newborn was born at full term via spontaneous vaginal delivery. The newborn was fed breast milk for the first three days of life while the mother and baby remained in the hospital. The mother planned to exclusively breastfeed. However, upon discharge, the mother requested a can of powdered milk to use "until her milk came in." The patient was offered but declined a

lactation consultation visit to follow up on any breastfeeding concerns. The primary nurse asked a nursing student to bring a can of formula from the storage area. The student then went to show the can to the primary nurse and verified that it was the correct formula requested by the patient, type, and brand. However, before entering the patient`s room, the student noticed that the can of formula would expire the next day. She went back to the primary nurse, who replaced the can with a fresh one with a longer future expiration date. The whole batch of formula was discarded, and a safety report was filed.

Tittle: Delayed Symptomatic Subdural Hematoma Following an Initially Normal CT Head

The Case

A man in his mid-50's presented to the hospital for a persistent headache after a sledding injury with his son 4 days earlier. He was not wearing a helmet and sledded head-first into a tree. There was no loss of consciousness and no vomiting or confusion, but the headache did not improve after four days. His past medical history was notable only for hypertension managed with amlodipine. Vital signs were normal, and a templated neurologic examination was documented as normal. No blood tests were performed, but a non-contrast computed tomography (CT) scan of the head was read as normal. Standard aftercare instructions for head injury were given.

About three weeks later, the patient saw his primary care physician (PCP), still complaining of ongoing headache that sometimes kept him up at night, for which he was using over-the-counter ibuprofen, as well as some forgetfulness and concentration difficulties as he tried going back to work. He reported also taking sertraline for a history of depression, low-dose aspirin and vitamins for preventive reasons. The vital signs and physical exam were again normal. He was diagnosed with post-concussive syndrome; no specific investigations or treatments were recommended. However, about two weeks later, the patient's wife insisted that he go back to the hospital for worsening cognition plus increased use of ibuprofen for headache. Head CT showed a large frontal subdural hematoma with midline shift. He was taken urgently to the operating room, where craniotomy was performed and the hematoma was evacuated, showing at least 3 different blood consistencies suggesting three different ages of hemorrhage.

Tittle: A Cognitive and Communication Blind Spot Contributes to Permanent Paralysis

The Case

A 38-year-old non-English speaking man with a body mass index of 45 crashed while riding a motorcycle and was brought to a trauma center with altered mental status (Glasgow Coma Score, GCS 6) and respiratory distress. Attempts at endotracheal intubation were unsuccessful, so an emergency cricothyroidotomy was performed. Subsequent computed tomography (CT) imaging revealed trace left occipital subarachnoid hemorrhage, right occipital condyle fracture, C6-C7 traumatic disc rupture, bilateral pulmonary contusions, right hemopneumothorax with 6th through 9th rib fractures, left hemothorax with 3rd through 7th rib fractures, T6 spinous process fracture, and a proximal left humerus fracture. The patient remained mechanically ventilated for altered mentation and presumed aspiration pneumonitis. On hospital day 2, the primary trauma surgery team ordered magnetic resonance imaging (MRI) of the brain, due to concern regarding possible hypoxic-ischemic encephalopathy, and spine consultants requested concomitant MRI of the spine

to determine whether operative stabilization of the C6-7 injury might be necessary. These studies, completed on hospital day 6, showed no evidence of traumatic or hypoxic brain injury and no ligamentous injury; the radiologist noted "minimal cervical spine epidural blood or fluid with no compromise of the spinal cord." This incidental finding was not documented in progress notes by either the trauma team or the spine surgery team.

In the meantime, on hospital day 4, the patient had been started on 7500 units of unfractionated heparin every 8 hours due to his risk of venous thromboembolism. He slowly regained consciousness and the ability to intermittently follow commands in his primary language, but he remained mechanically ventilated for respiratory failure and aspiration pneumonia, immobile most of the time. On hospital day 7, the patient's nurse documented that the patient withdrew his lower extremities (LE) to stimuli, but then documented no LE response the following day. On hospital day 9, the nurse documented "unable to move BLE, sensation intact, team aware." However, the trauma surgery team's progress notes described the neurological exam as "moves all extremities" during hospital days 5-10. By hospital day 13, the patient's inability to move his legs was recognized by all care providers and a repeat MRI study showed a large C3-C7 epidural hematoma with cord compression. The patient underwent emergency laminectomy and decompression but had persistent virtually complete paralysis below the C7 level upon hospital discharge and at follow-up six months later.

Tittle: A Tale of Two Falls

The Cases

Case #1: A 79-year-old woman with a history of impaired cognition at baseline was brought from a skilled nursing facility to the emergency department (ED) for evaluation of shortness of breath. Her physical exam was notable for altered level of consciousness, increased respiratory effort, audible wheezing and diffusely diminished breath sounds, hypotension, and bradycardia. She was initially treated with albuterol without improvement, which prompted the initiation of bilevel positive airway pressure (BiPAP). The chest x-ray demonstrated opacity of the right lung due to pleural effusion and atelectasis. A bedside thoracentesis was planned. Given her clinical condition, a fall risk armband was applied, and general safety and fall-prevention measures were implemented.

During the thoracentesis, the clinician lowered the right side-rail, but the side-rail was not raised after the procedure was completed. While the clinician was relaying the care plan to the nurse at the nurses' station, a thud was heard. The patient was found on the floor lying on her right side. She sustained head trauma, blunt trauma of the cervical spine, right rib fractures, and a right femur fracture. A cervical collar was placed, and conservative treatment was ordered.

Case #2: An 81-year-old woman with a history of dementia and atrial fibrillation on apixaban was brought in by ambulance for evaluation of generalized weakness and a ground-level fall at home, where she was living independently. At the initial ED presentation, she was alert and oriented, and her vital signs were stable, with a blood pressure of 110/79, heart rate of 86, respiratory rate of 16 breaths per minute, and pulse oximeter reading of 96% on room air. Her initial workup was significant for a pulmonary embolism in the right lung.

When the clinician came to the patient's room to describe the care plan, the patient was found on the floor confused. The clinician verbally recommended remote video observation or application of a belt restraint to prevent another fall. A belt restraint was applied to the patient; however, no order was written. A few moments later, after the patient was assigned an inpatient bed, the ED nurse notified the receiving nurse of the impending transfer, but no direct verbal handoff was provided.

The patient transport team transferred the patient from the ED to the inpatient unit. The receiving nurse asked the transport team and attempted to contact the ED nurse about the indication for the belt restraint, but no information was available, and the electronic health record (EHR) did not show any orders or notes explaining the clinical indication for a belt restraint. The patient was alert and cooperative, so the receiving nurse removed the belt restraint and the patient was transferred from the gurney to the bed. Twenty minutes later, a thud was heard from the patient's room, and the patient was found face-down on the floor, confused with a hematoma on her forehead. A head CT revealed a new left subdural hemorrhage, and she was treated conservatively, with monitoring for neurological changes.

Tittle: Errors in Managing an Open Wound of the Elbow Leading to Multiple Complications and Operations

The Case

A man with a history of hypertension and fatty liver disease presented to a local emergency department (ED) after a motorcycle crash. He lost control in a turn and landed in the dirt on the side of the road. He was wearing a helmet and denied head injury, loss of consciousness, or neck pain. However, he was only wearing a short sleeve shirt and jeans, not his usual riding jacket. On exam, vital signs were normal, and the physician documented two "superficial lacerations over the left olecranon with some wood chips in them." X-rays were ordered and the radiologist noted "multiple tiny foreign bodies adjacent to the olecranon process." The ED physician documented that "foreign bodies were removed, the wounds were scrubbed and sutured with loose closure." No repeat x-ray was performed. The patient was discharged home with a prescription for cephalexin and instructions to return in 10-14 days for suture removal.

Three days later, the patient returned to the same ED for increased pain, swelling, and redness involving the left elbow. He denied fever or chills, and vital signs were again normal. The ED physician noted erythema, induration, and drainage of pus. The sutures were removed, the wound was irrigated, and additional wood fragments and gravel were removed. The wound was packed open, and the patient was sent home with doxycycline to add to the cephalexin. On a scheduled return visit the following day, the wound was inspected and sutured again, but no x-rays were obtained. Eleven days later, one or two days after finishing doxycycline, the patient went to an urgent care clinic for ongoing swelling, redness, and drainage from the elbow wounds. He denied fever or chills, and vital signs were again normal. The sutures were removed, the wound was explored, and more foreign material was extracted (described as soil plus a "1 cm x 3 cm piece of wood"). No x-ray was taken, and the patient was sent home on oral clindamycin and referred to his primary care physician for follow-up with a surgeon. The patient eventually developed osteomyelitis requiring multiple operations and a prolonged hospital stay.

Tittle: Hypoxic Gas Supply from Cross-Connected Pipelines

The Case

An 8-year-old boy with no significant past medical history was referred for ultrasound evaluation of neck masses. Imaging revealed a multiloculated, heterogenous lesion in the left submandibular and upper cervical area. Aspiration for cytology assessment was performed with ultrasound guidance, under inhalation anesthesia with local infiltration anesthesia of the operative site. The procedure was concluded in about 3 minutes without immediate complications.

Following the procedure, an oxygen mask was applied but both oxygen saturation and heart rate plummeted. Cardiopulmonary resuscitation (CPR) was initiated with immediate endotracheal intubation, but the patient did not respond, even after multiple doses of intravenous atropine, epinephrine, volume expanders, calcium chloride, sodium bicarbonate, and steroids. After an unrevealing physical examination and cardiology consultation, the team disconnected the patient's oxygen tubing from the wall outlet and reconnected it to a portable oxygen cylinder, which yielded immediate improvement of oxygen saturation. The patient was transferred to the intensive care unit (ICU) on a ventilator, but the neurological examination revealed fixed and dilated pupils with no response to light or deep pain stimulation (Glasgow Coma Score 3). He remained deeply comatose with poor peripheral perfusion and episodic seizures, treated with antiepileptic medications. The patient sustained three more episodes of cardiopulmonary arrest and finally died.

The hospital's root cause analysis revealed that the wall outlet marked for oxygen was connected to nitrous oxide. It was not clear how the gas pipes were misconnected, but this error apparently followed maintenance by an inadequately trained new employee. In addition, the anesthesia machine circuit lacked an oxygen analyzer, and the machine's self-calibration did not check the gas source. There was some role ambiguity regarding supervision and sign-off of completed maintenance jobs, and the code team had no protocol for changing gas outlets during unsuccessful resuscitations.

Tittle: Infection After Carpal Tunnel Surgery

The Case

A woman presented for surgery on her right wrist as a treatment for carpal tunnel syndrome. There were no reported complications during the operation, and the patient was discharged from the hospital the same day. Before discharge, the surgeon instructed her to return in 10 days for suture removal. The surgeon also told the patient not to soak her hand in water, which would reduce the risk of infection. A nurse provided written discharge instructions that stated, "Keep hand clean and dry until sutures removed; no soaking hand in water." Within three or four days, the patient reported that her wrist felt "warm" to the touch, and the incision area was red. The patient contacted the surgeon's office and spoke to the medical assistant (MA), but no action was taken. The patient called the surgeon's office multiple times, asking for more or different pain medications, which were refused. The MA did not document each call but reportedly discussed each call with the surgeon. The MA stated that the patient never reported that the wound was red, hot, foul-smelling, swollen, or anything else suggesting an infection. Approximately 7 to 10 days after the operation, the patient returned for suture removal. The surgeon's MA removed the patient's sutures and noted

that the wound was not infected or swollen. The surgeon's physician assistant (PA) also examined the patient and did not find any remaining sutures, nor did she see any infection or redness. One day later, the patient called and asked to see the surgeon, but she was denied because the MA said her wrist was "fine." The patient continued to report pain, swelling, and redness, noted that her wrist began to ooze at the incision, and reported an odd smell. She called several times, but no follow-up visit was scheduled. The MA claimed that the patient never mentioned redness or pain after the sutures were removed, and if she had reported such symptoms, the MA would have immediately brought the patient in and told the surgeon.

Two weeks after surgery, the patient went to an emergency department (ED) seeking treatment for worsening wrist pain. ED physicians diagnosed an infection, prescribed antibiotics, and told the patient to schedule an appointment with her surgeon. Three days after the ED visit, the patient spoke to the surgeon's office and made a follow-up appointment for the next day. At that appointment, the surgeon recommended immediate surgery to treat the infection. The patient remained in the hospital for 11 days, during which she underwent two additional operations. She eventually recovered but lost significant use of her right hand.

Tittle: Don't Wait to Collect an Accurate Weight: A Case of Subtherapeutic Insulin Therapy

The Case

A 16-year-old girl with type 1 diabetes presented to the emergency department (ED) complaining of dizziness, fatigue and a "high" reading on her home blood glucose monitor. Initial laboratory tests suggested diabetic ketoacidosis (DKA), consistent with the clinician's impression that the patient's insulin pump was malfunctioning. Despite aggressive treatment with insulin drip at a basal rate of 0.1 unit/kg, her blood glucose remained high and the anion gap closed much slower than expected, given that this patient had a history of DKA episodes that had previously responded rapidly to insulin infusion.

Late on day 2 of the admission, it was discovered that the admitting nurse and resident in the pediatric intensive care unit (PICU) had used the patient weight recorded in the ED to calculate and verify the insulin drip rate. Their rationale was that it was late, and the patient was tired when she arrived to the PICU. Her actual weight was 30 kg more than the weight documented in two different electronic health record (EHR) systems. Root cause analysis revealed that the weight in the ED had been marked as "stated" by the patient, which the patient verified when asked, but she had simply guessed at what she might weigh. Once the patient's weight was corrected and her insulin dose was adjusted, she improved quickly and her DKA resolved within 12 hours.

Tittle: Intraoperative Awareness during Rhinoplasty

The Case

A 33-year-old woman in good physical health presented to the hospital for elective rhinoplasty. During the operation, she became aware that she was awake. She heard the conversation among the surgical team members and felt pressure on bone in her nose, but she did not feel pain. The patient also felt that the breathing tube was pushed up against the inside of her throat, impeding her ability to breathe. She was unable to move but recalls making a "monumental effort" to utter a small groaning noise, which alerted the surgeon to the fact that she was awake. She heard the

surgeon verbally acknowledge her condition and offer reassurance that the operation was almost over. It was her impression that the surgeon rushed to finish the operation while full anesthesia was restored, and she later awoke in the recovery room without complications. During the first follow-up visit, the surgeon did not address the situation, so the patient brought it up at the end of the visit. The surgeon seemed surprised and embarrassed that the patient remembered waking up during the operation but could not explain what happened.

Tittle: Misplaced Vial: Medication Kit Variability Contributes to Medication Error During Patient Transport

The Case

A 19-month-old boy was found unresponsive and not breathing by a parent; 911 was called and the patient was found to be in cardiopulmonary arrest with no respiratory effort. Comprehensive resuscitation efforts were carried out during and after transport to the closest emergency department (ED). Return of spontaneous circulation (ROSC) was noted after 60 minutes of resuscitation. Arrangement was made for transfer to a tertiary medical center via critical care transport. During transport, the patient was on mechanical ventilation and receiving fluids and vasopressors by intravenous infusion. The clinician(s) noted ventilator desynchrony and decided to initiate neuromuscular blockade. They opened an emergency medication kit and quickly retrieved a vial from a plastic bag labeled “intubation medications” (Figure 1). A vial, presumed to contain rocuronium, was opened and the medication was administered, without the intended paralytic effect. An open vial of flumazenil was then found on the gurney, confirming that this benzodiazepine antagonist had been administered instead of a paralytic agent. The clinician promptly corrected the error by administering the appropriate dose of rocuronium. No adverse reaction was noted due to administration of flumazenil in this context. The patient was successfully transferred to the receiving hospital for further care.

Root cause analysis revealed that the vial of flumazenil had been incorrectly placed in the “intubation medications” portion of the medication kit. Several copies of the same kit were opened following the event, and the spatial arrangement of items varied across kits. A visual reference existed to assist in preparing these kits; however, the images printed on paper did not clearly display the intended contents of the intubation medication bag (Figure 2). In response to this event, a new reference kit was created with clearer labeling and separation of individual drugs within the “intubation medications” bag (although drug shortages mandated inclusion of two different rocuronium products, which may still cause confusion) (Figure 3).

Tittle: Hemorrhagic Shock after Elective Spine Surgery: Failure to Rescue after Limited Response to Nursing Concerns.

The Case

A 67-year-old man, in excellent health except for seasonal allergies and mild lower urinary tract symptoms (LUTS), developed severe low back pain. His only medications were nasal fluticasone and oral tamsulosin. After thorough evaluation and imaging, he was scheduled for anterior lumbar interbody fusion (ALIF) with bone autograft from the iliac crest.

The operation was performed by two surgeons; the senior spine surgeon performed the ALIF while the junior surgeon managed the incision and the bone graft donor site. The circumstances are unclear, but there was difficulty achieving intraoperative hemostasis, and the patient left the operating room (OR) with the bone graft donor site open and oozing blood. He was still bleeding in the postanesthesia care unit (PACU), where the nurse called the attending physician three times to report hypotension and oozing blood. Each time, the surgeon ordered hetastarch for volume expansion. The patient was transferred to a general surgical recovery bed, with vital signs ordered every 4 hours. Over the next 14 hours, the patient's blood pressure remained at or below 90/60, and he was described as diaphoretic, clammy, and pale, with a weak and thready pulse. He complained of back and pelvic pain, not feeling right, and expressed feelings of impending doom.

The next morning, the nurse found the patient to be "asleep" and "unresponsive." On surgical rounds, he was noted to be in hypovolemic shock and the team immediately ordered laboratory tests and a blood transfusion. Imaging of the surgical site was ordered, but before it could be completed, cardiac biomarkers returned, and electrocardiography confirmed a non-ST segment elevation myocardial infarction (NSTEMI). The patient was transferred to an intensive care unit and resuscitative efforts were initiated, but the patient expired from multiorgan failure resulting from hypovolemic shock.

Tittle: Missed Compartment Syndrome after Steep Lithotomy Position for Laparoscopic Gynecological Surgery

The Case

A 36-year-old woman with class 2 obesity but no chronic illnesses required laparoscopic hysterectomy, which was difficult and prolonged, lasting about three hours. The operation was performed in the lithotomy position, with a steep head down (Trendelenburg) position for part of the operation. Intermittent pneumatic compression devices were placed on both calves to prevent venous thrombosis, but placement was difficult because her legs were large and muscular. On awakening from general anesthesia, the patient complained of severe pain in the right leg. After examining her, the gynecologist made a presumptive diagnosis of deep vein thrombosis and put her on subcutaneous dalteparin at therapeutic dosing, to start later that evening if no bleeding. She was given acetaminophen and oral morphine for pain relief.

Through the evening after surgery, the patient continued to complain of severe pain and paresthesias in her right calf, not relieved by morphine. A doppler ultrasound scan of the right leg was negative for venous thrombosis. On the second postoperative day, the orthopedic on-call team was consulted; they diagnosed compartment syndrome of the right leg. The patient required fasciectomy of the right leg and excision of necrotic muscle tissue, with a prolonged hospital stay.

Tittle: Managing Complexity in Diagnosis: Life-threatening Complications after Gastric Bypass Surgery.

The Case

About five weeks after gastric bypass surgery, a woman began experiencing nausea and vomiting when she attempted to eat solid food, but she could keep down liquids. A physician performed an outpatient dilation procedure for a suspected postoperative stricture. Two days after this

procedure, the patient was treated for dehydration in an outpatient clinic. The next day, the patient went to the emergency department (ED) with continued nausea and vomiting, and she reported losing 100 pounds since her bypass surgery (i.e., several times the expected weight loss over this period). A computed tomography (CT) scan was performed in the ED, and she was admitted to the intensive care unit (ICU) for pancreatitis and dehydration. Her neurological and mental status examinations were documented as normal.

Within a few days after admission to the ICU, nursing documentation indicated that the patient had difficulty walking even with assistance, and she complained of a tingling sensation in her fingers and tightness in her shoulder. Additionally, the patient's vomiting had not subsided, she developed fecal incontinence, and she appeared alert but would not respond to questions, leading the physician to question if she was depressed. During the next week, the patient was unable to tolerate either food or liquids by mouth. Although a nutritional assessment suggested total parenteral nutrition (TPN), TPN was not started and the patient continued to suffer from dizziness, vomiting, and an unsteady gait, suggesting pelvic muscle weakness and requiring use of a "tether" to keep her from falling. Nurses continued to report that she was intermittently uncommunicative with a "fixed" gaze.

On hospital day 12, the patient was discharged with diagnoses of "intractable nausea and vomiting," "obesity," and "obstructive sleep apnea," with orders for TPN administration at home. The TPN order included glucose and standard nutrients but did not include any supplemental vitamins or lipids. Three days after discharge, the patient was readmitted for worsening confusion and profound motor weakness, which progressed to respiratory failure requiring mechanical ventilation. Laboratory tests revealed an extremely low thiamine level, and the patient was diagnosed with advanced Wernicke-Korsakoff Syndrome. Due to the delayed diagnosis, the patient suffered permanent brain injury requiring around-the-clock care.

Tittle: A Stable Airway? Fatal Airway Occlusion After Inadequate Post-Tracheostomy Care

The Case

A 55-year-old man with a history of osteoarthritis and supraventricular tachycardia was admitted with a 3-day history of left-sided chest pain, cough, and shortness of breath. He was found to have severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). His respiratory failure worsened, and he was ultimately transferred to the intensive care unit (ICU) and underwent endotracheal intubation and invasive mechanical ventilation. After 12 days in the ICU, he could not be weaned from mechanical ventilation and underwent a tracheostomy. Two days later, he was transferred directly to a long-term care hospital (LTCH) for continued mechanical ventilation weaning. At transfer, the LTCH did not receive tracheostomy-specific instructions (i.e., when tracheostomy tube should be changed, how it should be managed, etc.). A physician and respiratory therapist performed intake assessments, but their documentation only addressed ventilator management, not tracheostomy management (e.g., protocols for tube change, suctioning, humidification, or monitoring for mucus plugs). Several days after transfer, the patient was found to be tachypneic with a respiratory rate of 29, complaining of difficulty breathing. Increased resistance was noted with suctioning. Later that day, the patient experienced a cardiac arrest, during which the resuscitative team was unable to ventilate the patient.

On post-mortem evaluation, the tracheostomy tube was found to be plugged with blood clots and thick mucus. Retained sutures were in place with no evidence the tracheostomy tube had ever been changed. A review of the physician, nursing, and respiratory therapy notes found no tracheostomy management plan.

Tittle: Fatal Oversight: Misdiagnosis of Nocturnal Chest Pain with Elevated D-dimer.

The Case

A man in his 70s with a past medical history of lymphoma in remission, obesity, hypertension, hyperlipidemia, obstructive sleep apnea, and supraventricular tachycardia was sent to the emergency department (ED) by his primary care physician for a two-week history of nightly episodes of chest pain. The pain woke him from sleep, radiated to the left shoulder, and lasted about 15 minutes before spontaneously improving. He denied any associated dyspnea or diaphoresis during these episodes of pain. He further denied having chest pain during the day, although he lived a sedentary life with minimal exertion. The primary care physician had ordered laboratory testing, which was unremarkable except for a slightly elevated D-dimer, which was normal when adjusted for age.

Upon arrival to the ED, the patient stated that his reason for referral was an elevated lab value (D-dimer), rather than chest pain. The medical record from the primary care physician was not available. The vital signs and physical examination were normal and stable. An electrocardiogram was notable for a new right bundle branch block. Serial troponin assays were normal, as were both a chest x-ray and a ventilation-perfusion scan. An exercise stress test from two years prior was reported as normal, although it was later found to be non-diagnostic due to inadequate exercise capacity. Given the lack of new physical examination findings, normal laboratory values, and a record of normal stress testing, the patient was discharged from the ED. The patient passed away at home two days later. Autopsy showed severe coronary artery disease, without other ostensible causes of death.

Tittle: Navigating Complications: The Unintended Journey of a Guidewire During Dialysis Catheter Placement

The Case

A 57-year-old man was brought by ambulance to the Emergency Department (ED) from a skilled nursing facility for evaluation of shortness of breath. His past medical history included hypertension treated with lisinopril, diabetes treated with metformin, and poorly characterized heart failure. The patient's blood pressure was 174/101 mmHg, heart rate 126, respiratory rate 26, temperature 37.5° C, oxygen saturation 87% on room air and 94% on oxygen at 8 L/min via rebreather mask. His skin was cool, pale and moist. Diffuse bilateral crackles were heard on chest auscultation. Edema was present in both lower extremities. Chest radiography showed bilateral pulmonary edema. The patient's laboratory results were notable for acute kidney injury and metabolic acidosis, with an estimated glomerular filtration rate of 25, blood urea nitrogen (BUN) 35 mg/dL, creatinine 2 mg/dL, potassium 4.7 mEq/L, sodium 131 mEq/L, bicarbonate 18 mEq/L, and pH 7.29.

After unsuccessful efforts at diuresis, physicians determined that the patient needed dialysis for fluid removal. The dialysis team was called into the ED, and the consulting nephrologist started to place a temporary dialysis catheter (using anatomic landmarks) into the patient's right internal jugular vein. During this procedure, the guidewire was inadvertently inserted into the vessel and could not be recovered. Bedside chest imaging confirmed the guidewire's position. The patient did not complain of any new symptoms and his hemodynamic parameters were stable. However, retention of the guidewire necessitated recovery through emergency operative exploration, which delayed his hemodialysis treatment. After guidewire recovery, the patient responded well to hemodialysis.

Tittle: Missed Connection: A Case of Inadequate ECG Oversight in Cardiac Surgery

The Case

A 77-year-old man was admitted to the hospital with acute chest pain and shortness of breath. He underwent cardiac catheterization, which showed 3-vessel coronary artery disease and severe aortic stenosis. He was deemed a surgical candidate and was transferred to another facility for coronary artery bypass graft surgery with aortic valve replacement (CABG/AVR) the next morning. His case was delayed by an hour while the surgeon found and reviewed the angiogram video from the referring hospital. The patient felt cold on the operating room (OR) table, so multiple blankets were placed. Induction of general anesthesia proceeded without further delay or complications. The operation went smoothly, and the patient came off cardiopulmonary bypass on a low-dose norepinephrine drip.

During removal of the venous cannula, the patient went into atrial fibrillation with hypotension. The surgeon took the internal paddles and requested the circulating nurse to get ready for synchronized cardioversion. The nurse acknowledged and the patient was shocked at 10 Joules. Due to the number of pieces of equipment in the room, the defibrillator screen was visible only to the circulating nurse. Since the patient did not convert to sinus rhythm, the surgeon requested 20 Joules synchronized cardioversion, after which the patient went into ventricular fibrillation. He was immediately and successfully defibrillated with 20 Joules. When the drapes came down and while the patient was being transferred to his gurney, the OR team noticed that the electrocardiogram cable that enables synchronized cardioversion was never connected to the patient's defibrillator. The anesthesia resident had only connected ECG leads into the anesthesia monitor, and not into the defibrillator.

Tittle: Managing Care Challenges in a Group Home Setting: Is Staffing Adequate for Unplanned Incidents?

The Case

An elderly patient, over 80 years of age, with a history of autism-spectrum disorder and requiring assistance with all activities of daily living and all transfers, lives in a group care home with several other disabled individuals who also require maximum assistance. She has been prescribed a daily dose of polyethylene glycol 3350 to prevent constipation, but she often has leakage of incontinent feces through pull-up diapers.

On weekends, patients in this group home are allowed to sleep up to two hours later than on weekdays, when they need to leave earlier for adult day care. There are only two certified nursing assistants (CNAs) staffing the facility on weekends (versus three on weekdays); the CNAs are responsible for giving medications, helping five residents to dress and shower, preparing meals, feeding residents, cleaning up, and doing laundry. One of these CNAs finds the patient soiled in bed from fecal leakage, transfers her to a wheelchair, and then to a shower chair. The CNA showers and fully dresses the patient, but in the process, the patient has another bowel accident contaminating the area. The CNA calls for help to their coworker, who is with four other residents in the kitchen and cannot safely leave. The CNA pivots the patient, who is now weak and disoriented, to the toilet, but the patient sits down prematurely, falling and hitting her head on the shower. With only two staff members on duty, four other high-need residents must be left unattended while both CNAs attempt to lift the 180-pound patient off the floor. After the nurse on call is notified and relief staff arrives, an ambulance is called to take the patient to the hospital for suturing, imaging, and medical evaluation. A physical therapist at the hospital determines that this patient needs a higher level of care in the bathroom (i.e., two-person assist) because of hazardous conditions, wet floors, showering and perineal care needs.

Tittle: Verbal Orders and Medication Overrides: A Dangerous Combination

The Case

A 26-year-old man was brought to the emergency department (ED) by law enforcement for evaluation of abdominal pain. He was tachycardic (heart rate 115 beats per minute), but his vital signs were otherwise normal. He was very uncooperative, extremely agitated, and threatening toward multiple staff members. However, he agreed to a physical examination by the resident physician and intermittently answered questions. He denied any pain but acknowledged a recent altercation with law enforcement, which resulted in several taser marks. His abdominal examination was normal, but his behavior continued to escalate, with extreme agitation (unresponsive to verbal reassurance and redirection) and threats to assault or kill staff. For the patient's own safety and the safety of ED staff, physical and chemical restraint were deemed necessary. Screening laboratory tests were reassuring, with negative urine drug screening and only mild elevation in the serum creatinine level. The patient tolerated oral fluids, was diagnosed by the ED physician with acute psychosis and agitation, and was medically cleared for psychiatric evaluation and disposition.

Due to the patient's agitation and escalating aggressive behavior, which included attacking objects in the ED room and yelling profanities, the ED physician verbally ordered 10 mg of intramuscular haloperidol. Due to the urgency of the situation, the primary nurse overrode the automated dispensing unit and mistakenly pulled a vial of midazolam 10 mg instead of haloperidol. A few moments after administration, the patient became very calm and fell into deep sleep for two hours. He was placed on cardiorespiratory and end tidal carbon dioxide monitoring. The primary nurse discovered the medication error, reported it to the medical team, and flumazenil was administered to reverse benzodiazepine toxicity. The patient's respirations remained regular in rate and depth, and his recovery was subsequently uneventful.

Tittle: Under Pressure: Delayed Diagnosis of Compartment Syndrome after Lower Leg Fracture.

The Cases

Case #1: A 24-year-old man was seen in a trauma center after his motorcycle collided with a car. Imaging showed a left tibial plateau fracture. He was admitted to an orthopedic unit for anticipated surgery. Within hours, he complained of “excruciating” pain and numbness in his toes in his injured leg. He was seen by an intern and senior resident overnight, both of whom documented concern that the patient could be developing compartment syndrome. However, they were reassured by palpable dorsalis pedis pulses and subsidence of the pain, so the possibility of compartment syndrome was not investigated further. Over the next 12 hours, the patient’s leg pain worsened, and the leg became quite swollen. The following day, he was taken to the operating room for open reduction with internal fixation of his tibial fracture. His left calf was noted to be very tense; the surgeon confirmed elevated compartment pressures and performed fasciotomies for compartment syndrome. Nevertheless, the patient later required re-operation to excise necrotic muscle tissue leading to a chronic deformity and impaired strength in the affected leg.

Case #2: A 19-year-old college student suffered a severe left tibiofibular fracture when he was side-tackled while playing indoor soccer. The patient was taken by ambulance to the nearest hospital and underwent emergency surgery (open reduction with internal fixation) by an on-call orthopedic surgeon. Throughout the night and into the following morning, the patient experienced severe pain, numbness, a burning sensation, and reduced muscle strength in his lower left leg. The pain was difficult to control even with opioid medications. The patient was discharged that afternoon despite continuing to report extreme pain. He returned to the hospital six days later when his symptoms did not improve. The patient underwent a second operation performed by a different surgeon who identified acute compartment syndrome. The muscles in the anterior compartment of the patient’s leg were gray, had no contractility, and required extensive debridement. He underwent multiple subsequent operations to restore function but was left with some permanent disability and disfigurement.

Tittle: Misplaced Nasogastric Tube Resulting in Aspiration

The Case

An 82-year-old woman presented to the Emergency Department (ED) for evaluation of “altered mental status” after falling down 5 step-stairs at home. She was on apixaban and had a Glasgow Coma Score of 11 (indicating decreased alertness, relative to the normal value of 15) on arrival. She was afebrile, tachycardic (120 beats per minute), with a normal blood pressure (109/51) and excellent oxygen saturation (96%) on room air. Computed tomography (CT) of the head revealed a right thalamic hemorrhage. She received prothrombin complex concentrate to reverse the apixaban. She also received levetiracetam to prevent seizures. She was admitted to the Vascular Neurology service.

Overnight, the patient developed atrial fibrillation with rapid ventricular rate (RVR), which required medications for rate control. The patient failed her swallow evaluation by speech therapy; therefore, a nasogastric (NG) tube was inserted through her right nostril, without difficulty or complications, to administer oral medications. The tube length was 55 cm, and a chest radiograph was obtained to

verify placement. The resident physician was asked to review imaging to confirm placement, but this was not done. During nursing shift change, the incoming nurse was told that the NG tube was ready for use. A tablet of metoprolol 25 mg was crushed by the nurse, mixed with water, and administered through the NG tube. A few minutes after administration, the patient was found to be somnolent and hypoxemic, with oxygen saturation around 80%, requiring supplemental oxygen via non-rebreather mask. Chest radiography showed that the NG tube was in the right lung. The NG tube was removed, and the patient's mental status improved slowly on high flow nasal cannula.

On review of the case, it was confirmed that the patient's first chest radiograph had not been seen by a provider. No alternate method to verify tube placement had been documented. Additionally, there was no order documenting that the NG tube was safe to be used.

Tittle: Hindsight is 20/20: Thrombolytics for Alcohol Intoxication

The Case

A 61-year-old patient presented to the emergency department (ED) by taxicab complaining of weakness starting 4 hours before arrival. He was alert to person, time, and place, but had notable shuffling gait, slurred speech, delayed response to verbal questions, and inability to concentrate or make eye contact. His blood pressure was elevated at 156/96, but other vital signs were normal, with heart rate 71, respiratory rate 16, and temperature 37.8 ˚C. On physical examination, there was no facial droop, but facial symmetry was difficult to assess as he would not follow the instructions. A stroke alert was activated. The patient's glucose was 92 mg/dL (normal). Partial gaze palsy was noted but there was no visual loss. All four limbs drifted but did not hit the bed and there was no limb ataxia. Sensory examination was normal. Aphasia was absent; dysarthria was mild-to-moderate (i.e., speech was slurred but could be understood). No extinction or inattention was observed. Together, these findings represented a National Institutes of Health Stroke Scale (NIHSS) value of 6.

A neurosurgeon evaluated the patient via teleconsult and requested neuroimaging with perfusion. Tenecteplase (TNKase) was prepared by pharmacy. There was no intracranial hemorrhage identified on non-contrast computed tomography (CT) of the head. Since the patient's symptoms were not improving spontaneously and the treating team was suspicious of a stroke, the neurosurgeon recommended proceeding with thrombolysis. The risks and benefits were explained to the patient, and he consented. During a time-out, the clinical team verified the patient's identity, indications for treatment, radiologic findings, consent to treatment, absent bleeding diathesis (laboratory results), TNKase checklist, and blood pressure. TNKase was administered and he was monitored per hospital protocol.

Thirty minutes after TNKase administration, laboratory tests showed that the patient's alcohol level was 433 mg/dL, a potentially fatal level. The patient was admitted to the intensive care unit (ICU) for close monitoring. His NIHSS score increased to 7 with somnolence arousable to stimulation. A repeat CT scan was performed and revealed a new subdural hemorrhage. The neurosurgeon was updated, conservative treatment was recommended, and the patient recovered slowly.

Tittle: Do Not Miss Sepsis Needles in Viral Haystacks!

The Case

A five-year-old fully immunized girl was brought to the emergency department (ED) for an upper respiratory infection with symptoms of fever, cough, runny nose, nausea, sore throat, dyspnea, generalized weakness, and rash. There was no vomiting or diarrhea. On examination, vital signs were as follows: temperature 38.3 Celsius, pulse 143 beats per minute (bpm), respiratory rate 24 per minute, and oxygen saturation 100%. There were normal breath sounds and a maculopapular rash. A viral swab was negative for SARS-CoV2, influenza, and respiratory syncytial virus. The treating physician did not mention pneumonia in the differential diagnosis.

On a visit the next day, there was more generalized weakness and new upper abdominal pain. Vital signs were as follows: temperature 39.5, pulse markedly tachycardic at 205 bpm, respiratory rate markedly tachypneic at 36 per minute, and oxygen saturation 94%. Physical examination revealed normal breath sounds, enlarged tonsils, and a "sandpapery" rash without petechiae. Laboratory testing showed a normal white blood cell count of 8,500, but with 1.6% abnormal metamyelocytes and burr cells. The serum sodium was low at 127 mEq/L, and the bicarbonate was also low at 16 mEq/L, with a normal anion gap of 12. Blood urea nitrogen (BUN) and creatinine were normal. A throat swab was positive for group A Streptococcus. The treating physician again did not order imaging and attributed all findings to pharyngitis. The child was sent home with a prescription for amoxicillin.

On day 3 after the first ED visit, the child was brought back to the ED by ambulance with pulseless electrical activity at a heart rate of 70 bpm and oxygen saturation of 40% with no spontaneous respirations. On examination during resuscitation, there was skin mottling and petechiae. She was pronounced dead after resuscitative efforts failed. Autopsy showed bilateral pneumonia and right-sided empyema. Empyema cultures grew *Streptococcus pyogenes* and *Klebsiella pneumoniae*.

Tittle: Uterine Artery Injury during Cesarean Delivery Leads to Cardiac Arrests and Emergency Hysterectomy

The Case

An obese woman who was 39-weeks pregnant with her second child presented to the hospital in active labor with regular uterine contractions. The patient was admitted to the Labor and Delivery unit and confirmed to have a full-term singleton fetus in vertex presentation. External monitoring was initiated. After two hours, she was found to have no cervical change and she was started on oxytocin. After several hours, the cervix was fully effaced and dilated, the fetal head was still relatively high (+2 station), and deep variable decelerations with minimal variability were noted, suggesting intrauterine hypoxemia. The physician obtained informed consent and then attempted delivery using a vacuum. When the vacuum did not work, the obstetrician performed an emergency cesarean delivery. The procedure was complicated by the need to extend the lower uterine segment incision bilaterally for safe extraction of the fetus. The operator's note described post-delivery repair of the right uterine incision but did not comment on the left side. The neonate had reassuring Apgar scores.

Following the delivery, the patient was hypotensive and tachycardic. She was seen by three physicians, all of whom documented a differential diagnosis that included sepsis and intra-abdominal hemorrhage. With laboratory tests and computed tomography (CT) pending, the patient went into cardiac arrest, requiring a round of chest compressions and resuscitative efforts. She regained spontaneous circulation after receiving fluids and epinephrine. She was taken to the operating room for an emergency exploratory laparotomy and found to have nearly three liters of blood in her abdomen, with complete transection of the left uterine artery. After a "massive transfusion protocol" (MTP) was ordered, the operating physician called in a gynecologic oncologist to assist with an emergency hysterectomy. Although the patient survived, she suffered another cardiac arrest with residual cognitive impairment.

Tittle: Delayed Diagnosis and Treatment of Systemic Lupus Erythematosus with a Psychiatric Presentation

The Case

An 18-year-old woman with no significant past medical history was admitted to a community hospital from a behavioral health center for evaluation and treatment of acute psychosis with paranoid delusions. The nurse practitioner managing the patient was uncertain as to whether the psychosis was due to a "primary" psychiatric condition (e.g., schizophreniform disorder, schizophrenia) or a systemic medical condition, so two consultations were obtained. On hospital day 5, a psychiatrist evaluated the patient and recommended initiation of an antipsychotic medication. On hospital day 7, the nurse practitioner learned from the patient's father that there was a family history of systemic lupus erythematosus (SLE) and suggested that the patient be evaluated for lupus. Laboratory tests on hospital day 9 indicated borderline pancytopenia (e.g., platelet count 125,000/microliter), an elevated antinuclear antibody (ANA), and abnormally elevated anti-double-stranded DNA (deoxyribonucleic acid) (anti-ds DNA). The urinalysis, physical examination, and electrocardiogram were normal. The patient was discharged on hospital 10, but none of the treating physicians reviewed the test results until 2-3 days after discharge, and the patient was never referred for further evaluation of these findings.

The patient's delusions and other psychotic symptoms abated over the following months, but she was admitted to a second hospital for exacerbation of psychotic symptoms six months after her first hospitalization. The medical team at this hospital quickly discovered the abnormal test results from six months earlier, documented the diagnosis of SLE, and initiated appropriate corticosteroid treatment. However, the patient died of multiple organ failure.

Tittle: I Just Want to Go Home: Understanding Delirium's Impact on Treatment Preferences

The Case

A 76-year-old man with a history of heart failure, chronic lung disease, and chronic urinary retention of unknown etiology was readmitted for altered mental status after a recent hospitalization. He was intermittently combative and refused to accept bilevel positive airway pressure (BiPAP), nasal cannula, or mask for his low oxygen saturation. Over the first three days of his hospitalization, he repeatedly requested to go home, declined most medical interventions, and made angry comments about the care he was receiving. His family, who lived a few hours away, acted as his medical

decision-makers. They were consistently updated and started working on finding a housing solution closer to them, based on his reported wishes, but were not able to travel to the hospital to see him.

On hospital day 3, the patient had a discussion alone with a hospitalist, in which the patient was documented as agreeing to receive care at home or at a board and care through hospice. The family was alerted, and the palliative medicine service was consulted to assist with transition. The palliative medicine consultant visited the patient and determined that he did not have capacity to make decisions due to delirium, nor was he clearly eligible for hospice. In discussion with the family, it became clear that they had only agreed to hospice care for their father after their discussion with the hospitalist, but the family had not been present for the discussion between the patient and hospitalist. Accordingly, everyone agreed to continue to treat the patient's underlying medical issues and to wait to see if his delirium improved. In subsequent days, the patient's mental status cleared, and he had an in-depth conversation with his family in which he stated that he vehemently opposed hospice care, wished to receive the full scope of medical treatments (including cardiopulmonary resuscitation [CPR]), and intended to return to the hospital if needed in the future. He was then transferred to a skilled nursing facility near his family for rehabilitation.

Tittle: Navigating Chaos: Fatal Iatrogenic Liver Injury in a Patient Admitted for Leg Fractures

The Case

A 60-year-old woman with a history of diabetes, hypertension, alcohol use disorder, and cirrhosis of the liver was brought into the emergency department (ED) after falling at home. She had bilateral knee pain and an open right ankle injury with visible deformity and moderate blood loss. She had hypotension, with blood pressure around 80s/50s. Pre-hospital personnel attempted to control the bleeding using a tourniquet. On arrival at the ED, she had weak pulses and was alert but confused, speaking in short sentences, and complaining of shortness of breath. Fluid resuscitation was initiated. Imaging confirmed bilateral tibial fractures and an open right ankle fracture. A pressure dressing and splint were applied. Her initial point-of-care hemoglobin was 7 mg/dl, and a "massive transfusion protocol" was initiated.

Just before chest radiography, the patient's condition progressed to cardiac arrest. Cardiopulmonary resuscitation (CPR) was initiated, and bilateral chest tubes were placed. The left chest tube had neither air nor blood return; however, the right chest tube had some blood with no gush of air. Return of spontaneous circulation (ROSC) was achieved, and vasopressors were started. A post-intubation blood gas measurement showed hemoglobin of 5 gm/dl. Focused assessment with sonography for trauma (FAST) revealed fluid in the right upper abdominal quadrant, so the patient was immediately transferred to the operating room (OR) for exploratory laparotomy.

In the OR, blood was found in the peritoneal space. After packing the abdomen, the bleeding was noted to be coming from lacerations in the lateral chest wall, near where the right chest tube had been placed, and in the right lateral aspect of the liver. The liver was extremely large and visibly cirrhotic with splenomegaly. Multiple packing maneuvers were attempted but definitive hemorrhage control could not be obtained. In the meantime, the patient continued to bleed from her right ankle wound. Interventional radiology was consulted for angiography and embolization of the bleeding vessels. Despite this treatment, she remained hemodynamically unstable with

declining neurological function; her family opted to change her code status to “do-not-resuscitate" and stayed with her until she died.

Tittle: Airway Obstruction during Anterior Cervical Spine Surgery

The Case

A 47-year-old obese man (body weight 135kg) with hypertension fell down the stairs while intoxicated with alcohol and suffered a cervical spine (C5/C6) fracture. Although he could not feel his body below his neck, he retained some movement of both upper limbs. He was scheduled for urgent anterior cervical decompression and fusion and was transferred to the operating room (OR) where general anesthesia was induced. He was very carefully intubated with a wire-reinforced size 8 endotracheal tube using a McGrath laryngoscope.

Anesthesia was maintained with sevoflurane and remifentanil target-controlled infusion. His peak airway pressures were initially 23-25 cm H_2O but suddenly increased to 48-52 about 30 minutes into the operation. The patient's vital signs remained stable although his expired tidal volume decreased from a normal value of 560 ml (7 ml/Kg ideal body weight) to about 330 ml. He was manually ventilated through the endotracheal tube, which proved very difficult. An urgent chest X-ray did not reveal any pneumothorax. The endotracheal tube tip was noted to be above the clavicles although the depth mark at the level of the incisor teeth was at the typically expected 23 cm. The Black Belt cervical retractor was released by the surgeon resulting in complete resolution of the airway obstruction. The endotracheal tube cuff was deflated, it was advanced by another 2 cm, and the cuff was reinflated, resulting in almost complete resolution of the obstruction.

Tittle: When Vomit Gets in the Way: Aspiration Resulting in Death During Endoscopy

The Case

A 32-year-old woman with weight of 100.2 kg (body mass index of 39.1) with a history of gastroesophageal reflux disease (GERD), diabetes mellitus and obstructive sleep apnea (OSA) presented to an outpatient GI clinic with abnormal liver function tests, ultrasound findings consistent with cholelithiasis and clinical signs concerning for obstructive jaundice. She was admitted to the hospital and scheduled for endoscopic retrograde cholangiopancreatography (ERCP) as an inpatient procedure.

Monitored anesthesia care (MAC) was selected as the preferred choice for this patient. A continuous propofol infusion and fentanyl boluses were administered intravenously. Once an appropriate level of sedation was achieved, the patient was positioned prone. The procedure began with insertion of the endoscope after a bite block was placed. As the scope was advanced into the stomach, the patient vomited. She was immediately turned supine, and her airway was suctioned. Copious vomitus obstructed the suction catheter and was difficult to remove. The patient started to decompensate with decreasing oxygen saturation. The anesthesia team attempted to secure the airway by endotracheal intubation but was unable to place a tube due to poor view and vomitus. Several unsuccessful attempts at intubation were made. The patient went into cardiac arrest and cardiopulmonary resuscitation was initiated while the team attempted to secure the airway between compressions, without success. Appropriate doses of Advanced Cardiac Life Support (ACLS) medications were given. The airway was ultimately secured using a videolaryngoscope;

return of spontaneous circulation (ROSC) was never achieved, and the patient was pronounced dead after 60 minutes of ACLS.

Tittle: A Laceration that Needed a Proper Exam, Not an X-Ray

The Case

A healthy 57-year-old right hand dominant woman presented to the emergency department (ED) for evaluation of a laceration to the palmar aspect of her left thumb. Hours before presentation, she accidentally cut herself with a kitchen knife. The treating clinician documented a superficial 3cm laceration and that the patient was unable to flex her thumb due to pain. Neither a sensory examination nor wound exploration was documented. No fracture or foreign body was identified on x-ray. The clinician closed the laceration with sutures. A splint was not applied. The absence of a foreign body was documented in the procedure note but not whether the tendon was visualized. The patient was discharged from the ED and follow-up was arranged with her primary care physician (PCP). She was still unable to flex her thumb at follow-up a few weeks later. She was referred to an orthopedic surgeon who referred her to a hand specialist who surgically repaired her left thumb flexor tendon laceration. Despite repair, her left thumb function remained significantly limited.

Tittle: Syringe Swap During Regional Block: A Case of Medication Error and Recovery

The Case

A 21-year-old male with a fractured radius was scheduled for open reduction and internal fixation under an ultrasound-guided supraclavicular brachial plexus nerve block. Following appropriate counseling and consent procedures, the initial attempt at local skin anesthesia using 2% lidocaine at the needle insertion site proved inadequate, necessitating a second cutaneous lidocaine injection. The procedural block was then executed using 20 ml of 0.375% plain bupivacaine.

Several minutes later, the patient manifested progressive dyspnea and diminishing oxygen saturation, prompting emergent intubation and initiation of mechanical ventilation. The patient remained hemodynamically stable throughout the episode, culminating in adequate reversal of anesthesia and successful extubation after surgery.

Upon thorough review, the respiratory distress was traced back to an inadvertent injection of vecuronium, a neuromuscular blocking agent, instead of the intended local anesthetic. This unfortunate error in drug administration arose from a preparatory oversight, specifically incorrect placement of a vecuronium-containing syringe on the anesthesia drug tray by a previously assigned anesthesia nurse, who then signed out to another nurse at shift change, and the anesthesiologist's failure to read the label and identify the medication immediately before injection. While the brachial plexus nerve block eventually met efficacy standards for intraoperative anesthesia, the delayed onset of vecuronium contributed to a gradual and progressive compromise in ventilatory function, necessitating definitive airway intervention.

Tittle: Radiology Missed an Intracranial Bleed in a Lethargic Infant.

The Case

A 2-month-old full-term male infant was brought to the Pediatric Emergency Department (PED) for decreased responsiveness. He reportedly had a few days of cough, congestion and increased irritability, but he was more tired than usual on the evening of presentation. While falling asleep, he was noted to have eye-rolling and he did not respond to his name, shaking his hands, or placing ice on his chest. His feet were run under cold water, after which he briefly woke up, made some noises, and then went back to sleep. A parent called 911, and he was brought to the PED. Before the present illness, he was reportedly feeding, stooling and urinating normally. The patient's family denied fever, abnormal posturing, apnea or cyanosis. He had one non-bloody, non-bilious emesis the previous day. The social history was notable for living at home with parents, an older sibling and several extended family members; he had never attended day care or stayed in other homes.

On physical exam, the patient was asleep, arousing briefly with stimulation but then falling back to sleep. He did not cry at all with the examination. His anterior fontanelle was flat, his head was atraumatic, and pupils were equal and reactive bilaterally. His pulmonary, cardiac and abdominal examinations were unremarkable. He had normal muscle tone and movement of extremities. No bruising or abrasions were noted. He was able to tolerate an oral challenge despite his somnolence. Due to his persistently altered mental status, ultrafast magnetic resonance imaging (MRI) of the brain was obtained. Given limited overnight staffing, the MRI images were preliminarily read by a radiology resident. The patient was discharged with a parent after an "unremarkable" preliminary interpretation of the MRI.

However, the next morning, the final reading of the MRI by the attending physician noted a small (5mm) subdural hemorrhage overlying the left frontal convexity without mass effect or midline shift, but with trace left mastoid effusion. The family was called back to the PED for further evaluation and a parent disclosed that the child had fallen off a bouncy seat placed on the bed, onto the floor, 3 days prior to presentation. The patient underwent a non-accidental trauma evaluation including a comprehensive metabolic panel, lipase, complete blood count, urinalysis, and skeletal survey, followed by neurosurgery, pediatric surgery, and ophthalmology consultations. His skeletal survey showed healing fractures of the left third and fourth lateral ribs; ophthalmology evaluation was negative for retinal hemorrhages. He was admitted for further evaluation and a Child Protective Services (CPS) case was initiated. A follow-up full brain MRI demonstrated mild prominence of the bilateral frontal spaces. After a period of observation and CPS assessment, he was discharged to the care of an extended family member, with close follow-up by county social services staff.

Tittle: Myasthenia Crisis after a Delayed Diagnosis in a Medically Complex Patient.

The Case

A 9-year-old girl with a past medical history of cerebral palsy, developmental delay, and epilepsy presented to the emergency department (ED) for increased frequency of seizures which lasted about 5 minutes, necessitating a rescue dose of diazepam nasal spray. The patient was stabilized in the ED but developed hypoxic respiratory failure requiring endotracheal intubation, sedation, and mechanical ventilation. The pediatric neurology team was involved in her care starting on the second hospital day. Their initial recommendations involved some changes in her anti-epileptic medications, but on hospital day 7, they recommended testing for acetylcholine receptor antibodies, muscle-specific tyrosine kinase (MuSK) antibody, anti-ganglioside antibodies, creatine phosphokinase, and aldolase due to ongoing symptoms.

Most of these tests had to be sent to an external laboratory and the results returned intermittently over several weeks. On hospital day 13 (after the patient was transferred out of intensive care), the acetylcholine receptor antibody test results returned markedly elevated at 302 nmol/L (normal is <0.5 nmol/L), which is concerning for myasthenia gravis. No hospital notes reflected this positive result, and all subsequent daily progress notes included the phrase, “awaiting lab results for neuromuscular workup”. The patient was discharged on hospital day 18, with no mention of the positive result in the discharge summary. The patient followed up with her primary care pediatrician (PCP) and pediatric neurologist 13 days after hospital discharge. Neither the neuromuscular workup nor the positive acetylcholine receptor antibody test was noted at either visit.

Several days later, the patient returned to the ED for acute respiratory failure and cardiac arrest, requiring pre-hospital cardiopulmonary resuscitation, intubation, and respiratory support. She had a prolonged hospital course and was discharged against medical advice on hospital day 15. After thorough review of her prior laboratory results, her final diagnosis was respiratory failure secondary to myasthenia gravis crisis. She received intravenous immunoglobulin and corticosteroids, with gradual improvement in her acetylcholine receptor antibody levels.

Tittle: Always Check the Muscle Twitch: Residual Neuromuscular Block After Removal of a Gastric Balloon

The Case

A 38-year-old female patient with a height of 65 inches (165 cm) and weight of 153 kg (body mass index, 56.2 kg/m^2) required removal of a gastric balloon under general anesthesia. She required a relatively large dose of rocuronium for endotracheal intubation, and she was given intravenous sugammadex (200 mg) at the end of the procedure to reverse the neuromuscular block. A quantitative neuromuscular block monitor was not used but reliance was placed on clinical signs.

Upon awakening from general anesthesia, the patient was extubated and taken to the post-anesthesia care unit (PACU). However, shortly after arrival in the PACU, she couldn’t move or open her eyes and became jittery with low oxygen saturation. Quantitative blockade monitoring revealed a “train of four” (TOF) ratio less than 70%, so she was given another 200 mg of intravenous sugammadex with return of normal motor function.

Tittle: Medication Mix-Up Leads to Patient Death

The Case

An 81-year-old man was transferred from an outside hospital and admitted to the intensive care unit (ICU) with a gastrointestinal bleed. The ICU physician referred the patient to a gastroenterology colleague to undergo diagnostic colonoscopy. The charge nurse – who was already caring for two other ICU patients – was assigned to prepare the patient for the colonoscopy. At 5:00pm, the ICU nurse mistakenly selected a jug of dialysis liquid rather than a polyethylene glycol solution commonly used to clean the colon for colonoscopy. When the barcode on the jug of dialysis liquid did not scan, the nurse called the hospital pharmacy for assistance. About 5 minutes later, the pharmacy sent a barcode label to the ICU via a tube system that is more commonly used to send and receive medications and supplies. The nurse successfully scanned the new barcode label and administered about 8 ounces of the dialysis liquid orally before the end of her shift. However, the patient complained of the solution's taste and was "unable to tolerate" larger amounts. The ICU physician who ordered the polyethylene glycol solution said that the patient had to take the full amount ordered, whereupon another nurse gave the patient the rest of the liquid through a feeding tube bag. The medication mix-up was identified around midnight and the patient died about 7 hours later.

Tittle: When Taking an SGLT2 inhibitor, Remember To SSTOP (Stop SGLT2 Inhibitor Three days bef-O-re Procedures)!

The Case

A 67-year-old male with past medical history significant for coronary artery disease (CAD) status-post myocardial infarction and coronary artery bypass graft (CABG) surgery, obstructive sleep apnea (OSA) on continuous positive airway pressure (CPAP), obesity (body mass index, 30), hyperlipidemia, and well-controlled insulin-requiring type 2 diabetes (HgbA1c of 7.1%) presented to the hospital for elective implantation of a cardiac resynchronization and defibrillator device (CRT-D). He was discharged the following day. One day later, he returned to the hospital emergency department with severe nausea, vomiting, and abdominal pain, and he was found to have euglycemic diabetic ketoacidosis (eDKA), with a serum glucose of 278 mg/dL, pH of 7.0 (normal value: 7.35-7.45), serum bicarbonate of 8 mEq/L (normal value: 22-29 mmol/L), beta-hydroxybutyrate (BHB) of 11.8 mmol/L (normal value: 0.02 - 0.27mmol/L), and calculated serum osmolality of 305 mOsm/kg. All chemistry test results are shown in the table below (bold indicates abnormal values).

Lab Value (normal range)	**Pre-Procedure**	**Day of Procedure**	**Day After Procedure**	**Readmission (day after discharge)**
Sodium (135-145 mmol/L)	140	138	139	140

Lab Value (normal range)	Pre-Procedure	Day of Procedure	Day After Procedure	Readmission (day after discharge)
Potassium (3.5-4.5 mmol/L)	4.5	4.0	4.1	5.1
Chloride (98-107 mmol/L)	102	102	104	95
CO2 (22-29 mmol/L)	23	19	18	8
BUN (6-20mg/dL)	14	15	13	28
Creatinine (0.5-1.17mg/dL)	0.9	0.84	0.75	1.51
Glucose (74-109mg/dL)	123	133	109	278
Anion gap (7-15mmol/L)	15	17	17	37

On further questioning, it was discovered that the patient had not been instructed to stop taking his empagliflozin, a sodium-glucose co-transporter protein 2 inhibitor (SGLT2i), three days before his elective cardiology procedure. He was told only to hold it on the day of the procedure, and to resume all medications after discharge; he carefully followed these instructions. The patient was admitted to the ICU and started on an insulin infusion with intravenous hydration, but his course was complicated by acute chest pain. He was moved to the Cardiac ICU with a non-ST elevation myocardial infarction (NSTEMI). Left heart catheterization revealed diffuse CAD and he was managed medically.

Tittle: The Risks of a Malpositioned Gastrostomy Tube and Poor Communication

The Case

A 55-year-old woman was hospitalized after a motor vehicle crash with cardiac arrest in the field. She was found to have subarachnoid and intraventricular hemorrhages from multiple cerebral aneurysms, treated with endovascular coiling and complicated by refractory intracranial hypertension requiring decompressive hemicraniectomy on hospital day 12. She underwent percutaneous tracheostomy placement on day 24 and percutaneous endoscopic gastrostomy (PEG) tube placement on day 30. The surgeon placed the PEG tube in the intensive care unit (ICU) using the “pull technique” (i.e., via the mouth) because an operating room was not available, and her computed tomography (CT) scan showed no interposed bowel between the stomach and the anterior abdominal wall. During the procedure, the abdominal wall transilluminated as expected, and one-to-one motion of the stomach occurred with external palpation. The postoperative plain film showed the gastrostomy tube bulb in an appropriate position. The surgeon cleared the patient’s team to advance tube feeds as tolerated.

Six days after PEG placement, the patient developed “intractable emesis” of tube feeds and a gastroenterology consultant was unable to identify the etiology. Intermittent tube feed intolerance continued; a repeat CT scan on day 41, based on the gastroenterologist’s request to evaluate for small bowel obstruction but without mention of the recent PEG placement, showed the gastrostomy tube in the stomach with no evidence of obstruction. On day 43, the patient underwent cranioplasty and ventriculoperitoneal (VP) shunt placement, followed on day 51 by repeat aneurysm coiling and right carotid artery stent placement. On day 64, the acute care surgery team was consulted to convert the PEG tube to a percutaneous gastrojejunostomy (GJ) tube due to the patient’s intermittent emesis; however, they instead recommended interventional radiology (IR) perform a minimally invasive tube exchange. When the IR team evaluated the patient on day 65, they re-reviewed the CT scan from 24 days earlier and noted (for the first time) that the gastrostomy tube traversed the liver for 1.7 cm. They recommended surgical revision instead; the acute care surgical team agreed to perform open revision with possible GJ tube placement after coordinating with the neurosurgery team about VP shunt management. On day 67, a repeat CT scan with gastric contrast confirmed that the transhepatic course of the tube was unchanged compared with the earlier CT scan.

The neurosurgeon recommended continuing dual antiplatelet therapy for 2 months after carotid stent placement, so the two teams opted to keep the gastrostomy tube for gastric venting and to place a nasojejunal (NJ) feeding tube. The NJ tube was placed successfully with confirmation of jejunal positioning on day 71. By the next day, the patient was tolerating goal tube feeds via the NJ tube and had weaned off parenteral nutrition. On day 73, the discharge planner left a note recommending surgery clinic follow-up in about 3 weeks to coordinate open gastrostomy tube revision after discontinuation of antiplatelet therapy. The patient was discharged to a rehabilitation facility on day 74 with orders that included a surgery follow-up appointment to “discuss GT revision to JT placement” but without clear documentation that the PEG tube was malpositioned through the liver. Around 10 days after hospital discharge, the patient was seen by the neurosurgeon, who now recommended a 3-month course of dual antiplatelet therapy with repeat cerebral angiography before stopping ticagrelor. The patient’s spouse then called the surgery clinic to change the follow-up visit; he revealed that his wife was taking enough orally that enteral access was no longer required for nutrition. Unaware that the PEG tube was malpositioned through the liver, the surgeon attending clinic that day (who had not seen the patient previously) changed the plan to gastrostomy tube removal in clinic 3-4 weeks after discontinuation of antiplatelet therapy.

Following this plan, the patient was seen in follow-up by a different surgeon (who had also not seen the patient previously) for outpatient gastrostomy tube removal. The patient had been eating full meals, but she had aphasia and her husband did not know that the PEG tube was malpositioned. The surgeon removed the tube uneventfully via the abdominal wall tract using the common traction technique. A few hours later, the clinic surgeon further reviewed the prior hospital record and noted the transhepatic course of the PEG tube. When he contacted the operating surgeon, he learned that the plan was to revise the PEG tube via laparoscopic or open technique due to concern for liver bleeding that might occur during removal. Surprised by this information, the clinic surgeon immediately contacted the patient’s husband, who reported that his wife appeared well and that her vital signs were normal. An emergent abdominal CT showed no evidence of intra-abdominal hemorrhage. On further review, it became apparent that a third surgeon had assessed the patient

near the end of her inpatient stay and recommended outpatient open gastrostomy tube revision, but neither the operating surgeon nor the clinic surgeon was aware of this plan.

Tittle: Delay in Malignancy Diagnosis Reflects Systemic Failures

The Case

A 32-year-old man presented to the hospital with a comminuted midshaft femoral fracture after a bicycle accident. Imaging suggested the fracture was pathologic. The next day, the patient was taken to the operating room and an open biopsy specimen was submitted to pathology for intraoperative consultation. Frozen section examination of the tissue by the bone pathologist was inconclusive, with potential concern for neoplasm. Given the lack of a final diagnosis, the patient was placed in traction with superficial wound closure and deferred femoral stabilization. Five days later, the bone pathologist responsible for the case contacted the orthopedic surgery service to inform them that atypical cells warranted further evaluation by immunohistochemistry, and that more time was needed to establish the diagnosis. The bone pathologist then went on vacation for several days but did not document his discussions with the orthopedic surgery service or inform his colleagues about the status of the case or his concern for neoplasm.

The day after the bone pathologist's conversation with the orthopedic surgeon, another individual from the orthopedic surgery service contacted a supervising surgical pathologist, requesting a final diagnosis to allow for discontinuation of traction and surgical resolution of the fracture. The supervising pathologist had the impression that finalization of the pathologic diagnosis was urgently needed. Because the bone pathologist was on vacation, the biopsy specimen was re-evaluated by the supervising pathologist, who lacked specific expertise in bone pathology. After reviewing published materials, the supervising pathologist rendered a benign pathologic diagnosis of "exuberant fracture callus," without showing the images to another pathologist. Without questioning the discrepancy between the radiographic findings and the final pathologic diagnosis, the surgical team proceeded with intramedullary nailing of the femoral fracture. Shortly after the bone pathologist returned from vacation, he voiced concern to the supervising pathologist and the orthopedic surgery team that the patient's fracture was secondary to osteosarcoma. To resolve the discrepancy, the biopsy materials were sent in consultation to a nationally recognized bone pathologist, and the diagnosis of "osteosarcoma with high-grade features" was received several days later. Given this new diagnosis, it was evident the patient had undergone the incorrect surgical procedure, although the long-term ramifications of this error remained unclear.

Tittle: Weight and Height Juxtaposition in the Electronic Medical Record Causing an Accidental Medication Overdose

The Case

A 2-year-old girl was evaluated in the Emergency Department (ED) for joint swelling and rash, approximately two weeks after an upper respiratory tract infection with possible otitis media. She had completed a 7-day course of amoxicillin with her last dose 8 days before presentation to the ED. Her vital signs were normal and her weight was documented as 15.8 kg and height as 96 cm. The rash was described as a diffuse urticarial rash associated with tenderness in both hands. She was treated with 3.8 mg (0.24 mg/kg) of oral famotidine, 9 mg (0.56 mg/kg) of oral dexamethasone,

and 155 mg (9.8 mg/kg) of oral ibuprofen. Her symptoms markedly improved, and she was discharged home with a diagnosis of allergic urticaria.

One day later, the same patient presented again to the ED with worsening hand pain, associated with swelling of her hands, feet, and lower lip, as well as difficulty walking due to pain. She was noted to have a temperature of 37.2 °C, heart rate of 119 bpm, respiratory rate of 22 breaths/min, blood pressure of 106/69 mmHg, and oxygen saturation of 98% on room air. She was alert and playful, with slight swelling on her lower lip, but no tongue swelling or angioedema. Some diffuse swelling was noted on her hands and feet with a faint red rash on the arms and legs extending into the intertriginous areas. Based on her history and physical examination, it was believed to be an allergic presentation, potentially precipitated by the recent amoxicillin course. The plan was to obtain laboratory studies, administer methylprednisolone, and then monitor for resolution of symptoms. The attending physician asked the resident physician to order 2 mg/kg of methylprednisolone. When the resident physician input the dose into the electronic health record's (EHR) dose calculator, they were instructed to order 190 mg of methylprednisolone. This order, representing about 12 mg/kg, was filled by pharmacy staff and administered by a nurse who was new to the pediatric ED.

A few minutes later, the supervising senior pediatric nurse discovered that the ED intake technician had erroneously switched the patient's height and weight in the EHR, resulting in a documented weight of 96 kg and a height of 15.8 cm. An automatic error message was triggered by the exceptional (>30%) difference in weight for consecutive days, between 15.8 and 96 kg, but the error message was overlooked by the ED technician. Although there were no adverse effects noted from the methylprednisolone overdose, the patient's family was informed, and the patient was admitted to the inpatient unit for monitoring. The resulting hospitalization was uneventful, and the patient was discharged after two days with a typical prednisolone taper.

Tittle: A Missed Bowel Perforation - the Importance of Diagnostic Reasoning

The Case

A 58-year-old woman admitted to the cardiac unit a few days earlier for volume overload developed tachycardia to 110 bpm and tachypnea to 20 breaths/min overnight, with diarrhea and a mildly distended abdomen. Her bedside nurse acknowledged a Sepsis Alert through the electronic health record (EHR), prompting screening for sepsis with a chemistry panel, a complete blood count, a lactic acid level, and blood cultures. Within the hour, the results revealed mild leukocytosis (12,500/mm^3), hyponatremia (119 mmol/L), and an elevated lactic acid level of 2.7 mmol/L. The nurse contacted the provider on call, who cautiously ordered a 250-milliliter saline bolus, believing that hypoperfusion and hypovolemia from diuresis explained the elevated lactic acid.

A repeat lactic acid level four hours later was 5.1 mmol/L. The bedside nurse then called the rapid response team (RRT), which observed a more distended abdomen, but with normal mentation. Further workup ensued, including a chest radiograph, repeat blood cultures, and urinalysis. The on-call cross-covering provider remained reluctant to consider sepsis and did not evaluate the patient at the bedside. Instead, focused on the history of diuresis, diarrhea, and fluid restriction, they ordered blood products and albumin to increase oncotic pressure and expand intravascular volume.

The following morning, vital signs revealed hypotension to 65/43 mmHg, worsening tachycardia to 131 bpm, and tachypnea to 24 breaths/min. The primary team ordered cefepime but was still reluctant to provide aggressive fluid hydration given the patient's clinical history of volume overload. The intensive care unit (ICU) team was contacted, but two hours later, the patient developed pulseless cardiac arrest requiring resuscitation and emergency intubation. She was then transferred to the ICU, where she was hypothermic to 33.9°C, leukopenic to 2,800/mm^3, and anemic with a hemoglobin of 6.4 mg/dL. With continued hypotension and tachycardia, she was diagnosed as having septic shock and disseminated intravascular coagulation (DIC). Antibiotics were broadened with the addition of vancomycin and metronidazole, and vasopressor support was provided with norepinephrine. The acute care surgery team was contacted, but given the patient's instability and grave prognosis, she was deemed not a surgical candidate. The family decided to withdraw care and the patient died the following afternoon. A few days later, her ascitic fluid cultures grew *Enterococcus fecalis, Enterococcus casseliflavus, yeast, Bacteroides fragilis*, and anaerobic gram-positive rods, and her autopsy later confirmed perforated bowel.

Tittle: Delayed Evaluation of Abdominal Pain in an Elderly Patient.

The Case

An 85-year-old woman presented to the Emergency Department (ED) at 1800H complaining of abdominal pain that had started that morning. She was alert and conversant. The ED was crowded, so she was queued into a long line of patients waiting to be triaged. She was seen by a triage nurse at 2000H and again reported generalized abdominal pain, which she rated as 7 on a 0-10 scale. She also reported decreased appetite; her last meal was a light breakfast around 0600H. She denied vomiting, diarrhea, or constipation. Her vital signs included blood pressure 110/73 mmHg, heart rate 104 beats per minute, respirations 16 per minute, oxygen saturation 97% on room air, and oral temperature 96.5˚F. On a brief physical examination, her skin was pale, warm, and dry, and abdominal guarding was absent. She was assigned an Emergency Severity Index (ESI) score of 3 and was triaged to the waiting room until a treatment bed became available. Although the patient repeatedly asked staff when she would be roomed, she continued to be cooperative. By 2100H, she was placed in a hallway treatment space and triage orders were initiated by protocol. An intravenous infusion of normal saline was started at 500 mL/hour. At around 2130H, an abdominopelvic computed tomography (CT) scan without contrast was completed and she returned to the hallway.

At 2235H, the ED physician was contacted by the hospital's on-call radiologist who reported seeing extensive bowel necrosis on the CT scan. The patient was roomed at 2300H. The ED physician informed the assigned nurse that the patient was in critical condition. She was connected to a cardiac monitor, which showed sinus tachycardia at 110 and blood pressure 105/69. Her serum lactate level returned at 12 mmol/L (reference range 0.3 - 2.2 mmol/L). The ED physician ordered isotonic fluids and broad-spectrum intravenous antibiotics, which were administered quickly. Low dose morphine and fentanyl were given to relieve pain. A surgical consultant deemed the patient to be inoperable and non-recoverable due to extensive bowel necrosis. The patient's family was notified, and she was admitted for comfort care. The patient remained alert and cooperative until 2350H when her blood pressure fell to 90/58. She started to vomit blood a few moments later, was transferred to an inpatient room within 30 minutes, and died 30 minutes later.

Tittle: Walking Out of a Hospital After Attempted Suicide

The Case

A 42-year-old man with history of posttraumatic stress disorder (PTSD), alcohol use disorder, and anxiety disorder, in a long-term stable relationship, was placed on 72-hour involuntary psychiatric hold and brought to the emergency department (ED) by police officers following a suicide attempt. The patient had been staying with his wife in a hotel, experiencing nightmares and depressive symptoms. His wife found him with a belt around his neck, wrapped around the clothes bar in the hotel room closet. He was apneic and cyanotic, with bruises on his neck, but he started breathing and became responsive after she released the belt and stimulated him.

En route to the hospital by police cruiser, the patient was confused and apparently struck the officer who was transporting him. In the ED, the patient was agitated and tried to escape his restraints; he was handcuffed to his bed, given an antipsychotic medication by injection, and placed on continuous observation. After initial evaluation, the ED staff decided to admit the patient for observation (still on involuntary psychiatric hold) due to gastrointestinal bleeding of unknown etiology. Given that the patient was not “cleared” for inpatient psychiatric care, he was not evaluated by behavioral health specialists. No inpatient beds were available at 0400 am, so he remained in the ED as a “boarder,” receiving periodic antipsychotic medications, and his wife and police escort left.

The next day, the patient remained in the ED awaiting an inpatient medical bed. His wife visited and found him to be confused and disoriented, with two guards assigned to observe him from outside the curtains of the ED treatment bay. However, less than an hour after his wife left the ED, she called to check his status and was informed that he had “slipped out somehow.” She was never otherwise notified or contacted by hospital or police personnel, and the hospital’s investigation of the incident was unrevealing. She drove around the area looking for him, and finally found him several hours later, walking in an abandoned lot, lost and disoriented, believing that he was at a restaurant. She tried to convince him to go back to the hospital, but he became agitated and refused to go, so she agreed to find a hotel and stay with him. As his alertness improved, he sobbed and described a desire to commit suicide.

Three days later, the patient again tried to hang himself, and his wife again called 911 for assistance. The responding police officers, aware of the previous incident when he struck another officer and eloped from the ED, arrested him. Agitated and fearful, he resisted arrest and was subdued with a taser and blows to the chest that caused several rib fractures. Due to staffing constraints, the jail was unable to provide emergency mental health services and allowed him to retain his shoelaces and other items that could be used for self-harm. He was released on bail and resumed outpatient psychiatric care. He was prescribed trazodone, sodium valproate, lorazepam, and sertraline, with periodic dose adjustments, but he remains extremely fearful of hospitals and health care organizations.

Tittle: Insulin Administration: Pen vs Vial – Similar, but Not Interchangeable

The Case

A fourteen-year-old girl presented to the emergency department with a one-week history of fatigue, polyuria, polyphagia, and polydipsia. Laboratory studies confirmed a new diagnosis of type 1 diabetes mellitus without ketoacidosis, for which the patient was admitted. The patient's care was managed by a multidisciplinary team consisting of a pediatrician, endocrinologist, dietitian, psychologist, and a social worker. After a three-day hospital stay, the patient was ready to be discharged and the medications intended for home use were delivered to the patient's bedside.

During the routine medication check prior to the patient's discharge, the resident physician noticed a discrepancy. An insulin pen and pen needles had been ordered, but an insulin vial and extra insulin syringes were delivered to the patient's bedside without the provider having been notified of the product switch. Neither the patient nor the parents had received education on how to draw up and administer insulin using a vial and syringe. The pharmacy was contacted for clarification on the discrepancy; staff reported that the insulin pen was out of stock, so the insulin vial was substituted because it contained the same active ingredient. The insulin product switch was declined, and another pharmacy was contacted to provide the insulin pen, which was delivered to the patient's bedside the following day.

Although the patient's hospital stay was prolonged by one day, her parents expressed gratitude for the resolution. No harm was done to the patient, but there was potential for harm, if the patient and her family had received a medication that they were not trained to use correctly.

Tittle: A Double "Never Event": Wrong Patient and Wrong Side.

The Case

A first-year orthopedic surgery resident was consulted to aspirate fluid from the left ankle of a patient in the intensive care unit. The resident, accompanied by a second resident, approached the wrong patient, obtained consent from the patient's wife via telephone, and inserted the needle into the patient's right ankle. At this point, a third resident entered the room and stated that it was the incorrect patient. The procedure was immediately terminated, and the needle was withdrawn. The patient and family were notified of the error. The patient did not develop any negative sequela as a result of the aborted procedure.

Root cause analysis revealed that the patients were two beds apart in the same unit. The patient was not competent to provide informed consent. The patient's wife affirmed the patient's name, which was incorrect, and consented to the procedure. The time out was done with the two residents and the bedside nurse and did not include verification of the patient and procedure location. The nurse questioned why an ankle aspiration procedure was being done on a patient who had wounds on both feet and osteomyelitis in his left foot. The resident responded that the aspiration was to collect fluid, not to treat osteomyelitis. One of the residents stepped away to confirm the patient's identity in the electronic health record and returned confident that they were working with the correct patient. The nurse's concern was not resolved, but the resident did not understand the requirements of the time-out, including confirming the patient, procedure and site. As a result, the procedure was initiated.

Tittle: Prolonged DKA in Pregnancy: A Case of Communication Breakdown.

The Case

A 31-year-old nulliparous woman with a history of type 1 diabetes, managed successfully with an insulin pump, presented to the Emergency Department (ED) at a gestational age of 6 weeks with 3 days with nausea and vomiting. On arrival, her laboratory tests revealed an elevated white blood cell count of 14,640, high serum glucose values of 157 to 194 mg/dL, a blood urea nitrogen (BUN) to creatinine ratio of 15 (suggesting mild volume depletion), an elevated anion gap of 16, and a beta-hydroxybutyrate level of 17. Maternal Fetal Medicine (MFM), endocrinology, and gastroenterology were consulted.

The patient was admitted to the inpatient internal medicine unit with a diagnosis of diabetic ketoacidosis (DKA). She was given intravenous fluids and continued insulin pump management of her blood glucose. To reduce nausea and vomiting, the primary team initially ordered intramuscular (IM) trimethobenzamide, later substituted ondansetron, and then reached out to the MFM consultant for advice on antiemetic use in pregnancy. The MFM team provided written recommendations and rounded on the patient daily. However, the patient's symptoms persisted, and she developed a progressively worsening metabolic acidosis with an anion gap peaking at 20.

Several days after admission, while the MFM team was rounding, the patient reported that she was being transferred to another hospital. Subsequently the MFM team reached out to the primary team and recommended transfer to the in-house obstetric service. The patient's care was assumed by the obstetrics team, and within 12 hours her anion gap was closed. Her nausea and vomiting resolved, and she was discharged home the next day.

Tittle: Sleep Deprivation Leads to Medication Error During Spinal Epidural Anesthesia

The Case

A 27-year-old primigravid woman with a history of exercise-induced asthma presented to a labor and delivery unit at an estimated gestational age of 37 4/7 weeks for induction of labor due to gestational hypertension. She reported intolerable labor pain and requested neuraxial analgesia. The anesthesia care provider, who was 32 hours into a 48-hour call shift and had only had 3 hours of sleep in the prior 32 hours, performed L3-4 combined spinal epidural analgesia for labor and delivery. The intended anesthesia included 5 micrograms of intrathecal sufentanil and an epidural test dose of 4 ml 1.5% lidocaine with 1:200,000 epinephrine. The patient did not experience rapid onset of analgesia as expected and required a 6 ml bolus of 0.2% ropivacaine and 3 ml of 1% lidocaine over 20 minutes to achieve adequate analgesia.

About one hour later, the anesthesia care provider's audit of the controlled substance box found that this patient had been given intrathecal morphine 1 mg instead of 5 micrograms sufentanil. This error resulted in slower onset of analgesia, significant pruritus requiring intravenous naloxone infusion, prolonged respiratory monitoring for 24 hours after intrathecal morphine injection, and potential neurological injury due to intrathecal administration of a product that was not preservative-free. Analgesia was successfully maintained with patient-controlled epidural analgesia of 0.2% ropivacaine with 2 micrograms/ml fentanyl for the duration of labor and delivery, and no further complications were reported.

Tittle: Sleep Deprivation Leads to Medication Error During Spinal Epidural Anesthesia

The Case

A 27-year-old primigravid woman with a history of exercise-induced asthma presented to a labor and delivery unit at an estimated gestational age of 37 4/7 weeks for induction of labor due to gestational hypertension. She reported intolerable labor pain and requested neuraxial analgesia. The anesthesia care provider, who was 32 hours into a 48-hour call shift and had only had 3 hours of sleep in the prior 32 hours, performed L3-4 combined spinal epidural analgesia for labor and delivery. The intended anesthesia included 5 micrograms of intrathecal sufentanil and an epidural test dose of 4 ml 1.5% lidocaine with 1:200,000 epinephrine. The patient did not experience rapid onset of analgesia as expected and required a 6 ml bolus of 0.2% ropivacaine and 3 ml of 1% lidocaine over 20 minutes to achieve adequate analgesia.

About one hour later, the anesthesia care provider's audit of the controlled substance box found that this patient had been given intrathecal morphine 1 mg instead of 5 micrograms sufentanil. This error resulted in slower onset of analgesia, significant pruritus requiring intravenous naloxone infusion, prolonged respiratory monitoring for 24 hours after intrathecal morphine injection, and potential neurological injury due to intrathecal administration of a product that was not preservative-free. Analgesia was successfully maintained with patient-controlled epidural analgesia of 0.2% ropivacaine with 2 micrograms/ml fentanyl for the duration of labor and delivery, and no further complications were reported.

Tittle: A Complicated Course: Severe Alcohol Withdrawal with Dexmedetomidine Infusion

The Case

A 65-year-old man weighing 71 kg with a past medical history of alcohol use disorder and prostate cancer presented to an emergency department (ED) 36 hours after his last alcoholic drink with signs and symptoms of alcohol withdrawal. On arrival, he was noted to be tachycardic and hypertensive. Laboratory studies revealed elevated liver-associated enzymes, hyponatremia, and hypomagnesemia. Abdominal ultrasound revealed increased echogenicity of the hepatic parenchyma consistent with diffuse hepatocellular disease, likely hepatic steatosis. The patient was placed on the Clinical Institute Withdrawal Assessment for Alcohol (CIWA) protocol and the intensive care team was consulted. Initially, the patient was agitated and had a very high CIWA score (CIWA > 25), so he was given dexmedetomidine IV (intravenous) 0.3 mcg/kg/hr and lorazepam. The patient was admitted to an intensive care step down unit for close observation as his CIWA scores fell to 7-9. As the patient's agitation and CIWA scores improved with initial treatment, the physicians' plan (communicated by a free text order in the electronic health record) was to wean the dexmedetomidine to 0.2 mcg/kg/hr and then by 0.1 mcg/kg/hr per day until discontinued. The patient was also on valproic acid 250 mg IV q6h for mood stabilization (i.e., 14 mg/kg/24 hours, within the usual dose range, 10-20 mg/kg/24 hours), thiamine 500 mg IV every 8 hours, propranolol 20 mg IV twice daily, tamsulosin, and folic acid 1 mg IV.

Two days after admission, the patient was obtunded with normal vital signs, but he had not received a dose of lorazepam for approximately 48 hours. Medical record review revealed that he had been titrated upward to dexmedetomidine IV 0.6 mcg/kg/hr (for unclear reasons) and

maintained on that increased dose for about four hours. Supplemental oxygen by nasal cannula was started at 5 L/minute; mechanical ventilation was not necessary. He remained somnolent for two subsequent days, during which time he developed aspiration pneumonia. Following the completion of antibiotics for pneumonia, he was diagnosed with *Clostridioides difficile* colitis, which further prolonged his hospital stay and strained relationships among the patient's family, the nursing staff and medical team.

Tittle: Bandemia as a Harbinger of Stercoral Colitis and Impending Perforation

The Case

A 56-year-old woman was brought to the emergency department (ED) by her husband for “shaking” at home and being weak “like a ragdoll,” which he attributed to her long history of high dose opioid therapy for chronic back pain. He reported that she had poor oral intake and lost 20 pounds in the previous month. The patient had no “chief complaint,” but admitted on “review of systems” to constipation for several days, subjective fevers at home, and mild pain in the chest, back and abdomen. On physical examination, she was alert and afebrile with abdominal distention and slight tenderness without rebound. An abdominal x-ray confirmed a large amount of stool in the colon with no free air. Urine drug screen was positive for hydrocodone and hydromorphone. Her blood leukocyte count was 11,500 cells/μL with 31% bands.

During observation in the ED, the patient’s condition improved considerably with intravenous fluids, but without any fecal output. Nevertheless, she wanted to go home, and her family concurred that she would be safe and that follow-up with her well-regarded primary care physician would be arranged within 1-4 days. She was diagnosed with "constipation," "failure to thrive," and "dehydration" and advised to take a laxative, drink fluids, and decrease her use of opioids.

Three days later, the patient was admitted to a second hospital with perforated bowel and sepsis. In the operating room, the surgeon found stercoral colitis and a large perforated “stercoral ulcer” of the proximal sigmoid colon with disseminated fecal and purulent material. Despite aggressive surgical and postoperative care, she expired from sepsis ten days later.

Tittle: Failure to Adhere to Dietary Restrictions Leading to Complications and Poor Follow-up

The Case

A 50-year-old unhoused man (with no known family members or caregivers) presented to the Emergency Department (ED) at 0900 for evaluation of abdominal pain, reportedly one day after swallowing multiple sharp objects. He described a desire to consume metal, but he denied nausea, vomiting, diarrhea, or constipation. He also denied suicidal ideation or any intent to harm himself. His past medical and psychiatric history was notable for schizoaffective disorder and multiple prior foreign body ingestions (e.g., wrapped razors, pens, screws) with surgical scars from previous abdominal operations after these ingestions. He was taking no medications at presentation and had been lost from psychiatric follow-up care.

On physical examination, vital signs were stable, and his abdomen was soft and non-tender. Imaging revealed multiple metallic foreign bodies throughout the gastrointestinal tract including an open safety pin or paper clip in the distal stomach, a screw in the cecum, and a paper clip in the

rectum. There was no free air or other signs of perforation. Psychiatric Emergency Services (PES) evaluated the patient and suspected schizophrenia versus bipolar disorder, with cluster B personality traits. Because he was not medically cleared, PES discontinued their consultation and offered no further recommendations, pending resolution of his medical issues.

Given concern for a sharp foreign body in the stomach, emergent upper gastrointestinal (GI) endoscopy within 2 to 6 hours, with anesthesia support, was planned. An order to keep the patient NPO ("nil per os" or "nothing by mouth") was placed in the electronic health record (EHR) at 1030. However, this order was not communicated verbally, and the assigned nurse did not know that patient was NPO; therefore, she allowed the patient to eat before noon. When gastrointestinal endoscopy staff called the assigned nurse for hand-off and checklist review, it was recognized that the patient had just eaten. Anesthesia recommended to delay the procedure by several hours, and to perform it with endotracheal intubation to reduce the risk of aspiration. By the time endoscopy occurred at 1630, the sharp object had passed distally and could not be endoscopically visualized or removed. A subsequent x-ray confirmed no foreign body in the gastric area, so the patient was observed for signs of perforation and given laxatives to assist with bowel flush. He defecated but refused to show his fecal material to ED staff. After several hours of observation, the patient denied abdominal pain and left against medical advice, with a laxative prescription but no psychiatric follow-up.

Tittle: Under Pressure: Tracheostomy Cuff Over Inflation Leading to Tissue Necrosis and Cuff Rupture

The Case

A 56-year-old man was admitted with Coronavirus Disease 2019 (COVID-19) pneumonia and acute respiratory failure, requiring mechanical ventilation. Given his severe lung damage and the anticipated need for very slow weaning from the ventilator, the critical care team decided to proceed with early tracheostomy. This procedure was performed percutaneously at the bedside, with some difficulty dilating the tracheal ring, requiring repeated dilations. The tracheostomy tube was secured, inspected via bronchoscopy, and properly sutured.

Over the following days, the respiratory therapist noted an air leak around the tracheostomy cuff; additional inflation of the cuff was required to obtain an adequate seal. The tracheostomy site was evaluated by the clinical team and instructions were given to further inflate the cuff and monitor cuff pressures. However, cuff pressure values were neither documented in the medical record nor communicated to the physician team. After multiple air leak episodes treated by adding more air into the cuff, the decision was made to change the tracheostomy tube. Before this could happen, the patient developed increasing hypoxemia and respiratory distress, ultimately leading to hypotension and requiring 100% inhaled oxygen via the ventilator. On inspection, the tracheal cuff had burst, leading to a severe leak in addition to a tracheal tear with surrounding tissue necrosis. An oral endotracheal tube was placed with the balloon distal to the tracheal injury and adequate ventilation was achieved. The patient subsequently underwent surgical repair of the tracheal injury. The repair was uneventful, and the patient's postoperative course was notable for continued slow weaning from the ventilator and discharge to an appropriate rehabilitation facility.

Tittle: Ventricular Wall Injury during a Diagnostic Cardiac Catheterization

The Case

A patient was referred to a cardiologist for elective diagnostic cardiac catheterization for possible coronary artery disease. During the first part of the angiographic procedure, using a multipurpose A (MPA) catheter, the cardiologist unintentionally perforated the patient's left ventricular wall with the catheter and injected radiocontrast into the ventricular muscle. The tear and perforation in the left ventricular wall caused radiocontrast staining outside the ventricular cavity, indicating hemorrhagic injury. The cardiologist did not recognize the perforation and continued with the cardiac catheterization, including coronary angiographic imaging.

Twenty minutes after the end of the procedure, the patient complained of "10/10" chest pain. The cardiologist obtained and reviewed echocardiographic images, which revealed bleeding around the heart caused by the catheter-related ventricular wall perforation. The patient underwent emergency exploratory surgery to fix the perforation within 40 minutes thereafter, but 1 liter of blood was removed from his pericardium, and he did not survive, despite maximal interventions. The patient was pronounced dead three hours after the initial diagnostic procedure.

Tittle: Misconnection Leading to Arterial Thrombosis

The Case

A 55-year-old man with chronic obstructive pulmonary disease (COPD) was brought by ambulance to the emergency department (ED) with worsening shortness of breath for the past two days. He was febrile to 101° F, tachycardic to the 140s, tachypneic to the 30s, and hypotensive with blood pressure readings of 60s/40s. He was ill-appearing with coarse breath sounds throughout, mild end-expiratory wheezes at both lung bases, mild abdominal tenderness without guarding, no edema, and no rashes. His oxygen saturation and blood counts were normal, but lactate and procalcitonin levels were elevated, serum creatinine was 1.5 mg/dL (consistent with acute kidney injury), and chest x-ray showed bilateral infiltrates. Computed tomography (CT) of the chest was negative for pulmonary embolism but suggested infection. The patient was given was given an isotonic fluid bolus of 30 ml/kg and started on broad-spectrum antibiotics (cefepime, vancomycin, azithromycin), nebulized bronchodilators, supplemental oxygen by mask, and a norepinephrine drip. An arterial line was inserted into the left radial artery to enable close monitoring of the patient's hemodynamic parameters. The assigned nurse left the bedside momentarily to attend to other orders. After successful placement, no arterial line set-up was immediately available, so the physician connected the vancomycin drip that was set up for infusion into the patient's left ankle peripheral intravenous (IV) line to the left arm arterial catheter.

The Vancomycin drip was infusing through a pump and clinical alarms indicating excessive pressure did not go off. Fifteen minutes later, the patient's nurse identified the misconnection, returned the vancomycin drip to the peripheral IV line, assessed the patient's left hand, and noted a large hematoma and bruising. The patient's blood pressure showed improvement with low dose norepinephrine, so another arterial line was deemed unnecessary. The patient started to complain of severe burning and his medial three fingers turned blue, mottled and cold. Doppler studies confirmed lack of flow in the radial artery. An intra-arterial thrombolytic agent (urokinase) was

administered by another physician, followed by a heparin infusion for the next six hours via the catheter sheath. Angiography six hours after event revealed restoration of flow in the radial artery and improved perfusion to the extremity.

Tittle: Hurried Team Huddle and Poor Communication: Unsafe Practice During Anesthesia for Emergency Cesarean Delivery

The Case

A 25-year-old obese patient in labor required a category 1 (immediate) cesarean delivery. As the obstetric team was in a hurry to deliver the baby, the team huddle was rushed. The anesthesia care provider inserted a spinal needle swiftly and uneventfully. He injected hyperbaric bupivacaine 0.5% and the cesarean delivery was carried out uneventfully. A live baby girl was born with an Apgar score of 10 at 5 minutes. When the anesthesia care provider later opened the patient's electronic health record, he discovered that the patient had received subcutaneous enoxaparin 40 mg four hours preoperatively. The obstetric team had not mentioned this information during the previous huddle.

Postoperatively, the patient was monitored closely and was found to have a dense, persistent motor and sensory block of the lower limbs at 6 to 8 hours after delivery. Thus, magnetic resonance imaging (MRI) of the lumbar spine was performed, which did not show any epidural hematoma. Over the next day, the dense sensory block gradually wore off, and the patient recovered without any permanent sensory or motor impairment.

Tittle: Limb Loss after Vasopressor Use

The Case

A 66-year-old woman presented to the emergency department (ED) with acute renal failure, abdominal pain, and watery diarrhea, one month after a prior hospitalization for *Clostridioides difficile* colitis. After assessment in the ED, including a physical examination that omitted the legs, she was initiated on antibiotics and received fluid resuscitation for suspected urinary sepsis versus recurrent *C. difficile* colitis. Due to hospital overcrowding, the patient was kept in the ED overnight.

During her stay in the ED, the patient was noted to have persistent hypotension requiring norepinephrine infusion for approximately 12 hours. However, vital signs were notably absent from the medical record, with an 8-hour period during vasopressor administration in which no blood pressure measurements or limb assessments were recorded by nursing staff. Resident notes from the patient's first hospital day documented palpable pulses. Although attending physicians' documentation noted possible development of limb ischemia, these notes were not entered into the electronic health record (EHR) until several days later.

After the vasoactive agents were discontinued, the primary service noted that the patient had cool lower extremities and no palpable pulses. Vascular Surgery was consulted in the evening, but their assessment was that she had Rutherford Grade 3 ischemia and her limbs were non-salvageable. She was ultimately transferred to the intensive care unit (ICU), where she was treated for recurrent *C. difficile* colitis. She underwent bilateral above knee amputations (AKA), and her post-operative course was complicated by recurrent *C. difficile* colitis symptoms requiring additional

antibiotic therapy. Her acute renal failure resolved, and she was ultimately discharged to a skilled nursing facility.

Tittle: Home Medications Contribute to a Unique Opportunity for Error on Discharge from the Hospital

The Case

A 76-year-old man (Patient A) was admitted to the hospital for headaches after a recent diagnosis of B cell lymphoma with central nervous system (CNS) involvement. During the hospitalization, he remained in a double occupancy room with another patient (Patient B). Patient A was discharged after he received appropriate clinical care and his acute symptoms resolved, while Patient B remained admitted.

Both patients had brought their oral home medications to the hospital because their specialty oncology drugs were not on the hospital formulary. The medications were verified by the pharmacist and bar-code labeled for the individual patients who were intended to receive them. The home medications were then placed into the automatic dispensing cabinet so that the floor nurse could access, administer, and return the medications to the respective patients at discharge. The discharge process was reportedly rushed but otherwise uneventful.

Three days after discharge, Patient A's son called with concerns about his father's medications, one of which appeared to be new. It was discovered that Patient A was inadvertently discharged home with Patient B's medication (ponatinib) along with his own medication (temozolomide). By the time Patient A's son called with this concern, Patient A had taken three doses of Patient B's ponatinib, which is only approved for use in chronic myeloid leukemia and Philadelphia chromosome-positive acute lymphoblastic leukemia. While Patient B remained hospitalized, it was discovered that his home medication (ponatinib) was "missing", and efforts were made to obtain an early refill for him to receive upon discharge.

Tittle: The One That Got Away—Elopement of a Suicidal Patient in the Emergency Department.

The Case

A 25-year-old female was sent by ambulance to the emergency department (ED) by a mental health clinic for suicidal ideation. Upon arrival to the ED at 1645, the patient was evaluated by the triage nurse and determined to be awake, alert, calm, and cooperative. She denied current suicidal thoughts. The department was extremely busy with a census of 97 patients, including 29 admissions being held awaiting inpatient beds; the National Emergency Department Overcrowding Scale (NEDOCS) score was 200 (scores > 180 indicate disaster-level crowding).[1] After completing triage, the patient was placed on a gurney in the hallway next to the triage station at 1650. A Posey restraint was applied, as no qualified sitter was available to stay with the patient. Psychiatric Emergency Services (PES) (a group of licensed clinical social workers who provide ED services) was contacted for psychiatric social work assessment. The PES staff member stated that other patients needed to be seen first and that the patient would be evaluated as soon as possible.

Approximately 40 minutes later (1730), the triage nurse noted the patient was missing from the gurney, the Posey belt on the bed still buckled and in place. Hospital police were called

immediately, and the elopement of the patient and her description was reported. PES was also paged and made aware of the patient's elopement. Eight minutes later the patient was found by an Environmental Services staff member in a bathroom in the radiology department adjacent to the ED. The patient was on the floor with her shoestrings tied around her neck. She was awake with discoloration to her face (purple) and neck (red), but she was breathing and able to follow the nurse with her eyes. She was returned to the ED resuscitation room where she was evaluated by the physician. Redness was noted to her neck, but abrasions, swelling, and bleeding were absent. There was adequate breathing and air exchange, adequate oxygen saturation, and no respiratory distress. The patient underwent PES evaluation and was eventually transferred to an inpatient psychiatric facility for further care.

Tittle: Critical Echocardiogram Result Lost to Follow-up

The Case

A 63-year-old man with history of stroke, systolic heart failure, and ventricular tachycardia with a pacemaker in place presented from a skilled nursing facility (SNF) with shortness of breath. He was treated with two days of intravenous diuretics for mild heart failure exacerbation and an echocardiogram was performed. The results of the echocardiogram were pending on discharge, with anticipation that the patient's primary care provider would follow up the results.

The patient was readmitted from the SNF two weeks later and was found to have endocarditis and infected pacemaker wires. The admitting physician reviewed the echocardiogram done on the prior hospitalization and noted there was a vegetation on the tricuspid valve, which was an unexpected finding. On review, the echocardiogram results had populated into the electronic health record after the patient was discharged and the new vegetation was not flagged as a critical finding. No providers were contacted about this finding by the cardiologist who read the echocardiogram. The results were sent to the inbox of the ordering resident, who was not on the primary service taking care of the patient. The resident did not check his inbox. The primary service taking care of the patient at the time also did not follow up the patient's echocardiogram given that he had already been discharged to a skilled nursing facility when the finding was noted. After the patient was readmitted with endocarditis, he had a complicated hospital course resulting in death.

Tittle: Failure to Ensure Patient Safety Leads to Patient Falls in Nursing Homes.

The Cases

Case 1: An 88-year-old woman with a history of dementia, hypertension (treated with a beta blocker), chronic obstructive pulmonary disease (COPD), and known high risk for falling was admitted to a nursing home. During the first two months of her stay, she remained confused, but the nurses were able to redirect her most of the time. She was not ambulatory and transferred from bed to wheelchair with assistance. She was not enrolled in a fall prevention program because she was not ambulatory. During this time, she fell when trying to get out of bed and was transferred to an acute care hospital and diagnosed with a hip fracture. The next day, she underwent open reduction and internal fixation of the left hip. Subsequently, the patient was diagnosed with sepsis, presumably from a urinary tract infection (UTI), and died less than one week later. The cause of death was documented as hip trauma from the fall at the nursing home.

Case 2: A 78-year-old woman with a history of obesity, diabetes mellitus, anemia, anxiety, end-stage dementia, and falls was admitted to a nursing home. Two days after admission, she was seen by the primary care provider (PCP) who completed a new patient assessment. Subsequently, the patient suffered multiple falls despite the nursing staff implementing "fall precautions" including moving the patient to a room close to the nurse's station, which was the only specific precaution documented. Unfortunately, the patient could not follow instructions and did not understand that she was unable to walk unassisted. State law prohibited soft restraints to prevent falls.

The primary care provider was aware of the falls, came to examine the patient multiple times, and ordered physical therapy evaluation and treatment. Medications were given to assist with agitation secondary to dementia and a psychiatric evaluation was ordered to review the medications. The patient was noted to be consistently confused. Over the six months following admission, the patient had 16 falls noted in her chart. In response, the PCP completed a second evaluation and recommended a trial of discontinuing oral quetiapine, lorazepam, and tramadol, but continuing a compounded topical gel containing lorazepam, diphenhydramine, haloperidol, and metoclopramide.

Less than one week after the second evaluation, the patient was found face down on the floor and was unresponsive for two minutes, then began vomiting. She was taken to an acute care hospital where she was diagnosed with a traumatic subarachnoid hemorrhage. Her family requested comfort care and hospice; the patient died due to complications of her hemorrhage.

Tittle: The Dose Makes the Poison: Medication Error During Procedural Sedation in the Pediatric Emergency Department.

The Case

A three-year-old girl weighing 20 kilograms (kg) was transferred by ambulance to a tertiary Emergency Department (ED) from a referring hospital due to a left leg injury. She reportedly slipped while running on a wet floor. Imaging performed at the transferring facility indicated "left posterior hip dislocation vs. pathological fracture" and it was determined she needed pediatric orthopedics specialty care. Initial vital signs were notable for tachycardia and tachypnea, but these findings normalized after the parents calmed her. The patient was crying and holding her left hip flexed with significant tenderness on examination, but there were no other signs of trauma. She was given intravenous morphine for pain control and started on maintenance intravenous fluids. Imaging demonstrated that the left femoral head was smaller than the right with premature ossification of the femoral head physis (likely reflecting developmental dysplasia of the hip), now complicated by left femoral-acetabular dislocation. There was no acute fracture and no acute findings involving the tibia or fibula. An orthopedic surgeon was consulted and recommended closed reduction of the left hip in the ED.

The ED physician obtained informed consent for procedural sedation from the parents after full discussion of procedural risks and benefits. After an appropriate procedural pause, nursing staff applied cardiac, pulse oximetry, and end tidal carbon dioxide monitors. With the orthopedic and ED teams at the bedside, the patient was pre-oxygenated with high-flow oxygen. Ketamine 20 mg (1 mg/kg) was administered intravenously. Following the ED's standard protocol for procedural sedation, the ED resident physician then called out to the scribing nurse the dose of propofol they

would administer; 10 mg was the intended dose. The resident administered the medication and called out “10 of propofol”. The nurse repeated “10 of propofol given.” The orthopedic surgeon performed the hip reduction successfully.

The patient became apneic shortly thereafter. She was easily ventilated for one minute with jaw thrust and bag-valve-mask. She regained consciousness and was able to maintain her airway and breathe spontaneously. Her end tidal CO2 normalized, and she remained hemodynamically stable. The patient continued to recover and was monitored appropriately in the intensive care unit. Subsequent case review confirmed that the resident administered 10 mL of a 10 mg/mL solution of propofol, a total dose of 100 mg (5 mg/kg), instead of the intended volume of 1 mL of a 10 mg/mL solution, a total dose of 10 mg (0.5 mg/kg).

Tittle: The Danger of 10% Intravenous Calcium Chloride Extravasation.

The Case

A 52-year-old man with a history of lymphoplasmacytic lymphoma was admitted to the hospital with fever, rigors, and hypotension. He had respiratory failure and required intubation and mechanical ventilation. He was diagnosed with septic shock and underwent vigorous fluid resuscitation and antibiotic therapy. He required both dobutamine and vasopressin. One day after admission, he suffered an infiltration from an infusion of calcium chloride into the dorsum of his left hand. After resuscitation and stabilization, he was noted to have venous congestion and soft tissue damage to the left fourth finger. Multiple services were contacted to assist with management of this complicated wound. After conservative treatment for nearly three weeks, the wound did not show any appreciable healing, and the affected finger was surgically amputated.

Tittle: Challenging Case of Multiple Suicide Attempts in a Complex Patient with Psychiatric Comorbidities.

The Case

A woman with a complex psychiatric history of bipolar disorder, borderline personality disorder, and generalized anxiety disorder was seen by medical providers on three occasions after expressing suicidal ideation. She was prescribed antidepressant medications at typical starting doses. The following month, the patient attempted to commit suicide by overdosing on her prescription antidepressants and pain medication. She was admitted to the critical care service of a hospital and received a low dose of lorazepam to relieve anxiety.

A consulting psychiatrist at the hospital evaluated the patient, but she did not see her primary psychiatrist, as her primary psychiatrist did not provide inpatient consultations at this facility. The consulting psychiatrist was concerned about potential complications and side effects from starting mood-stabilizing medications, so they recommended continuation of lorazepam alone and did not recommend transfer to inpatient psychiatric care. The patient was discharged to her mother’s care the same day that she was evaluated by the consulting psychiatrist, after her mother promised to monitor the patient and control her medications until she could be re-evaluated by a licensed clinical social worker in eight days.

Two weeks later, before she could get appointed to see a psychiatrist, the patient attempted suicide by dousing herself in hairspray and setting herself on fire, resulting in third-degree burns over 42% of her body. The severity of the burns required four skin grafts and nearly two dozen laser surgeries.

Tittle: Procedure Complications – Who is Responsible for Follow up?

The Case

A 74-year-old man with newly diagnosed with adenocarcinoma of the esophagus was admitted to the Gastroenterology laboratory for esophagoscopy with endoscopic ultrasound (EUS) to stage his disease. He received procedural sedation in the usual manner. The procedure was complicated by an esophageal perforation just proximal to the gastroesophageal (GE) junction, which was endoscopically closed using an over-the-scope clip system. There was a significant delay in the patient's care based on communication issues involving the thoracic surgery, gastroenterology, and hospitalist teams. Specifically, there were challenges about 1) how to get the patient admitted to a hospital service from the Gastroenterology recovery room, 2) which service would admit this patient for a potential thoracic procedure, and 3) which service would observe the patient, in the event that surgical repair was not necessary. No recommendations were communicated by the thoracic surgery team, in part because there was no active inpatient encounter available in the electronic medical record to allow consultants to document their recommendations. Further confusion resulted from the fact that the thoracic surgery team recommended obtaining an esophagogram, but this procedure was canceled because the patient was still sedated (and therefore unable to swallow safely on command) when he arrived in the radiology suite.

Tittle: Missed Diagnosis of Addison's Disease in Adolescent Presenting with Fatigue.

The Case

A 13-year-old girl developed fatigue, weight loss, and a persistent upper respiratory infection over a three-week period. Her parents took her to two hospital emergency departments, two urgent care centers, and her general pediatrician for evaluation; all providers except one of the urgent care centers shared the same electronic health record. Laboratory testing for mononucleosis, group A streptococcus, and anemia was normal. Her leukocyte count was elevated to 18,000/mm^3 with a normal differential. Her basic metabolic panel showed a low serum sodium of 130 mmol/L and a borderline-high serum potassium of 4.9 mmol/L. Two health care providers noted her tanned skin and inquired about use of tanning salons. Her pediatrician noted weight loss and recommended a return visit to recheck her weight, but her parents did not keep the follow-up appointment. She was diagnosed as having either "mono-spot negative mononucleosis" or "culture-negative and ASO-negative strep throat." The family was advised to provide supportive care and counseled that it can take months to recover fully from viral infections.

Over the next several months the patient's symptoms continued. She dropped out of school due to fatigue, sleeping up to 20 hours per day. Shortly after dropping out of school, she developed a new respiratory infection and was taken back to the local emergency department, where she suffered a sudden cardiac arrest. She was successfully resuscitated and airlifted to a tertiary care hospital where the medical team diagnosed her as having an adrenal crisis, later confirmed to be secondary to autoimmune primary adrenal failure or Addison's disease. She was placed on extracorporeal

membrane oxygenation to support her cardiorespiratory function but developed massive intracranial hemorrhages and was withdrawn from life support four days later.

Tittle: Endotracheal Tube Fallout in a Patient with Severe Obesity During Eye Surgery.

The Case

A 48-year-old man weighing 178 kg (392 pounds) and 176 cm (69 inches) tall, with a history of obstructive sleep apnea, was scheduled for corneal surgery under general anesthesia. After induction, he was intubated with a size 8 endotracheal tube, which was secured with sticky tape. On completion of the operation, the patient was transferred to a motorized gurney to extubate him in a sitting position because the operating room (OR) table was too narrow. However, while the team was moving him from the OR table to the gurney, a nurse inadvertently pulled on the anesthetic machine hoses. The endotracheal tube became dislodged and the patient could not be ventilated; his hemoglobin saturation decreased to the high 80s for about 30 seconds. He had already been given sugammadex to reverse rocuronium induced-neuromuscular block. After intravenous (IV) suxamethonium 150mg, his trachea was speedily re-intubated and his lungs were ventilated with 100% oxygen, restoring arterial oxygen saturation to normal levels. His neuromuscular transmission was monitored at the adductor pollicis and once fully recovered from neuromuscular blockade, he was awakened and extubated. He suffered no harm from the incident and was discharged after 4 hours of observation.

Tittle: Agitated Delirium Contributes to Missed Testing and Delayed Diagnosis of Gastric Perforation

The Case

A 72-year-old man presented to the emergency department with dyspnea, nausea, and emesis. Computed tomography (CT) of the chest and abdomen revealed findings consistent with viral pneumonia and gastric distention without obstruction or mass. He was transferred to another hospital, diagnosed with COVID pneumonia and ileus, and admitted to a specialized COVID care unit. A nasogastric tube (NGT) was placed, supplemental oxygen was provided, and oral feedings were held.

Early in his hospital stay, the patient developed hyperactive delirium and pulled out his NGT. Haloperidol was ordered for use as needed (“prn”) and the nurse was asked to replace the NGT and confirm placement by X-ray. After the bedside nurse was unable to pass the NGT, the charge nurse attempted multiple times, but the NGT continued to coil in the patient’s mouth. After numerous attempts, the NGT was replaced, but X-ray was not performed due to miscommunication at the change of shift, which occurred right after NGT placement. Over the course of the following hours, the patient became increasingly disoriented and agitated requiring repeat doses of “prn” haloperidol. Eight hours after the NGT was replaced, the patient became hypotensive and hypoxemic. The overnight on-call physician was contacted, who called the rapid response team. Chest X-ray revealed air under the diaphragm suggesting enteric visceral perforation. Emergent CT of the chest and abdomen revealed a gastric perforation. The patient was transferred to the intensive care unit (ICU) and ultimately required endotracheal intubation with mechanical ventilation. In consultation with the patient’s family, it was determined that emergency surgery was not consistent with his goals of care. Despite resuscitative measures, the patient died.

Tittle: Duplicate Therapies in Retail Pharmacy

The Cases

Case 1: A middle-aged man with a past medical history of heart failure with reduced ejection fraction (HFrEF) and end-stage renal disease (ESRD), on three-times weekly hemodialysis, was seen in an outpatient cardiology clinic. The cardiologist planned to switch the patient from an angiotensin converting enzyme inhibitor (ACEi) to an angiotensin receptor blocker/neprilysin inhibitor (ARNI, specifically sacubitril and valsartan) due to worsening symptoms despite standard multi-drug therapy for HFrEF.

However, when the patient returned to his primary care clinic for medication review and renewal, the pharmacy student doing medication reconciliation recognized that he was being dispensed both an ACEi and an ARNI. Although the ACEi order was discontinued in the electronic health record system, it was still active at the retail pharmacy. The patient was not harmed by concomitant ACEi and ARNI use, given that he was already on hemodialysis, but otherwise there would have been an increased risk of worsened renal function.

Case 2: An elderly patient with hypertension, morbid obesity, dementia, and heart failure was discharged home after a brief hospital stay and was told to pick up prescriptions at his local pharmacy. The retail pharmacist recognized that two physicians, a general internist and a cardiologist, had prescribed the same antihypertensive medication with different dosages. The pharmacist called both physicians' offices for clarification and received no response. The patient and his daughter were also unable to clarify which dosage was correct. As a result of this confusion, the patient ran out of his medication and his daughter and home health nurse noted poor blood pressure control. After eight days, the pharmacist provided the patient with both medication dosages and instructed the patient to follow up with his physicians about which dosage he should take.

Tittle: Distraction of the Anesthesiologist and Lack of Resuscitation Drugs Resulting in Delayed Treatment of Laryngospasm.

The Case

A 48-year-old woman with a history of obesity (body mass index [BMI] of 32), but without any history of smoking, gastroesophageal reflux disease, or current or recent upper respiratory tract infection, was admitted for elective removal of metal hardware from her foot. After induction of general anesthesia, a laryngeal mask was inserted easily and general anesthesia was maintained with sevoflurane in 35% oxygen. The patient was breathing spontaneously. The anesthesiologist was distracted briefly by the anesthesia technologist to sign for opioid drugs in a register, but during this time, the end-tidal carbon dioxide alarm sounded. The anesthesiologist immediately increased the oxygen to 100% and attempted to manually ventilate the patient, but this proved impossible. He called for help from the technologist, who was outside the operating room (OR), and asked for urgent delivery of suxamethonium (succinylcholine). However, the drug refrigerator was broken and contained no drugs. Suxamethonium had to be retrieved from another room, resulting in marked arterial hemoglobin desaturation without bradycardia or cardiac arrest. After suxamethonium was administered, the patient's trachea was intubated and she was manually ventilated with a rapid

increase in her arterial oxygen saturation to 98%. Her postoperative course was uneventful without any clinical sequelae.

Tittle: Sepsis Resulting from Delays in Treatment and Miscommunication among Specialists

The Case

A 71-year-old man presented to his physician with rectal bleeding and pain, which was attributed to radiation proctitis following therapy for adenocarcinoma of the prostate. After admission, the patient was found to have extraperitoneal perforation of the anterior rectum. He was treated with antibiotics and bowel rest and discharged three days later with a plan to follow up with a colorectal surgeon in two weeks. However, the earliest available appointment with the identified surgeon was over four weeks later.

Four days before the scheduled surgical appointment, the patient presented to the Emergency Department (ED) for continued rectal bleeding and pain, now complicated by urine leaking from the rectum. He was not admitted but was told to keep his surgical appointment 4 days later. Surgical options were discussed at this colorectal surgery visit; the patient was "urgently" referred to a urologist for consideration of urinary diversion for presumed rectovesical fistula. One week later, he was seen by the urologist and was found to be tachycardic and febrile, with acute kidney injury and severe pelvic pain. Urine output could not be assessed due to the rectovesical fistula. He was directed to the ED and was admitted immediately to the Hospital Medicine service for treatment of sepsis.

Computed tomography (CT) imaging showed persistent anterior rectal perforation with increased collection of feculent material and air extending to the symphysis pubis and dissecting into the right abductor musculature. With consultation from the colorectal surgeon, an interventional radiologist aspirated the thigh abscess and placed a drain to the skin. He was discharged after one week of intravenous antibiotics and drainage, with instructions to return to the hospital 5 days later for elective cystoscopy and diverting colostomy.

Tittle: Medication Handling and Compounding Errors in the Operating Room.

The Case

A 62-year-old man was undergoing a vitrectomy procedure for repair of a macular hole. Indocyanine Green (ICG) dye and 50% dextrose were retrieved from the medication dispensing machine and compounded by the circulating nurse (who had limited eye surgery training and experience, and was not familiar with the surgeon's documented "preference card"). During preparation, the nurse followed protocol by reading and showing the label of the medication (ICG) and its expiration date to the scrub technician. A label was then created for the compounded medication ("ICG in 50% dextrose") by the scrub technician on the sterile field. When requested by the attending surgeon, the scrub technician verbally confirmed the medication ("ICG in D50") being handed to the surgeon. The surgeon injected the medication to stain the eye. Soon after administration, the macula turned white. The ICG was immediately washed out of the eye and the macula returned to its normal color. The surgery was completed without further events. It was recognized soon after the surgery that the ICG had been prepared using 50% dextrose, rather than the requested 5%

dextrose, because the medication dispensing machine did not have any 5% dextrose. The effect of this error on the patient's eye and vision is unknown at the current time.

Tittle: Overdose of Gabapentin and Oxycodone in a Patient with End-Stage Renal Disease: A Case for Appropriate Interruptive Drug-Disease Alerts.

The Case

A 38-year-old man with end-stage renal disease (ESRD) on chronic hemodialysis, type 2 diabetes, peripheral arterial disease and hypertension was admitted for nonhealing, infected lower leg wounds. On hospital day 2, he underwent a right below-knee amputation. His postoperative course was complicated by pain at the operative stump, treated for four days with regional nerve blocks. He was also given gabapentin at 100 mg three times daily (TID), escalating to 400 mg TID by postoperative day (POD) 4. Intermittent intravenous hydromorphone was also started postoperatively, which was transitioned to oral oxycodone (up to 60 mg daily) and then oral hydromorphone. These dose adjustments were recommended or endorsed by a team that included surgeons, nurses, and pharmacists, and the electronic health record (EHR) did not noticeably interrupt the prescriber while entering these orders.

On POD 7, the patient developed persistent myoclonus involving his hands and arms; his gabapentin dose was decreased to 300 mg at bedtime. On POD 9, the patient had increasing myoclonus and severe somnolence, became arousable only with aggressive tactile stimuli, and developed hypoxia with a respiratory rate of 4 per minute. He was diagnosed with metabolic encephalopathy due to opiates and gabapentin. He was treated with oxygen supplementation and intravenous naloxone with improvement in somnolence and respiratory rate (although his pain intensity also increased). He was transferred to the intensive care unit for observation and required an additional dose of naloxone due to recurrence of symptoms. The patient’s mental status returned to normal, and his myoclonus resolved over the next two days, after dialysis and discontinuation of the gabapentin and opioids. However, the patient remained anxious about the possibility of recurrence of myoclonus, and his postoperative rehabilitation was delayed.

Tittle: Saved by ECMO

The Case

A 27-year-old pregnant woman was admitted at an estimated gestational age (EGA) of 29 weeks for increased shortness of breath. She was diagnosed with severe pulmonary arterial hypertension and treated with pulmonary vasodilators and supplemental oxygen. At 36 weeks EGA, she was readmitted for elective cesarean delivery.

Lumbar epidural anesthesia was planned for the cesarean delivery. After the anesthesia provider inserted the epidural catheter, it was tested using 2 milliliters (ml) of 0.25% bupivacaine. After 5 minutes, an additional 3 ml of 0.5% bupivacaine was injected through the catheter. However, the patient suddenly became bradycardic and hypotensive. Within about 3 minutes, she developed pulseless electrical activity and cardiopulmonary resuscitation (CPR) began immediately.

The clinical team suspected inadvertent dural puncture with the epidural catheter, leading to total spinal block causing severe hypotension, right ventricular ischemia, and a pulmonary hypertensive

crisis. Noradrenaline and vasopressin infusions were started and emergent cesarean delivery was performed. The patient had return of spontaneous circulation (ROSC) after two cycles of CPR, but she had another cardiac arrest. After six minutes of CPR, she had ROSC but then re-arrested after 4 minutes of spontaneous circulation. The anesthesia and perinatology teams decided to start veno-arterial extracorporeal membrane oxygenation (ECMO). Catheters were placed, and infusions of nitric oxide and trepostinil were started, with continuation of norepinephrine and vasopressin. The patient was transferred to the intensive care unit and was weaned off ECMO after five days. She was extubated after nine days in intensive care and survived without any neurological sequelae.

Tittle: Respiratory Distress after Neck Surgery: Two Cases of Postoperative Cervical Hematoma.

The Cases

Case #1: A 61-year-old man presented with a history of hypertension, peripheral neuropathy, osteoarthritis, and spinal stenosis, status/post two previous spine surgeries and long-term use of opioid analgesics. He reported a recent history of right arm weakness, which was attributed to severe cervical spinal canal and foraminal stenosis at the C4-C5 level. He underwent elective C3-C5 anterior discectomy and cervical disc arthroplasty. The patient recovered in the Post-Anesthesia Care Unit (PACU) overnight, was evaluated by physical therapy, and was discharged home about 24 hours after surgery with home health follow-up. The nurse's discharge note mentioned that the patient's nurse practitioner was notified regarding neck swelling and evaluated the patient one hour before discharge.

About three days later, the patient was transported by ambulance in cardiopulmonary arrest after complaining to his wife of shortness of breath and becoming unresponsive. The paramedic was unable to intubate the patient due to "excessive airway swelling and tracheal deviation"; they also noted "blood weeping through surgical incision." Intubation was attempted multiple times after the patient arrived in the Emergency Department (ED). The ED provider noted bright red blood in the oropharynx, significant retropharyngeal distension, and a 2.5 cm vertical laceration of the posterior pharynx below the uvula, with bleeding. The patient could not be resuscitated and expired. Autopsy revealed a large hematoma at the operative site, causing compression of the upper airway, which was the suspected cause of respiratory and cardiac arrest.

Case #2: A 52-year-old woman with a chronic cough attributed to COVID-19 pneumonia one year earlier was admitted to a tertiary care center for elective thyroid lobectomy for papillary thyroid cancer. Her operation was uncomplicated so according to the surgeon's protocol, she was observed in the PACU for six hours. On assessment prior to discharge, she had no significant pain or nausea, was eating, vocalized normally, and her incision had no swelling or ecchymosis. The patient was discharged to a hotel across the street from the hospital, where a one-night stay had been pre-arranged because the patient's home was two hours away.

The following morning, the patient called the surgery clinic to report increased neck pain and swelling that developed after a coughing fit. She was instructed by a triage nurse to present to the ED, where she was fast-tracked to a resuscitation bay and met by her primary surgical team. The patient had a large hematoma but was breathing and phonating normally. She was taken emergently to the operating room for hematoma evacuation. The field was washed out and

explored with no source of bleeding identified and the incision was re-closed. She was observed for 24 hours and discharged home on postoperative day 1.

Tittle: Aspergillus Mediastinitis & Endocarditis in a Pediatric Patient Complicating Cardiac Surgery and Bedside Chest Closure.

The Case

A 5-day old male infant with congenital heart disease including aortic atresia and double outlet right ventricle was transferred to the pediatric intensive care unit (PICU) from an outside hospital. His initial procedure was a median sternotomy with bilateral pulmonary artery banding and intracardiac line placement on hospital day 5. The patient recovered in the PICU until postoperative day 18, when he underwent a Norwood procedure with Sano shunt, removal of bilateral pulmonary artery bands, and revision of his median sternotomy. Mediastinal and pleural drains were placed at this time along with a peritoneal dialysis catheter. Chest closure was delayed until postoperative day 3, following routine practice, and performed under anesthesia at the bedside in PICU.

Staphylococcus aureus bacteremia was identified on postoperative day 7 (after the Norwood procedure). Narrowing of the Sano shunt due to possible vegetation was identified on postoperative day 19, requiring venoarterial extracorporeal membrane oxygenation (VA-ECMO) through lines placed in the open chest wound in the PICU. An additional revision sternotomy and Sano shunt takedown was performed the next day, during which he was found to have florid mediastinitis including multiple pockets of purulent material and a rind of inflammatory tissue surrounding the heart. The chest tissue culture collected during surgery demonstrated *Aspergillus fumigatus*. The patient returned to PICU with an open chest to optimize antibacterial and antifungal therapies for a hospital-acquired invasive fungal infection in an immunocompetent infant. This patient was discharged home on long-term antifungal therapy but at age 7 months, he presented to the Emergency Department (ED) in cardiac arrest of unclear etiology and resuscitation was unsuccessful.

In response to this case, the hospital undertook a comprehensive investigation and root cause analysis. A retrospective review of *Aspergillus* cultures from the same OR and PICU did not find any other cases of postoperative *Aspergillus*. Environmental assessment of the OR did not reveal any sources of contamination. However, the OR supply room was not on a schedule for routine terminal cleaning, was not connected to the OR's high-efficiency particulate air (HEPA) filtration system, had a slightly positive air pressure differential to the OR, and the storage room door was left open during surgery, leading to potential contamination of OR air with supply room air. In the PICU patient room, high levels of dust on the bedside T-bar, ceiling tiles and curtains suggested inadequate cleaning, the patient's bed was located directly below the air supply vent, and stained ceiling tiles indicated a leaking pipe in the bathroom ceiling, which served as a potential source of *Aspergillus* colonization and contamination. Environmental cultures of the area around the leaking pipe grew *Aspergillus* species that was not *A. fumigatus*.

Tittle: Hospital-Acquired Diabetic Ketoacidosis.

The Cases

Case #1: A 46-year-old Hindi-speaking resident of a skilled nursing facility (SNF) with a history of end-stage renal disease (ESRD), hypertension, poorly controlled type 1 diabetes complicated by polyneuropathy, drug-induced hepatitis, and duodenal ulcer, presented to the emergency department (ED) with asymptomatic post-dialysis hypertension, with a blood pressure of 246/100. He reported taking his regular blood pressure medications without any clear trigger for this hypertensive episode. He was treated in the ED with hydralazine and clonidine, with mild improvement in blood pressure. His chemistry panel included a serum glucose of 292 mg/dl and a calculated normal anion gap of 11. He was then discharged back to his SNF, as he remained asymptomatic, with recommendations to resume his usual antihypertensive medications.

The patient was placed in the ED hallway waiting for COVID-19 test results, as asymptomatic testing is required for all patients returning to SNFs. No nurse was assigned to the patient in the hallway, and the patient was given a multitude of small carbohydrate-containing meals (turkey sandwich, juice, crackers) by several ED staff. During the patient's 16-hour ED course, he did not receive any basal insulin; he only received 5 units of aspart and 10 units of regular insulin. When a nurse later passed the patient, and he expressed feelings of hunger, she checked his point-of-care glucose, which only read HI (>600 mg/dL), so a specimen was sent to the laboratory. Results included a serum glucose of 787 mg/dL with a markedly elevated anion gap of 22. The patient was started on a continuous insulin infusion and transitioned to subcutaneous insulin as he recovered from diabetic ketoacidosis (DKA).

Case #2: A 49-year-old male patient with history of poorly controlled type 1 diabetes, homelessness, injection drug use, and mental health concerns presented to the ED with nausea, and left thumb pain, swelling and discoloration for two days. He was seen by an orthopedic surgeon and was admitted for treatment of infection and hyperglycemia. Only correctional (short-acting) insulin was ordered. He was seen by the Inpatient Glycemic Team the next morning, which noted hyperglycemia, a slightly elevated anion gap of 14, and serum ketones. An insulin drip was started for treatment of DKA. After a few hours, basal (long-acting) insulin was administered, and the infusion was stopped. Treatment continued for his thumb cellulitis.

Tittle: Strongyloides: A Hidden Traveler and Potentially Lethal Missed Diagnosis.

The Case

A man in his 70s with a history of multiple myeloma (a cancer of the bone marrow), high blood pressure, osteoporosis, and pulmonary embolus, was admitted to a hospital with gastrointestinal symptoms and diagnosed with cholecystitis (a severe infection of his gallbladder), which was treated surgically with the finding of gangrenous gallbladder.

He was originally from Haiti and moved to the United States in the 1980s. Prior to his current illness he frequently traveled to see his family in Haiti, the Dominican Republic, and several countries in Central America. He had been seen numerous times for diarrhea in the previous five years, but the diarrhea had always been attributed to viral or unknown causes, without any microbiologic or serologic testing. His eosinophil counts were intermittently elevated during these 5 years, a finding that was either not noted or not commented upon by the physicians who treated him. One physician attributed his eosinophilia to lenalinomide, a medication that he had previously received for treatment of multiple myeloma. His treatment of multiple myeloma also included long periods

on dexamethasone, but he was no longer taking either lenalinomide or dexamethasone at admission.

Two months after his admission for cholecystitis, he was again seen with severe vomiting, was found to be hypotensive, and was readmitted to the hospital. An upper gastrointestinal endoscopy was done. Biopsies unexpectedly showed that his duodenum was heavily infiltrated with a parasitic helminth (worm) called *Strongyloides stercoralis*. He was treated with the anti-parasitic drug ivermectin and eventually improved enough to be discharged from the hospital.

Tittle: Don't Bite Your Tongue.

The Case

A 63-year-old woman with a past medical history of hypertension, osteoarthritis, migraine headaches, and daily smoking was admitted to a hospital for anterior cervical discectomy (levels C4-C7) and plating for cervical spinal stenosis under general anesthesia, using neuromonitoring modalities of somatosensory evoked potentials and motor evoked potentials.

The patient was placed under general anesthesia and intubated. The operation proceeded uneventfully and intraoperative neuromonitoring (somatosensory and motor evoked potentials) was used to help prevent spinal cord and peripheral nerve injury. During extubation after surgery, the anesthesia care provider noticed a large (approximately 4-5 cm) laceration on the underside of the patient's tongue, with an associated hematoma. This finding was attributed to the fact that the inexperienced anesthesia care provider was unaware of the fact that motor evoked potentials can cause an anesthetized patient's jaw to clench quite strongly, and thus had not placed a bite block in the patient's mouth.

The patient's tongue laceration resulted in pain and difficulty speaking. A consultation with an otorhinolaryngologist (ENT surgeon) was obtained. This surgeon recommended taking the patient back to the operating room so that her tongue laceration could be repaired. The patient was discharged the next day, with follow-up arranged by both the neurosurgery team and the otolaryngology team. She recovered uneventfully from her tongue laceration.

Tittle: A framework for assessing reasoning about controversial end-of-life clinical decisions.

The Case

A 65-year-old man with metastatic hepatocellular carcinoma (HCC), status-post partial hepatectomy with later development of a large ventral hernia, presented to the hospital with worsening abdominal pain. He was receiving palliative chemotherapy with bevacizumab, an agent that slows the growth of metastatic HCC by suppressing the formation of blood vessels that carry oxygen and nutrients to tumors. Imaging studies revealed perforated diverticulitis. A goals-of-care discussion was led by the palliative care service; the patient and his designated decision-makers chose to pursue non-operative management of diverticulitis. The patient was initially treated in the intensive care unit with broad-spectrum antibiotics; his condition improved, and he was transferred to a regular inpatient bed for continued antibiotics and observation. Later in the hospital course, he required abscess drainage by an interventional radiologist. However, the patient's condition worsened, and he suddenly developed diffuse peritonitis, signaling failure of non-operative

management. Following his wishes, he transitioned to comfort-focused end-of-life care but remained in an inpatient bed.

Shortly after this transition, the patient became unresponsive. He was no longer able to ask for pain medications or answer nursing questions regarding pain. However, he showed non-verbal signs of pain including moaning, grimacing, rigid extremities, and head shaking. Intravenous hydromorphone with a typical basal rate on a patient-controlled analgesia (PCA) pump was ordered near the end of the day shift. The evening nurse acknowledged the order yet refused to start the drip as she was uncomfortable with any basal PCA rate. The resident physician on duty spoke at length with the nurse, but she refused to start the drip and said, incorrectly, that the pharmacist did not approve it. The resident ordered hourly opioid bolus doses instead; however, the patient did not receive enough medication to resolve non-verbal signs of pain.

The same nurse refused to start basal PCA dosing through two subsequent nights despite discussions with multiple physicians and the charge nurse, due to concern that the medication would hasten the patient's death. This disagreement was extremely difficult to explain to the patient's loving significant other, who was unable to hear the nursing staff (due to deafness) and unable to read lips with masks in place. The patient's family expressed anger, anxiety, and frustration that he remained in pain, stating that he "does not deserve a death like this." Nurse staffing was stretched very thin due to staffing shortages, so no other nurses could be assigned to help, and the night residents had to check the patient almost hourly to ensure that he was receiving episodic pain control. After several days of continued unresponsiveness and non-verbal signs of pain, the patient died. The palliative care team spent many hours with the family helping them to manage their grief and dissatisfaction.

Tittle: Open wider: Failure to use an interpreter results in fractured teeth and hypoxia during a simple elective operation.

The Case

A 62-year-old Spanish-speaking woman with a past medical history of hypertension and asthma presented to the pre-anesthesia area for elective removal of a left thigh lipoma. Expecting a relatively simple outpatient operation, the anesthesiologist opted not to use a Spanish language translator and performed a quick pre-anesthesia evaluation, obtaining her history from the medical record. Unknown to the anesthesiologist, the patient was trying to communicate to him that she had undergone jaw replacement surgery and that her mouth opening was therefore anatomically limited. There was no mention of this historical information in the surgeon's preoperative note. During the airway exam, the anesthesiologist assumed that the patient did not understand him when she was asked to open her mouth wide.

The anesthesiologist proceeded with his plan for general anesthesia via laryngeal mask airway (LMA) placement after rapid induction. In the operating room after induction of anesthesia, he was able to open the patient's mouth just enough to place the LMA, but he was unable to ventilate through it due to bronchoconstriction. Realizing that he would need to intubate the patient, he attempted direct laryngoscopy, but his view was severely limited, and he was unable to visualize the airway sufficiently for intubation. With the patient becoming hypoxic (i.e., oxygen saturation

<90%) for about 5 minutes, he called for help, and eventually one of his colleagues was able to intubate the patient, although both of her central maxillary incisors were dislodged in the process.

After the operation, the patient was left intubated and admitted to the intensive care unit (ICU). She required ventilatory support for two days before she could be successfully extubated. The patient did not suffer permanent neurological injury from the prolonged hypoxemia, but she did require dental implants to replace the two dislodged teeth.

Tittle: Mechanical Prosthetic Valve Thrombosis with Thromboembolism.

The Case

A 61-year-old woman presented to her primary care physician with uncontrolled high blood pressure and a complaint of leg pain. She was referred to the emergency department (ED) for urgent computed tomography (CT) imaging of the right leg to rule out an arterial clot. Her past medical history was notable for having had an aortic valve replaced with a titanium valve and chronic management at a therapeutic level of anticoagulation with warfarin, based on the International Normalized Ratio (INR).

CT imaging revealed two arterial thromboses in the right lower extremity. Echocardiography revealed a thrombus near the prosthetic heart valve. The attending physician was notified and ordered discontinuation of warfarin and initiation of a heparin drip for at least 5 days. The hospital's usual protocol for adjusting the drip rate was followed. By hospital day 3, the right leg became discolored and cold, leaving the patient in extreme discomfort. She was told to "be patient" and not to worry about the discoloration, because she was being treated appropriately. Two days later, she complained of excruciating pain and more discoloration covering the entire right leg. Her leg was cold and pulseless; her toes appeared to be turning black. The surgical consultant arrived and told the patient that amputation of the limb might be needed. The surgeon expressed regret that they were not informed earlier of the patient's discoloration and discomfort, as they would have intervened earlier. The patient was taken to the Operating Room (OR) to extirpate the arterial thrombus, but the surgeon also needed to split the calf muscle with a fasciotomy to reduce pressure in the calf and restore arterial blood flow. The surgeon later reported that it was the best he could do under the circumstances and apologized for miscommunication.

Tittle: Missed CANDOR Implementation Opportunities.

The Case

A 58-year-old man with a history of type 2 diabetes mellitus, hypertension, morbid obesity, atrial fibrillation, and a thoracic aortic aneurysm presented to the Emergency Department (ED) after a syncopal event and fall, with rapid ventricular response. Computed tomography (CT) of the head and cervical spine was negative. CT angiography of the chest and abdomen showed a 5.6 cm thoracic aortic aneurysm without obvious dissection, but there was a pericardial effusion suggesting possible hemopericardium. He was started on an infusion of labetalol and transferred to a regional referral center. He was seen shortly after arrival by a cardiac surgeon, who was concerned about the earlier CT findings and ordered a repeat CT angiogram of the chest (two hours after arrival) that showed progression to an acute dissection of the ascending aorta, a life-threatening emergency. The cardiac surgeon discussed the problem with the patient and his wife,

including the numerous risks of surgery. Less than two hours after the repeat CT scan, the patient was taken to the operating room (OR) to undergo open replacement of the aortic valve, aortic root, and ascending aorta with a composite graft, and reimplantation of the coronary arteries (Bentall procedure with hemi-arch replacement), involving cardiopulmonary bypass and hypothermic circulatory arrest.

The surgery was technically difficult, due to the patient's advanced disease and extensive dissection, and required prolonged cardiopulmonary bypass time (462 min) and cross-clamp time (295 min). The surgeon did not realize at the time that the bypass time was so long, leading to a short delay in redosing the cardioplegic solution that is used to keep the heart completely still during surgery. After removal of the cross-clamp, the patient was found to have developed "stone heart" due to suspected ischemic injury and was unable to come off bypass. The surgeon briefly discussed the situation by telephone with his cardiac surgery colleagues and then temporarily left the OR to update the patient's wife on this dismal development. He explained that there was an intraoperative error in failing to protect the heart, but also that the impact of this error was unclear due to the severity of the patient's underlying cardiovascular disease. The surgeon offered the option of extracorporeal life support to allow family members to see the patient before stopping support. The patient was placed on extracorporeal membrane oxygenation (ECMO) and transported to the intensive care unit (ICU), where the patient's wife and other family members stayed at his bedside, accompanied by a chaplain and soon by a Catholic priest. Four hours after the patient left the OR, ECMO was discontinued, and the patient died. The surgeon did not follow up with the patient's wife at that time, having spoken to her earlier.

After this case was reviewed by the patient safety committee several months after the operation; potential areas of improvement were identified. Improved processes of communication related to prolonged bypass and cross clamp times were implemented. Additionally, the Communication AND Optimal Resolution (CANDOR) process was reviewed, and it was discovered that the CANDOR communication process was not followed in its entirety for the patient's family members and the staff involved. With support from the risk management team, the surgeon ultimately contacted the patient's wife some months after his death by telephone to express his sympathy and condolences for her loss. He confirmed that she understood what happened, including the miscommunication among operating room team members that led to a delay in administering cardioplegia, but also the uncertainty about whether this miscommunication caused the patient's demise. She asked questions about the details of the procedure, which he answered. She also asked about steps taken to prevent similar problems in the future, and he explained that new Perfusion Service policies were being established to enhance intraoperative communication and situational awareness. She understood and expressed appreciation; the surgeon provided his contact information and invited her to call if she had subsequent questions or concerns. He also offered the support of a grief counselor, which she accepted. Hospital staff then offered confidential peer-to-peer support to the surgeon and others involved in the care of the patient, following routine practice.

Tittle: False Assumptions Result in a Missed Pneumothorax after Bronchoscopy with Transbronchial Biopsy.

The Case

A 47-year-old man underwent a navigational bronchoscopy with transbronchial biopsy for evaluation of lymphadenopathy, cough, and weight loss. The procedure was performed under general anesthesia, by an attending physician and a fellow, without complications. The patient was transferred to the post-acute care unit (PACU) for observation and a routine post-procedure chest x-ray (CXR). The patient recovered without change in respiratory symptoms or vital signs in the PACU.

After the CXR was taken, the attending physician spoke to the patient and discussed his impressions, although he had not yet seen the CXR. The attending physician left the PACU without communicating with the bedside nurse, who was caring for other patients. The patient informed the nurse that the attending physician had no concerns. While preparing the patient for discharge, the nurse paged the fellow requesting discharge orders. The fellow assumed that the attending physician had reviewed the CXR and submitted the discharge orders as requested. The patient was discharged home with family members, with instructions to follow up "as needed," as his vital signs and respiratory symptoms remained normal.

Thirty minutes after discharge, the radiologist called the care team to alert them to the finding of pneumothorax on the post-procedure CXR. The patient was contacted to return to the PACU immediately. A follow-up CXR was performed and showed an enlarging pneumothorax. The patient was admitted overnight for observation and discharged the next day after treatment with supplemental oxygen; thoracostomy drainage was not necessary. After subsequent discussion among the care team members, it was apparent the fellow and attending each thought the other had reviewed the CXR. The bedside nurse presumed the CXR was read as normal after hearing from the patient that the attending had no concerns and thus proceeded with discharge. If not for the radiologist's rapid communication to the care team, preventable harm from the pneumothorax could have occurred.

Tittle: Fecal Contamination of the Peritoneum from Laparoscopic Trocar Injury: A Routine Operation Goes Wrong.

The Case

A 49-year-old woman presented to the Emergency Department (ED) with abdominal pain nine hours after discharge following outpatient laparoscopic left oophorectomy. The patient had a history of morbid obesity (body mass index [BMI] 49); chronic pelvic pain; urinary incontinence; breast cancer treated by mastectomy with subsequent reconstruction and abdominoplasty; and uterine fibroids treated by hysterectomy. The indication for the left oophorectomy was a mixed echogenic ovarian mass concerning for possible ovarian cancer. The left oophorectomy procedure involved an umbilical port placed using an Optiport visual trocar, a suprapubic port, and two additional ports laterally. The operative note mentioned no visible injury upon entry into the abdominal cavity, but there were extensive adhesions in the pelvis. After the left ovary was removed and the procedure concluded, the patient was discharged home the same day.

The patient sought care at another hospital 9 hours after being discharged, due to increasing pain, nausea, and fever. Acute Care Surgery was consulted 7 hours after she was triaged in the ED, and the patient underwent laparotomy 2 hours after the consultation. At operation, there was obvious fecal contamination upon entry into the peritoneal cavity. The transverse colon was adherent to the peritoneum at the umbilicus, and the colon at this location had a full-thickness injury with fecal matter draining out. The surgeons concluded that the most plausible explanation was a trocar injury. There was significant contamination, but it was contained by adhesions, so inflammation of the colon around the colotomy site was minimal. Primary repair of the colotomy was performed, the abdominal fascia was closed, the skin was left open, and a negative pressure dressing was applied.

The negative pressure dressing was changed on postoperative days 3 and 5, and was removed on postoperative day 6. The skin was closed over two Penrose drains, which were pulled out 1 cm daily and removed on postoperative day 12. The patient was discharged home on postoperative day 15. She returned to clinic for follow-up one week later and a piece of Penrose drain was found to have been retained in the wound. Some providers reportedly cut the drain(s) as they were being advanced, and the drain(s) were not re-secured with a skin suture after each serial advancement. It was removed without further complications.

Tittle: The Unhappy Patient Leaves Against Medical Advice.

The Case

A 61-year-old woman was placed on bedrest following major surgery. Her postoperative course was complicated by urinary incontinence and a deep vein thrombosis (DVT) requiring anticoagulant therapy. An external catheter system was placed to collect her urine. During the night shift, the hospital unit was short-staffed, and her external catheter system fell off. The patient rang her call button repeatedly to request nursing assistance. Unable to get a response after 35 minutes, she hopped down the hallway on one leg to find assistance but was unsuccessful and went back to her room.

By the time the nurse came to the bedside to change the patient's urine-soaked bed pads and sheets, the patient was angry and agitated. The nurse responded defensively and began to talk to the patient in a condescending tone, asking her if she (the patient) knew how to contact her physician. By this time, a family member was present, and another nurse on duty complained to the family member that the patient was "behaving badly." The nursing staff was unable to de-escalate the contentious situation and the patient insisted on "leaving against medical advice," despite having bedrest orders, citing she was extremely upset about how she was treated and spoken to. She was escorted downstairs to leave the hospital, accompanied by her family member, and was given her doctor's name and contact information. No nurse or physician on duty was able to provide discharge education, instructions, or medications related to the DVT or urinary incontinence. The charge nurse was unaware of these events until the on-call physician contacted the unit for more information about what happened.

The patient's family member was able to help her into her house and help her into bed. Her medications were picked up the following morning at a community pharmacy, but one of the medications was an anticoagulant requiring subcutaneous injection. Several telephone calls and a

home nurse visit (one day later) were necessary before the patient was taught how to take her medications and how to follow up with her physicians on an outpatient basis.

Tittle: Be Picky about your PICCs—Fragmented Care and Poor Communication at Discharge Leads to a PICC without a Plan.

The Case

A 20-year-old woman with a past medical history of ulcerative colitis was admitted for further evaluation of ongoing diarrhea, severe malnutrition, lower extremity edema, and tachycardia. Diagnostic tests identified a pulmonary embolism and occlusive thrombus in the right brachial vein surrounding the patient's peripherally inserted central catheter (PICC) line. The type of PICC line and French gauge (diameter in mm, e.g., 4 Fr. single lumen, or 5 Fr. dual lumen) and the length of time the PICC had been in place were not noted. The patient was started on apixaban for thrombosis and intravenous steroids to control her inflammatory bowel disease. She was discharged home after one week on apixaban, a 30-day taper of prednisone, and oral vancomycin for *Clostridioides difficile*. Additionally, discharge instructions included a continuation of adalimumab for her ulcerative colitis. The PICC line was left in her right brachial vein, supposedly for ease of future laboratory blood testing. At the time of discharge, the patient was not given any education or supplies for cleaning or flushing the line, or any instructions regarding PICC care and signs of PICC line infection, malfunction, or dislodgement. Discharge follow-up did not include home health services. On follow-up with a primary care provider several days after discharge, the PICC line was inspected. The PICC dressing was dated six days earlier, which meant that it was due to be changed within one day. The patient confirmed that the line had not been flushed since her discharge date. The primary care provider could not flush the line as the necessary supplies were unavailable in the outpatient office. The provider placed an urgent referral to home health care; however, due to the upcoming three-day holiday weekend, the home health agency could not get the bandage changed or the line flushed until after the holiday. Accordingly, the primary care office staff changed the dressing and instructed the patient to go to the emergency department (ED) before the weekend to assess the line. The ED staff flushed the line and applied a new PICC dressing. The patient was sent home with a two-week supply of flushes and two additional bandages.

Tittle: Delayed Diagnosis of Mesenteric Ischemia

The Case

A 49-year-old married mother of two children saw her primary care physician (PCP) for recurrent bouts of post-prandial abdominal pain, occasional vomiting, and diarrhea. She was referred to a gastroenterologist who ordered an upper gastrointestinal (GI) series of x-rays and performed both esophagogastroduodenoscopy (EGD) and colonoscopy. All three studies were interpreted as normal, and the patient was reassured that her symptoms should abate. (Note: subsequent medicolegal review by experts revealed that there were scattered petechial hemorrhages and mucosal thickening on both the EGD and colonoscopy.)

The patient's pain continued, sometimes leaving her writhing on the floor, and was unrelieved by opioids. Her weight decreased from 100 pounds to 65 pounds. She was seen by her PCP three

times over the subsequent six months, each time following an Emergency Department (ED) visit every 6-8 weeks. At each ED visit, routine laboratory tests, including a complete blood count, liver function tests, urinalysis, and amylase and lipase, were normal. No imaging was performed. Finally, another gastroenterologist covering for the patient's primary gastroenterologist suggested the diagnosis of intestinal ischemia to the patient, his colleague (the primary gastroenterologist), the patient's PCP, and her endocrinologist. None of these physicians followed up on the possibility of mesenteric ischemia, reportedly because they felt it was too unlikely to pursue.

On another ED visit, the covering gastroenterologist consulted a surgeon, and a mesenteric angiogram was performed. The diagnosis of mesenteric ischemia was confirmed, but the intestines were now almost entirely gangrenous. The patient underwent near-total intestinal resection, developed post-operative infections requiring additional operations, experienced cachexia despite parenteral nutrition, and died of sepsis 3 months later.

Tittle: Perioperative Anaphylaxis After Insertion of a Latex Drain in a Patient with Known Latex Allergy

The Case

A 65-year-old female with a documented allergy to latex underwent cricopharyngeal (CP) myotomy and trans-cervical diverticulectomy for a right-sided Zenker's diverticulum. The patient was stable after rapid sequence intubation and maintenance of anesthesia with methohexital, fentanyl, and a neuromuscular blockade agent. No antibiotics were administered during the procedure. There were no adverse events and surgery to repair the diverticulum was uneventful. Near the conclusion of surgery, a latex Penrose drain was placed in the neck surgical incision. The patient developed generalized urticaria, bronchospasm requiring high airway pressures to achieve ventilation, and hypotension within 5 minutes of placement of the drain. The drain was removed and replaced with a silicone drain. Epinephrine 0.3 mg IM, IV saline, and vasopressors were administered post-operatively to the patient with resolution of symptoms. She was later extubated and was hemodynamically stable.

Tittle: EMS Perils from Hospital Overcrowding

The Case

A 71-year-old man with a history of postoperative septic knee arthritis (status: post-intravenous antibiotics) presented to a hospital-based orthopedic surgery clinic for a follow-up evaluation of his knee. At this same appointment, the patient complained of pain and swelling in his right shoulder. His shoulder joint was found to be acutely inflamed; 10 cc of purulent fluid was aspirated from his shoulder during that appointment. The clinician suspected septic arthritis and sent the patient to the Emergency Department (ED) via ambulance for evaluation and treatment by the inpatient orthopedic surgery team. That inpatient team was made aware of this patient coming to the ED from the clinic and admission orders were entered into the electronic health record (EHR) before he arrived at the ED, following standard practice. However, the ED staff were not informed of the incoming patient or the orthopedic surgeon's plan for immediate admission.

When the patient arrived at 19:40, the ED was severely impacted with a high volume of patients in the waiting room and multiple boarding patients awaiting inpatient beds. The patient stayed in the ED hallway on "wall time" under the care of the Emergency Medical Services (EMS) personnel

despite being physically inside the ED. No ED physician or nurse was assigned to evaluate or care for the patient because the transfer of care from EMS had not occurred. Because the ED was not notified that this patient was being sent by ambulance from a medical office (a routine practice in most communities), it was assumed the patient should be "admitted" to the ED and have a medical screening exam. The patient was on wall time for at least 10 hours before any actions were taken by the ED.

The patient was admitted to the orthopedic inpatient service and taken to the operating room on hospital day #2 for incision and drainage of right shoulder pyogenic arthritis and periprosthetic joint infection. Fluid cultures were negative but presumed to be the same species (Methicillin Sensitive Staphylococcus Aureus) grown from his knee pyogenic arthritis a few weeks prior. He was started on intravenous Cefepime and discharged on hospital day #14 on intravenous Cefazolin and oral Rifampin.

Tittle: Miscommunication During the Interhospital Transport of a Critically Ill Child

The Case

A 2-year-old girl presented to her pediatrician with a cough, runny nose, low grade fever and fatigue. A nasal swab for SARS-CoV-2 and influenza was negative, lung sounds were clear, and the family was counseled regarding viral illnesses and warning signs. The following day, she had periods of active play, but by that evening, her temperature had increased to 102.8° F, with little response to acetaminophen and ibuprofen. The following morning, her breathing was labored and rapid at 50-60 breaths a minute. The patient was taken to a community hospital-based urgent care clinic and then referred to the Emergency Department (ED).

At the hospital, testing for SARS-CoV-2, influenza, and respiratory syncytial virus (RSV) was negative, and a chest radiograph was normal. Albuterol was administered via mask, and a nasal cannula was prescribed with high-flow oxygen. Miscommunication amongst team members led to a delay in the administration of high-flow oxygen. The patient's parents were told that this was the "top" of the clinical care that could be provided at this hospital, which does not have a pediatric intensive care unit (PICU), and that transport to a children's hospital might be necessary.

After 7 hours in the community hospital, the patient was tachypneic at 60-80 breaths per minute, hypoxic with oxygen saturation in the high 80% range, grunting while breathing, anorexic, and lethargic. Her parents demanded transfer to a specialty hospital, but there was a shift change and the new emergency physician on duty needed to round on multiple sick children. During this waiting time, the pulse oximeter alert went off frequently and nurses were continually in and out of the room to check the patient. The ED physician on duty said that transition to a tertiary care hospital could occur "if wanted" by the parents. The parents insisted on a care transition, whereupon the ED physician called the tertiary center and was told by the on-call pediatric intensivist to administer prednisone, increase her oxygen flow, and administer more albuterol before transfer. Given the patient's vital signs, she was deemed ineligible for ground transfer. The flight crew arrived and immediately increased the patient's oxygen flow rate, administered an intravenous steroid, and initiated transport.

After arrival at the tertiary care hospital, the patient was admitted to the PICU on higher-flow oxygen, ceftriaxone was started for bilateral ear infections, and intravenous fluids, ibuprofen, and acetaminophen were administered for comfort. She was diagnosed with adenovirus after developing conjunctivitis and bronchiolitis. After 3 days of continuous monitoring and treatment in the PICU, the patient was alert, responsive, and hungry. She was taken off supplemental oxygen after about 24 more hours, transferred to a regular pediatric bed, and then discharged to outpatient follow-up care.

Tittle: Challenges of Diabetes Management and Medication Reconciliation

The Cases

Case #1: *A 53-year-old man was admitted to the medical intensive care unit (MICU) with hypoglycemia and encephalopathy. An accurate medication history was not obtained during his admission, and the inpatient team was unaware that the patient was taking insulin at home. When the patient was discharged, the summary notes stated that he was to "resume home diabetic regimen," but insulin was not included in the discharge medication list. The patient was readmitted 10 days later with another episode of severe hypoglycemia and a humeral fracture caused by a fall. During this admission, the medication history included "insulin aspart 20 units with food and insulin glargine 75 units every morning."*

Case #2: *A 68-year-old woman with type 1 diabetes was admitted for elective total knee arthroplasty. The patient was seen in the preoperative assessment clinic prior to admission, where the nursing staff at the clinic obtained an accurate medication history regarding the patient's diabetic regimen. However, they did not enter this information into the electronic health record (EHR). On admission, the orthopedics fellow ordered insulin aspart 20-30 units three times daily with meals from the patient's home medication list in the EHR. However, when the nurse in the post-anesthesia care unit (PACU) double-checked the dose with the patient before administering, she stated that the ordered dose was much higher than her usual dose. The order was canceled and sliding scale insulin was ordered instead. The preoperative medication history was reviewed and listed her dose as regular insulin 5 units subcutaneously 30 minutes before meals.*

Tittle: Missing a Large Vessel Occlusion Stroke in a Patient with a History of Seizures.

The Case

A 58-year-old man with a past medical history of seizures, meningioma, type 2 diabetes mellitus, and hypertension presented to the emergency department (ED) with acute onset of left gaze deviation, expressive aphasia, and right-sided hemiparesis, 12 hours from the time he was last known to be at his neurological baseline. Initial laboratory tests, including kidney function, and a non-contrast cranial computed tomography (CT) scan, were unremarkable. The patient was evaluated by the general neurology team in the ED. They suspected an acute ischemic stroke and requested an evaluation by the stroke neurology team. A stroke alert was not activated upon ED arrival, nor at the first suspicion that a stroke had occurred.

The stroke team promptly but remotely reviewed the electronic health records and CT images and concluded that the patient had suffered a focal seizure prior to arrival and had postictal deficits. The stroke team did not order emergent CT angiography and perfusion imaging, but recommended

routine magnetic resonance imaging with angiography (MRI/MRA) for further evaluation. The MRI/MRA showed extensive cerebral infarction in the distribution of an occluded left middle cerebral artery (MCA). Continuous electroencephalogram monitoring did not reveal any seizure activity. Repeated physical examinations demonstrated persistence of the aphasia and hemiparesis. Due to the delayed diagnosis of left MCA stroke, it was too late to perform any neurovascular intervention.

Tittle: An Incomplete Anesthesia History Leads to Adverse Outcomes

The Cases

Case 1: A 64-year-old man came in for a routine bronchoscopy with possible biopsies after an abnormal chest CT (computed tomography). The patient completed the consent process with both the pulmonologist and the anesthesiologist before being taken into the bronchoscopy suite. The patient was intubated and underwent the procedure under general anesthesia with no complications. Within a few minutes after extubation, he exhibited signs of respiratory failure requiring reintubation. A relook bronchoscopy was grossly normal with no evidence of bleeding. The chest x-ray did not reveal a pneumothorax. Uncertain of the etiology, the team reached out to the family in the waiting room.

The patient's wife revealed a remote history of Guillain Barre Syndrome (GBS) after anesthesia in the past was also told that he should avoid a certain anesthetic (although the wife did not mention the name). The patient was kept intubated for the night and successfully extubated the following morning, after good results from a negative inspiratory force test. Fortunately, there were no lingering adverse effects and the patient was discharged home.

On further review of the chart, there was documentation of GBS in the distant past as well as reported "sensitivity" to succinylcholine. The patient had never mentioned this history, nor was an alert or allergy documented in the chart, and the team had not reviewed older records.

Case 2: A 73-year-old man with a history of pulmonary tuberculosis presented for bronchoscopy after a new nodule was identified on a follow-up CT scan. After review of his history by the team, the patient was taken into the bronchoscopy suite for the biopsy procedure under light sedation. The timeout was done, and the procedure was completed in about 15 minutes.

After the procedure, the bite block was taken out, but the patient could not close his mouth. After he recovered from the light sedation, he was alert and tried to mouth words pointing towards his temporomandibular joint (TMJ). The pulmonologist and anesthesiologist attempted to close his mouth but were unable to do so. At this point, one of the technicians who had transported the patient disclosed that the patient had mentioned something about his mouth being open after the prior bronchoscopy but since this technician was new and did not know this information was important, he did not reveal it to anyone on the surgical team.

The trauma team was called to assist and the patient was given additional sedation and opioid analgesia. The trauma surgeon then manipulated both TMJs and was finally able to unloose the locked jaw. The patient had some residual pain but was safely discharged and scheduled for outpatient follow-up. On later review, the patient confirmed that he had mentioned what had happened in his previous bronchoscopy to the technician, but he assumed that his physicians knew

about it. However, the pulmonologist was not aware of this history, as one of his partners had performed the prior procedure and there was no mention of this problem in the chart.

Tittle: Medication Safety Events Related to Diagnostic Imaging

The Cases

Case #1: A 42-year-old woman admitted with aphasia, severe headache, and right-sided facial droop was taken for magnetic resonance imaging (MRI). The MRI was unsuccessful due to agitation, requiring a repeat attempt the next day. Before the second MRI, the patient was given lorazepam 2 mg intravenously (IV) as premedication to reduce agitation. The MRI was again unsuccessful, despite anxiolysis. After returning to the medical unit, flumazenil 0.2 mg was given due to somnolence, with subsequent improvement in mental status.

Case #2: A 71-year-old man with a history of alcoholism, hypertension, and arthritis s/p hip replacement surgery was treated in a community hospital for sepsis due to pyelonephritis and bacteremia. Ten days later, he was transferred to an academic medical center for treatment of L3-L4 discitis and possible epidural phlegmon versus abscess. He was admitted by Neurosurgery and given lorazepam 2 mg IV prior to transport for an MRI with contrast. The patient was unable to tolerate the scan due to back pain, so the acute care nurse was instructed to administer hydromorphone 0.5 mg IV. The patient remained restless, so the physician ordered additional doses of lorazepam 1 mg IV and hydromorphone 0.4 mg IV. After the patient received a 3rd dose of lorazepam 1mg IV, he became obtunded, hypotensive, and developed respiratory depression with oxygen saturation around 60%. The rapid response team was called, and naloxone and flumazenil were administered. The patient was placed on bilevel positive airway pressure (BiPAP) and given a fluid bolus before being transported to the intensive care unit (ICU), where he was emergently intubated. The patient remained intubated for several days due to severe acute respiratory distress syndrome (ARDS), which was attributed to aspiration while in the MRI machine.

Tittle: Preventable Transfer to the Hospital

The Case

A 78-year-old veteran with dementia-associated aggressive behavior and multiple comorbidities had a prolonged three-month hospitalization for COVID-19 pneumonia-associated complications including acute-on-chronic hypoxic respiratory failure and atrial fibrillation with rapid ventricular rate. He was eventually discharged to a skilled nursing facility (SNF); however, he was readmitted approximately three times in the subsequent five months for repeated hypoxic respiratory failure events and even required an episode of mechanical ventilation.

At the SNF, advanced care planning (ACP) discussions were appropriately initiated; however, these discussions were challenging due to multiple factors: the patient was considered to lack capacity, was divorced without a next of kin, and was undergoing conservatorship. The palliative care team was consulted at the SNF and documented appropriateness for hospice, but they recommended an ethics consultation due to lack of capacity and next of kin. The ethics committee found that transition to hospice was appropriate, given the patient's pattern of behaviors and consistent refusal to comply with many aspects of medical care. The plan was to transition the patient to

hospice the following day. These recommendations were verbally communicated, but not documented in the chart.

Unfortunately, the patient developed acute hypoxic respiratory failure that night, prior to transition to hospice. He was transferred to the hospital and admitted. He passed away three weeks later in a hospital.