



### Exercise 1

Read through the attached timeline from a Root Cause Analysis (RCA) case. Discuss within your small group where you would want the team to look for potential **bias** that contributed to the case. You can phrase them as bullets or questions.

**Summary:** *52-year old Hispanic woman with a history of anxiety who presented to the emergency department with pneumonia, inadvertently received hydromorphone instead of hydroxyzine and expired due to respiratory failure and subsequent multi-organ failure.*

**7/2/21**

- 2:52 PM Patient was seen in ED triage complaining of shortness of breath. Initial vital signs were Temp 37 BP 134/52 Pulse 110 and O2 86% on Room Air. Because the patient was hypoxic, she was immediately moved over to the main ED and provided supplemental oxygen via nasal cannula. Her oxygen saturation improved to 95% on 2L nasal cannula.
- 3:05 PM EKG done per protocol due to oxygenation and elevated pulse, which read "sinus tachycardia."
- 3:20 PM RN documented that patient arrived to ED, supplemental O2 given. Pending evaluation by MD.
- 3:33 PM ED Resident MD evaluation documented. Noted that patient had a history of anxiety, no other past medical history. Took hydroxyzine 25 mg every 12 hours as needed for anxiety, but no other medications. Patient's VS were noted to be T 37 BP 124/56, pulse 97 and O2 95% on 2L. Plan documented was to get CBC, BMP, VBG, COVID test, and CXR.
- 4:45 PM Labs resulted with WBC 16, Hemoglobin of 13, Platelet of 355. BMP results with sodium of 142, potassium of 3.8, chloride of 100, bicarbonate of 24, BUN of 30 and Cr of 1.8. VBG showed a pH of 7.38, CO2 of 40 and lactate of 1.0. COVID swab was negative. There were no prior labs for this patient in the system.
- 4:55 PM CXR read by Radiologist and put in the electronic medical record. Reading stated "acute infiltrate in left lower lobe."
- 5:05 PM ED Resident updated documentation and noted "reviewed CXR. Infiltrate present. Start ceftriaxone and azithromycin. Admit to Medicine."
- 5:35 PM RN documented that "admitting team at bedside of patient".
- 6:45 PM Medicine intern documented H&P. Noted the patient's history of anxiety, home medication of hydroxyzine 25 mg every 12 hours as needed. Plan was "continue ceftriaxone and azithromycin for community acquired



pneumonia.” For the elevated Cr level, plan was “likely prerenal AKI in setting of infection. Will give IV fluids and repeat level tomorrow morning.”

- 7:05 PM VS again documented T 38.1 HR 105 BP 135/40 O2 98% 2L NC
- 7:10 PM RN documented “patient anxious and stating she cannot breathe. Informed ED Resident and administered 0.5 mg lorazepam PO as ordered.” This is the last documentation of this RN as the shift ended 7:30 PM.
- 9:00 PM EPIC downtime set to start at 9 PM that evening. End of documentation in the medical record.
- 10:00 PM RN was scheduled to take a break. Signed out to covering RN.
- 10:05 PM Ambulance call record (ACR) show multiple ambulances arrived with patients from multi casualty incident (MCI). Video footage shows multiple ED staff pulled from main ED to trauma bays to assist with resuscitations.
- 10:08 PM From telecommunications records, it was discovered that the covering RN paged the covering medical intern (different than the one who originally admitted the patient). Verbal order given for 25mg of hydroxyzine PO. RN had trouble understanding resident over phone due to accent but did not ask for clarification. Stated she does not feel comfortable questioning authority figures.
- 10:15 PM RN accessed the Pyxis at 10:15 PM and a multi-dose vial of hydromorphone was removed. In order to access Pyxis, an override was performed at 10:16 PM.
- 10:18 PM From video footage, noted that RN entered patient room. She was seen leaving patient room at 10:22 PM.
- 10:32 PM RN returned to patient room and found the patient unresponsive. She was then seen going into the hallway and quickly returned. Started compressions at 10:34 PM. She was seen yelling for help.
- 10:42 PM ED attending and resident, as well as other staff entered patient’s room. Successfully intubated at 10:47 PM.
- 10:52 PM Patient achieved ROSC according to code documentation.
- 11:11 PM ICU resident and attending came to evaluate patient.
- 7/3/21**
- 1:35 AM Patient left the ED to go to ICU.. Noted that medicine intern was not present in the ED through video footage. Patient’s BP dropped when reached ICU requiring vasopressor support.



## CLINICAL QUALITY FELLOWSHIP PROGRAM



- 6:00 AM      EPIC downtime ended.
- 7:10 AM      ICU resident documented "Patient transferred to ICU for cardiac arrest. Achieved ROSC at 10:52 PM. Hypotensive 60s/40s requiring norepinephrine. BP improved to 90/50. Fentanyl ordered, however, no neurologic response. Will monitor off sedation for return of neurologic function."
- 7:15 AM      Labs resulted with lactate of 8, CBC of 25, Hemoglobin 12, Plt 200. pH 7.2 with CO2 50 and O2 88. Cr 4
- 9:25 AM      ICU resident documented "Patient with worsening oxygenation and pressor requirement. Max doses of norepinephrine, vasopressin, epinephrine. Contacted family who would like patient to be DNR/DNI."
- 10:45 AM     Death note documented by ICU resident "Patient expired at 10:32 AM after palliative extubation at 10:27 AM. Autopsy declined."



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