

Zosyn Case: PHYSICIAN

Background: Patient ALBERT JACKSON, 92 y.o. male patient, was admitted to emergency department (ED) from local nursing home. Before admission, he became increasing SOB, with yellow-greenish sputum, and febrile to 38.5 with pulse oximetry = 88. The nursing home staff were concerned the patient had developed pneumonia and, after receiving permission from the patient's family member, called an ambulance for transport to the ED.

Admission Status: You were involved in the aftermath of a difficult and unsuccessful resuscitation attempt when Mr. Jackson arrived so the nurse did the initial physical exam of Mr. Jackson and got a chest x-ray, and labs. You picked up the case at that point and reviewed the results, reexamining Mr. Jackson to confirm the obvious diagnosis of pneumonia. You started him on Zosyn (Piperacillin/Tazobactam) IV every 6 hours. First dose was given at 2200. He experienced an anaphylactic reaction within 20 minutes involving flushing, itching, difficulty swallowing, coughing, wheezing, hypotension and difficulty breathing. Patient was intubated and treated with epinephrine. He was transferred to the ICU for close observation around 2330 with orders for additional epinephrine as needed, discontinue Zosyn and start vancomycin and levofloxacin IV.

Current: Mr. Jackson was extubated this AM without incident. Currently is afebrile, vital signs stable, rash resolving. He is able to follow commands, but is confused to person, place and time. Notes from the nursing home indicate that the patient has required assistance with ADLs for approximately 3 years due to confusion and general physical deterioration and weakness. Recognizes family members but is confused to time and place.

This morning you learn that Mr. Jackson had a penicillin allergy documented in the nursing home records that accompanied him. There was a notation about a penicillin allergy from one year prior when the patient received oral penicillin in the nursing home (developed hives and abdominal cramping). Zosyn is contra-indicated with penicillin allergies. Albert's last hospitalization was two years prior. The penicillin allergy was also noted on a face page but this page was out of order in the record and you had not seen the allergy on your initial review. In addition, the allergy was not noted in your facility's computer system presumably because it occurred since the last admission. There was an alert for another allergy (codeine) in the computer system.

Situation: Albert's adult son/daughter is here visiting. You are going to talk with the family about the events of the evening and why Albert is in the ICU.



Zosyn Case: NURSE

Background: ALBERT JACKSON is a 92 y.o. male patient, admitted to the ED from a local nursing home around 1800. He became increasing SOB with yellow-greenish sputum and was febrile to 38.5 with pulse oximetry = 88 yesterday. The nursing home staff were concerned about pneumonia and, after receiving permission from patient's family member, called an ambulance for transport to ED.

Admission Status: You helped admit Albert in the ED. It was difficult to examine him because he moaned when uncovered. You helped get a chest x-ray, labs and do an initial assessment. Everything confirmed pneumonia. The physician ordered Zosyn (Piperacillin/Tazobactam) IV every 6 hours. You gave the first dose at 2200 and within 20 minutes he experienced an anaphylactic reaction involving flushing, itching, difficulty swallowing, coughing, wheezing, hypotension and dyspnea. With his already compromised pulmonary status, Albert needed to be intubated. He responded well to epinephrine.

Albert was to remain on the ventilator for a few hours to protect his airway until the allergic reaction resolved. He was transferred to the ICU around 2330 with orders for additional epinephrine as needed, discontinue Zosyn and start vancomycin and levofloxacin IV.

Current: This morning you called the ICU to check on Albert and learned that he was extubated early this AM. He is currently afebrile, vital signs stable, rash resolving, on some oxygen with pulse oximetry = 97. He is following commands but confused to person, place and time. The nursing home reported that Albert required assistance with ADLs due to his confusion and general weakness but recognized his family. This admission family have visited twice – once late last night again this morning after extubated.

When talking with the ICU, you learn that the documentation from the nursing home included information about a penicillin allergy. Zosyn is contra-indicated with penicillin allergies. The ICU nurse also asks if you had noticed the allergy armband. You are stunned. You go up to the ICU to look again at the armbands. You remember glancing at them when you admitted Albert but they were both difficult to read because they had gotten wet numerous times. When you look at them again, you can now read "penicillin". You check Albert's chart and see that he had an incident one year prior in the nursing home when he received oral penicillin and developed hives and abdominal cramping. Albert's last hospitalization was two years prior. You had not noticed this on your initial record review.

Situation: Albert's family member is here visiting and would like to talk with the team about the events of the evening and why Albert is in the ICU. The physician you worked with in the ED yesterday evening is here also.



Zosyn Case: PHARMACIST

Background: ALBERT JACKSON, 92 y.o. male patient, admitted to ED from local nursing home around 1800. Patient had SOB with yellow-greenish sputum and febrile to 38.5 with pulse oximetry = 88. Nursing home staff were concerned about pneumonia and, after receiving permission from patient's DPAHC, called ambulance for transport to ED.

Admission Status: Patient received chest x-ray, labs and physical exam in ED confirming diagnosis of healthcare-associated pneumonia. Started on Zosyn (piperacillin sodium/tazobactam sodium) IV every 6 hours. His first dose was given at 2200 and the patient experienced an anaphylactic reaction within 20 minutes involving flushing, itching, difficulty swallowing, coughing, wheezing, hypotension and difficulty breathing. He was intubated and treated with epinephrine IM.

The patient was transferred to the ICU for close observation around 2330 with orders for additional epinephrine as needed, discontinue Zosyn, and start vancomycin and levofloxacin IV.

Current: Patient was extubated from ventilator early in AM without incident. Currently is afebrile, vital signs stable, rash resolving. He is following commands, but remains confused to person, place and time.

When you got to work this morning you learn from the pharmacist covering the ICU that there was a penicillin allergy noted in Albert J.'s chart that was apparently missed by the team. Zosyn is contra-indicated in patients with known penicillin allergy. You do not remember looking at the records that accompanied the patient but did carefully review the patient's computerized hospital record and the only allergy listed was a codeine allergy.

You went to the ICU to look at the record yourself. There was a notation about a penicillin allergy from one year prior when the patient received oral penicillin in the nursing home (he developed hives and abdominal cramping). Albert's last hospitalization was two years prior. You do not know why this was not seen by the rest of the team. You also read that the patient has lived in the nursing home for over three years due to increased confusion and need for assistance with activities of daily living (showering, feeding, etc.) He has had a progressive decline. His adult child is his closest family member and durable power of attorney for health care decisions. From the chart, this adult child appears to be very involved in his father's care and visits frequently.

Situation: Albert's adult child is here visiting. The physician and nurse from the ED who admitted Albert are also in the ICU, apparently also having learned of the penicillin allergy and were also reviewing the medical record. You learn that the family has asked to talk with the team about the events of the evening and why his father is in the ICU.