1) 23-year-old male who presented with sudden onset shortness of breath and left sided chest pain. SpO2 70%, heart rate 140, blood pressure is 75/40. CXR is below. What is the best initial action?

A) Emergent intubation  
B) Oxygen therapy  
C) Needle decompression  
D) Non-invasive positive pressure ventilation

2) 40-year-old female who was involved in motor vehicle accident resulting in massive blood loss and requiring 10 units PRBC, 10 units FFP, and 10 units of Platelets. Her CXR before (right) and 3 hours during transfusion (left) are shown below. Most probably diagnosis is?
A) Congestive heart failure  
B) Traumatic lung contusions  
C) Transfusion related lung injury  
D) Aspiration pneumonia

3) 70-year-old male who was admitted with pneumonia and was started on antibiotics. 2 days later, his oxygenation, worsening WBC and hypotension. CXR is shown below. Most likely diagnosis is?

A) Hemothorax  
B) Empyema  
C) Heart failure  
D) Aspiration pneumonia

4) For the patient above, what is the best next step?

A) Bronchoscopy  
B) Thoracentesis  
C) Chest tube insertion  
D) Diuretics

5) 80-year-old male who underwent hip replacement surgery 3 days earlier and was doing well. Today he became hypoxic with SpO2 75% on room air, respiratory rate 35, tachycardic with rate of 130, blood pressure 80/50. His ABG shows PH 7.48, PaCO2 32, PaO2 45, and O2sats 79%. CXR is shown below. Most likely diagnosis is?
A) Post-operative atelectasis
B) Post-operative pneumonia
C) Pulmonary edema
D) Pulmonary embolism

6) For the patient above, best next step is:

A) Intubate and start mechanical ventilation
B) IV diuretics
C) CTA Chest
D) Stat bedside echo
E) IV thrombolytics

7) 70-year-old male who has been complaining of worsening SOB for last 3 days, in ER his respiratory rate 38, SpO2 on room air was 80%, his ABG show PH 7.52, PaCO2 75, PaO2 55, O2 sats 83%, HCO3 45. CXR is shown below. Best next step is?

A) Intubate and start mechanical ventilatory support
B) start Noninvasive positive pressure ventilation
C) Insert a chest tube
D) IV diuretics

8) 85-year-old male who was admitted with shortness and hypoxia. You are planning to intubate him. CXR shown below. What is the best next step?
A) Thoracentesis  
B) Chest tube insertion  
C) IV Antibiotics  
D) Bronchoscopy  

9) 50-year-old male presented with severe leg infection, and septic shock and was intubated. 2 days after. He is requiring FiO2 of 80%, PEEP of 15, his PaO2 is 75 mmhg. His CXR is shown below. What is the most likely diagnosis?  

A) Cardiogenic pulmonary edema from iv fluids resuscitation  
B) Hospital acquired pneumonia  
C) Aspiration pneumonia  
D) ARDS 2ry to sepsis  

10) 40-year-old male with iv drug abuse who has been complaining of fevers, productive cough for last 3 weeks. He has a loud pansystolic murmur on lower sternal border. CXR is shown below. Most likely diagnosis is?  

A) Lung cancer  
B) Community acquired pneumonia  
C) Primary TB  
D) Endocarditis with lung absscess