1) B

The patients’ history and hemodynamics are suggestive of Pulmonary Embolism. CTA chest made the diagnosis of massive PE (SADDLE EMBOLUS) in both main pulmonary arteries (Arrows).

2) B

Best treatment for this patient is systemic thrombolytics given the massive pulmonary embolism and evidence of obstructive shock. Catheter directed thrombolytics have not shown superiority to systemic thrombolytics. Full anticoagulation alone is not adequate given the shock state. IVC filter alone does not help the condition at all and not required. Menometrorrhagia is not a contra indication for thrombolytic therapy as long she is not in hemorrhagic shock.

3) B

This patient has a large spontaneous pneumothorax (arrow) showing no lung parenchyma

4) C

Initial conservative treatment with 100% fio2 to expedite the resolution of the pneumothorax is reasonable given the stable hemodynamics and oxygenation. However now, the patient is in shock and requires emergent chest tube thoracotomy for quick resolution of the pneumothorax.
Intubation or NIPPV are not required if a chest tube insertion should resolve the issue immediately, additionally, positive pressure ventilation might worsen the pneumothorax and shock.

5) B

The clinical scenario is suggestive of food particle aspiration in the lungs. This is confirmed with the CT showing volume loss in left lung with shift of mediastinum towards the left (green arrow), and totally closed Left main stem bronchus (orange arrow). FB aspiration can happen in any lobe of both lungs and not necessary the right lower lung lobe.

6) B

Bronchoscopy would be diagnostic and therapeutic in this patient by removing the foreign materials from the bronchi.

7) E

The CT shows bilateral ground glass opacities in both lungs peripheral parenchyma (arrow). Though suggestive of COVID-19 during the current pandemic. All of the listed diseases can cause similar findings, so CT Chest is not fully diagnostic, and further work up is needed
8) B

The clinical scenario and CT chest showing multiple cavitary lesions in the right upper lobe (arrow) are both suggestive of Pulmonary TB. The patient need to be in air borne isolation and start work up for TB.

9) B

This CT chest is diagnostic for severe Interstitial Pulmonary Fibrosis (IPF/UIP). Orange arrow points to peripheral honeycombing, the green arrow shows traction bronchiectasis with emphysematous changes. This patient should be evaluated for lung transplant.

10) A

Pulmonary metastasis is the most likely diagnosis given the history of breast cancer, and the multiple well circumscribed masses in both lungs (arrows). However some other diseases on the list can give similar findings and further workup might be required.