



1) A

Though not precise, the average PEEP is about 0.7-1 cmH₂O for each 10 lit/min when mouth is closed and about 0.3-0.5 cmH₂O when the mouth is open

2) B

The benefits of HFNC include heating and humidification of the oxygen which is more comfortable to patients, improve secretion clearance, increase the tidal volume and end expiratory lung volumes and pressures leading to alveolar recruitment, decrease the dead space through CO₂ washout and decrease nasopharyngeal resistance. Also the high flow improves the matching of the patient inspiratory flow so reduce air entrainment in the system

3) C

As above

4) D

Though the use of HFNC has significantly increased over the past decade and more research is being done. Most studies and meta-analysis have highlighted some benefits of HFNC but haven't shown improved mortality benefit for HFNC compared to low flow systems or Non-Invasive Mechanical Ventilation

5) A

6) B

Though most studies have utilized HFNC in acute hypoxic respiratory failure status, along post extubation, pre-intubation oxygenation, and for bronchoscopies. COPD or obstructive lung disease is not a contraindication for HFNC and been applied successfully in such group of patients

7) A

Though there are no guidelines on setting the flow rates or no comparable studies between the initial settings or the weaning process, most the benefits of HFNC come from the higher flow rates (refer to Answer 2)

8) B

(Refer to Answer 2)

9) D

Currently most of the commercially available devices lack end tidal CO₂ monitoring, internal batteries which restricts the patient mobility or transfer on those devices.

10) D

Side effects or complications of HFNC are extremely rare, some of those complications have been noticed during HFNC which make the use of HFNC needs to be applied in a highly monitored places in the hospital