ARDSNET Ventilator Management

- Assist control mode—volume ventilation

- Reduce tidal volume to 6 mL/kg predicted body weight

- Keep Pplat less than 30 cm H20
  --Reduce TV as low as 4 mL/kg predicted body weight* to limit Pplat

- Maintain SaO2/SpO2 88-95%

- Anticipated PEEP settings at various FIO2 requirements

FIO2	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0
PEEP	5	5	8	8	10	10	10	12	14	14	14	16	18	20-24

***Predicted Body Weight Calculation**

- Male 50 + 2.3 [height (inches) - 60] or 50 + 0.91 [height (cm) – 152.4]
- Female 45.5 + 2.3 [height (inches) - 60] or 45.5 + 0.91 [height (cm) – 152.4]

TV, tidal volume; SaO2, arterial oxygen saturation; PEEP, Positive end-expiratory pressure.

Ventilator Acquired Pneumonia Prevention Measures

Key Points:

1. All equipment or devices that come in contact with the lower respiratory tract should be sterilized.
2. Prevention of person-to-person transmission can be accomplished by good hand hygiene and using standard precautions.
3. Visitors with upper respiratory symptoms should be restricted during outbreaks.
4. The HOB of a patient at high risk of aspiration pneumonia should be elevated at a 30-45 degree angle unless contraindicated.
5. Frequent oral hygiene and oral suctioning is necessary.
6. Broad spectrum antibiotics should be changed to narrow spectrum when a pathogen has been identified.
7. Encourage all postoperative patients to take deep breaths, move about the bed, and ambulate unless medically contraindicated.
8. Patients at risk should be offered influenza or pneumococcal vaccine.

Central Venous Catheter Infection Prevention Measures

Key Points:

1. Persons who insert and maintain CVC must use maximum sterile barrier precautions and when appropriate a 2% chlorhexidine preparation for skin antisepsis during CVC insertion (no recommendations can be made for the use of chlorhexidine in infants aged less than 2 months).
2. Weigh the risk and benefits of placing a device at a recommended site to reduce infectious complications against the risk for mechanical complications.
3. Use a subclavian site, rather than a jugular or a femoral site, in adult patients to minimize infection risk for nontunneled CVC placement, unless medically contraindicated.
4. Maximal sterile barrier precautions during catheter insertion using aseptic technique include the use of a cap, mask, sterile gown, sterile gloves, and a large sterile drape, for the insertion of CVCs (including PICCs) or guidewire exchange.
5. Use a sterile sleeve to protect pulmonary artery catheters during insertion.
6. Do not routinely replace CVCs to prevent catheter-related infections.
7. Do not remove CVCs or PICCs on the basis of fever alone. Use clinical judgment regarding the appropriateness of removing the catheter if infection is evidenced elsewhere or if a noninfectious cause of fever is suspected.
8. Designate one port exclusively for hyperalimentation if a multilumen catheter is used to administer parenteral nutrition.
9. Wipe the catheter hub/injection cap with an alcohol wipe and allow appropriate dry time before accessing the system.
10. Change catheter site dressing every 7 days or when it becomes damp, loose, or soiled or if inspection of the site is necessary.
11. Replace IV tubing, including piggyback tubing, stopcocks and needleless components every 96 hours (4 days) or when clinically indicated. Other tubing replacement include – lipid tubing every 24 hours; blood/blood product tubing/filters every 4 units or every 4 hours whichever is first; and propofol tubing on pre-filled syringes every 12 hours or propofol drawn up from a vial every 6 hours.
12. Change injection caps every 7 days or when the rubber portion of the cap appears damaged, shows signs of leaking, or there is visible blood in the set. Coordinate cap changes with scheduled tubing changes, dressing changes or at the time of flushing.