

*“Ten Things Patients Should Know” Series*

**VENTILATOR-ASSOCIATED PNEUMONIA (VAP)**

1. **THE RISK FACTORS:** Lying in a flat (supine) position, frequent ventilator tubing changes, long duration of ventilator use, being re-intubated and having the ventilator tubing in the nose versus the mouth.
2. **EARLY RECOGNITION:** A fever, elevated white blood count, or increased ventilator settings may warrant a chest x-ray or a culture of lung secretions since early intervention is critical to survival.
3. **HAND WASHING:** Proper hand washing by the staff is vital to protecting ventilator patients from developing pneumonia. Gloves should be worn if the staff may come into contact with patient secretions or touch any contaminated tubing.
4. **ELEVATE THE BED:** Raising the bed 30 degrees above horizontal may reduce the odds of secretions entering the lungs (aspiration), a risk factor for pneumonia. Mark the correct position on the wall with a sign or a piece of tape.
5. **SEDATION “BREAKS”:** It is important to regularly bring the patient to a higher level of consciousness to see if they can breathe on their own.
6. **SUCTIONING:** Ask if closed, "in-line" suctioning can be used to reduce the chances of introducing bacteria into the tubing.
7. **ULCER PREVENTION:** Medications to prevent stress ulcers and control the bacteria in the stomach can reduce ventilator pneumonia.
8. **ORAL CARE:** Teeth should be brushed every 12 hours and the mouth swabbed with 12 percent chlorhexidine gluconate liquid to reduce oral bacterial counts.
9. **DAILY ASSESSMENT:** A plan should be in place for a daily evaluation of the patient's need for ventilation. Ask for a “daily trial of weaning” to identify the earliest opportunity to remove the patient from the ventilator.
10. **EXTUBATE AS SOON AS POSSIBLE:** The patient should be extubated, or taken off the ventilator, as soon as it is safe to do so. Every day the breathing tube is in place puts the patient at greater risk of developing pneumonia.