



**Special Considerations**

- Principles of effective antibiotic treatment and antibiotic stewardship:
  - Use the highest safe dose
  - Prescribe for the shortest reasonable duration, generally 5-7 days
  - Use narrow spectrum antibiotics based on likely pathogens
- Before prescribing a fluoroquinolone recall the FDA warning about their use: neuropathy, tendonitis/tendon rupture, increased QT interval, arthropathy
- When appropriate, convert IM to PO regimen for patient comfort
- Assess whether the patient has had preventative vaccinations including PSV-23, the PVS-13, the tDAP (for diphtheria), and the yearly flu vaccine
- Aspiration risks:** include the following: neuromuscular disorder, stroke history, COPD, cognitive impairment/dementia, dysphagia, poor oral hygiene, sedatives/hypnotics use, tube feeding
- Multi drug resistant risks:** Recent hospitalization, ventilation, previous/current colonization with MDR pathogens, very low functional status, high prevalence of MDR pathogens in facility
- Review patient's goals of care including POST form and hospitalization preferences

Antibiotics Renal Dosing Adjustments

- Amoxicillin/Clavulanate < 30 ml/min
  - Ampicillin/Sulbactam < 30 ml/min
  - Aztreonam < 30 ml/min
  - Cefepime < 60 ml/min
  - Cefpodoxime < 30 ml/min
  - Levofloxacin < 50 ml/min
  - Oseltamivir < 60 ml/min
  - Piperacillin/Tazobactam < 40 ml/min
  - Vancomycin (see dosing box below)
- \* Note: You will need to make dose adjustments at the levels of creatinine clearance listed above. If antibiotic not on list, there are no dosage adjustments provided in the manufacturer's labeling.

**CMS Certification Criteria for Pneumonia**

<b>Pneumonia (up to 7 days)</b>	<b>One or more of the following:</b>
	<input type="checkbox"/> Chest X-ray confirmation of a <b>new</b> pulmonary infiltrate
	<b>OR Two or more of the following:</b>
	<input type="checkbox"/> Fever ≥ 100°F (oral) or two degrees above baseline
	<input type="checkbox"/> O2 saturation level ≤ 92% on room air or on usual O2 settings in patients with chronic O2 requirements.
	<input type="checkbox"/> Respiratory rate ≥ 24 breaths/minute
	<input type="checkbox"/> Evidence of focal pulmonary consolidation on exam including rales, rhonchi, decreased breath sounds, or dullness to percussion.

**Vancomycin Dosing**

- Why a loading dose? A single loading dose of 20 mg-30 mg /kg (based on actual body weight) can facilitate a more rapid attainment of target trough serum vancomycin concentration.
- Give loading dose x 1, maintenance dose should follow at suggested intervals below
- Maximum initial dose = 2000 mg

Cockcroft-Gault CrCl (min/ml)	Dose	Comments
> 60	15 mg/kg every 12 hours (30 mg/kg/day)	- Use actual body weight - Round to nearest 250 mg
30 – 59	15 mg/kg every 24 hours	- Morbidly obese may need higher doses
16-29	15 mg/kg every 48 hours	- Obtain trough levels (within 30 minutes before next dose) with the fourth dose of a new regimen (3rd dose for patients with dosing intervals > 24 hours)
≤ 15	Give 1 dose( 15 mg/kg); redose when level below recommended trough	- Serum creatinine should be checked every 1-3 days - Vancomycin should be infused over 30 minutes for each 500 mg increment (e.g., 500 mg over 30 minutes, 1000 mg over 1 hour)

- Target Vancomycin trough level is 10 – 15 mcg for mild-to-moderate infection
- Target Vancomycin trough level is 15– 20 mcg for moderate-to-severe infection

*These are recommendations from expert consensus and an extensive literature review, including the AMDA Clinical Practice Guidelines. In practice, use your clinical judgements for individual patient care.*