



Converting from Intravenous to Oral Antibiotic Therapy

During an acute illness or hospital stay, residents may begin parenteral antibiotic therapy to combat a significant infection. As their clinical condition begins to improve, many residents may be candidates for a conversion from IV to oral (PO) antibiotic therapy. Appropriate conversion from IV to PO antibiotic therapy can result in several significant benefits:

- Reducing the risk of intravascular catheter or line infection
- Improved patient comfort and mobility
- Decreased length of stay
- Reduced nursing preparation and administration time
- Reduced medication and supply costs

Consider the following criteria to identify residents that may be suitable candidates for an IV to PO conversion.

<u>IV to PO Conversion Possible If:</u> <i>(ALL Criteria Should be met to consider IV → PO Conversion)</i>	<u>Do NOT convert from IV to PO if:</u> <i>(Continue IV Therapy if ANY of the below criteria are met)</i>
<input type="checkbox"/> Received > 48 hours of IV antibiotic therapy	<input type="checkbox"/> Serious life threatening infection- meningitis, endocarditis, osteomyelitis, septicemia, etc.
<input type="checkbox"/> Improving WBC and differential counts	<input type="checkbox"/> Abnormal WBC count that is not improving
<input type="checkbox"/> Resident clinically improving	<input type="checkbox"/> Severely immunocompromised (s/p transplant)
<input type="checkbox"/> Afebrile for at least 24 hours (temperature ≤ 100°F or 38 °C)	<input type="checkbox"/> Fever > 38°C (100°F)
<input type="checkbox"/> Heart Rate < 100 BPM	<input type="checkbox"/> Heart Rate ≥ 100 BPM
<input type="checkbox"/> Systolic BP > 90 mmHg	<input type="checkbox"/> Systolic BP ≤ 90 mmHg
<input type="checkbox"/> Respiratory Rate <24 breaths per minute	<input type="checkbox"/> Respiratory Rate ≥ 24 breaths per minute
<input type="checkbox"/> No vomiting, diarrhea, or NPO	<input type="checkbox"/> Nausea, vomiting, diarrhea
<input type="checkbox"/> Taking other medications and food orally	<input type="checkbox"/> Difficulty swallowing, or GI malabsorption/obstruction



Listed below are a number of commonly used antibiotics known to have virtually equivalent bioavailability when given by either the IV or PO routes. However, the final decision to convert a resident from IV to PO therapy should be based on the individual resident's clinical condition and available laboratory data. Once switched, residents should be closely monitored for changing conditions over the next 24-48 hours.

Medication	Brand name	Parenteral Dose	PO Conversion
			(tablet or capsule)
Azithromycin	Zithromax	250 mg IV once daily	250 mg PO once daily
		500 mg IV once daily	500 mg PO once daily
Ciprofloxacin	Cipro	200 mg IV once daily	250 mg PO once daily
		200 mg IV Q12H	250 mg PO Q12H
		400 mg IV once daily	500 mg PO once daily
		400 mg IV Q12H	500 mg PO Q12H
		400 mg IV Q8H	750 mg PO Q12H
Clindamycin	Cleocin	300mg IV Q6-8H	150 mg PO Q6-8H
		600 mg IV Q6-8H	300 mg PO Q6-8H
Doxycycline	Doxy	100 mg IV Q12H	100 mg PO Q12H
Fluconazole	Diflucan	100 mg IV once daily	100 mg PO once daily
		200 mg IV once daily	200 mg PO once daily
		400 mg IV once daily	400 mg PO once daily
Levofloxacin	Levaquin	250 mg IV once daily	250 mg PO once daily
		500 mg IV once daily	500 mg PO once daily
		750 mg IV once daily	750 mg PO once daily
Linezolid	Zyvox	600 mg IV Q12H	600 mg PO Q12H
Metronidazole	Flagyl	250 mg IV Q6H	250 mg PO Q6H
		500 mg IV Q6H	500 mg PO Q6H
		500 mg IV Q8-12H	500 mg PO Q8-12H
Trimethoprim/sulfamethoxazole	Bactrim	800 mg/160 mg IV Q12H	800 mg/160 mg PO Q12H

References

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2. Considerations for PO to IV dose conversions. Pharmacist's Letter/Prescriber's Letter. 2010;26(9):260912.
3. Kuti JL, Le TN, Nightingale CH, Nicolau DP, Quintiliani R. Pharmacoeconomics of a pharmacist-managed program for automatically converting levofloxacin route from IV to oral. *Am J Health-Syst Pharm.* 2002; 59(22):2209-2215.
4. Mertz D, Koller M, Haller P, et al. Outcomes of early switching from intravenous to oral antibiotics on medical wards. *J Antimicrob Chemother.* 2009;64(1):188-199.