

From: <u>Clinical Monitoring of Outpatient Parenteral Antimicrobial Therapy (OPAT) - Adult - Inpatient/Ambulatory</u> Contact for Content: Lucas Schulz, PharmD, BCIDP, Phone Number: (608) 890-8617, LSchulz2@uwhealth.org

Appendix. Clinical Considerations for OPAT and/or Home Infusions

- Try to avoid checking inpatient drug concentrations on the day of discharge if possible; Infusion agencies process orders and prepare the first home dose the morning of discharge; pending troughs will delay care
- Coordinate recommended lab monitoring with the primary team and the ID recommendations
- Methods of administration in the home for anti-infectives may include IV push, flow regulator on an IV pole, elastomerics, or an ambulatory infusion pump
 - Coordinate pump type/infusion duration with case managers and home infusion company/infusion center staff/SNFs, etc.
 - Factors that may improve OPAT regimen adherence:
 - Once-daily administration or bag change
 - Short infusion duration or IV push administration
 - Factors that prohibit short infusions or IV push antibiotics with OPAT may include (but are not limited to):
 - Accepting facility or patient family unable to perform multiple administrations daily
 - Patient inability to complete short infusion or IV push independently
 - Therapeutic inferiority with short infusion
- The following antimicrobials have frequent dosing intervals and can therefore be made in a 24-hour bag by UW Health Care Direct (other home infusion agencies may have different practices), which can be given as continuous infusion or programmed on a pump that fires intermittent doses from the same bag:

Acyclovir	Cefotetan	Ceftolozane-tazobactam
Ampicillin	Cefoxitin	Meropenem*
Aztreonam	Ceftazidime	Nafcillin
Cefazolin	Cefuroxime	Oxacillin
Cefepime	Clindamycin	Penicillin G potassium
Cefotaxime	Piperacillin-tazobactam	Vancomycin

- * Must change bag after 12 hours instead of 24 hours
- Ampicillin-sulbactam does not have good home stability and cannot be given as a 24-hour bag; patients or caregivers have to be willing and able to administer this medication multiple times a day
- Some SNFs or Home Health agencies cannot run extended infusions, cannot administer medications every 6 hours, and/or cannot hook patients up to 24-hour pumps
 - This is rare, but can create difficulty if it occurs. Attempt to confirm this before discharge day
 - The dosing for extended beta-lactam infusions and intermittent/short infusions may be different; refer to the <u>Pharmacokinetic/Pharmacodynamic Dose Optimization of Antibiotics for the Treatment</u> <u>of Gram-negative Infections Clinical Practice Guidelines</u>
- If antimicrobial infusion cost is preventing discharge to home or to other facility, work with attending team and/or Infectious Disease service to identify if other antimicrobial choices may facilitate discharge

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Appendix. Coordinating an OPAT Discharge

Step 1: OPAT Discharge Navigator and Laboratory Monitoring

1. Select the OPAT button for ALL patients that discharge on IV antimicrobials

OPAT	Monitoring	ŧ	
Monitoring	🕇 Add Group 🕂 Add Row 🕂 Add LDA 🦂 Responsible More - 🛛 Show Row Info 🖉 Show Last Filed Value 🗌 Show Details 🗋 Show All Choices	æ	
Guidelines	OPAT Patient	*	
Reports	Patient is being discharged on outpatient parenteral antibiotics?		
Agencies/Facilities			

- 2. Confirm team has ordered appropriate labs
 - a. Labs should appear in the OPAT monitoring navigator if they are ordered through UW Health. If ordered outside of UW Health, labs will not appear in this section and confirmation of ordering will need to be made by discussion with primary team.

OPAT	OPAT Reports		Cti*
Monitoring	Discharge Planning		and the
Guidelines	★ Lab orders to appear here		e Edit
Reports	✓ Close	Previous	Next
Agencies/Facilities			

- b. Compare ordered labs to OPAT Consensus Care Guideline (see Table 1 above) and/or IDSA OPAT guidelines and the ID consult note (if available)
- c. Ask team to order any missing labs (lab ordering is the responsibility of the provider)
- Confirm date for first outpatient drug level (if necessary) by communicating with infusion agency
 i. Some Home Health nurses can only draw labs on certain days; discuss with infusion
 - agency to confirm most appropriate time for first outpatient drug level
- e. Select "laboratory monitoring has been reviewed" button in HealthLink

Monitoring	† ‡				
+ Add Group + Add LDA 🖁 Responsible More - 🗌 Show Row Info 🗹 Show Last Filed Value 🗋 Show Details 🗋 Show All Choices	æ				
OPAT Patient	*				
Patient is being discharged on outpatient parenteral antibiotics?					
Yes · · · ·					
Patient's outpatient parenteral antibiotic laboratory monitoring has been reviewed?					
Yes 🕅 🗅					

Step 2: Contact Home Infusion Agency

- 1. Look at social work or UW Health Care Direct note in HealthLink for fax numbers, contact information, or planning information
- 2. UW Health Care Direct nurses are available during business hours at UW University Hospital
- 3. UW Health Care Direct main office: 608-831-8555
 - a. Can speak to pharmacist during business hours for drug or dosing questions
 - b. Can ask to speak with on-call pharmacist after-hours or on weekends
- 4. UW Health Care Direct fax: 608-831-9747
- 5. Paging (262-2122) can assist in contacting a home infusion agency

Step 3: Preparing OPAT Prescription

- 1. Ensure team orders <u>drug for injection</u> on discharge
 - a. Discharge Navigator → Order Reconciliation → Discharge Orders → Type in the antimicrobial name → Database lookup

MEDIC RECON	CILIATIO	- N	UWHealt		
PT Room Phone # Med Rec Status PDMP Order Reconciliat Recommended DC Med Info Note DEA/NPI E-Prescribe Med			Sidebar Summary Discharge Orders		
		ed	Discharge Order Rec Order Sets	Options 🕶	
			vancomycin		
	n to UV	/ Rx	Select order mode	► 🕓 Mext	
E VANCOMY	CIN		Order and Order Set Search P Browse Pref	erence List Facility List Database	
티 Order	Sets & Par	n els 奈 Name		I (Alt+Shift+1)	
រ ជ ជ		VANCOMYCIN - SAH VANCOMYCIN - UWH	0	irder Panel	
ំ ជ		VANCOMYCIN, PEAK - SAH VANCOMYCIN, TROUGH - SA		rder Panel	
н	Þ	IP - Empiric - Anti-Infective Treatment - Adult - Supplemental Order Set			
්ර Medic	cations 🔌 Code	Name	Generic Name Type Copay Coverage Formulary	I (Alt+Shift+2) Drug Type	
۵	701261	VANCOMYCIN 1 G IN		Generic Rx, Compound	
	785221	VANCOMYCIN 1 G IN	SODIUM CHLORIDE 0.9% STOCK 285 Medication	Generic Rx	

- b. Use chart below to select the correct product
- 2. Do NOT order the drug in a base fluid
 - a. The infusion agency will put the drug in the most appropriate fluid and concentration for home stability when the infusion agency pharmacists receive the prescription
- 3. Round dose to nearest 10 mg for daptomycin
 - a. To avoid drug waste, consider rounding to nearest vial size if within 10 mg. Available vial sizes are 350 mg or 500 mg.
- 4. Change dispense quantity to "1 each"
- 5. Change refills to "70" even if duration is known
 - a. This allows the infusion agency to re-dispense drug if patients have storage issues or malfunctions while dispensing at home
- 6. If duration is known, add anticipated stop date as a note in Discharge Medication List and discharge handoff note
- 7. Print prescription for fax and have prescriber sign
- 8. Fax to infusion agency
- 9. Include the name of the provider who will follow the patient after discharge in the discharge hand-off note

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Antimicrobial Drug for Injection Medication Record Numbers (ERx):

Antimicrobial	ERx for OPAT <u>Injection</u> Database Lookup (F7)	Concentrations or Strengths	
Liposomal amphotericin	58058	50 mg	
Acyclovir	44030	500 mg	
Amikacin	785038	250 mg/mL	
	34543	1 g	
Ampicillin	34546	2 g	
	50601	1.5 g	
Ampicillin-sulbactam	50599	3 g	
Azithromycin	57146	500 mg	
A_4	44264	1 g	
Aztreonam	44265	2 g	
	66233	50 mg	
Caspofungin	66234	70 mg	
Cefazolin	35636	1 g	
Cofoning	52161	1 g	
Cefepime	52163	2 g	
	44555	1 g	
Cefoxitin	44557	2 g	
	44571	500 mg	
Ceftazidime	44568	1 g	
	63789	2 g	
Ceftazidime-avibactam	167521	2.5 g	
Ceftolozane-tazobactam	166371	1.5 g	
	44581	1 g	
Ceftriaxone	44582	2 g	
	35657	750 mg	
Cefuroxime	700179	1.5 g	
	144939	200 mg/20 mL	
Ciprofloxacin	144940	400 mg/40 mL	
	119041	300 mg/2 mL	
Clindamycin	119039	600 mg/4 mL	
	119040	900 mg/6 mL	
Daptomycin	73977	500 mg	
Ertapenem	68678	1 g	
Ganciclovir	45226	500 mg	
	37859	10 mg/mL	
Gentamicin	37860	40 mg/mL	
Levofloxacin	54892	25 mg/mL	
	170913	200 mg/100 mL	
Linezolid	170914	600 mg/300 mL	
•••	53238	500 mg	
Meropenem	53239	1 g	
	107268	50 mg	
Micafungin	115014	100 mg	
	39988	1 g	
Nafcillin	39990	2 g	
	179516		
Oxacillin	40651	1g	



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Antimicrobial	ERx for OPAT <u>Injection</u> Database Lookup (F7)	Concentrations or Strengths	
	40653	2 g	
	18684	10 g	
Penicillin G Potassium	40825	5,000,000 units	
Penicinin d Potassium	40824	20,000,000 units	
Penicillin G Sodium	40826	5,000,000 units	
	54253	2.25 g	
Piperacillin-tazobactam	54252	3.375 g	
	54251	4.5 g	
Rifampin	46481	600 mg	
Sulfamethoxazole- trimethoprim	42456	400-80 mg/5 mL	
Tigecycline	107987	50 mg	
Tohromusin	135889	40 mg/mL	
Tobramycin	104635	80 mg/2 mL	
	43437	500 mg	
Vancomycin	135474	750 mg	
	180797	1000 mg	
Voriconazole	69968	200 mg	