

# OUTPATIENT PARENTERAL ANTIMICROBIAL THERAPY (OPAT) CARE COORDINATION IN PATIENTS DISCHARGING FROM AN ACADEMIC HOSPITAL TO HOME INFUSION

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## BACKGROUND

- Outpatient Parenteral Antimicrobial Therapy (OPAT) has become standard of care for patients who are medically stable but still require IV antimicrobial therapy<sup>1</sup>
- Care coordination involves multiple providers, including infectious disease (ID) physicians, pharmacists, infusion nurses, and care coordinators<sup>1</sup>
- Effective care coordination and communication can shorten length of stay (LOS), decrease healthcare costs, and eliminate unnecessary discharge delays

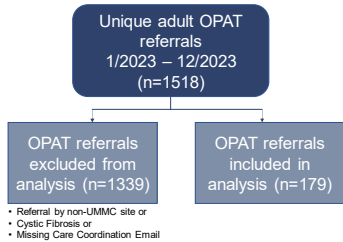
## OBJECTIVES

- To evaluate and describe OPAT workflows for patients discharged from the University of Minnesota Medical Center (UMMC) to home infusion
- To identify barriers in care coordination that prolong inpatient LOS stay

## METHODS

- Single center, retrospective, observational review
- Chi-squared tests and Kruskal-Wallis compared variables across presence or absence of barriers and dichotomized LOS

FIGURE 1: STUDY DESIGN



## RESULTS

- Primary Outcome: Number and description of barriers to discharge
  - Age and Payer: Table 1
- Secondary Outcome: Correlation of barriers to hospital length of stay
  - Unit change, ICU requirement, OPAT Barriers: Table 2

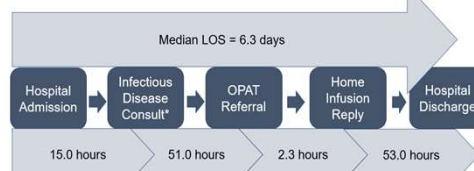
TABLE 1: DEMOGRAPHIC AND DISEASE CHARACTERISTICS FOR PATIENTS WITH AND WITHOUT OPAT BARRIERS

	Any Barrier to Care		Total Sample N=179 (100.0%)	P-value
	No Barriers N=117 (65.3%)	> 1 Barrier N=62 (34.6%)		
Age Group				
18-34 years	25 (21.4)	4 (4.8)	28 (15.6)	
35-49 years	26 (22.2)	12 (19.4)	38 (21.2)	
50-64 years	48 (41.0)	24 (38.7)	72 (40.2)	<.01
65-74 years	13 (11.1)	16 (25.8)	29 (16.2)	
75+ years	5 (4.3)	7 (11.3)	12 (6.7)	
Patient Sex				.26
Male	67 (57.3)	30 (48.4)	97 (54.2)	
Female	50 (42.7)	32 (51.6)	82 (45.8)	
Payer				
Commercial	66 (56.4)	21 (33.9)	87 (48.6)	
MA/Medicaid	36 (30.8)	11 (17.7)	47 (26.3)	
Medicare	5 (4.3)	21 (33.9)	26 (14.5)	<.01
Dual Medicare/Aid	6 (5.1)	3 (4.8)	9 (5.0)	
Tricare/VA	1 (0.9)	4 (6.5)	5 (2.8)	
Other/Unknown	3 (2.6)	2 (3.2)	5 (2.8)	
Indication				
Bloodstream	20 (17.1)	17 (27.4)	37 (20.7)	
Multiple	10 (8.6)	12 (19.4)	22 (12.3)	
Bone and joint	15 (12.8)	3 (4.8)	18 (10.1)	
CNS	10 (8.6)	7 (11.3)	17 (9.5)	
SSTI	9 (7.7)	7 (11.3)	16 (8.9)	
Genitourinary	9 (7.7)	3 (4.8)	12 (6.7)	.06
Abdominal	7 (6.0)	4 (6.5)	11 (6.2)	
Pneumonia	9 (7.7)	0 (0.0)	9 (5.0)	
Viral	7 (6.0)	2 (3.2)	9 (5.0)	
Other	21 (18.0)	7 (11.3)	28 (15.6)	
Therapy				
Multiple	46 (39.3)	24 (38.7)	70 (29.1)	
Cephalosporin	29 (24.8)	21 (33.9)	50 (27.9)	.71
Carbapenem	10 (8.6)	16 (25.8)	26 (14.5)	
Beta lactam	8 (6.8)	3 (4.8)	11 (6.2)	
Lipoglycopeptide	8 (6.8)	3 (4.8)	11 (6.2)	
Other	16 (13.7)	5 (8.1)	21 (11.7)	
Organism				
Gram Positive	33 (28.2)	21 (33.9)	54 (30.2)	
Gram Negative	21 (18.0)	10 (16.1)	31 (17.3)	
Multiple	30 (25.6)	18 (29.0)	48 (26.8)	.80
Viral	7 (6.0)	2 (3.2)	9 (5.0)	
Empiric	18 (15.4)	6 (9.7)	24 (13.4)	
Other/Unknown	8 (6.8)	5 (8.1)	13 (7.3)	

TABLE 2: ASSOCIATION OF DISEASE CHARACTERISTICS TO HOSPITAL LOS

		Total LOS, Days		Total Sample N=179 (100.0%)	P-value
		<7 days N=98 (54.8%)	≥ 7 days N=81 (45.3%)		
Unit Change	Yes	10 (10.2)	34 (42.0)	44 (24.6)	
	No	88 (89.8)	47 (58.0)	135 (75.4)	<.01
ICU	Yes	5 (5.1)	21 (25.9)	26 (14.5)	
	No	93 (94.9)	60 (74.1)	153 (85.5)	<.01
Indication	Bloodstream	23 (23.5)	14 (17.3)	37 (20.7)	
	Multiple	9 (9.2)	13 (16.1)	22 (12.3)	
	Bone and joint	9 (9.2)	9 (11.1)	18 (10.1)	
	CNS	9 (9.2)	8 (9.9)	17 (9.5)	
	SSTI	8 (8.2)	8 (9.9)	16 (8.9)	
	Genitourinary	11 (11.2)	1 (1.2)	12 (6.7)	.05
	Abdominal	6 (6.1)	5 (6.2)	11 (6.2)	
	Pneumonia	4 (4.1)	5 (6.2)	9 (5.0)	
	Viral	8 (8.2)	1 (1.2)	9 (5.0)	
	Other	11 (11.2)	17 (21.0)	28 (15.6)	
Barriers to Care	Yes	37 (37.8)	25 (30.9)	62 (34.6)	
	No	61 (62.2)	56 (69.1)	117 (65.4)	.33
Hours Between OPAT Referral, Home Infusion Reply		2.28	2.33	2.30	.73

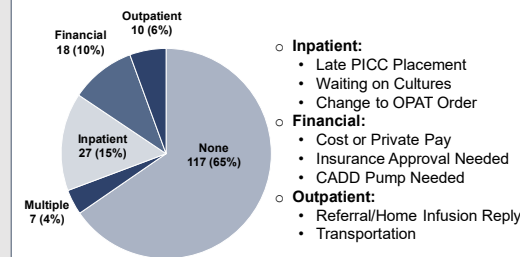
FIGURE 2: Timeline of Key Care Coordination Elements During Hospitalization



\*Several infectious disease consults occurred prior to hospital admission

## RESULTS

FIGURE 3: NUMBER AND DESCRIPTION OF OPAT BARRIERS



## CONCLUSION

- Optimizing OPAT processes during transitions of care remains a challenge, due to the involvement of multiple providers and number of steps within care coordination
- A correlation is not seen between identified OPAT barriers and prolonged hospitalizations
- Post-analysis measures will be taken to standardize the timing of OPAT care coordination, minimize the frequency of OPAT barriers, and improve transitions of care

## REFERENCES

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## DISCLOSURES

- John C Anderson: No reported disclosures
- Alicia L Zagel: No reported disclosures
- Jennifer K Ross: No reported disclosures