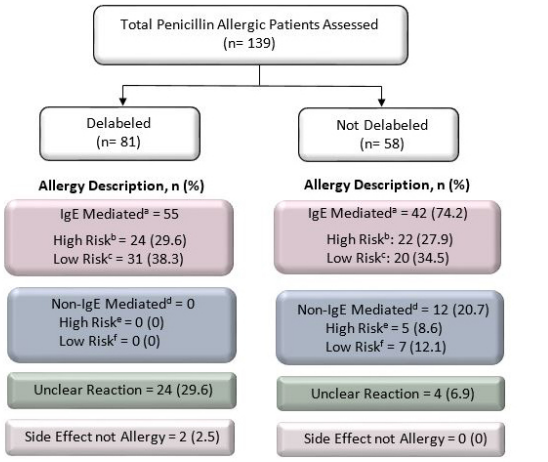
Results. Between 30 August 2020 and 6 May 2021 (250 days), 139 PCN allergic patients were assessed (81 delabeled versus 58 not delabeled) (Figure 2). Some patients (37%) were delabeled via history alone, while 63% had further skin/oral testing. Baseline characteristics were similar between groups (Table 1). In the delabeled group, we observed increased narrow-spectrum PCN use (p< 0.001), and decreased vancomycin (p< 0.001), fluoroquinolone (p=0.013), carbapenem (p< 0.011), and overall restricted antimicrobial use (Table 2). Rates of 30-day readmission, LOS, and mortality were comparable. Four (5%) of delabeled patients had had PCN allergy re-entered in the chart at 30-days.

Figure 2. Allergy Description of Patients Assessed for Penicillin Allergy Delabeling



[a] IgE mediated defined as classically beginning within minutes to hours after an exposure.
[b] High risk including as anaphylaxis, angioedema of any body part, wheezing, or laryngeal constriction
[c] Low risk including as any other non-severe immediate reaction including urticarial or pruritic rash
[d] Non-IgE defined as late onset (> 6 hours) or lasting days to weeks after stopping exposure
[e] High risk including end organ inflammation, serum sickness, or suspected SJS, TEN, or DRESS syndrome
[f] Low risk including any other delayed symptom including delayed mild non-urticarial rash

Table 1: Baseline Characteristics of Patients Assessed With a Penicillin Allergy

Patient Characteristics	Overall (n = 139)	Delabeled (n = 81)	Not De-labeled (n = 58)	*P value*
Male Sex, n (%)	62 (44.6)	36 (44.4)	26 (44.8)	0.964
Age, years median (IQR)	61 (50 – 69)	60 (49 – 68)	62 (53 – 73)	0.238
Self-Reported Race, n (%)				
Black	61 (43.9)	38 (46.9)	23 (39.7)	0.395
White	69 (49.6)	38 (46.9)	31 (53.4)	0.447
Other	5 (3.6)	3 (3.7)	2 (3.4)	0.936
Unknown	4 (2.9)	2 (2.5)	2 (3.4)	0.733
Admitting Team, n (%)				
Medical	103 (74.1)	56 (69.1)	47 (81.0)	0.114
Surgical	36 (25.9)	25 (30.9)	11 (19.0)	0.108
Intensive Care Unit Admission, n (%)	32 (23.0)	23 (28.4)	9 (15.5)	0.075
CCI, median (IQR)	6 (3 – 9)	6 (3 – 9)	4.5 (2.3 – 8)	0.214
Solid Organ Transplant, n (%)	12 (8.6)	7 (8.6)	5 (8.6)	0.997
History of mental illness, n (%)	35 (25.2)	22 (27.2)	13 (22.4)	0.525
Treated for infection during stay				
Yes infection suspected, n (%)	122 (87.8)	72 (88.9)	50 (86.2)	0.634
No infection during stay, n (%)	17 (12.2)	9 (11.1)	8 (13.8)	0.862
Suspected Infection Source, n (%)				
Bone and Joint	20 (14.4)	14 (17.3)	6 (10.3)	0.250
Pneumonia	21 (15.1)	12 (14.8)	9 (15.5)	0.909
Intra-abdominal	35 (25.2)	17 (21.0)	18 (31.0)	0.127
Skin and Soft Tissue	15 (10.8)	11 (13.6)	4 (6.9)	0.210
Urinary or Renal	12 (8.6)	6 (7.4)	6 (10.3)	0.543
Ear, Nose, Throat	7 (5.0)	6 (7.4)	1 (1.7)	0.131
Central Nervous System	4 (2.9)	4 (4.9)	0 (0)	0.086
Cardiac or Cardiac Device	3 (2.2)	2 (2.5)	1 (1.7)	0.766
Other Infection	5 (3.6)	0 (0)	5 (8.6)	0.007
Positive Blood Cultures, n (%)	12 (8.6)	6 (7.4)	6 (10.3)	0.369
Allergy Information				
No. antibiotic allergies, median (IQR)	1 (1 – 2)	1 (1 – 2)	1 (1 – 2)	0.232
No. other allergies, median (IQR)	1 (0 – 2)	1 (0 – 1)	1 (0 – 2)	0.196
Total No. of allergies, median (IQR)	2 (1 – 4)	2 (1 – 3)	2.5 (1 – 4.8)	0.148
Penicillin allergy, n (%)	138 (99.3)	80 (98.8)	58 (100)	0.396
Non-penicillin B-lactam allergy, n (%)	15 (10.8)	8 (9.9)	7 (12.1)	0.681
Sulfonamide allergy, n (%)	26 (18.7)	13 (16)	12 (22.4)	0.343

Abbreviations: IQR, interquartile range; CCI, Charlson Comorbidity Index

Patients were similar between groups on all baseline clinical and allergy characteristics except for more patients with infection classified as "other" in the non-delabeled group.

Table 2: Antibiotic Utilization and Clinical Outcomes in Delabeled Versus Non-Delabeled Patients*

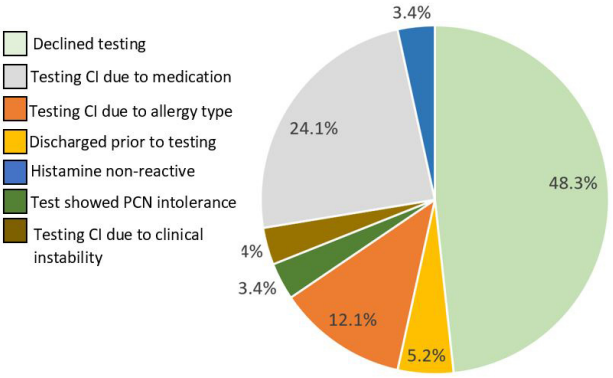
Antibiotic Utilization Outcomes, n (%)	Overall (n = 139)	Delabeled (n = 81)	Not Delabeled (n = 58)	*P value*
Narrow Spectrum Penicillin [a]	28 (20.1)	28 (34.6)	0 (0)	< 0.001
1st or 2nd Generation Cephalosporin	13 (9.4)	10 (12.3)	3 (5.2)	0.152
Vancomycin	40 (28.8)	10 (12.3)	30 (51.7)	< 0.001
Fluoroquinolone	25 (18.0)	9 (11.1)	16 (27.6)	0.013
Carbapenem	10 (7.2)	2 (2.5)	8 (13.8)	0.011
Any Restricted Antimicrobial [b]	64 (46.0)	19 (23.5)	45 (77.6)	< 0.001
Clinical Outcomes				
30 – Day Readmission, n (%)	44 (31.7)	21 (25.9)	23 (39.7)	0.086
Length of Stay, days median (IQR)	7 (3.5 – 15)	7 (4 – 15)	8.5 (3.3 – 13.8)	0.678
30 – Day mortality, n (%)	9 (6.5)	6 (7.4)	3 (5.2)	0.598

*Outcomes are from index admission post allergist nurse practitioner assessment to 30-days post discharge.
[a] A narrow-spectrum penicillin was defined as penicillin VK or G, ampicillin, amoxicillin, or amoxicillin/clavulanic acid
[b] Any restricted antimicrobial including clindamycin, fluoroquinolone, vancomycin, carbapenem, aztreonam, or linezolid

In the delabeled patients, we observed increased narrow-spectrum PCN use and decreased vancomycin, fluoroquinolone, carbapenem, and overall restricted antimicrobial use. Use of first and second generation cephalosporines was comparable between groups. Rates of 30-day readmission, LOS, and mortality were comparable.

Conclusion. This QI effort between the departments of Allergy and ID to employ an ANP increased narrow spectrum antibiotic use and reduced use of restricted antimicrobials. Challenges included the part time position of the ANP unable to see every patient, reemergence of allergy in the chart, and clinical or other exclusions for delabeling (Fig 3).

Figure 3: Reason Patient was Not Able to be Delabeled (n=39)



Abbreviations: CI, contraindicated; PCN, penicillin

Disclosures. **All Authors**: No reported disclosures

62. Secondary Prophylaxis in *Clostridioides difficile* Infections: a Closer Look at Outcomes

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Session: P-04. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

Background. *Clostridioides difficile* infection (CDI) is an urgent public threat and carries a 25% chance of recurrence (rCDI). Data on safety and efficacy of oral vancomycin prophylaxis (OVP) in reducing rCDI is limited. We implemented a best practice advisory (BPA) to alert the prescriber and antibiotic stewardship (ASP) team for patients with CDI in the previous 60 days being initiated on systemic antimicrobials. The alert states "Don't use antibiotics in patients with recent CDI without convincing evidence of need. Antibiotics pose a high risk of recurrence". ASP team would recommended OVP if antibiotics are continued. This study evaluated the impact of the BPA alert on OVP prescribing and patient outcomes.

Methods. IRB approved, retrospective, observational cohort study comparing patients who received OVP to no OVP. Inclusion: adults with history of laboratory confirmed CDI, ≥ 14 days post-CDI treatment completion, BPA from 3/7/19 – 3/31/20, receiving non-CDI systemic antimicrobials, and without history of bezlotoxumab infusion. Data were reported using descriptive statistics and bivariate analysis. Primary endpoint: rCDI within 2-8 weeks post-OVP completion. Secondary endpoints: vancomycin-resistant *Enterococcus* spp (VRE) in clinical culture post-OVP and 1-year mortality.

Results. 70 patients included: 32 (46%) no-OVP and 38 (54%) OVP. Baseline characteristics, previous CDI treatment, and outcomes were similar (Table 1). Index CDI was severe in the OVP group (18, 47% vs. 9, 28%). Median Charlson comorbidity index: 7 (3 – 9) no-OVP and 7 (5 – 9) OVP. OVP regimens, 125 mg by mouth: once daily 4 (10%), twice daily 22 (58%), and every 6 hours 12 (32%). Median prophylaxis duration: 10 days (6 – 13). rCDI occurred in 3 (9%) no-OVP and 2 (5%) OVP ($P = 0.654$). Mortality: 10 (31%) no-OVP and 16 (42%) OVP ($P = 0.458$).

Table 1. Patient Characteristics and Endpoints

	No-OVP (n = 32)	OVP (n = 38)	*P*-value
Age, Median (IQR)	68 (50 - 78)	64 (57 - 73)	0.342
Female sex, n (%)	16 (44)	20 (55)	0.826
Index CDI Severity, n (%)			
Mild to moderate	20 (63)	17 (45)	0.266
Severe	9 (28)	18 (47)	
Index CDI treatment, n (%)			0.641
Vancomycin	20 (63)	23 (61)	
Fidaxomicin	2 (6)	2 (5)	
Endpoints, n (%)			
CDI recurrence	3 (9)	2 (5)	0.654
VRE isolation	2 (6)	3 (8)	1

Conclusion. OVP was utilized in approximately half of patients who required non-CDI antibiotics. Efficacy interpretation is limited by inconsistent dosing regimens and significant comorbid illness in the cohort. Future work will focus on further optimizing the BPA and standardizing the OVP regimen.

Disclosures. **Rachel Kenney, PharmD**, **Medtronic, Inc.** (Other Financial or Material Support, spouse is an employee and shareholder) **Susan L. Davis, PharmD**, Nothing to disclose

63. Impact of Infectious Disease Fellow-Driven Antimicrobial Stewardship Interventions on Inpatient Fluoroquinolone Use

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Session: P-04. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

Background. Fluoroquinolone (FQ) antibiotics are frequently used in hospitalized patients to treat a wide range of infections but are often misused and implicated in antibiotic-associated adverse events. The purpose of this study is to evaluate the impact of Infectious Disease fellow (IDF)-driven antimicrobial stewardship program (ASP) interventions on inpatient FQ use.

Methods. This is a retrospective study of all admitted patients who received a FQ for greater than 48 hours from 01/01/2019 -12/31/2020 in an urban academic center. "Phase 1" (pre-intervention phase) covered 01/1/2019- 03/31/2019. "Phase 2" (intervention phase) covered 03/03/2020- 12/23/2020. In "Phase 2", our ASP reviewed FQ use 2-3 days per week and an IDF provided feedback interventions that averaged 30-60 minutes of IDF time spent per day. We categorized FQ use as either: "appropriate", "appropriate but not preferred", or "inappropriate", as determined by local clinical guidelines and ASP team opinion. We compared FQ use in both phases, indications for FQ use, and new *Clostridioides difficile* infections (CDI).

Results. A total of 386 patients are included (76 in "Phase 1"and 310 in "Phase 2"). Patient characteristics are similar (Table 1). Overall, 63 % of FQ use was empiric, and 50% FQ use was deemed "appropriate", 28% "appropriate but not preferred", and 22% "inappropriate". In "Phase 2", 126 interventions were conducted, with 86% of these accepted. Appropriate FQ use increased significantly in "Phase 2" vs. "Phase 1" (53.5% vs 35.5%, p = 0.008), with decrease in mean days of FQ use (4.38 days vs 5.87 days, p =.021). Table 2 shows "appropriate" FQ use by clinical indication. New CDIs occurred more in "Phase 1" vs. "Phase 2" (6.6% vs 0.6%, p=.001).

Table 1: Baseline Patient Characteristics and Characteristics of Fluoroquinolone Use

Baseline Characteristics		Phase 1 (N=76)	Phase 2 (N=310)	Total (N=386)
Median Age (Range)		54 (18-84)	57 (18-89)	386
Race (Black)	n (%)	37 (48.7)	132 (42.6)	169
Ethnicity (Hispanic)	n (%)	21 (27.6)	67 (21.6)	88
Male	n (%)	45 (59.2)	180 (58.1)	225
Diabetes mellitus	n (%)	25 (32.9)	68 (21.9)	93
End Stage Renal Disease	n (%)	0 (0)	11 (3.5)	11
Advanced Liver Disease	n (%)	14 (18.4)	55 (17.7)	69
Congestive Heart Failure	n (%)	5 (6.6)	16 (5.2)	21
COPD	n (%)	11 (14.5)	26 (8.4)	37
Malignancy	n (%)	11 (14.5)	45 (14.5)	56
Immunocompromised	n (%)	11 (14.5)	42 (13.5)	53
Penicillin Allergy	n (%)	18 (23.7)	66 (21.2)	84
Advanced Liver Disease	n (%)	14 (18.4)	55 (17.7)	69
Congestive Heart Failure	n (%)	5 (6.6)	16 (17.7)	21
COPD	n (%)	11 (14.5)	26 (8.4)	37
Malignancy	n (%)	11 (14.5)	45 (14.5)	56
Immunocompromised	n (%)	11 (14.5)	42 (13.5)	53
Penicillin Allergy	n (%)	18 (23.7)	66 (21.2)	84
Empiric Quinolone Use	n (%)	57 (75)	185 (59.7)	242
Type of Quinolone Used				
Levofloxacin	n (%)	35 (46.1)	149 (48.1)	184
Ciprofloxacin	n (%)	39 (51.3)	150 (48.4)	189
Moxifloxacin	n (%)	1 (1.3)	0 (0)	1
Levofloxacin + Ciprofloxacin	n (%)	1 (1.3)	11 (3.5)	12

Table 2: "Appropriate" Fluoroquinolone Use by Clinical Indication

Clinical Indication for Fluoroquinolone	Phase 1 N=76 n	Phase 2 N=310 n	Total N=386 n
Bacteremia/Intravascular infection	2	14	16
CAP	3	13	16
Endophthalmitis	0	1	1
Epididymoorchitis	0	1	1
HAP/VAP	0	24	24
Intra-abdominal infection	2	12	14
Joint infection	0	2	2
Neutropenic fever	0	2	2
Osteomyelitis	0	6	6
Otitis externa/Mastoiditis	0	7	7
Prophylaxis	10	42	52
Pulmonary tuberculosis	0	3	3
Skin/soft tissue	0	20	20
Unknown	0	1	1
UTI	10	18	28
Total	**27**	**166**	**193**

Conclusion. An IDF-driven ASP intervention has a positive impact on appropriate inpatient use of FQs in our hospital. This highlights a promising ASP model which not only improves appropriate use of FQ, but also offers an opportunity for IDF mentorship and use of available resources to promote ASPs.

Disclosures. **Katie A. McCrink, PharmD**, **ViiV Healthcare** (Employee)

64. Absolute Monocyte Count (AMC) as Early and Safe Marker for Discharge in Low-risk Pediatric Febrile Neutropenia with Cancer

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Session: P-04. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

Background. Fever with neutropenia (FN) is common and the timing of antibiotic cessation in patients without an identified fever source is uncertain. Absolute neutrophile count (ANC) recovery has been used clinically to represent bone marrow recovery (BMR) but other options should be considered. We hypothesized that absolute monocyte count (AMC), and absolute phagocyte count (APC) are more sensitive, and an earlier safe marker of antibiotic cessation (AC) compared with ANC

Methods. A retrospective review was performed for FN episodes (FNEs) at UCM Comer Children's Hospital between 2009 and 2016 in pediatric oncology patients. Eligible FNEs who were a febrile for 24 hours, had no bacterial source identified at time of AC, and did not receive chemotherapy 10 days following AC. Ten-day post-AC outcomes, length of stay and cost were assessed and compared among different BMR parameters (ANC vs AMC).

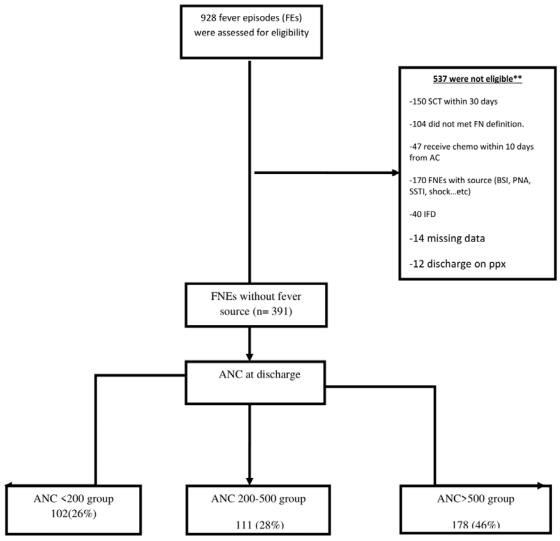

Figure 1. Study flow diagram. Febrile neutropenia (FN) episodes based on ANC value at time of AC.

IFD: invasive fungal disease,