

Let's GO PO: Impact of monthly feedback on a longitudinal intravenous to oral antimicrobial conversion initiative

Jillian E. Hayes, PharmD, BCIDP¹, Amy L. Carr, PharmD, BCIDP²

¹Duke University Hospital, Durham, NC; ²AdventHealth Orlando, Orlando, FL

Background

- Timely conversion of antimicrobials from intravenous (IV) to oral (PO) route has been shown to decrease cost and length of stay (LOS) without compromising safety and efficacy of therapy¹⁻³
- Use of PO antimicrobials may prevent catheter-related complications, such as infection, emboli, and patient discomfort¹⁻³
- An existing, P&T-approved IV to PO policy allowed pharmacists to convert orders for fourteen antimicrobials and eligible patients at point of order verification

Objective

- To assess the impact of monthly, team-based feedback on percentage of antimicrobials administered orally during a pharmacist-driven IV to PO antimicrobial stewardship initiative

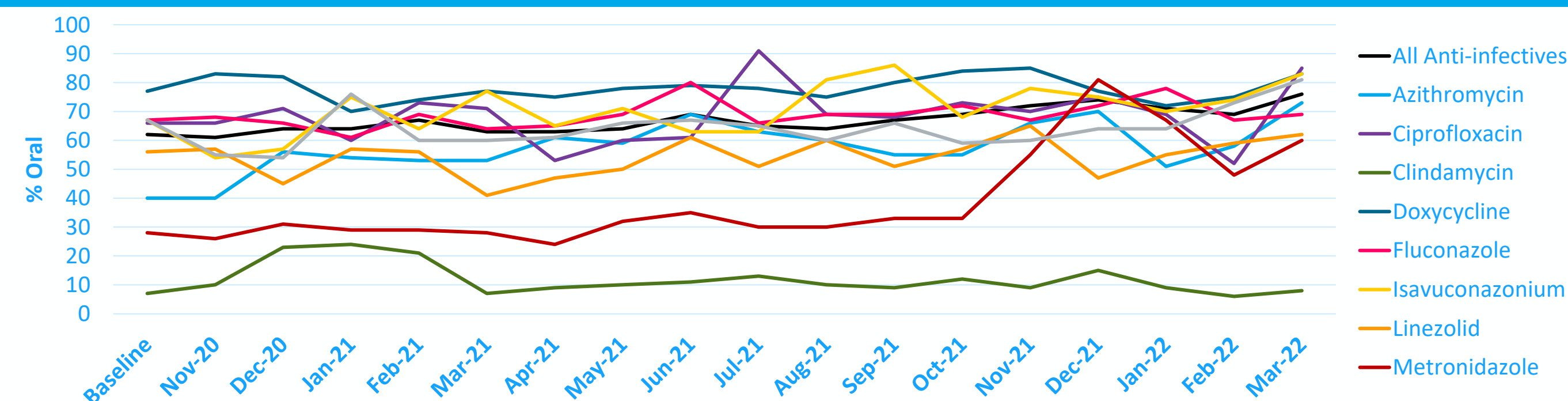
Methods

- Single center, retrospective comparative study of adult patients at AdventHealth Orlando
 - Pre-intervention: November 2019-October 2020
 - Post-intervention: November 2020-March 2022
- Stewardship strategy included provision of clinical team-based RePOrt Cards with monthly IV to PO conversion rates and team-based competition
- Primary outcome:** days of therapy (DOTs) administered orally
- Secondary outcomes:** individual antimicrobial oral conversion rates, IV to PO percent change, monthly cost differences, total cost differences

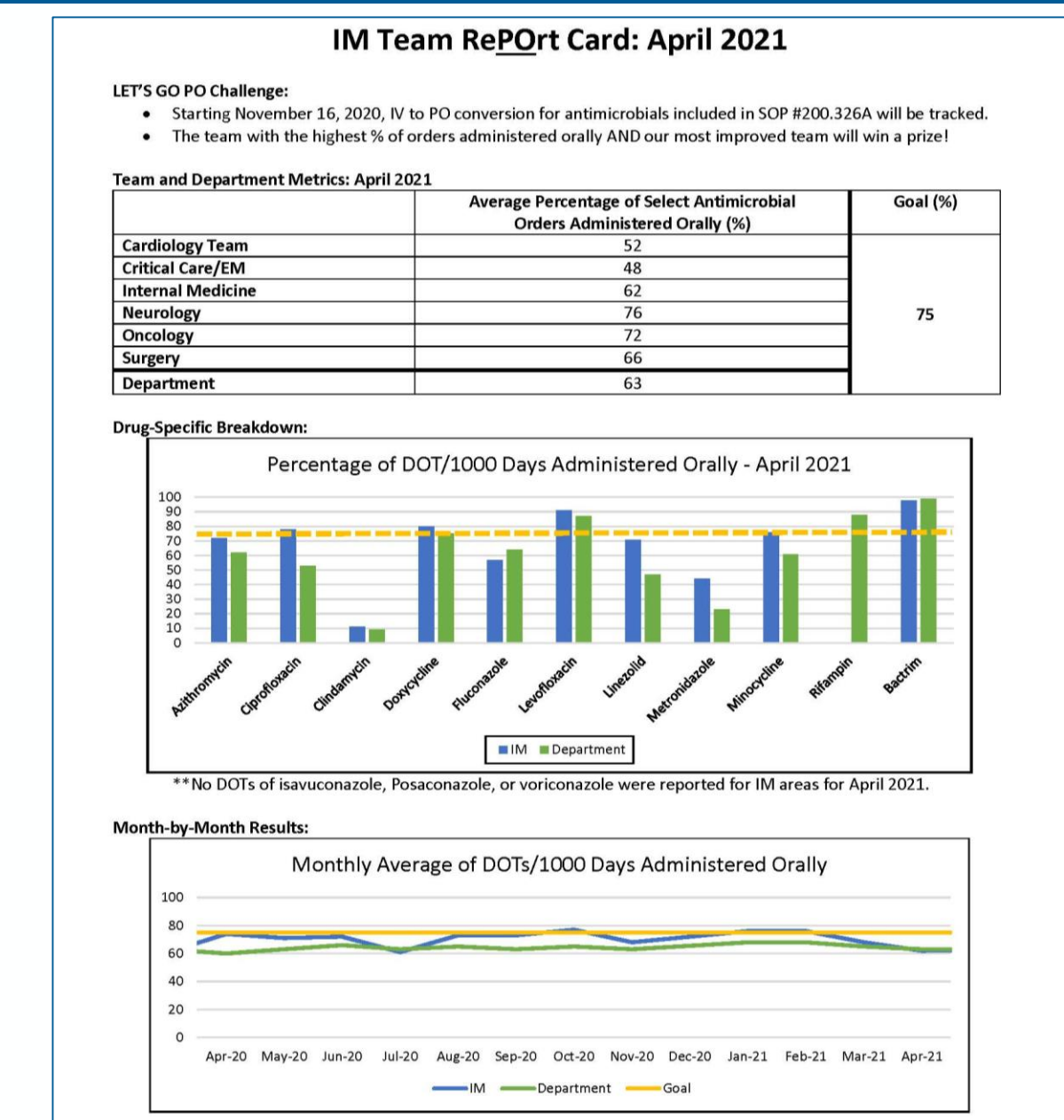
Results

Agent	Pre-Intervention PO DOTs	Post-Intervention PO DOTs	p-value	Estimated Monthly Cost Difference (\$)	Estimated Total Cost Difference (\$)
Total	42137 (62)	65215 (67)	0.0012	---	---
Azithromycin	2601 (39)	5696 (59)	< 0.001	-140.02	-2735.27
Ciprofloxacin	2137 (64)	3660 (68)	0.1761	-34.38	-439.46
Clindamycin	154 (9)	277 (12)	0.0385	-101.89	-2591.31
Doxycycline	5864 (77)	8672 (78)	0.4744	-121.19	-2838.95
Fluconazole	5823 (67)	9024 (69)	0.2128	-22.85	-407.59
Isavuconazonium	1411 (64)	1927 (72)	0.0688	-618.94	-12671.16
Levofloxacin	4544 (85)	6485 (89)	0.0493	-54.43	-706.58
Linezolid	3739 (56)	5666 (54)	0.7730	-2.16	+7434.29
Metronidazole	2889 (29)	5279 (39)	0.0280	-54.37	-2300.53
Minocycline	2477 (64)	3105 (64)	0.5193	+3308.67	+60019.43
Posaconazole	3740 (89)	5878 (93)	0.1086	-825.58	-20241.90
Rifampin	407 (72)	662 (86)	0.0831	-10.87	-54.13
SMX/TMP	5432 (96)	7249 (98)	0.0370	-217.70	-3461.07
Voriconazole	919 (81)	1635 (70)	0.0018	+252.73	+5842.42

Oral Administration of Antimicrobials Over Time



Example RePOrt Card



Discussion & Conclusions

- Provision of monthly, team-based feedback positively impacted IV to PO conversion rates
- Opportunities remain for higher-cost agents such as linezolid, minocycline, and voriconazole

References & Disclosures

- Cyriac JM, et al. *J Pharmacol Pharmacother* 2014;5:83-7.
- Béique L, et al. *Can J Hosp Pharm* 2015;68:318-26.
- McCarthy K, et al. *Aust Prescr* 2020;43(2):45-48.

Disclosures

All authors have nothing to disclose.

Contact information:

Jillian Hayes – jillian.hayes@duke.edu

