

Children's Mercy Kansas City

SHARE @ Children's Mercy

Posters

5-2021

Outpatient Antimicrobial Stewardship Programs in Children's Hospitals: Status, Needs, Barriers

Rana El Feghaly
Children's Mercy

Elizabeth Monsees
Children's Mercy Hospital

Alaina N. Burns
Children's Mercy Hospital

Brian Lee
Children's Mercy Hospital

Ann L. Wirtz
Children's Mercy Hospital

See next page for additional authors

Let us know how access to this publication benefits you

Follow this and additional works at: <https://scholarlyexchange.childrensmercy.org/posters>



Part of the [Infectious Disease Commons](#), and the [Pediatrics Commons](#)

Recommended Citation

El Feghaly, Rana; Monsees, Elizabeth; Burns, Alaina N.; Lee, Brian; Wirtz, Ann L.; Hersh, Adam L.; and Newland, Jason, "Outpatient Antimicrobial Stewardship Programs in Children's Hospitals: Status, Needs, Barriers" (2021). *Posters*. 200.

<https://scholarlyexchange.childrensmercy.org/posters/200>

This Poster is brought to you for free and open access by SHARE @ Children's Mercy. It has been accepted for inclusion in Posters by an authorized administrator of SHARE @ Children's Mercy. For more information, please contact hlsteel@cmh.edu.

Authors

Rana El Feghaly, Elizabeth Monsees, Alaina N. Burns, Brian Lee, Ann L. Wirtz, Adam L. Hersh, and Jason Newland

Outpatient Antimicrobial Stewardship Programs in Children's Hospitals: Status, Needs, Barriers

Rana E. El Feghaly MD, MSCI^{1*}; Elizabeth A. Monsees PhD, MBA, RN¹; Alaina N. Burns PharmD, BCPPS¹; Brian R. Lee, MPH, PhD¹; Ann L. Wirtz PharmD, BCPPS¹; Adam L. Hersh MD, PhD²; and Jason G. Newland MD MEd³

¹Children's Mercy Kansas City; ²University of Utah, Salt Lake City; ³Washington University in St. Louis

*relfeghaly@cmh.edu

Background/Objective

- Antimicrobial stewardship programs (ASPs) are essential for improving patient outcomes and combating the threat of antibiotic resistance
- ASPs traditionally have focused on inpatient prescribing
- In 2016, the CDC affirmed the importance of outpatient ASP with 4 core elements
- Incorporation of these elements requires time, personnel, and funding, which are not available at many institutions
- OBJECTIVE:** to evaluate the current state of outpatient ASP in a network of pediatric institutions and to inform a programming agenda

Design/Methods

- The Sharing Antimicrobial Reports for Pediatric Stewardship OutPatient collaborative (SHARPS-OP), included 54 sites from the US and 2 from the UK at the time of this survey
- All institutions were invited to complete a cross-sectional survey
- GOAL:** assess current outpatient ASP resources, interventions, and obstacles; elucidate goals for a national collaborative

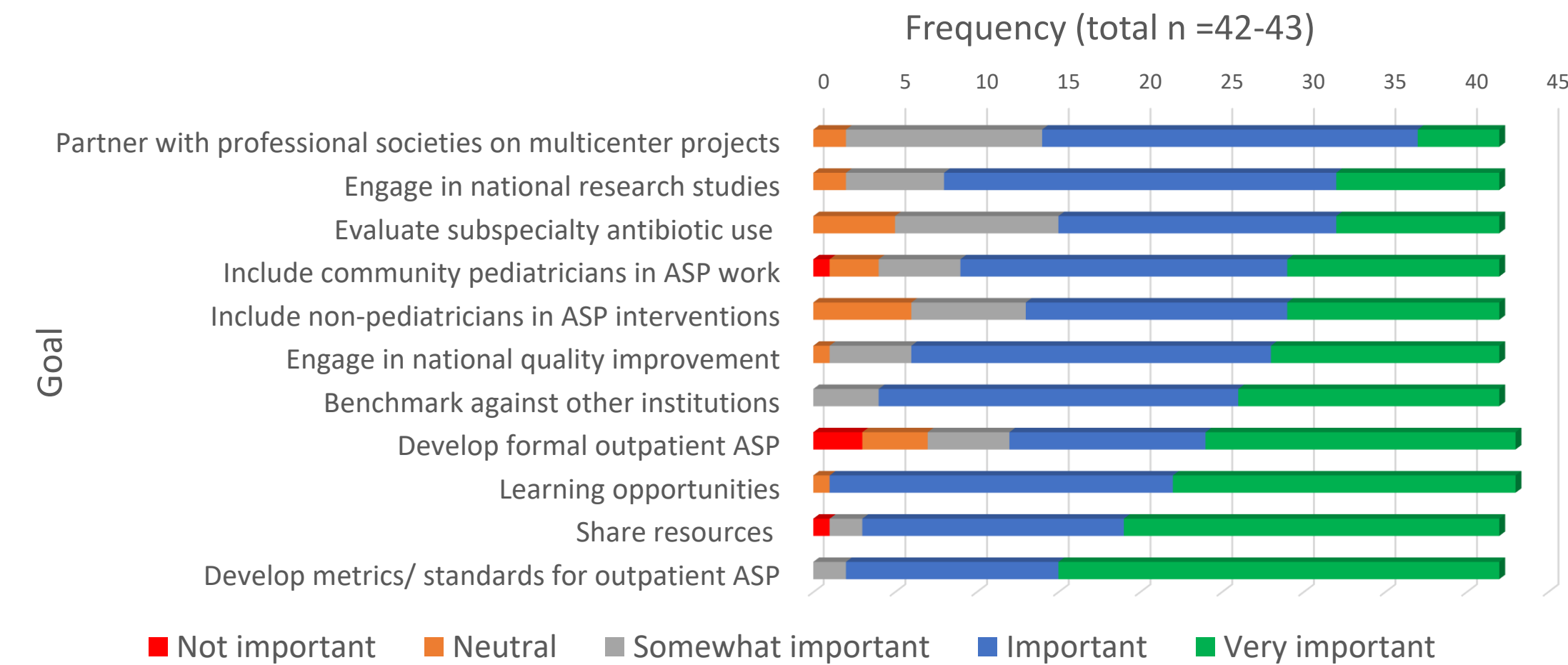
Results

Table 1: Characteristics of the Surveyed Institutions

		N (%)
Institution description	Free standing Children's hospital	22 (48.9%)
	Children's hospital within a large adult/pediatric health system	18 (40.0%)
	Specialized Children's hospital (e.g. oncology hospital)	3 (6.7%)
	Pediatric/neonatal unit in an adult hospital	2 (4.4%)
Outpatient facilities	Primary care clinic	40 (88.9%)
	Emergency department	42 (93.3%)
	Urgent care clinics	33 (73.3%)
	Specialty care clinics	44 (97.8%)
	Affiliated primary care clinics	25 (55.6%)
	Retail clinics	3 (6.7%)
	Allocated Support for ASP	43 (95.6%)
Allocated Support for ASP	ASP FTE physician	Median 0.3 (IQR 0.2-0.5)
	ASP FTE pharmacist	Median 0.55 (IQR 0.4-1)
Outpatient ASP FTE	Yes	5 (11.1%)
	Shared FTE	18 (40.0%)
	No	22 (48.9%)
Time spent on outpatient ASP per week	<1h	16 (35.6%)
	1-5h	21 (46.7%)
	6-10h	6 (13.3%)
	11-15h	0 (0.0%)
	16-20h	1 (2.2%)
	21-30h	0 (0.0%)
	>30h	1 (2.2%)
Implementation of Outpatient ASP Services	Within the institution	41 (91.1%)
	Emergency departments	26 (57.8%)
	Urgent care clinics	22 (48.9%)
	Primary care clinics	31 (68.9%)
	Specialty clinics	11 (24.4%)
	Outside the institution	5 (11.1%)
	Local Primary care clinics	5 (11.1%)

ASP = Antimicrobial stewardship program; FTE = full time equivalent; IQR = interquartile range

Figure 1: Perceived Importance of the Collaborative Goals



- Response rate: 80% (45/56)
- Only 5 sites (11%) had allocated support for outpatient ASP
- Barriers: Time (91%), financial support (53%), development of meaningful reports (51.1%), and administrative support (44.4%)
- Needs: securing operational support (36%) and strengthening data analysis (31%)

Table 2: Outpatient Antimicrobial Stewardship Interventions

	N (%)
Toolkits	26 (57.8%)
Internal guidance	26 (57.8%)
External guidance	4 (8.9%)
Education	21 (46.7%)
Quality improvement	17 (37.8%)
Research	12 (26.7%)
Electronic medical record features	12 (26.7%)
Antibiotic use report	11 (24.4%)
Allergy clarification	10 (22.2%)
Prescriber card	8 (17.8%)
Commitment letters	6 (13.3%)
Collaborations with outside institutions	4 (8.9%)
Other interventions (clinical pathways, indication-based ordering, prospective audit and feedback, viral infection prescription pads)	4 (8.9%)
None	5 (11.1%)

Conclusions

- Outpatient ASP is essential for improving patient outcomes and slowing the development of antimicrobial resistance, however only a small number of participants had allocated support to ensure prioritization of outpatient ASP efforts
- Most outpatient ASP interventions focused on education and clinical guidance likely due to limited time and resources
- Data analysis to facilitate tracking and reporting of antimicrobial prescribing was a universal need to support robust outpatient ASPs
- Formalization of standards for outpatient ASP, sharing resources, and benchmarking with peer institutions are valued goals to further outpatient ASP efforts

LOVE WILL.