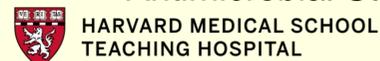


Assessing the Needs for Antimicrobial Stewardship Education and Acceptance Across a Spectrum of Prescribers, Nurses and Pharmacists at a Large Academic Medical Center

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Abstract

Background: Regulatory bodies and quality groups have adopted the Centers for Disease Control and Prevention (CDC) Core Elements for Antimicrobial Stewardship Programs (ASP) as a measure for accreditation and scoring healthcare institutions across the United States. Multiple elements are driven by educating and integrating all staff across the provider network. The ideal method of providing education and addressing gaps in this alliance is unknown. The objectives of this study were to evaluate the familiarity of Nursing, Pharmacy and Prescriber staff regarding local ASP activities and services, as well as perceptions regarding patient care and value. Secondary objectives were to determine what educational tools are currently utilized and the desired method for future education.

Methods: Three distinct surveys were written for each provider type for Nurses, Pharmacists and Prescribers across ambulatory and inpatient sites. Each contained basic demographic data such as years in practice and primary practice site. Questions were developed to assess familiarity, perceived value, and overall satisfaction with the ASP. Additional items included the use of online ASP resources and desire for more education. The survey was delivered electronically to 5091 Prescribers, Nurses and Pharmacists.

Results: In total, 443 completed the survey: 267 Nurses, 160 Prescribers and 16 Pharmacists. A majority of Nurses (67%) and Pharmacists (56%) worked on inpatient units. Prescribers were 48% from Medicine, and 16% Hospitalists. Familiarity with the ASP was lowest among Nursing staff (53% unaware), and highest among prescribers (55% very familiar and only 8% not familiar) and pharmacists (56% very familiar and none unfamiliar). ASP-assisted harm reduction was identified by 43% and therapy optimization by 44%. Of the highly familiar prescribers and pharmacists, 90% rated ASP as a moderate to high value service. More than 80% of all disciplines expressed the desire for more education to perform better in their job, primarily as didactic lectures (65%), intranet portal training (37%) or emails (36%).

Conclusions: Nursing staff at our institution have the greatest need for orientation with the ASP. The ASP is highly valued across prescribers and pharmacists, but all disciplines desire further education. Resource allocation towards education is an important need.

Background

- With the CDC core measure for continuous staff education and the Joint Commission requirement for education upon hire and annually, assessing institutional familiarity with and acceptance of our Stewardship program was important.
- With greater than 5,000 Prescribers, Nurses and Pharmacists working within the institution and affiliated clinics and most interactions occurring with a scope of 30 to 40 prescribers each day, a broader deployment plan was necessary.
- The survey needed to be easy to complete in the span of less than 5 minutes.
- Each discipline interacts in a different way with the ASP, making it important to tailor the survey for each.
- The survey was designed to capture respondent demographics, familiarity, interaction recall, estimates of harm reduction and improved antibiotic selection, overall value, and, importantly, the desire for and preferred method for education.

Methods

Objective:

To evaluate the familiarity of Nursing, Pharmacy and Prescriber staff regarding local ASP activities and services, as well as perceptions regarding patient care and value.

Primary Outcome:

- Percentage of Nursing, Pharmacy and Prescriber staff familiar with the ASP

Secondary Outcomes:

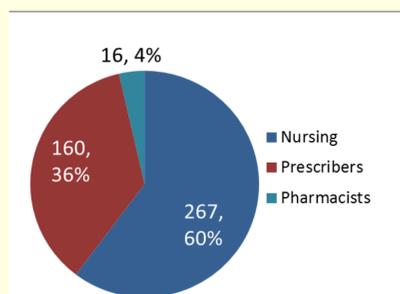
- Percentage of HCWs who reported the activities of the ASP as contributing to (1) patient harm reduction, (2) antibiotic treatment optimization
- The ranked level of service value for the ASP
- Percentage of HCWs who desired more education around the ASP and by which preferred method of delivery

Design:

- A web-based **16-question** survey (SurveyMonkey) was prepared for each discipline (Prescribers, Nurses, Pharmacists) and sent by email September 2017.
- The domains were demographics, familiarity and interactions with the ASP, qualifiers of interactions and patient care, estimated value and burden, use of current ASP educational resources and the desire for more education **and** in what format.

Results

Of the 5091 Health Care Workers emailed with a link to the survey, 443 (8.7%) completed the survey within 30 days.

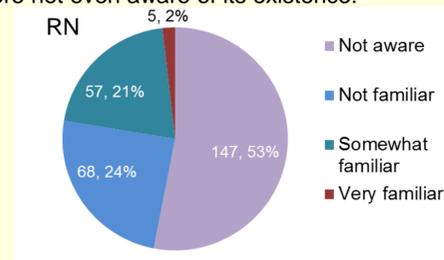


Nursing		
Inpatient	174	65%
Outpatient	18	7%
Other	75	28%
Pharmacists		
Inpatient	9	56%
Outpatient	1	6%
Other	6	38%
Prescribers		
Medicine	77	48%
Surgery	5	3%
Specialty	14	9%
Nurse Practitioner	8	5%
Physicians Assistant	3	2%
Hospitalist	26	16%
Other	27	17%

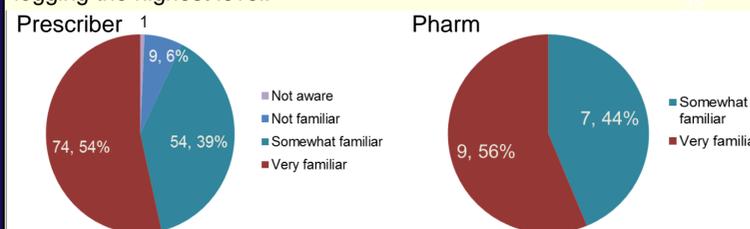
Results cont.

Familiarity with the ASP by HCW designation

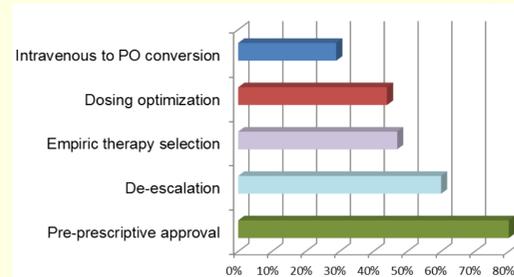
Nurses had the least familiarity with the program with over 50% reporting that they were not even aware of its existence.



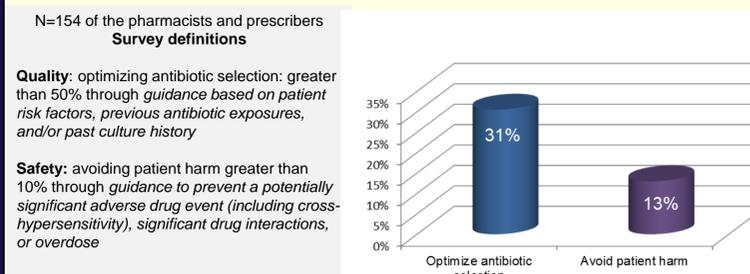
Prescribers and Pharmacists were the most familiar with greater than 50% logging the highest level.



Types of interactions Prescribers and Pharmacists self reported with ASP



Respondent estimated harm reduction and quality through ASP interactions



Quality: optimizing antibiotic selection: greater than 50% through *guidance based on patient risk factors, previous antibiotic exposures, and/or past culture history*

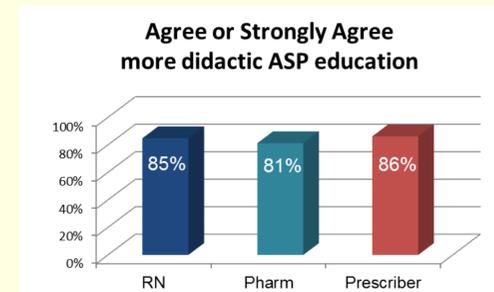
Safety: avoiding patient harm greater than 10% through *guidance to prevent a potentially significant adverse drug event (including cross-hypersensitivity), significant drug interactions, or overdose*

Results cont.

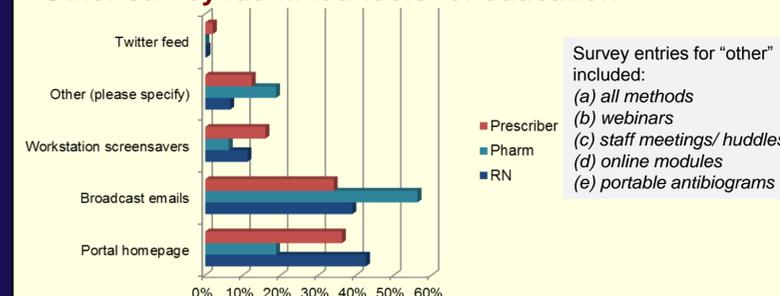
Ranked ASP service value

Of the 83 highly familiar prescribers and pharmacists, 90% rated ASP as a moderate to high value service.

Desire for didactic ASP education



Other survey identified tools for education



Survey entries for "other" included:
(a) all methods
(b) webinars
(c) staff meetings/ huddles
(d) online modules
(e) portable antibiograms

Conclusions

- Nursing staff at our institution have the greatest need for orientation with the ASP.
- The ASP is highly valued across prescribers and pharmacists, and all disciplines desire further education.
- While most requested didactics, the broad audience would be difficult to capture using traditional lecture series.
- Utilizing more portal based or email links to online modules should be less time and personnel intensive.
- Resource allocation towards education is an important need.

Disclosures

The authors of the presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

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