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SHEA Spring 2022 Abstracts

Presentation Type:
Poster Presentation - Top Poster Award
Subject Category: Antibiotic Stewardship
Perceptions toward and practices regarding antibiotic stewardship and use among physicians at tertiary-care public hospitals in Bangladesh
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Background: The emergence of antimicrobial resistance (AMR) is affecting public health management in developing countries, including Bangladesh. Irrational and inappropriate use of antibiotics in healthcare settings has led to widespread drug resistance. To optimize antimicrobial usage to combat AMR and enhance infection treatment, the competence of healthcare workers in antibiotic prescribing is indispensable. We sought to determine the perceptions about antimicrobial resistance, antibiotic stewardship programs (ASPs), and antibiotic prescribing approaches among physicians at tertiary-care public hospitals in Bangladesh. **Methods:** From September to December 2020, we conducted a mixed-methods study in 9 tertiary-care public hospitals. Using a self-administered, semistructured questionnaire, we collected data on antibiotic stewardship and prescribing practices from 452 on-duty physicians. In addition, we conducted 16 key-informant interviews to explore AMR perceptions and determinants. **Results:** Only 43.8% of physicians were aware of the ASP, and none of the hospitals had any ASP initiative in place. Most of the participants (70.6%) recommended tailored training and antibiotic prescribing guidelines (63.7%) for effective ASP initiatives. More than half of the physicians (54.7%) preferred to receive regular monitoring and feedback on their routine antibiotic prescriptions from the stewardship program. In terms of the antibiotic prescribing approach, only 25.9% of physicians relied on microbiology lab findings, whereas 69.5% routinely employed oral or intravenous antibiotics. Also, 40.0% of physicians considered the patient's ability to afford the antibiotic cost when recommending antibiotics. The qualitative investigation identified the use of broad-spectrum antibiotics, absence of guidelines, and inadequate laboratory support as factors contributing to AMR in the healthcare setting. Self-medication, over-the-counter dispensing, and patients' economic instability to complete the dosage were also attributed to the irrational use of antibiotics. As a priority step, physicians advocated for intensive training on antibiotic advising, mass awareness campaigns on safe antibiotic usage and dispensing, and a restriction on the widespread sale of antibiotics from pharmacies. **Conclusions:** Despite favorable perceptions, the fundamental understanding of physicians regarding ASPs and rational prescribing of antibiotics needs to be improved through context-specific educational interventions and capacity building. In addition, a coherent and comprehensive policy is required for the development and implementation of antibiotic usage guidelines along with integrated ASP initiatives to combat AMR.

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Outpatient antibiotic use for common infectious diagnoses: Patterns in telehealth during the emergence of COVID-19
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Background: The Veterans' Affairs (VA) healthcare system has had established telehealth programs for several years. Even so, the COVID-19 pandemic led to an expansion of and changes in these services. Little is known about the influence of the increased use of telehealth due to the COVID-19 pandemic on antibiotic prescriptions in outpatient settings. Here, we report on changes in visit modality and antibiotic prescribing at primary care clinics at a large VA medical center after the emergence of the COVID-19 pandemic. **Methods:** Using VA administrative databases, we identified primary care visits from March 2018 to November 2019 (before the COVID-19 pandemic) and March 2020 to November 2021 (during the COVID-19 pandemic), which permitted us to account for seasonality while analyzing visit modality and antibiotic trends. For primary care visits during the pre–COVID-19 and COVID-19 periods, we have described the type of visit (in-person or telehealth), diagnostic codes for any infection, and antibiotic prescriptions. **Results:** The patient population was primarily men (89%) with a mean age of 62.9 years (SD, ±15.3) at first visit. The most common medical conditions were diabetes mellitus (26%) and chronic lung disease (17%). Comparing visits during the pre–COVID-19 and the COVID-19 periods, the proportions of telehealth visits were 20% (17,708 of 88,565) and 74% (69,891 of 94,937), respectively (Fig. 1).
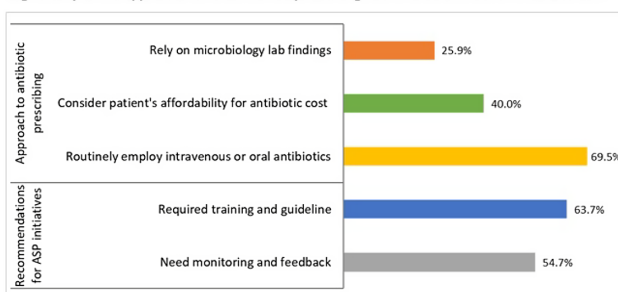
Figure 1. The number of in-person (light blue) and telehealth (dark blue) primary care visits at a large VA medical center from March 2018 through November 2021.

Figure: Physicians' approach towards antibiotic prescribing and recommendation for ASP initiatives