Pharmacist Attitudes Towards using Clinical Decision Support in Community Pharmacies to Promote Antibiotic Stewardship in the Treatment of Uncomplicated UTI

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Background and Methods

- Providers frequently choose non-guideline concordant treatment regimens to treat uncomplicated urinary tract infection (UTI).
- Uncomplicated UTI can be treated safely and in a guideline concordant manner by non-physician providers using an algorithm over the phone.
- The **purpose of this study** was to assess pharmacist attitudes towards using a clinical decision support (CDS) tool to evaluate and manage patients presenting with complaints of UTI in the community pharmacy setting.

- **Methods:** Semi-structured interviews of community pharmacists (n = 21) were conducted from 2019 to 2020. Pharmacists were questioned about their attitudes towards stewardship, workflow, interactions with patients and providers, and interest in using a computerized CDS tool. Transcribed and de-identified interviews were analyzed using NVivo version 12.

Conclusions

- Community pharmacies are an **important point of contact** for patients and represent a **significant opportunity** to implement outpatient stewardship.
- Pharmacists had an overwhelmingly **favorable response** to the prospect of a CDS tool, both to help in patient evaluation and to promote stewardship.
- It would be **feasible to pilot a CDS stewardship tool in community pharmacies** to further evaluate safety and efficacy in the treatment of UTI.

Results

- Pharmacists were interviewed with practice experience ranging from 2 to 54 years (median 13, IQR 6, 27).
- Analysis of the interviews yielded five major themes and 15 subthemes.
- All pharmacists expressed interest in using CDS to assist with patient evaluations and antibiotic stewardship.
- Pharmacists reported that patients routinely use the community pharmacy as a first stop for medical advice and have several interactions per day with patients in which they counsel them on a variety of issues, including UTI.
- Pharmacists assessment and management decisions of UTIs were based on personal knowledge and not on any standard of care.
- Communication difficulties with primary care offices often delayed management of these patients and lack of information sharing made it difficult for pharmacists to engage in antibiotic stewardship practices.

Themes	Subthemes	Quotes
The Role of the Pharmacy	Antibiotic Stewardship; Patient Counseling; First-line Medical Care; Vaccinations	• "...my role [is] understanding and seeing people on a regular basis and advising them about their health and trying to form an attitude to promote helping them take care of themselves" • "...in a community... we have a real duty to educate on overprescribing, to educate that you take an antibiotic when it's needed for the appropriate conditions. • "...a lot of my rural patients would come to me first anyways, because they're there ... So, I mean, I think it's just the convenience factor"
Common Patient Questions	Urinary Tract Infections; Respiratory Infections; Dermatologic Conditions; Chronic Condition Management	• "It's usually medical advice about... skin infections and sometimes what appears to be like a UTI-related thing. Some upper respiratory in the flu season." • "Rashes. The amount of rashes I've seen in retail pharmacies [is] a lot..." • "...they would say, 'I'm having burning when I pee, I think there's something that I can buy over the counter. What do you recommend?' Then I'll walk them to the AZO and then I'll counsel them [that] 'this helps with the pain, but you still need to see a doctor for an antibiotic'..."
Lack of Information	Lack of Knowledge About Patients; Lack of Clinical Knowledge	• "There's just so many things that we could possibly be looking at... but we don't have access to it and the time or help to do that type of thing." • "I keep coming back to is just the paucity of data that retail pharmacists have, which obviously integrating health systems with health records are not an easy thing to do, but for the most part, you kind of really are flying blind in an outpatient retail pharmacy with not even knowing basic labs or blood pressure or things of that nature."
Communication with Prescribers	Methods of Communication; Barriers to Communication	• "...there's really no other way of communicating currently with how our systems are set up [other than] just sending a fax or making that phone call." • "I can't tell you how many times I've requested a refill for something, and they're like 'I don't know where it is.' They're like, 'We don't know, we get like 2,000 of these things a day. So, I don't know where they are.'" • "...probably less than 5% of the time we'll actually get to speak directly with the provider."
Clinical Decision Support	Attitudes; Workflow Limitations; Potential Implementation Barriers	• "They're going to be coming to us either way, so we might as well give them useful information versus just telling them to go to urgent care because we don't know what else to do..." • "I would say any pharmacist would be open to any type of algorithm to follow that if a patient presented with X, Y, and Z, what the best route would go, whether to recommend them to go to the emergency room, to call their doctor..." • "It's got to be fast and easy."