Antimicrobial Stewardship Program Development at WCHOB

Women & Children’s Hospital of Buffalo is developing an active Antimicrobial Stewardship Program (ASP). Over the past several months, infectious diseases, infection prevention, key administrative leaders, individual physicians and entire clinical divisions, our clinical pharmacist team, residents, etc. have been meeting regularly and building momentum towards this institution-wide endeavor. The opportunity and interest to create a thriving, broad-reaching ASP appears to be strong, and promises to have a significant impact on the safety and quality of care we provide.

Antimicrobial stewardship programs may have various objectives and activities, which “include not only limiting inappropriate use but also optimizing antimicrobial selection, dosing, route, and duration of therapy to maximize clinical cure or prevention of infection, while limiting unintended consequences, such as the emergence of resistance, adverse drug events, and cost.” (Dellit, 2007). ASPs at children’s hospitals have been increasing steadily over the last decade, and in the most recent review, 22 of ~45 PHIS/CHA institutions already had programs with dedicated physician and/or pharmacy leaders. Prior approval for select-agents, prospective audit and feedback on antimicrobial use, educational endeavors, dissemination of reference materials such as antibiograms, and development of clinical practice guidelines, are common strategies of ASPs.

After a thorough review of available microbiologic and pharmacy information, we have decided to initially focus our attention on three key areas:

1. **Meropenem use**: Meropenem is a very broad-spectrum agent, and one of the ‘biggest of the big guns.’ WCHOB’s use of meropenem recently has been 50% greater than the average of other children’s hospitals (2014, PHIS data), while use of alternatives with comparable, but less broad-coverage - cefepime, ceftazidime – is relatively low.

2. **Antibiotic time-out at 2 days of empiric therapy**: Focusing, narrowing, and discontinuing therapies based on available diagnostic results and evolving clinical status.

3. **Thoughtful initial antimicrobial selection**: based on local antibiograms, available literature and national guidelines, and the development of institutional pathways/references.

Beginning in the next few weeks, prospective audit and feedback will regularly be performed by ID and pharmacy ASP leaders, and by service-based clinical pharmacists. We will also continue to gather and analyze antimicrobial use patterns and microbiologic-resistance data, at a finer unit/service and patient-population level. ASP committee meetings have been initiated and are planned to occur monthly, and are open to participation by any interested staff member. We also look forward to communicating our ongoing objectives and data analysis through letters such as this, and direct institutional presentations.

For more information or if you have any questions, please contact:

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