The impact of a new antimicrobial stewardship tool, "ICNet Pharmacy", at Chelsea and Westminster Hospital NHS Foundation Trust

Chelsea and Westminster Hospital NHS
NHS Foundation Trust

Overview

- In April 2016 Chelsea and Westminster Hospital NHS Foundation Trust (C&W) implemented ICNet Pharmacy (ICNet), an antimicrobial stewardship (AMS) software which runs on the hospital network allowing real-time monitoring of antibiotic (ABX) prescribing and microbiology data.
- **The aim was to facilitate appropriate ABX usage and improve patient safety by:**
  - Releasing antimicrobial pharmacist's (AMP) time from administrative tasks, allowing increased and more effective time spent managing patients directly, and interacting with clinicians on the wards
  - Providing wider visibility of issues relating to critical micro-organisms and medications, enabling AMPs to target their workload more efficiently and make timely interventions

Objectives & Methods

- A service evaluation (SE) was conducted by the C&W AMP team to understand the impact of ICNet on routine practice.
- The following data were collected for **three months pre- and three months post-implementation of ICNet:**
  - AMP time spent compiling data for reports
  - Number and types of ABX-related interventions made by AMPs
  - Trust ABX use (defined daily dose [DDD], presented per 100 occupied bed days [OBDs])
  - Compliance with pre-defined ABX-prescribing standards (snapshot audit on one day/month of up to 5 patients prescribed antimicrobial therapy on specified wards)

Results

Figure 1: Pharmacist activities, ABX-related interventions and ABX usage

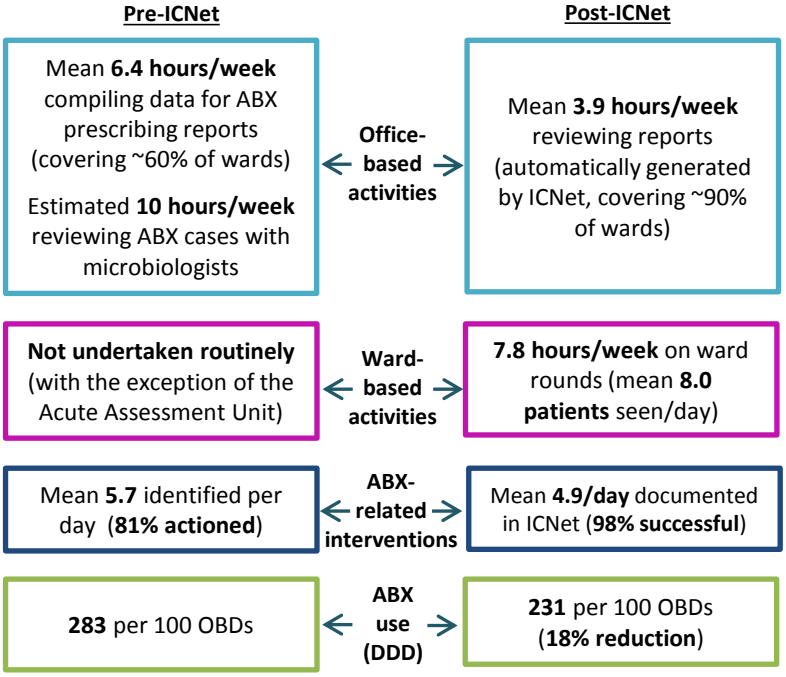
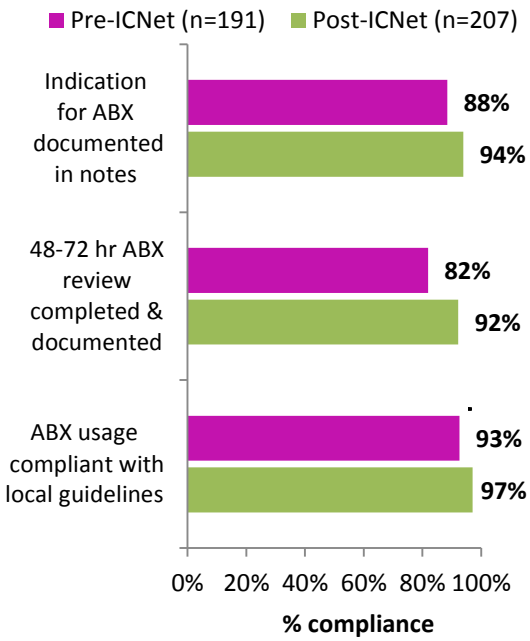


Figure 2: Compliance with ABX prescribing standards



Conclusions

- Post ICNet implementation, less time was spent compiling reports and navigating through disparate hospital IT systems to review patients' status, releasing AMP time for ward-based activities. This has enabled more face-to-face patient contact and discussion of cases directly with the responsible clinical team.
- Direct access to patients' records has allowed AMPs to intervene more quickly when inappropriate ABX prescribing is identified and provides more information on which to make recommendations in conjunction with medical colleagues.
- Although fewer interventions were documented post-implementation, this may reflect a more proactive approach to AMS (dealing directly with identified cases during ward rounds).
- ABX usage decreased and compliance with ABX-prescribing standards improved post-ICNet; however, the introduction of national quality improvement targets for AMS (CQUIN from April 2016) will also have affected these results.

Author / Contact Information

Stephen Hughes, Stephen.Hughes2@chelwest.nhs.uk; **Orla Geoghegan**, Orla.Geoghegan@imperial.nhs.uk

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