

Background and Goals

Background

Clostridium difficile infection (CDI) is a significant cause of health-care associated morbidity and mortality.

A CDI Management Policy was developed at Vancouver Coastal Health (VCH) to guide clinicians on optimal CDI treatment (Figure 2). However, there was no process to ensure all prescribers adhered to this policy.

Through a collaborative effort between Clinical Pharmacy and Infection Control, a regional CDI Quality Assurance Initiative was established to ensure all CDI patients were managed according to this evidence-based CDI Policy. The regional antimicrobial stewardship programme (ASPIRES) provided clinical and evaluative support.

Goals

1. To develop a process to optimize CDI treatment at VCH
2. To measure impact of the CDI Quality Assurance Initiative at VCH

Initiative Overview

CDI Quality Assurance Initiative

1. Development of CDI Management Policy through multi-disciplinary stakeholder group
2. Adoption of rapid PCR CDI diagnostic test (Medical Microbiology)
3. Integration of computerized notification to isolate patients and direct clinicians to CDI Policy when positive CDI laboratory result identified (Medical Microbiology & Infection Control; Figure 1)
4. Development of report for Clinical Pharmacists to identify CDI patients (Information Systems)
5. Design of database to record interventions by pharmacists when optimizing CDI therapy (Pharmacy)
6. Review of all CDI positive patients at VCH sites by Clinical Pharmacists to optimize CDI treatments
7. Evaluation and reporting of CDI Initiative (ASPIRES)

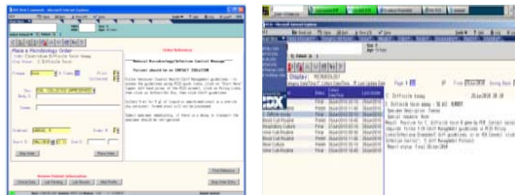


Figure 1. Computerized Notifications Directing Clinicians to CDI Management Policy

Clostridium difficile Infection Management Policy

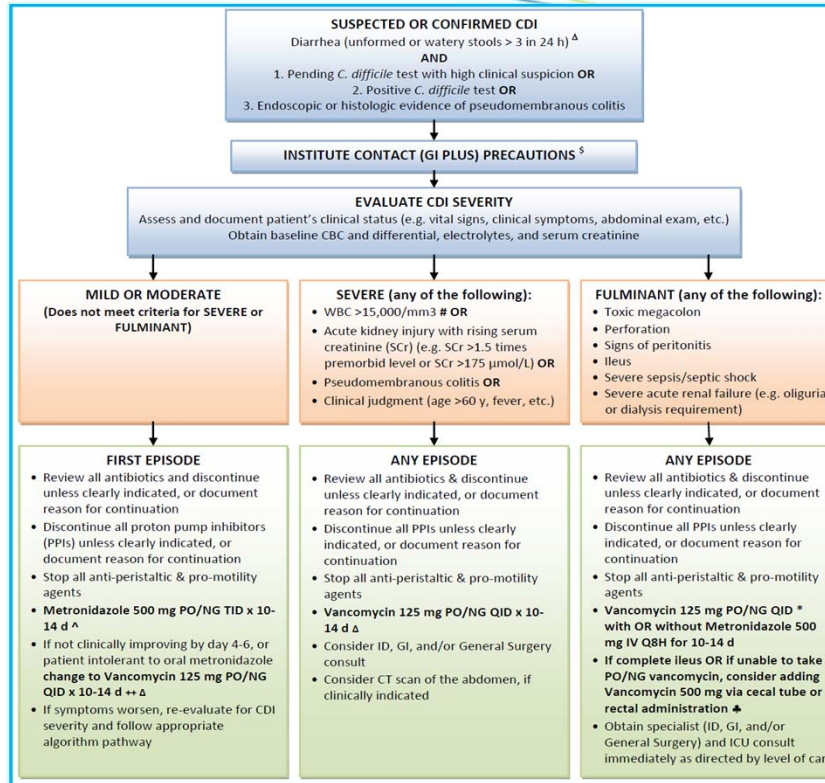


Figure 2. *Clostridium difficile* infection Management Policy

Evaluation and Results

Evaluation

ASPIRES conducted a one-year evaluation (April 2013 to March 2014) to determine proportion of evaluable CDI positive patients reviewed by a Clinical Pharmacist, number and types of interventions, and physician compliance to CDI Policy at Vancouver General Hospital (VGH), Lions Gate Hospital (LGH), and Richmond Hospital (RH).

Results

Four-hundred-eighty-three CDI positive patients were reviewed.

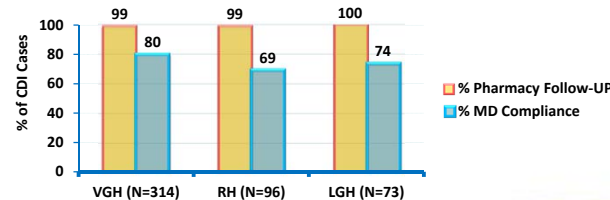


Figure 3. Proportion of CDI Cases Followed by Clinical Pharmacist and Percentage of Complete MD Adherence to CDI Policy, FY 2013/14

Results

Proportion of CDI patients assessed by Clinical Pharmacists increased from 80% (April 2012 to March 2013) to 99% (April 2013 to March 2014) at all three sites (99% VGH, 100% LGH, and 99% RH). Complete adherence to CDI Policy by physicians was 78% at the three sites combined (80% VGH, 74% LGH, and 70% RH) (Figure 3).

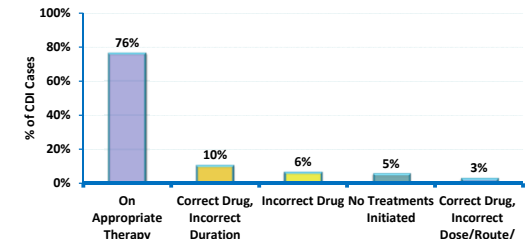


Figure 4. MD Adherence to CDI Policy for VGH, RH, and LGH combined, FY 2013/14

The most common deviation from complete adherence to CDI Policy was incorrect duration of empiric therapy; non-compliant cases involved shorter durations of therapy (10-14 days is considered optimum duration of therapy for CDI) (Figure 4).

Key Message:

Since implementation of the CDI Quality Assurance Initiative, proportion of CDI patients assessed by Clinical Pharmacists to receive optimal therapy increased from 80% to 99%.

Summary and Conclusion

A joint Clinical Pharmacy and Infection Control CDI Quality Assurance Initiative is an effective strategy to ensure CDI positive patients are assessed and receive appropriate treatment. Physician education is required to ensure optimal duration of treatment is prescribed at onset of CDI.

Future Plans

Results of CDI management and MD adherence with the algorithm will be presented to pharmacy, medical, and surgical groups for discussion and educational purposes.

Acknowledgments

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