Setting up Antimicrobial Stewardship in a Geriatric Facility: The Baycrest Experience

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Geriatric Health Care System

Baycrest
Enriching Care
Enhancing Knowledge
Enlightening Minds

Learning Objectives

- Analyze the development of an antimicrobial stewardship program and apply basic principals to their institution
- Select an appropriate priority project for the institution
- Utilize appropriate metrics to measure the success of the program

Antimicrobial Stewardship

Description

Antimicrobial stewardship is now a required organizational practice in long-term care. This session will describe how an antimicrobial stewardship program (ASP) was established at Baycrest Centre, a geriatric facility. We will review the Baycrest journey: setting up the core ASP team, identifying priority projects, disseminating the information, and measuring outcomes.

Antimicrobial Stewardship

Why Antimicrobial Stewardship in Long Term Care?

- Antibiotic resistance is on the rise
  - Threatening to push society into a post-antibiotic era
- Patient care/safety initiative
  - Minimize unnecessary antibiotic exposure
  - Minimize the risk of antibiotics themselves
    - C.*difficile*, adverse reactions, allergic reactions, etc.
- No new antibiotics in the pipelines for development
- ROP 2014 for LTC:

  Antimicrobial Stewardship: the organization has a program for antimicrobial stewardship to optimize antimicrobial use
  - Note: This ROP applies to organizations providing the following services: inpatient acute care, inpatient cancer, inpatient rehabilitation, and ***complex continuing care***.

Antimicrobial Stewardship

Antimicrobial Stewardship: The Baycrest Model

Program Model:

- Core team
  - 1 part-time dedicated ASP pharmacist
  - 2 family medicine physicians, ~100hrs per year
- Other stakeholders
  - Pharmacy, medicine, infection prevention and control, nursing, lab, patients and family members
  - External partnership with Mt. Sinai Hospital
  - Core team received some training in ID and self-directed learning
    - MAD-ID, guideline review, literature search, Annual Infectious Diseases Conference, Antimicrobial Stewardship [A Tipping Point]

Antimicrobial Stewardship

Selecting an appropriate priority project for your institution

- What are the problem areas in your institution?

  Consider:
  - Antibiotic usage data
  - Grey zones in diagnosis
  - Common indications for antibiotic use

- At Baycrest, most common indications for antibiotic use are: UTI, LRTI, SSTI

- Guidance from Mt. Sinai – go for the low hanging fruit

  - Suggestion to focus on *durations* of antibiotic therapies

Antimicrobial Stewardship

The Baycrest ASP Approach

- **Clinician buy-in is important**
- Educational approach
  - Stakeholder identification (who is your target audience?)
  - Promotion of best practices, evidence-based
  - Promotion of patient care and safety
- Not punitive, policing, or restrictive

Baycrest ASP interventions

- *Guideline review and updates:*
  - Baycrest Guidelines for Empiric Therapy of Urinary Tract Infections
    - Literature search – evidence based recommendations
    - Adapt from existing guidelines
    - Site specific **antibiogram**
    - <u>Good resources:</u> McGeer's guidelines, IDSA, Sanford Antimicrobial guide, Community Acquired Infections
    - Visual representation of the guideline – "pocket card"
  - LRTI, Vancomycin dosing and TDM sheet, IV to PO
  - Currently working on SSTI

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Baycrest ASP interventions

- *Prospective Audits with Feedback*
  - Weekly real-time reviews of patients on antibiotics
  - Provides feedback to pharmacists and prescribers
  - Focused on UTI antibiotics only – due to limited resources
  - Centre wide: Baycrest Hospital and Apotex Nursing home

Baycrest ASP Interventions (cont.)

- *Education*
  - Prospective audits with feedback
  - Presentations/ handouts
  - Display boards
  - Focus Group: identified patients and families/care givers are a great driving pressure for antibiotic prescribing
    - Patient and Family handout/poster
- *IT interventions*
  - Septra string "For Uncomplicated UTI (Note: 3 day stop date)
  - Macrobid string "For Uncomplicated UTI (Note: 5 days stop date)
  - Placement of Guidelines/Policies on Intranet
  - "Resources" button at point of order entry
- *Formulary Reviews*

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Metrics: Evaluating your ASP

- *Defined Daily Doses*
  - Total number of grams of an antimicrobial agent used divided by the DDD (#g in avg adult daily dose as defined by WHO)
  - Good for inter-hospital comparisons between <u>like</u> hospitals

- *Days of Therapy*
  - Any day that a patient receives at least one dose of an antibiotic
  - Overcomes risk of underestimation of antimicrobial usage with DDDs

- *Total Cost of Antimicrobials*

- *C. difficile rates*

- % of ASP recommendations accepted, Mortality data, Transfer out rates

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Data Gathering for Metrics

- IT support, but can be done manually
- Manipulate your data gathering to suit your capability
- Get a volunteer
- At Baycrest:
  - Metrics collected quarterly, and only for antibiotics most commonly indicated in UTI

Reporting your Metrics

- To everyone

- Pharmacy and Therapeutics Committee

- Medical Advisory Committee

- Clinicians (Pharmacists and Physicians)

- Why metric reporting?
  - Maintains ASP visibility throughout Baycrest
  - Shares outcomes with stakeholders involved
  - Creates a sense of ownership for antibiotic choices made at the level of the prescriber and pharmacist

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Barriers

- Funding
- Time
- Lack of specialized ID knowledge
- Lack of literature on ASP in LTC
- Clinician buy-in
- Different pharmacy support in CCC vs. LTC
- IT support

Take home messages:

- Don't get overwhelmed!
- You don't have to do everything!
- Go for the low hanging fruit
- Choose a project you feel will be successful
- Adapt your projects/metrics according to your resources

Antimicrobial Stewardship

Questions?