ADVANCING FORWARD: Pharmacists' EXPANDED Scope of Practice & CLINICAL SERVICES

Panel Discussion For CSHP-OB AGM
November 4, 2021.
Land Acknowledgement

We would like to begin by acknowledging the land on which we gather, and which THP operates, is part of the Treaty Lands and Territory of the Mississaugas of the Credit. For thousands of years, Indigenous peoples inhabited and cared for this land. In particular we acknowledge the territory of the Anishinabek, Huron-Wendat, Haudenosaunee and Ojibway/Chippewa peoples; the land that is home to the Metis; and most recently, the territory of the Mississaugas of the Credit First Nation who are direct descendants of the Mississaugas of the Credit.

We are grateful to have the opportunity to work on this land, and by doing so, give my respect to its first inhabitants.
Learning Objectives

• At the end of the panel discussion the participants will be able to:
  • Define the expansion of pharmacy scope of practice and clinical services at your institution, describing reasons for developing and outlining notable steps required to implement policies
  • Compare and contrast how pharmacists apply expanded scope to address drug therapy problems versus historical/traditional practices, citing specific examples
  • Summarize feedback from key stakeholder groups and impact on clinical outcomes (including data where available), and describe how challenges/barriers from prescriber and pharmacy groups were addressed
  • Discuss the overall progression of hospital pharmacy and future direction of clinical practice
Disclosure of Conflict of Interest

• Allan Mills has no financial and other relationships to disclose for this presentation
• Winnie Seto has no financial and other relationships to disclose for this presentation
• Megan Riordon has no financial and other relationships to disclose for this presentation
• Connie Lukinuk has no financial and other relationships to disclose for this presentation
Commercial Support Disclosure

• This program has received no financial or in-kind support from any commercial or other organization
Introduction

• For over 60 years Pharmacy departments have been looking to maximize the Pharmacist’s scope of practice in hospitals
  • Hospitals have traditionally used “autosub orders” as a means to adjust therapy per policy
  • Hospitals then started to use medical directives and ordered acts to take on specific tasks
  • Scope of practice changes through organizational authority have been explored post the passing of the scope of practice changes to the pharmacy act in 2012
Pharmacist Scope in Hospitals

Public Hospital’s Act:
• Professional privileges must be approved by the Medical Advisory Committee (MAC)

• Pharmacist Scope is therefore **Institution-Specific**, further defined by:
  o Policies
  o Medical Directives
Pharmacist Scope in Hospitals

Restricted

- Auto-Substitution Policy (Formulary-Based)
- Specific Medications:
  - Vancomycin
  - Aminoglycosides
  - Warfarin
  - Oseltamivir
- Indications/Drug-Class:
  - Renal-Dose Adjustment
  - DVT Prophylaxis
  - Nicotine Replacement
- Certain Types of Orders:
  - BPMH Orders only

General/Broad

- Pharmacist Modification of any Order
- Pharmacist Lab Work Ordering
- Pharmacist Auto-Correction

Policy/Medical Directive
Winnie Seto

• Sick Kid’s Approach to expanded scope using Medical Directives
What are medical directives?

- Medical directives are **indirect orders** that are approved by responsible physicians. They give authority to a care provider to implement the order on a **specific patient population**.
- Medical Directives are **role specific**. Users in that role must have the necessary knowledge skill and judgement to implement the directive.
- Medical directives are required if you have identified the need to frequently perform a controlled act or an act that is not within your professional scope of practice.
✓ Ensure Quality in everything that we (pharmacists) do (for patient care)

✓ Unleash the talent of our people (pharmacists) with knowledge, skills, and judgement with pharmacotherapy
Medical Directives at SickKids

➢ Medical directives for Clinical Pharmacists approved for clinical areas over two decades
➢ Expanded in scope and areas (consistency, template with specific sections/formats)
  ▪ Laboratory tests ordering related to therapeutic drug monitoring, end-organ function
  ▪ Dosage adjustment in renal / liver impairment
  ▪ Dosage adjustment based on Therapeutic drug monitoring
  ▪ Antimicrobial prophylaxis related to procedure-specific guidelines
  ▪ Full scope of pharmacists – adaptation and renewal of patients’ medications
➢ Clinical pharmacists in 17 clinical areas/services
Medical Directives at SickKids

- Clinical orientation, TDM certification and quality assurance audits at regular intervals to assess competency
- Subject to annual medical directives committee evaluations and safety report system
- Discussions: as policy or remain as medical directives
- Qualifications for clinical pharmacists to gain competency and experience prior to approval to use medical directives (“double-specialty – paediatrics and clinical specialty area)
- Approved by hospital-wide Medical Directives Committees with multiple-disciplines membership for review, approval and policy-setting responsibilities
- Used in collaboration with pharmacists during order verification process with other Drugs and Therapeutics Committee approved dose-rounding, auto-substitution policies
Allan Mills

- Trillium Health Partner’s approach to establishing a policy to expand scope of practice
Our Organization

Trillium Health Partners is one of Canada’s largest academically-affiliated health centres.

Comprised of 4 sites.

<table>
<thead>
<tr>
<th>Mississauga Hospital (MH)</th>
<th>Reactivation Care Centre (RCC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-patient care</td>
<td>Complex continuing care</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credit Valley Hospital (CVH)</th>
<th>Queensway Health Centre (QHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-patient and ambulatory care</td>
<td>Ambulatory &amp; Day surgery clinics, Urgent care</td>
</tr>
</tbody>
</table>
### Patient visits

- **Outpatient clinic visits**: 753,625 (↑ 5,647)
- **Emergency and urgent care visits**: 277,467 (↑ 1,464)

### Other Metrics

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgeries</td>
<td>64,837</td>
<td>↓ 683</td>
</tr>
<tr>
<td>Budgeted beds</td>
<td>1,379</td>
<td>↑ 73</td>
</tr>
<tr>
<td>Diagnostic services</td>
<td>721,153</td>
<td>↑ 17,772</td>
</tr>
<tr>
<td>Inpatient admissions</td>
<td>66,117</td>
<td>↑ 1,210</td>
</tr>
<tr>
<td>Births</td>
<td>8,671</td>
<td>↑ 307</td>
</tr>
<tr>
<td>Staff</td>
<td>10,215</td>
<td></td>
</tr>
<tr>
<td>Learners</td>
<td>2,240</td>
<td></td>
</tr>
</tbody>
</table>

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*Canadian Society of Hospital Pharmacists*
Our Strategic Plan

**OUR MISSION**
A new kind of health care for a healthier community

**OUR VALUES**
Compassion Excellence Courage
We Believe in:
- Active participation of patients and families
- Power of teamwork
- Curiosity, creativity and continuous learning
- Health care that works for everyone

**OUR ENABLERS**

**OUR GOALS**
Quality Access Sustainability
Our Priorities:
- Deliver: High quality care, exceptional experiences
- Partner: for better health outcomes
- Shape: A healthier tomorrow

**WHAT WE COMMIT TO**
Scope of Practice Change at THP

- THP had already established auto-substitutions and clinical programs
  - Warfarin, Aminoglycoside, Vancomycin, IV to PO, Renal Dosing
- Desire to create a policy that allowed Pharmacist to broadly adapt prescriptions
  - Plan included
    - Data gathering
    - Stakeholder engagement and Policy Development
    - Navigating the approval process
    - Education and roll out
    - Post implementation follow up.
• Surveyed THP and Ontario Pharmacists regarding readiness to modify prescriptions in hospital ¹
  • Received feedback regarding:
    • Level of readiness to take on prescription modification
    • What the perceived benefits and risks would be with Pharmacist adaption of prescriptions
    • What supports would need to be in place for pharmacists to be successful

• By using a readiness for change in healthcare tool we measured
  • Individual and organizational readiness

• Personal readiness
  • Respondents on average felt “quite sure” they could successfully modify prescriptions
  • There was greater confidence in modifying prescriptions in areas of familiarity (tx) and on home meds and less confidence in less familiar tx areas.
  • Generally felt there was “weak support” from inter-professional relationships
  • Overall it was felt organizational support neither supported nor prohibited ability to succeed

1) Benefits to Pharmacist Practice?

- **Improve Efficiency**
  - Reduce workload, wastages and cost of all parties involved
  - Resolve more drug therapy problems and in a timelier manner
  - Faster turnaround of medications

- **Increase Interprofessional Collaboration**
  - Recognition of pharmacist capabilities
  - Shared accountability and responsibility for patient care

- **Utilize Full Pharmacist Scope**
  - Proactive vs. reactive approach
  - Improved job satisfaction, engagement, and autonomy

2) Benefits to Patients?

- **Improve Patient Outcomes**
  - Reduce delay to optimal therapy
  - Improve medication efficacy and safety
  - Patient-centered care (e.g. weight, dosage form, patient-preference)
  - MAR Clean-up – prevention of potential DTPs

- **Increased Patient Interaction with Pharmacists**
  - Face-to-face interactions
  - Opportunities for counselling
• Engaged Pharmacist, Physicians, Nurses, Medical Administration, Senior team and created a coalition to work on policy development

• Supported by several THP committees:
  o Pharmacy & Therapeutics
  o Clinical Policies & Procedures
  o Quality & Patient Safety
• Final approval from the Medical Advisory Committee
• Rollout included
  • Pharmacist training sessions
  • Nurse & physician education
  • Hospital-wide awareness

• When Pharmacists come across an order in their day-to-day practice that requires modification to improve patient care AND
  • they have adequate information to make appropriate therapeutic decisions
  • the medical needs of the patient are being met
  • the effectiveness of drug therapy is maintained or improved
  • the patient is not placed at increased risk
  • the appropriate documentation and communication is completed
  • they continue to manage and monitor the drug regimen in collaboration with the health care team
Scope of Practice Change at THP

• When Pharmacists come across an order in their day-to-day practice that requires modification to improve care AND
  • they have adequate information to make appropriate therapeutic decisions
  • The pharmacists has the competencies to adjust the therapy
  • There are no concerns with the normal workflows and professional relationships

• Pharmacists can modify the prescription (stop, change, alter) or order lab tests (for monitoring therapy)

• Exceptions: narcotics, controlled agents or investigational agents. Can not start new therapy for a new diagnosis.
Megan Riordon

- Kingston Health Sciences Center’s results of expanded scope implementation
Our Approach at KHSC

• Prior to 2017, pharmacists could write Suggest Orders but these require prescriber co-signature

• Already had Administrative Policy for Therapeutic Interchanges

• In 2017, we implemented an Administrative Policy for Registered Pharmacists to Adapt Medication Orders
  - Adapt dose/route/frequency
  - Continue / discontinue home meds to resolve med rec DTPs

• Policy updated June 2019: Renamed to “Medication-Related Orders”, adding
  - Dose rounding (to nearest vial size within 10% to prevent drug wastage) for adult oncology patient systemic treatment chemotherapy & biotherapy
  - Discontinue non-indicated duplication of anticoagulant therapy
  - Initiate, adapt, or discontinue serum drug levels, serum electrolytes, serum creatinine, serum albumin, and/or PT/INR
Suggest Orders

• Individual Pharmacists will not adapt medication orders authorized by this policy if they do not possess the knowledge, skill, and judgement to safely do so or if it is determined that the possible outcome of the implementation is beyond their scope of practice.
  • In these circumstances, the Pharmacist may write a ‘Suggests’ Order as per KHSC KGH site Administrative Policy 11-042 (Patient Care Orders – ‘Suggest’ Orders) or contact the prescriber.

• Pharmacists do not have the authority to adapt a narcotic, controlled drug or targeted substance, nor a drug designated as a monitored drug under the Narcotic Safety and Awareness Act.
Successes & Challenges

• Nurses would see the pharmacist coming and say “Oh, I’m glad you’re here – I know you can fix this order”
• Prescribers grateful about not needing to be called about med rec issues
• Pharmacist satisfaction/engagement

• Prescribers/Lab initially concerned about increased number of lab tests to be ordered
• Concern about lab tests being ordered for after hours
Evaluation & Monitoring

• Evaluated in 2020 via Residency Project

• Retrospective qualitative, descriptive study involving all medication-related orders within inpatient care areas of KGH site at KHSC for 4 week period (January 13 – February 9, 2020)
Objectives

PRIMARY OBJECTIVES:
• To describe pharmacists’ prescribing practice of hospital policies
• To recommend modifications to current medication-related policies

SECONDARY OBJECTIVES:
• To assess compliance with documentation standards for AMROs and SMROs
• To assess if AMRIs reduce the time to transcription, compared to SMRIs
### Results

**Table 1: Proportion of interventions for AMRI and SMRIs**

<table>
<thead>
<tr>
<th>Type of Intervention</th>
<th>AMRI (n=608)</th>
<th>SMRI (n=914)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start medication</td>
<td>187 (30.8)</td>
<td>308 (33.7)</td>
</tr>
<tr>
<td>Stop medication</td>
<td>111 (18.3)</td>
<td>264 (28.9)</td>
</tr>
<tr>
<td>Change drug regimen</td>
<td>214 (35.2)</td>
<td>253 (27.7)</td>
</tr>
<tr>
<td>Stop duplicate anticoagulation</td>
<td>5 (0.8)</td>
<td>9 (1.0)</td>
</tr>
<tr>
<td>Laboratory tests</td>
<td>30 (4.9)</td>
<td>42 (4.6)</td>
</tr>
<tr>
<td>Therapeutic interchange</td>
<td>19 (3.1)</td>
<td>20 (2.2)</td>
</tr>
<tr>
<td>Other</td>
<td>42 (6.9)</td>
<td>18 (1.9)</td>
</tr>
</tbody>
</table>
Primary Outcomes

TOP 5 AMRI CLASSES:
1. Vitamins & Supplements
2. Respiratory
3. Antimicrobials
4. Cardiac
5. Gastrointestinal

TOP 5 SMRI CLASSES:
1. Antimicrobials
2. Gastrointestinal
3. Vitamins & Supplements
4. Cardiac
5. Anticoagulants
## Primary Outcomes

### Table 3: Laboratory-related interventions

<table>
<thead>
<tr>
<th>Laboratory Test</th>
<th>Adapt Orders (n=30)</th>
<th>Suggest Orders (n=42)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Laboratory Test</strong></td>
<td><strong>Frequency (%)</strong></td>
<td><strong>Frequency (%)</strong></td>
</tr>
<tr>
<td>Lithium level</td>
<td>1 (3.3)</td>
<td>-</td>
</tr>
<tr>
<td>Serum creatinine</td>
<td>3 (10.0)</td>
<td>6 (14.3)</td>
</tr>
<tr>
<td>Pre-tobramycin level</td>
<td>1 (3.3)</td>
<td>4 (9.5)</td>
</tr>
<tr>
<td>Pre-Vancomycin level</td>
<td>25 (83.3)</td>
<td>14 (33.3)</td>
</tr>
<tr>
<td>25-OH vitamin D</td>
<td>-</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>Blood glucose</td>
<td>-</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>CBC/Differential</td>
<td>-</td>
<td>3 (7.1)</td>
</tr>
<tr>
<td>ECG</td>
<td>-</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>Electrolytes</td>
<td>-</td>
<td>2 (4.7)</td>
</tr>
<tr>
<td>INR/PT</td>
<td>-</td>
<td>7 (16.7)</td>
</tr>
<tr>
<td>Methotrexate level</td>
<td>-</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>Urine culture</td>
<td>-</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>Urine dip</td>
<td>-</td>
<td>1 (2.4)</td>
</tr>
</tbody>
</table>
Primary Outcomes

Figure 2. Proportion of SMRIs agreed by prescribers

- Agree: 97%
- Disagree: 2%
- Not Applicable: 1%
Secondary Outcomes

Figure 3. Percentage of compliant documentation elements for order-related standards.

<table>
<thead>
<tr>
<th></th>
<th>Adapt Orders</th>
<th>Suggest Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>100</td>
<td>99.4</td>
</tr>
<tr>
<td>Time</td>
<td>100</td>
<td>99.1</td>
</tr>
<tr>
<td>Printed Name</td>
<td>62.4</td>
<td>68.5</td>
</tr>
<tr>
<td>Designation</td>
<td>97.7</td>
<td>98.3</td>
</tr>
<tr>
<td>Signature</td>
<td>95.5</td>
<td>85.4</td>
</tr>
</tbody>
</table>

Figure 3. Percentage of compliant documentation elements for order-related standards.
Secondary Outcomes

Figure 4. Percentage of compliant documentation elements for medication-related standards

<table>
<thead>
<tr>
<th>Element</th>
<th>Adapt Medications</th>
<th>Suggest Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>99.5 99.9</td>
<td>100 99.8</td>
</tr>
<tr>
<td>Regimen</td>
<td>96.5 91.5</td>
<td>96.5 96</td>
</tr>
<tr>
<td>No Abbreviations</td>
<td>96.4 97.4</td>
<td></td>
</tr>
<tr>
<td>No Brand Names</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRN Indication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4. Percentage of compliant documentation elements for medication-related standards
Secondary Outcomes

<table>
<thead>
<tr>
<th>Policy 11-047 Header</th>
<th>OCP Number</th>
<th>Documented Rationale</th>
<th>Medication within Policy</th>
<th>Laboratory test within Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.8</td>
<td>99.7</td>
<td>77</td>
<td>99.5</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 5. Percentage of compliant AMROs with adapt policy
## Secondary Outcomes

Table 2: Time to transcription for AMRIs and SMRIs

<table>
<thead>
<tr>
<th></th>
<th>AMRIs (n=258)</th>
<th>SMRIs (n=369)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Time (min.)</td>
<td>37.00</td>
<td>65.00</td>
</tr>
<tr>
<td>Interquartile Range (min.)</td>
<td>19.75 – 79.00</td>
<td>26.00 – 156.00</td>
</tr>
<tr>
<td>p-Value</td>
<td>p &lt; 0.001</td>
<td></td>
</tr>
</tbody>
</table>
Discussion

• 1522 MRIs were initiated by pharmacists, which corresponds to approximately 5.4 MRIs per day by each clinical pharmacist

• Vancomycin was the most frequently adapted and suggested medication, which confirms pharmacists are actively involved in vancomycin therapy

• A high degree of acceptance of SMROs reflects positively on clinical pharmacists’ contributions to patient care

• Pharmacists are mostly consistent with adhering to proper documentation standards, but sometimes lacked a clearly documented rationale for AMRIs

• The time to transcription was significantly faster for AMRIs compared to SMRIs, which may represent faster administration of the medication
Current/Next Steps

• Medication-Related Orders by Registered Pharmacists (new title for revised Admin Policy)
• Updates for expanded scope, including initiating, adapting, and discontinuing medication-related orders
  • Prescribing vaccines, schedule II drugs and minor ailments
  • Changing drug: Therapeutic equivalents / formulary alternatives
  • Any lab tests for medication therapy management
  • Transcribing orders for narcotics and controlled drugs or targeted substances
  • Leave of absence (pass) meds
• Scheduled to present to P&T (Nov) and MAC (Dec)
Current/Next Steps

• Residency Project:
  • Evaluation of Expanded Scope via Medication-Related Orders by Registered Pharmacists at KHSC
  • Purpose: to develop, implement and evaluate the new Medication Related Orders by Registered Pharmacists policy and describe the uptake, impact, and trends of the pharmacists’ interventions
    • Cost savings
    • Improved safety
    • Improved efficacy
    • Patient comfort
    • Other
  • Suggest Orders vs Adapt Orders vs Expanded Scope Orders
  • Trends in use (e.g. most common drugs & lab tests, type of intervention (initiation, discontinuation, change in drug/ dose/ route/ frequency)
  • Pharmacist trends for using policy (yrs exp, res or not, clinical service)
Summary

• The KHSC Administrative Policy is supporting hospital pharmacists to practice to full / expanded scope and has been successful thus far, while continuing to improve

• Engaging staff pharmacists and relevant stakeholders is key to moving practices forward
Connie Lukinuk

• Scope of practice change from the perspective of antimicrobial stewardship at St. Joseph's Hamilton
Antibiotics and the Role of Clinical Pharmacists

Background

• 25% of inpatients are on antibiotics, 50% of orders may be inappropriate

Clinical pharmacists play an important role in antibiotic stewardship
• Evaluate and ensure appropriateness of therapy and resolution of drug therapy problems

• Core members of multidisciplinary team for optimization of antibiotic usage and prevention or reduction of antimicrobial resistance (Infectious Diseases Society of America)

• Often provide antibiotic stewardship without a formal antibiotic stewardship program (Fu P, Shalansky S, et al. Can J of Hosp Pharm 2014)
Antibiotic Stewardship Without an Antibiotic Stewardship Program (Can J Hosp Pharm 2014)

75% of antibiotics had an intervention.
Antibiotic Stewardship Without an Antibiotic Stewardship Program (Can J Hosp Pharm 2014)

Antibiotics involving TDM had the most frequent interventions

Number of documented interventions made by pharmacists by antibiotic. Figure from Fu et al., 2014. *Can J Hosp Pharm*, 67(4): 298–303.
Antibiotic Review by Clinical Pharmacists at SJHH

Description of the 3 Day Antibiotic Review program:
- St Joseph’s Healthcare Hamilton (SJHH), expanded and formalized the assessment of antibiotics and documentation by clinical pharmacists with a focus on day 3 of antimicrobial therapy.
- Within EPIC®, an antimicrobial stewardship report of all patients eligible for a day three antibiotic review is generated daily in real-time.
- 3 Day Antibiotic list includes name, location, date or “never” reviewed, and a column for documentation.
  - Clinical pharmacists are expected to review and document their clinical assessments and recommendations to improve appropriateness of therapy (e.g. discontinue therapy, narrow spectrum, initiate intravenous to oral step down, and therapeutic drug monitoring).
  - The assessment can then be copied into a Progress Note.
- Improvements – typing a short “smart phrase” code generates a standard template, and a training SOP has been developed.
- The ASP pharmacist reviews the 3 day assessments. Also reviews patients listed on the 7 Day Antibiotic report.
3 Day Antibiotic Review by Clinical Pharmacists

3-Day Antimicrobial Review

Antibiotic: Ceftriaxone 1g IV daily
Indication: E. Coli bacteremia
Duration: 7 Days
Plan: Suggested dose increase to 2g IV daily and increasing duration to 14 days, will follow up with team

Examples of documented 3-Day antimicrobial reviews on General Internal Medicine. Bell M. 2020

3-Day Antimicrobial Review

Antibiotic: Vancomycin 1250 mg IV q12h
Indication: Bacteremia
Duration: 7 Days
Plan: Monitoring vancomycin trough (ordered before 4th dose). Speak to team to adjust antibiotic and duration based on cultures
3 Day Antibiotic Review by Clinical Pharmacists

3 Day Antimicrobial Reviews Completed at SJHH

- Complete Number: 34.74903475
- Complete Number Not Done: 65.25096525

% 3 Day Antimicrobial Reviews Completed Per Unit

- General Internal Medicine: 81.81818182
- GI/Surgery/Chest: 56.52173913
- ICU/MSDU/SSDU/HN: 90.90909091
- Nephrology/Renal Transplant: 50.66666667

Percent of 3-Day Antibiotic Reviews completed on third day of antibiotic therapy at Charlton Campus (left) and per unit (right). Bell M., et al. PPC Abstract 2021
3 Day Antibiotic Review by Clinical Pharmacists

Quality assessment of the documentation done on Day 3 Antimicrobial Reviews
3 Day Antibiotic Review by Clinical Pharmacists

Antibiotics and the Role of Clinical Pharmacists

**Conclusion**
Clinical pharmacists are frequently involved in different aspects of antimicrobial stewardship even when a stewardship program is in place.

**An antibiotic review for patients at day 3 of therapy:**
- Triggers early identification and intervention of drug therapy problems by clinical pharmacists
- Supports communication of recommendations to team members
- Supports clinical practice standards (with or without a computer generated report)
- Encourages documentation of antimicrobial therapy assessments in progress notes by clinical pharmacists

You can do it!
References


Summary

• During this panel presentation 4 perspectives on approaches to expanding scope of practice were discussed
  • Notable steps required to implement policies were outlined
  • Examples on pharmacists applying expanded scope to address drug therapy problems were given
  • Impact on clinical outcomes was presented
  • Approaches to challenges/barriers were addressed
Thank you. Questions for the Panel?
Addendum
### Impact of The Scope of Practice Change

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose too high</td>
<td>18.0%</td>
</tr>
<tr>
<td>Potential adverse drug reaction</td>
<td>15.9%</td>
</tr>
<tr>
<td>Product not available</td>
<td>10.6%</td>
</tr>
<tr>
<td>Order missing information</td>
<td>9.0%</td>
</tr>
<tr>
<td>No indication for drug therapy</td>
<td>8.4%</td>
</tr>
<tr>
<td>Dose too low</td>
<td>6.9%</td>
</tr>
<tr>
<td>Therapeutic duplication</td>
<td>6.7%</td>
</tr>
<tr>
<td>Inappropriate directions</td>
<td>5.4%</td>
</tr>
<tr>
<td>Lack of drug therapy for indication</td>
<td>5.2%</td>
</tr>
<tr>
<td>Inappropriate route</td>
<td>2.5%</td>
</tr>
<tr>
<td>Laboratory monitoring required</td>
<td>2.3%</td>
</tr>
<tr>
<td>Product cannot be crushed/swallowed</td>
<td>2.1%</td>
</tr>
<tr>
<td>Suboptimal medication</td>
<td>1.7%</td>
</tr>
<tr>
<td>Inappropriate duration</td>
<td>1.3%</td>
</tr>
<tr>
<td>Wrong medication</td>
<td>1.0%</td>
</tr>
<tr>
<td>Inappropriate dosage form</td>
<td>1.0%</td>
</tr>
<tr>
<td>Potential drug allergy</td>
<td>0.8%</td>
</tr>
<tr>
<td>Unnecessary laboratory monitoring</td>
<td>0.6%</td>
</tr>
<tr>
<td>Unclear</td>
<td>0.4%</td>
</tr>
<tr>
<td>Potential drug interaction</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

### Change Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change dose</td>
<td>29.2%</td>
</tr>
<tr>
<td>Discontinue medication</td>
<td>27.3%</td>
</tr>
<tr>
<td>Change directions</td>
<td>12.5%</td>
</tr>
<tr>
<td>Reorder home medication or approved interchange</td>
<td>9.2%</td>
</tr>
<tr>
<td>Hold medication</td>
<td>5.6%</td>
</tr>
<tr>
<td>Change to a different non-interchangeable medication</td>
<td>4.6%</td>
</tr>
<tr>
<td>Change route</td>
<td>3.5%</td>
</tr>
<tr>
<td>Order laboratory tests</td>
<td>2.3%</td>
</tr>
<tr>
<td>Change dosage form</td>
<td>2.1%</td>
</tr>
<tr>
<td>Change duration</td>
<td>1.7%</td>
</tr>
<tr>
<td>Change concentration</td>
<td>0.4%</td>
</tr>
<tr>
<td>Cancel laboratory tests</td>
<td>0.4%</td>
</tr>
<tr>
<td>Restart held medication</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td>0.4%</td>
</tr>
<tr>
<td>Change diluent</td>
<td>0.2%</td>
</tr>
<tr>
<td>Change rate of administration</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Impact of The Scope of Practice Change

- Improve Patient Safety, 57.4%
- Optimization, 18.0%
- Improve Efficacy of Drug Therapy, 24.6%