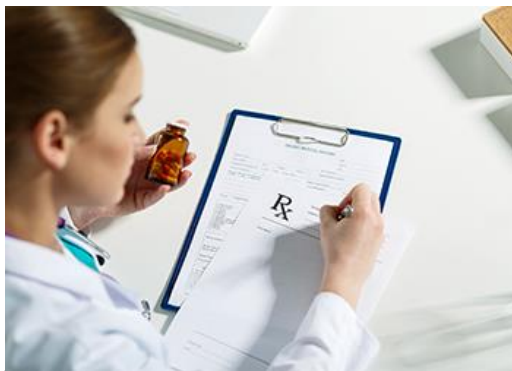


Antimicrobial Stewardship Strategy:

General antimicrobial order forms

Forms used to single out and highlight prescriptions for anti-infectives as a way of improving specific or overall antimicrobial use.



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Priority Level: C

Difficulty Level: 1

Program Stage:

- ✓ Early
- Intermediate
- Advanced

For more information on these criteria and how they were developed, please see the [Antimicrobial Stewardship Strategy Criteria Reference Guide](#).

Description

This is an overview and not intended to be an all-inclusive summary. As a general principle, patients must be monitored by the health care team after changes to therapy resulting from recommendations made by the antimicrobial stewardship team.

Antimicrobial order forms are used to single out and highlight prescriptions for anti-infectives, with the goal of improving specific or overall antimicrobial use. Generic antimicrobial order forms (i.e., physician fills in the drug and regimen) may be used to order any anti-infective or only for restricted antimicrobials. They require the clinician to provide an indication for use and may also ask for an anticipated duration of therapy. They can lead to improved documentation of, and communication related to, antimicrobial therapy. They can also facilitate data collection for drug/medication use evaluations.

When antimicrobial order forms are used only for restricted agents, they may require the clinician to indicate whether institution-specific criteria are met to help reinforce appropriate prescribing and streamline approvals. Local guidelines or antimicrobial restrictions may be printed on the forms to educate physicians and limit the use of restricted antimicrobials.

This strategy can also include designating an area in the patient's chart or medication administration record to identify any antimicrobial therapy.

Advantages

- Can decrease inappropriate antimicrobial use.
- Can encourage reflection on the choice and duration of therapy.
- Can facilitate approval of restricted antimicrobials.

Disadvantages

- Forms for ordering restricted antimicrobials may be less acceptable to prescribers (viewed as “policing” antimicrobials), and prescribers may provide false information to circumvent the approval process.
- Time required for the clinician to find and fill out a specific order form may compromise adherence.

Requirements

- Personnel and time for:
 - Development of order forms.
 - Implementation of strategies to increase awareness and availability of order forms.
 - Auditing use of restricted antimicrobial order forms.

Associated Metrics

- Percentage of antimicrobials ordered using generic form.
- Percentage of forms for restricted antimicrobial orders that are completed accurately.

Useful Resources

Select articles to provide supplemental information and insight into the strategy described and/or examples of how the strategy was applied; not a comprehensive reference list. URLs are provided when materials are freely available on the Internet.

- Dellit TH, Owens RC, McGowan JE Jr, Gerding DN, Weinstein RA, Burke JP, et al. Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America guidelines for developing an institutional program to enhance antimicrobial stewardship. Clin Infect Dis. 2007;44(2):159–77. Available from: <http://cid.oxfordjournals.org/content/44/2/159.long>
- Durbin WA, Lapidus B, Goldmann DA. Improved antibiotic usage following introduction of a novel prescription system. JAMA 1981;246(16):1796–800.
- Echols RM, Kowalsky SF. The use of an antibiotic order form for antibiotic utilization review: influence on physicians’ prescribing patterns. J Infect Dis. 1984;150(6):803–7.

Although dated, this provides an example of the introduction of an antimicrobial order form and how it was used to obtain antimicrobial use data in an institution.

- Ashiru-Oredope D, Richards M, Giles J, Smith N, Teare L. Does an antimicrobial section on a drug chart influence prescribing? Clin Pharmacist. 2011;3:222. Available from: <http://www.pharmaceutical-journal.com/in-depth/research-article/does-an-antimicrobial-section-on-a-drug-chart-influence-prescribing/11080402.article>

Tools and Resources

- Australian Commission on Safety and Quality in Health Care. Restricted antibiotic form [Internet]. Sydney, Australia: Australian Commission on Safety and Quality in Health Care; c2015 [cited 2015 Sep 21]. Available from: http://www.safetyandquality.gov.au/wp-content/uploads/2012/02/2.3-Restricted-Antibiotic-Declaration-Form_RAH.pdf

An example of a restricted antimicrobial order form.

- Start smart—then focus. Appendix 1. Resource materials: examples of audit tools, review stickers and drug charts [Internet]. London: Public Health England; 2015 [cited 2015 Sep 21]. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/417041/Revised_SSTF_Tools_Annex_FINAL.pdf

Examples of a dedicated antimicrobial order form and section in drug charts (pp. 20–6).

Samples/Examples

- [Example: St. Joseph's Healthcare Hamilton - Antimicrobial order form](#)

These documents have been generously shared by various health care institutions to help others develop and build their antimicrobial stewardship programs. We recommend crediting an institution when adopting a specific tool/form/pathway in its original form.

Examples that contain clinical or therapeutic recommendations may not necessarily be consistent with published guidelines, or be appropriate or directly applicable to other institutions. All examples should be considered in the context of the institution's population, setting and local antibiogram.

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Links with Other Strategies

- [Formulary restriction](#)
- [Formulary restriction with preauthorization](#)
- [Improved antimicrobial documentation](#)

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For further information

[Antimicrobial Stewardship Program](#), Infection Prevention and Control, Public Health Ontario.

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Example: St. Joseph's Healthcare Hamilton - Antimicrobial order form



PATIENT INFORMATION

Allergies: _____	
Antimicrobial Oral / Parenteral Order Set	
Orders Transcribed Date: _____ (yyyy/mm/dd) Time: _____ (hh:mm) PRINT NAME _____ Signature/Discipline _____	<p style="color: blue;">***Use the Restricted Antibiotic Order Set for the following: amikacin, colistin, daptomycin, ertapenem, linezolid, meropenem***</p> <p>Consults</p> <p><input type="checkbox"/> penicillin allergy test: MD to contact Dr.</p> <p>Antimicrobial(s)</p> <p style="color: blue;">***Two agents for the same indication can be written on one form***</p> <p>Drug #1</p> Name: _____ Dose: _____ Route: _____ Frequency: _____ Duration: _____ <input type="checkbox"/> 3 days <input type="checkbox"/> 7 days <input type="checkbox"/> 14 days <input type="checkbox"/> Other, specify: _____
Orders Scanned Date: _____ (yyyy/mm/dd) Time: _____ (hh:mm) PRINT NAME _____ Signature/Discipline _____	<p>Drug #2</p> Name: _____ Dose: _____ Route: _____ Frequency: _____ Duration: _____ <input type="checkbox"/> 3 days <input type="checkbox"/> 7 days <input type="checkbox"/> 14 days <input type="checkbox"/> Other, specify: _____
Transcription Checked By Date: _____ (yyyy/mm/dd) Time: _____ (hh:mm) PRINT NAME _____ Signature/Discipline _____	<p>Antimicrobial(s) to Discontinue</p> <p><input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____</p> <p>Clinical Indication</p> <p>Treatment (select most applicable)</p> <p><input type="checkbox"/> Bloodstream Infection</p> <p><input type="checkbox"/> Catheter-related <input type="checkbox"/> Endocarditis <input type="checkbox"/> Other source: _____</p> <p><input type="checkbox"/> Bone Infection</p> <p><input type="checkbox"/> Central Nervous System (CNS) Infection</p> <p><input type="checkbox"/> <i>C. difficile</i> Infection (refer to <i>Clostridium difficile</i> Infection (CDI) Order Set)</p> <p><input type="checkbox"/> Gynaecologic / Obstetric</p> <p><input type="checkbox"/> Intra-abdominal Infection</p> <p><input type="checkbox"/> Joint Infection</p> <p><input type="checkbox"/> Native joint <input type="checkbox"/> Prosthetic related</p> <p><input type="checkbox"/> Respiratory Tract Infection</p> <p><input type="checkbox"/> Community Acquired Pneumonia (CAP) <input type="checkbox"/> Bronchitis <input type="checkbox"/> Pharyngitis</p> <p><input type="checkbox"/> Hospital Acquired Pneumonia (HAP) <input type="checkbox"/> Empyema <input type="checkbox"/> Viral</p> <p><input type="checkbox"/> Ventilator Associated Pneumonia (VAP) <input type="checkbox"/> Fungal</p>
Order Written Date: _____ (yyyy/mm/dd) Time: _____ (hh:mm)	
Ordered By: _____ <input type="checkbox"/> Check if counter signature required	
Print Name _____ Signature _____	Counter Signature Print Name _____ Pager # _____ Counter Signature/Discipline _____

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PatientOrderSets

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Example: St. Joseph's Healthcare Hamilton - Antimicrobial order form (continued)



PATIENT INFORMATION

Allergies: _____	
Antimicrobial Oral / Parenteral Order Set	
Orders Transcribed Date: _____ (yyyy/mm/dd) Time: _____ (hh:mm) PRINT NAME _____ Signature/Discipline _____	Clinical Indication Continued... Treatment (select most applicable) Continued... <input type="checkbox"/> Skin and Soft Tissue Infection <input type="checkbox"/> Cellulitis <input type="checkbox"/> Diabetic foot infection <input type="checkbox"/> Infected ulcer <input type="checkbox"/> Necrotizing fasciitis <input type="checkbox"/> Surgical site infection <input type="checkbox"/> Urinary Tract Infection <input type="checkbox"/> Cystitis <input type="checkbox"/> Pyelonephritis <input type="checkbox"/> Other, specify: _____ Prophylaxis <input type="checkbox"/> Pre-operative prophylaxis <input type="checkbox"/> Post-operative prophylaxis <input type="checkbox"/> Gynae /OBS – Group B Streptococcus (GBS) <input type="checkbox"/> Other, specify: _____
Orders Scanned Date: _____ (yyyy/mm/dd) Time: _____ (hh:mm) PRINT NAME _____ Signature/Discipline _____	Microbiology Results <input type="checkbox"/> Cultures pending <input type="checkbox"/> Previous pending cultures reviewed Patient Education Discuss potential for development of <i>C. difficile</i> Infection (CDI) with patient and provide a copy of the Antibiotic-Associated Diarrhea fact sheet (PD 7496)
Transcription Checked By Date: _____ (yyyy/mm/dd) Time: _____ (hh:mm) PRINT NAME _____ Signature/Discipline _____	
Order Written	Date: _____ (yyyy/mm/dd) Time: _____ (hh:mm)
Ordered By:	<input type="checkbox"/> Check if counter signature required
Print Name _____ Signature _____	Counter Signature Print Name _____ Pager # _____ Counter Signature/Discipline _____

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