

ANTIMICROBIAL STEWARDSHIP PROGRAM

SEMI-ANNUAL REPORT

For the period December 1, 2024 to May 31, 2025

Volume 1

July 2025

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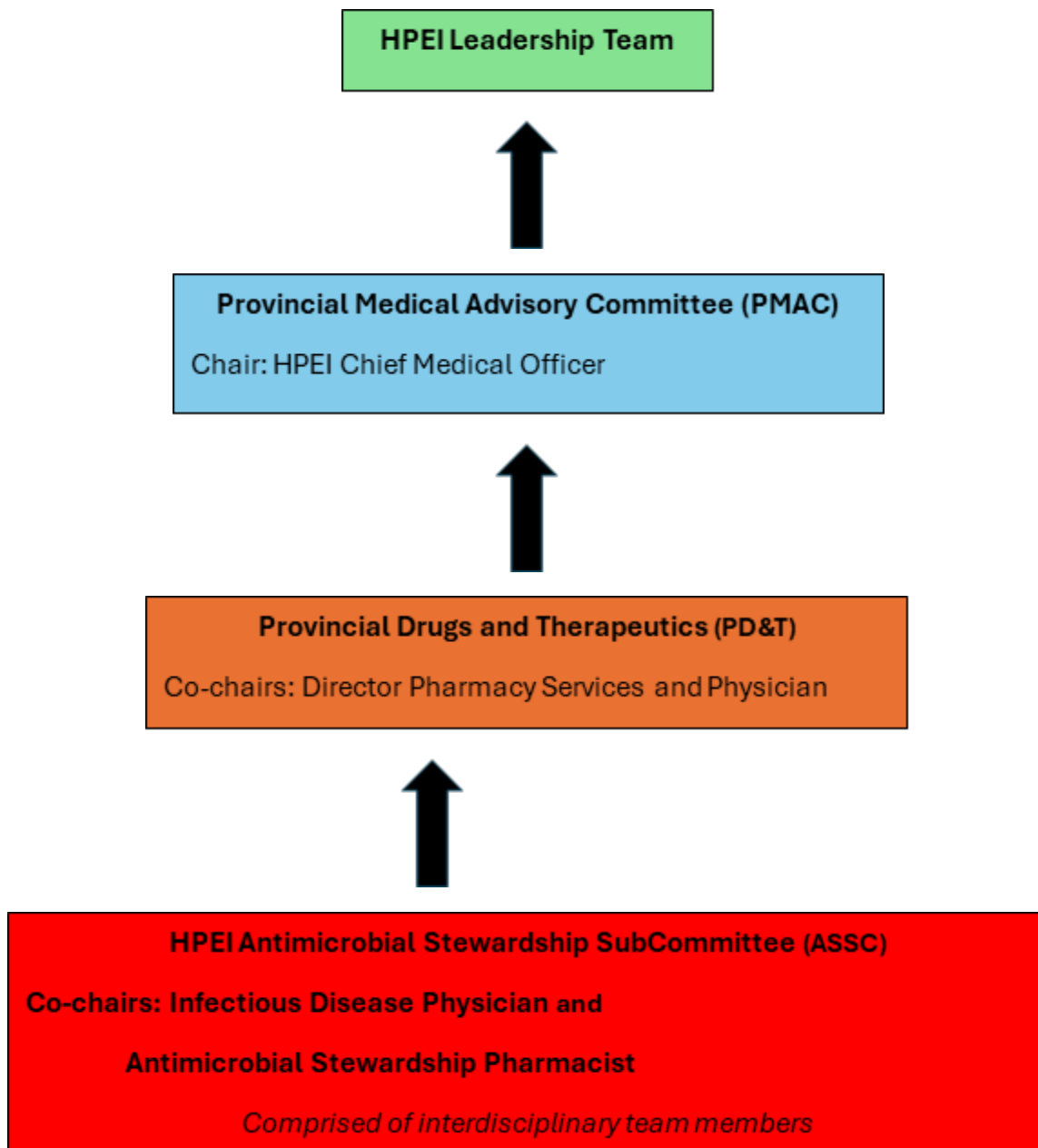
HPEI Antimicrobial Stewardship Mission and Goals

Mission: The mission of Health PEI's Antimicrobial Stewardship (AMS) program is to promote the optimal use of antimicrobials on PEI by providing accessible, up-to-date, evidence-informed guidance for treating common infections and advocating for responsible antimicrobial practices to protect the health of future generations.

To support this mission, the HPEI Antimicrobial Stewardship Team will aim to:

1. Engage healthcare professionals from various disciplines (e.g., pharmacists, physicians, nurses, dentists) to work together in optimizing antimicrobial use to improve patient care.
2. Promote quality and safety of antimicrobial use through evidence-informed guidelines, prescribing tools, and stewardship programs.
3. Provide readily accessible, evidence-informed tools and guidance for all providers across Health PEI.
4. Embed evidence-informed guidance into computerized prescribing systems to leverage innovation and improve efficiency.

HPEI AMS Reporting Structure



Accreditation Canada and AMS

Antimicrobial stewardship is an activity that includes appropriate selection, dosing, route, and duration of antimicrobial therapy.

Accreditation Canada outlines 5 tests for compliance for the Accreditation Canada Antimicrobial Stewardship required organizational practice (ROP):

1. An antimicrobial stewardship program has been implemented.
2. The program specifies who is accountable for implementing the program.
3. The program is interdisciplinary, involving pharmacists, infectious diseases physicians, infection control specialists, physicians, microbiology staff, nursing staff, hospital administrators, and information system specialists, as available and appropriate.
4. The program includes interventions to optimize antimicrobial use, such as audit and feedback, a formulary of targeted antimicrobials and approved indications, education, antimicrobial order forms, guidelines and clinical pathways for antimicrobial utilization, strategies for streamlining or de-escalation of therapy, dose optimization, and parenteral to oral conversion of antimicrobials (where appropriate).
5. The program is evaluated on an ongoing basis, and results are shared with stakeholders in the organization.

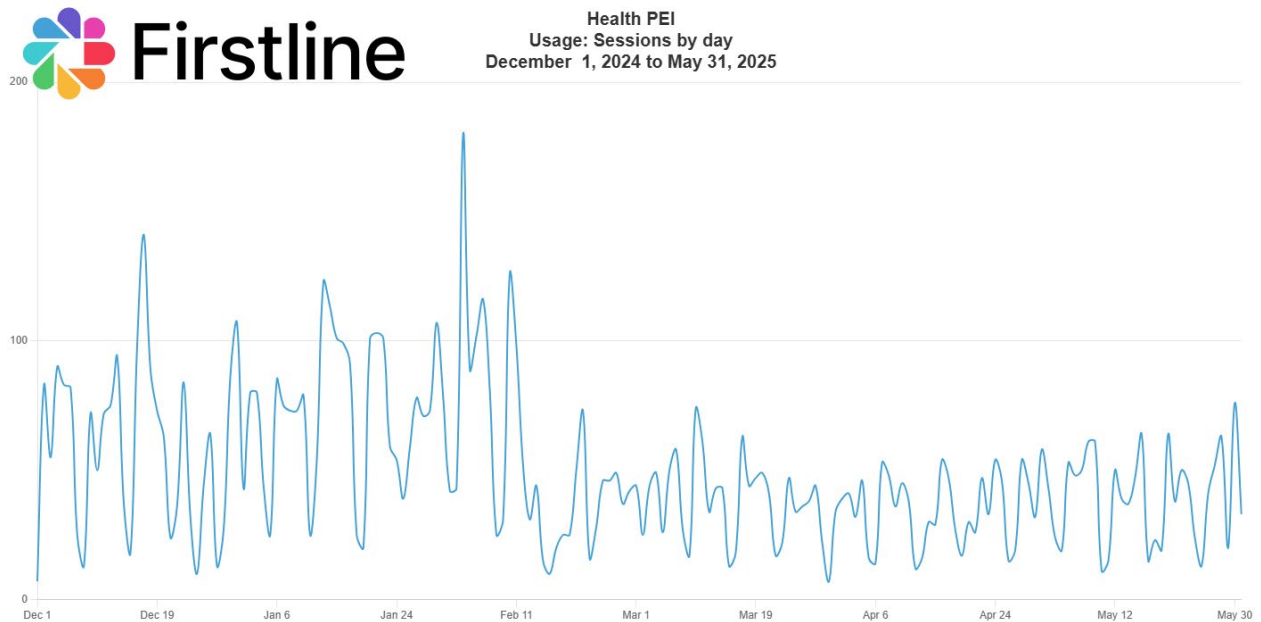
AMS and the FIRSTLINE app

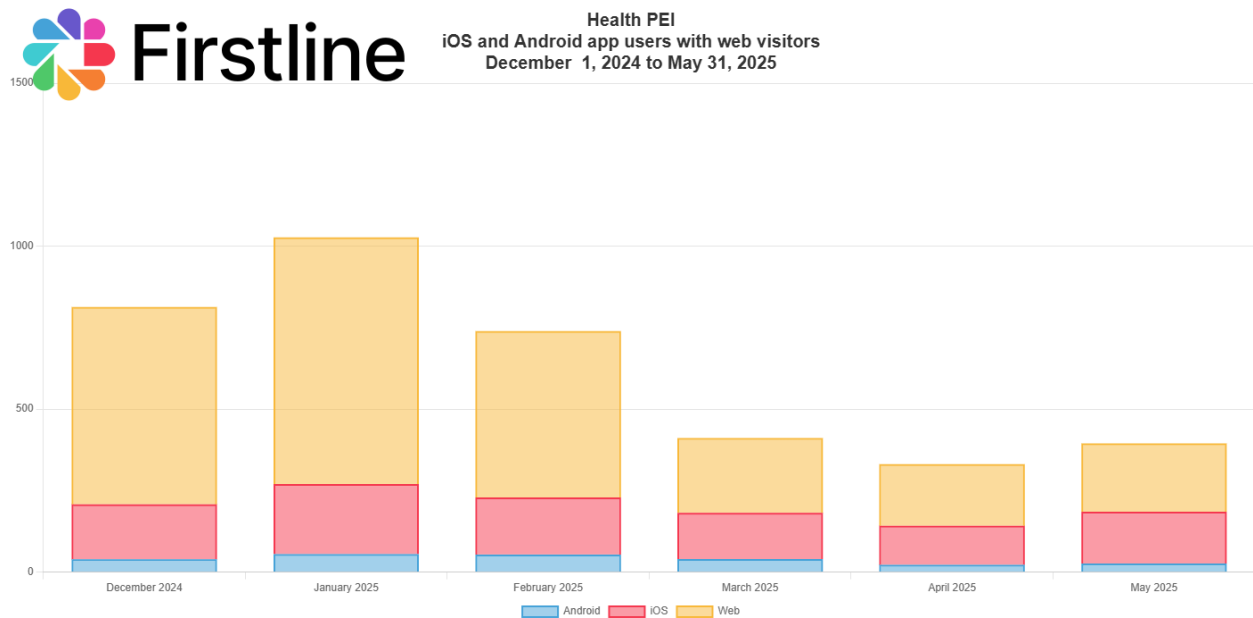
Since October 2020, HPEI has been actively promoting the use of FIRSTLINE as a tool to support evidence-informed clinical practice. With our small antimicrobial stewardship team, the Firstline app is an innovative solution for disseminating healthcare resources across PEI. We appreciate how it enables healthcare providers to effortlessly access antimicrobial guidelines, clinical pearls, and management strategies directly from their mobile devices.

Usage Data

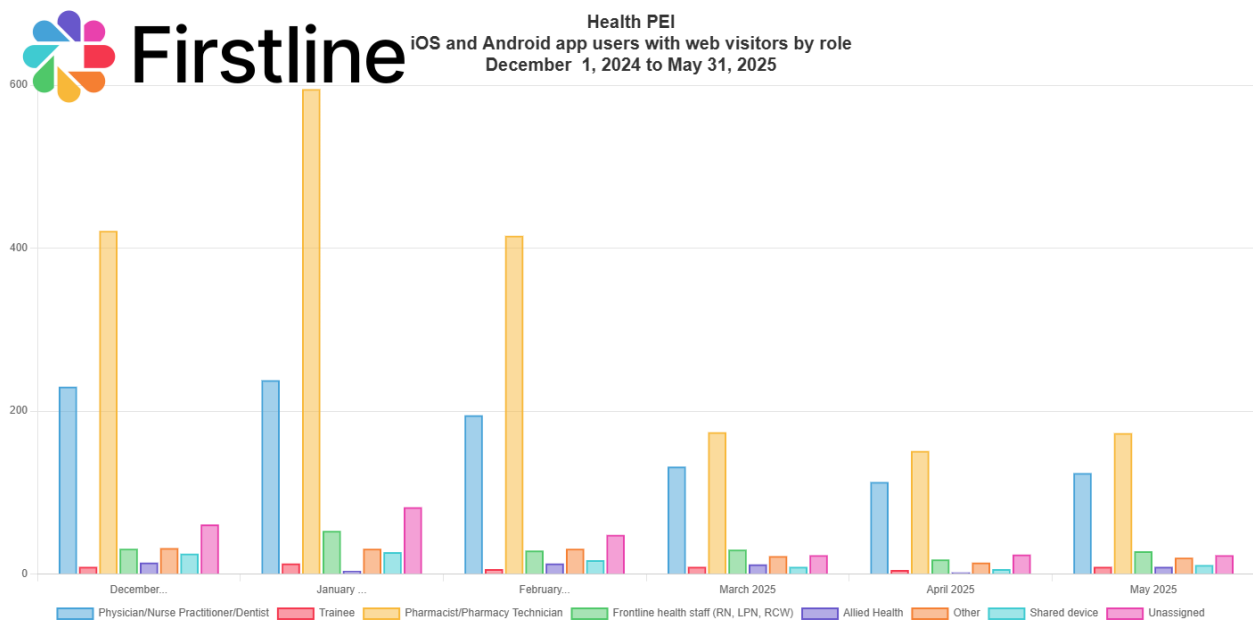
Sessions Per Day

Peak 180 sessions per day on Feb 3, 2025 Average per day: 50





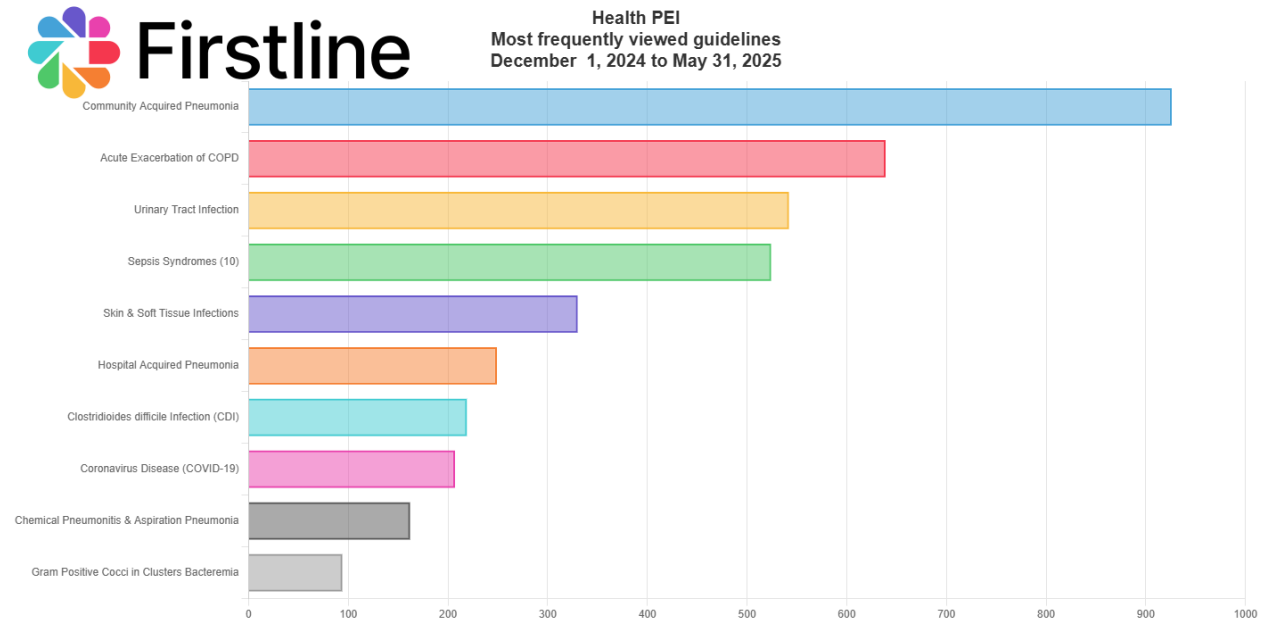
Monthly Users by Role (as defined by user)



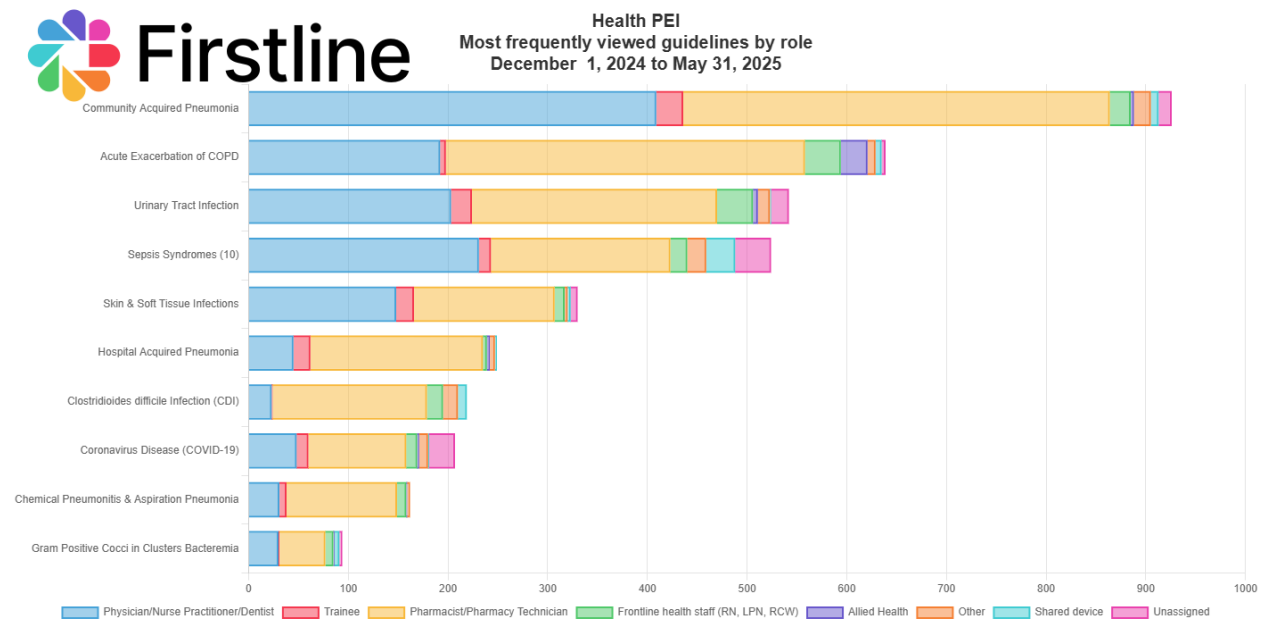
Viewed Content

Guidelines

The most frequently accessed guideline for this reporting period was *Community Acquired Pneumonia* with 926 views, followed by *Acute Exacerbation COPD* (639 views) and *Urinary Tract Infection* (542 views).

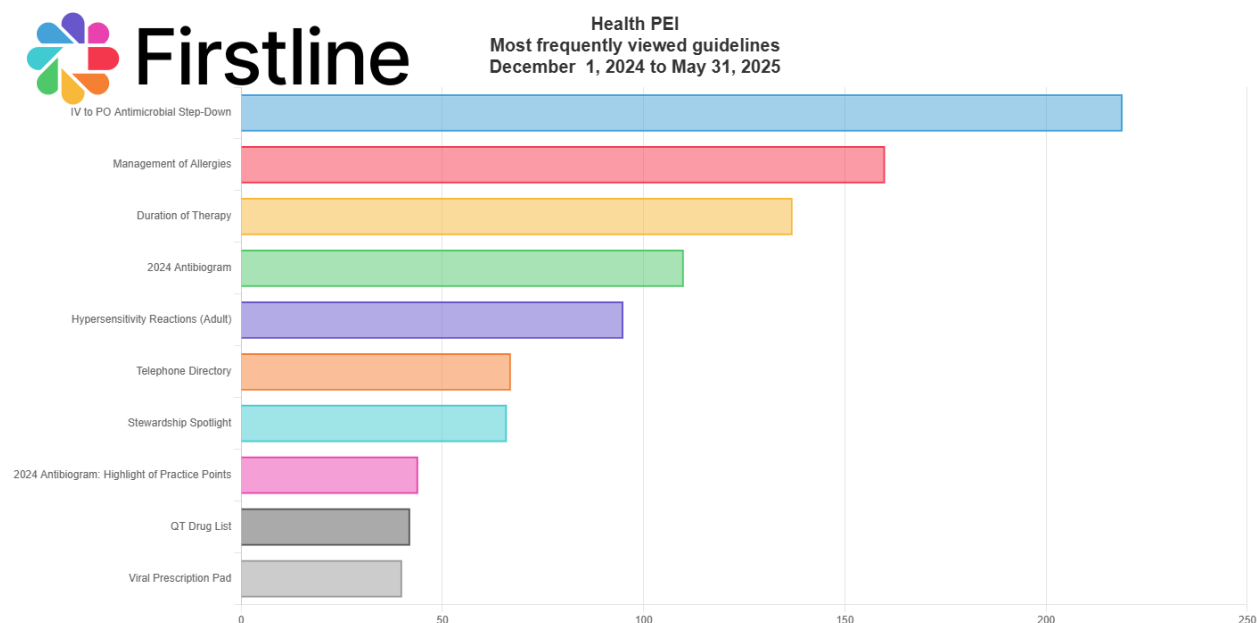


Guideline access by role

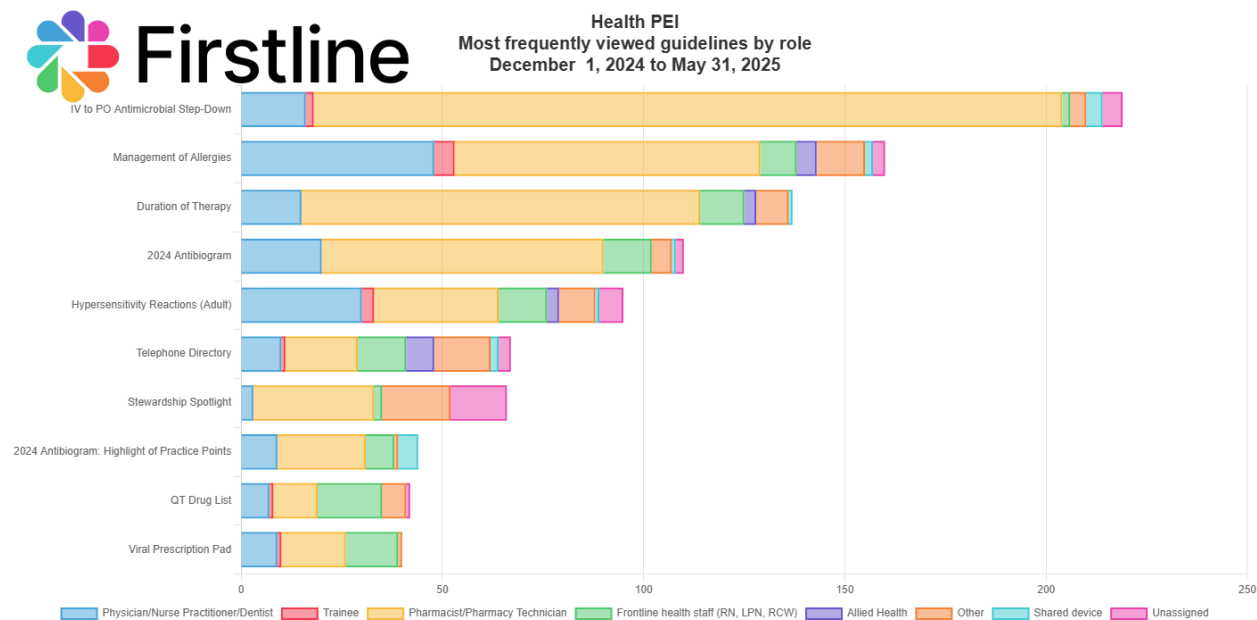


Useful Tools

The most frequently accessed tool for this reporting period was *IV to PO Antimicrobial Step-down* with 219 views followed by *Management of Allergies* (160 views), and *Duration of Therapy* (137 views).

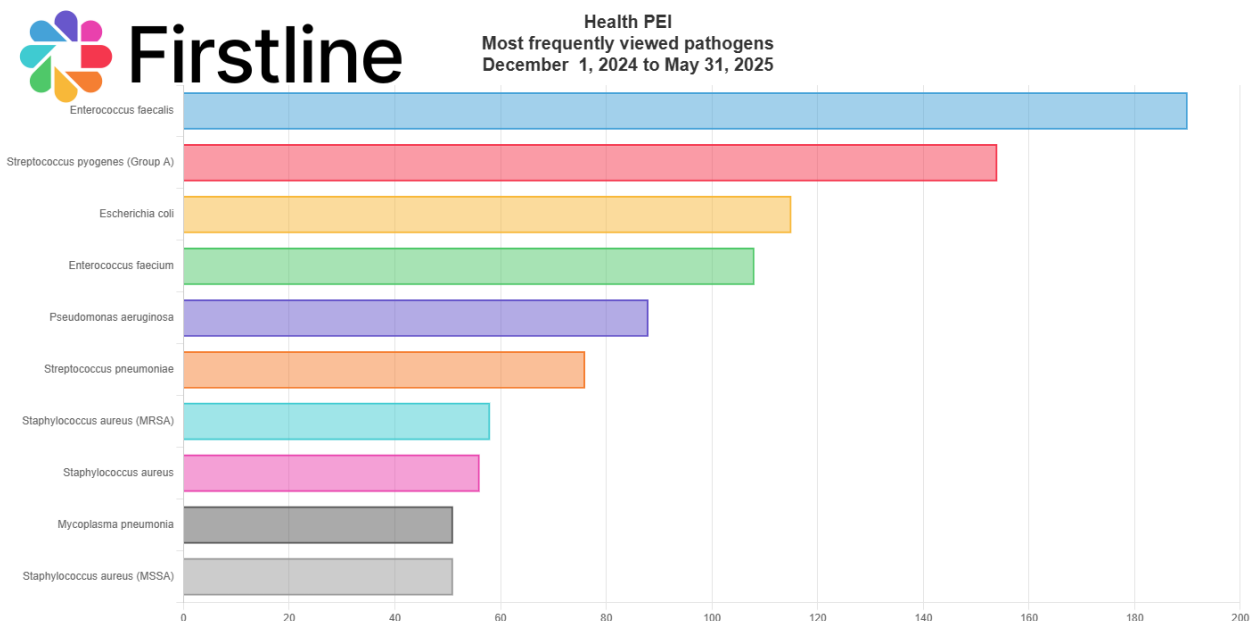


Useful tool access by role

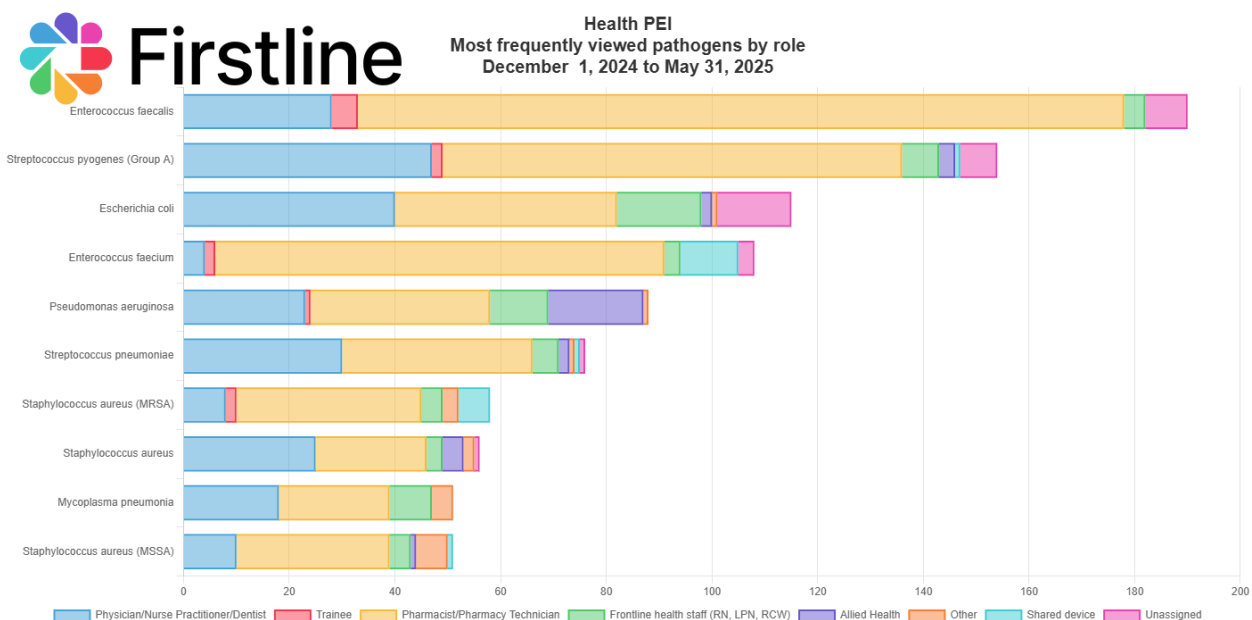


Pathogens

The most frequently accessed pathogens for this reporting period were *Enterococcus faecalis* with 190 views followed by *Streptococcus pyogenes (Group A)* (154views), and *Escherichia coli* (115 views).

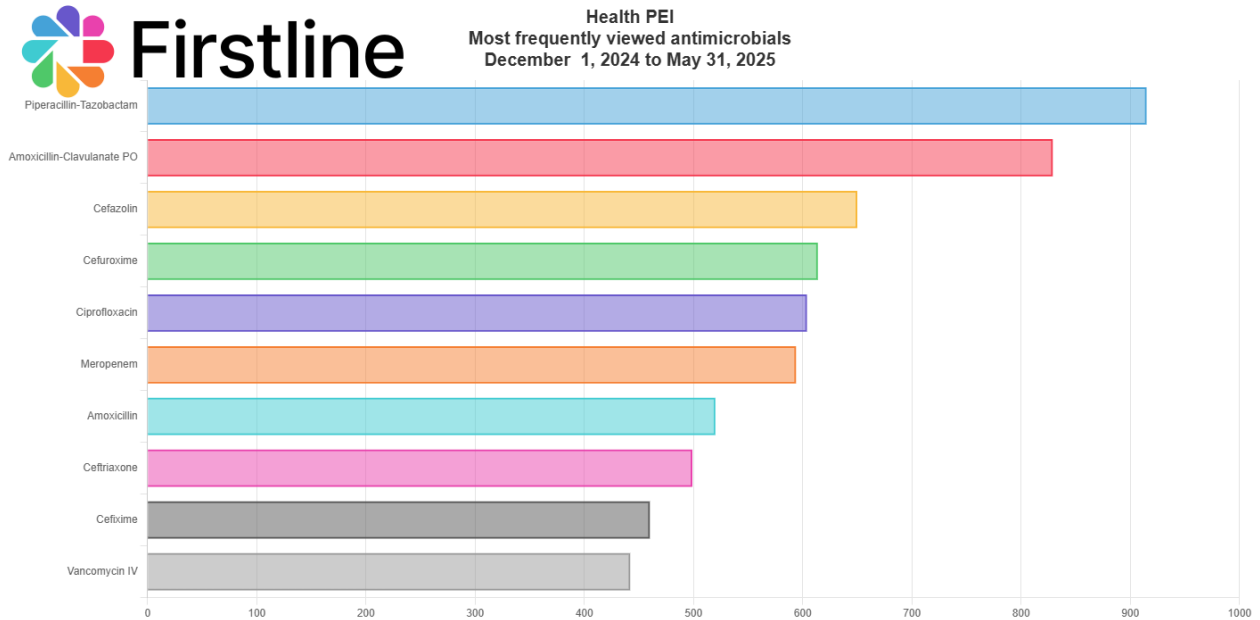


Pathogen access by role

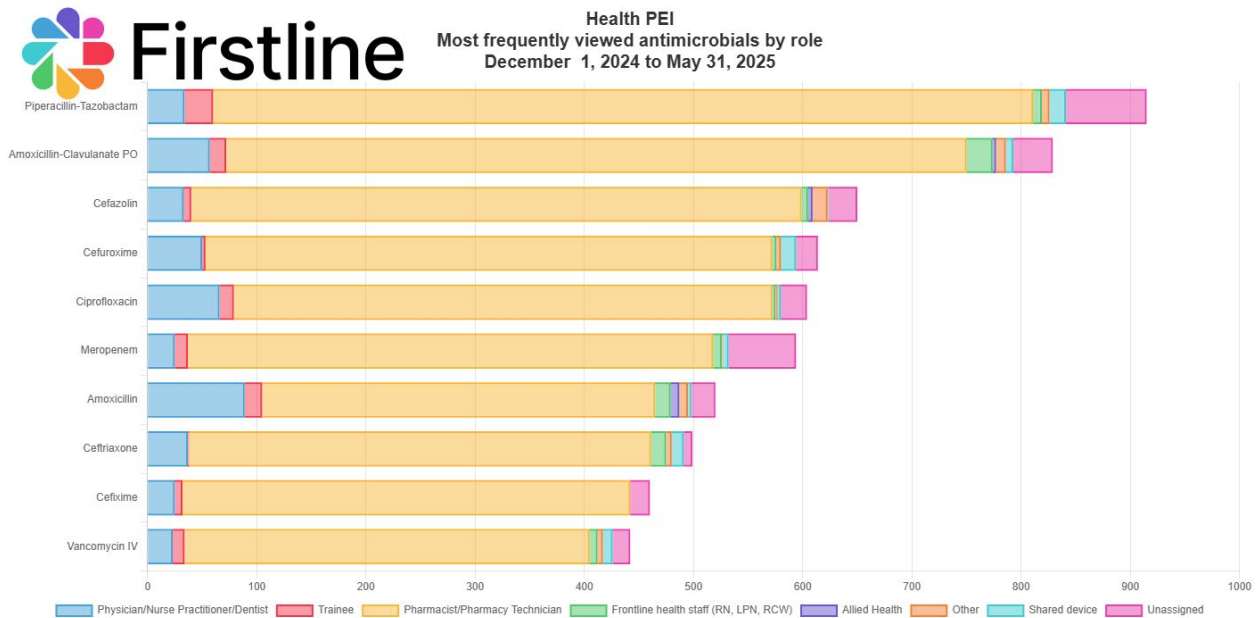


Antimicrobials

The most frequently accessed antimicrobials for this reporting period were *Piperacillin-Tazobactam* with 915 views followed by *Amoxicillin-Clavulanate PO* (829 views), and *Cefazolin* (650 views).



Antimicrobials by role



Guideline creation and review

The HPEI Antimicrobial Stewardship team has **13 clinical guidelines** that are actively being used. The table below identifies when the guideline was last updated. Highlighted items were updated during this reporting period. During this reporting period, 1 new guideline was created, and updates were made to 5 guidelines representing changes to 46% (6/13) of the HPEI guidelines.

Guideline Name	Last updated
Adult Chemical Pneumonitis and Aspiration Pneumonia	February 2025
Community Acquired Pneumonia	February 2025
Hospital Acquired Pneumonia	February 2025
Acute Exacerbation of Chronic Obstructive Pulmonary Disease (COPD)	May 2025
Febrile Neutropenia	March 2025 (NEW)
Clostridioides (Clostridium) difficile Infection	July 2023
Diabetic Foot Infections	December 2023
Gram Positive Cocci in Clusters Bacteremia	June 2016
Lyme Disease Algorithm	February 2023
Skin and Soft Tissue Infections	February 2023
Urinary Tract Infection	October 2018
Sepsis Syndromes	February 2014 to March 2025
COVID-19	June 2024

The following table reflects the top 10 guidelines accessed via Firstline for the period, broken down by all users, physicians/nurse practitioners/dentists, and pharmacists.

Top 10 Guidelines Accessed via Firstline December 1, 2024 to May 31, 2025

	Guideline Name	Last updated	# times accessed during this period		
			All	MD/NP/DDS	PhC
1	Community Acquired Pneumonia	February 2025	926	409	428
2	Acute Exacerbation of Chronic Obstructive Pulmonary Disease (COPD)	May 2025	639	192	360
3	Urinary Tract Infection	October 2018	542	203	246
4	Sepsis Syndromes	February 2014 to March 2025	524	231	180
5	Skin and Soft Tissue Infections	February 2023	330	148	141

6	Hospital Acquired Pneumonia	February 2025	249	45	173
7	Clostridioides (Clostridium) difficile Infection	July 2023	219	23	155
8	COVID-19	2022	207	48	98
9	Adult Chemical Pneumonitis and Aspiration Pneumonia	February 2025	162	31	111
10	Gram Positive Cocci in Clusters Bacteremia	June 2016	94	30	46

Assessing the impact of guideline changes

The Community Acquired Pneumonia guideline was updated in February 2025. One of the changes was a recommendation to move from ceftriaxone 2 g to 1 g in most clinical situations. In order to assess the impact of this change data for the 3 months prior to the change and 3 months following the change was requested from the Clinical Information System. **The summary of results showed a 12% reduction in orders for ceftriaxone 2 g.**

Nov 1, 2024 - Jan 31, 2025:

2 g doses: 869 out of 1084 orders 80%

1 g doses: 189 out of 1084 orders 17%

Mar 1, 2025 - May 31, 2025

2 g doses: 815 out of 1197 orders 68%

1 g doses: 347 out of 1197 orders 29%

Firstline Antimicrobial library review

The Antimicrobial Stewardship team is responsible for updates to the antimicrobial library in Firstline. All content was initially reviewed for go live in 2020. Work has just started to review each antimicrobial and recommend updates where needed.

Antimicrobial	Summary	Date
acyclovir	Clarified actual vs absolute body weight. Updated in the IV manual.	June 2025
metronidazole	added CNS dosing, separate out dosing by indication and remove references to IM administration. As a result of the changes, the IV manual, order sets, and order sentences were updated to support the changes.	May 2025

Antimicrobial Stewardship Team Education and Communication

1. Stewardship Spotlights

As a means of improving communication, the AMS team has started to produce and circulate Stewardship Spotlights to highlight new or updated information that is pertinent to clinicians. The following Stewardship Spotlights have been circulated to date. Those highlighted were completed in the period of December 1, 2024 to May 31, 2025.

Topic	Date Circulated
IV Amoxicillin-Clavulanate Updates (for Adults)	January 2025
Metronidazole BID vs TID	November 2024

2. Continuing Education

Topic	Presenter	Audience	Date
Pneumonia/COPD Guideline updates	Dr MacAdam	Pharmacists/Pharmacy Technicians	May 2025
		Family physicians	May 2025
Pneumonia Guideline updates	Dr. MacAdam	QEH Grand Rounds	March 7 th 2025

3. Other

Event	Date
Fiona Mitchell attended the QPS Learning Exchange and had a booth for attendees to educate on the Firstline app	May 2025
Firstline Survey- a survey is active on the Firstline site to gain valuable insight from users on how to improve the system.	May –June 2025

Next Steps for the AMS Team

The AMS team has considerable work in progress to continue improving efforts to enhance antimicrobial stewardship.

- Work is underway to connect with our partners in dentistry to create guidance specifically around penicillin allergies with a goal to reduce outpatient use of clindamycin.
- In partnership with HPEI's allergist, the AMS team is working to launch a Penicillin Allergy De-labelling Tool
- Guidelines continue to be a priority for the AMS team with a Seasonal Influenza guideline planned in time for the fall 2025 respiratory season. Updates are also in progress for the COVID-19 guideline.
- The review of antimicrobials in Firstline will continue with the goal of reviewing 3-4/month.
- Results of the FirstLine survey will be reviewed and shared.

Contact Us

For questions about the content of this report or ongoing work of the AMS team, please contact:

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