



The Impact of Clinician Distress on Antibiotic Prescribing

The overprescribing of antibiotics in outpatient settings degrades public health and drives up costs. The majority of excess antibiotic prescriptions are written for acute respiratory tract infections (RTIs), even though antibiotics are inappropriate for treating viral (versus bacterial) RTIs such as bronchitis, sore throats, and common colds. This unnecessary prescribing promotes the emergence of antibiotic-resistant infections and can place patients at increased risk.

A study from the May 2022 issue of *The Joint Commission Journal on Quality and Patient Safety (JQPS)* examined the association of clinician depression and anxiety and burnout with the inappropriate use of antibiotic prescriptions for RTIs in outpatient settings. The study suggests antibiotic overuse for acute RTIs may be affected by depression and anxiety.

The problem:

34 million excess antibiotic prescriptions annually



Cost of **\$1.1 billion** annually



17-50% of prescriptions for acute RTIs are estimated to be inappropriate



The study:



The clinicians:

Clinician depression, anxiety and burnout were assessed using the National Institute of Health Patient Report Outcomes Measurement Information System (PROMIS) and the Stanford Professional Fulfillment Index Burnout Composite (PFI-BC) scale obtained from clinical wellness survey data taken within six months of patient visit.

The patients:

- The majority of patient visits were for
- viral upper respiratory track infections (URTIs) – **58%**
- acute pharyngitis – **26%**
- acute/unspecified bronchitis – **9%**
- other RTIs – **7%**



The prescriptions:

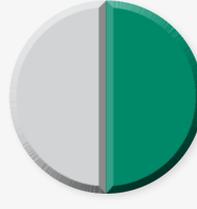
An inappropriate antibiotic prescription was defined as an oral antibiotic prescribed on the same day of a visit where an included acute RTI was listed as the primary diagnosis for an otherwise healthy patient.

The take-aways:



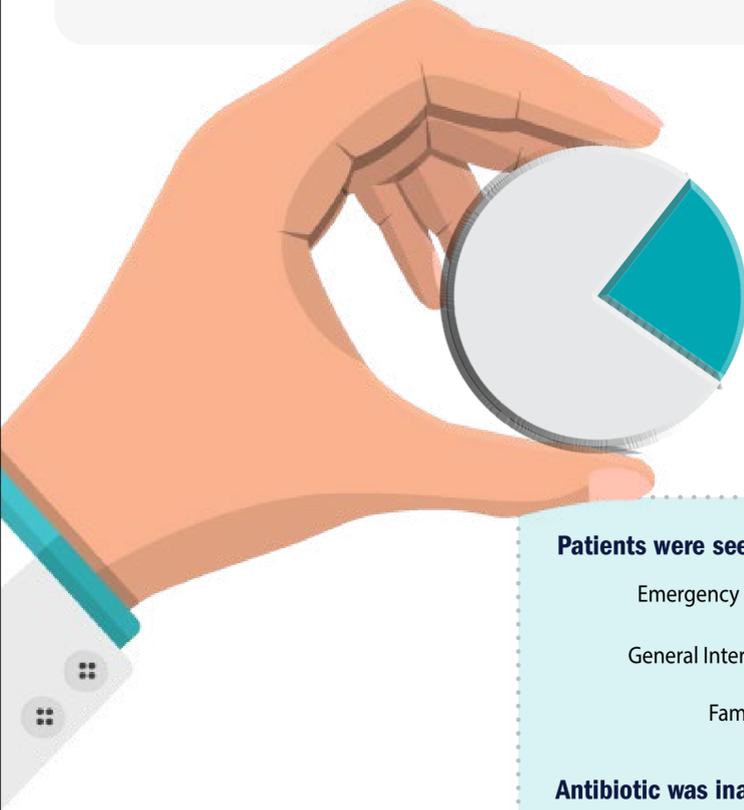
34% of clinicians reported depression/anxiety

- Symptoms of depression and anxiety include:
- poor concentration and memory
 - difficulty making decisions
 - irritability



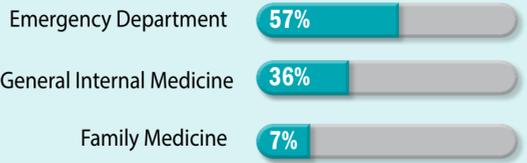
50% of clinicians reported burnout

Clinician burnout had no significant association with inappropriate antibiotic prescribing.

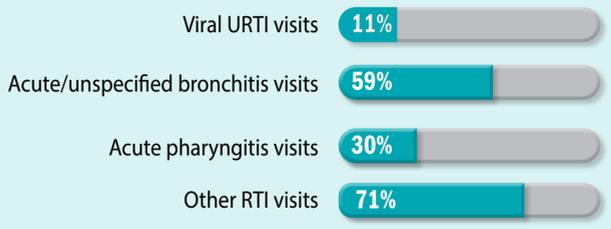


Antibiotic was inappropriately prescribed in **24%** of visits

Patients were seen in...



Antibiotic was inappropriately prescribed in...



Each one standard deviation increase in a clinician's composite depression and anxiety score was associated with a **28% increase** in the adjusted odds of an inappropriate antibiotic prescription for an acute RTI.

Clinicians with above average depression and anxiety levels were approximately **1.3 times more likely** to inappropriately prescribe an antibiotic for otherwise healthy patients with an acute RTI.



According to this retrospective cohort study, clinical depression and anxiety may play an important role in the inappropriate prescribing of antibiotics for acute RTIs in outpatient settings and be important indicators of healthcare quality in routine outpatient care.

To learn more about this study, visit:

[https://www.jointcommissionjournal.com/article/S1553-7250\(22\)00031-9/fulltext](https://www.jointcommissionjournal.com/article/S1553-7250(22)00031-9/fulltext)