# IMPROVING OUTPATIENT ANTIBIOTIC USE THROUGH AUDIT AND FEEDBACK

# Health plans can improve antibiotic use through audit and feedback

Health plans can leverage data to help outpatient providers fulfill the tracking and reporting core element. Specifically, health plans can use quality measures for appropriate antibiotic use when assessing provider and practice performance to provide feedback to clinicians with peer comparisons.

The Centers for Disease Control and Prevention (CDC) is providing example letters that health plans can send to outpatient providers to inform them of their antibiotic prescribing habits in comparison to their peers. These letters are based on the 2019 Healthcare Effectiveness Data and Information Set (HEDIS®) Avoidance of Antibiotic Treatment for Adults with Acute Bronchitis measure and the 2020 HEDIS® Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis measure, which was expanded to include patients three months and older and bronchiolitis infections. HEDIS® Measures are widely used performance improvement tools in health care.¹

Both letters can be customized with locally available prescribing data. Additional materials, such as patient education handouts and commitment posters, are available from CDC and can be included in the mailing to distribute to providers. CDC encourages plans to add co-signatures from leadership, such as your chief medical officer, as well as logos and other helpful resources for providers.

### What is audit and feedback?

CDC's Core Elements of Outpatient Antibiotic Stewardship provide a framework for antibiotic stewardship implementation in outpatient settings based upon evidence-based interventions.<sup>2,3</sup>

One of the four core elements is **tracking and reporting** of antibiotic prescribing. A specific form of tracking and reporting, **audit and feedback**, includes analyzing antibiotic prescribing data and providing feedback to clinicians aimed at helping them understand their antibiotic prescribing habits.<sup>4,5,6</sup> Audit and feedback have been

# CORE ELEMENTS OF OUTPATIENT ANTIBIOTIC STEWARDSHIP



#### COMMITMENT

Demonstrate dedication to and accountability for optimizing antibiotic prescribing and patient safety.



#### **ACTION FOR POLICY AND PRACTICE**

Implement at least one policy or practice to improve antibiotic prescribing, assess whether it is working, and modify as needed.



# TRACKING AND REPORTING

Monitor antibiotic prescribing practices and offer regular feedback to providers, or have providers assess their own antibiotic prescribing practices themselves.



#### **EDUCATION AND EXPERTISE**

Provide educational resources to providers and patients on antibiotic prescribing, and ensure access to needed expertise on optimizing antibiotic prescribing.

shown to be most effective when results include antibiotic prescribing rates for other clinicians in the clinician's area and/or specialty (peer comparisons).

# IMPROVING OUTPATIENT ANTIBIOTIC USE THROUGH AUDIT AND FEEDBACK

## Supporting evidence for audit and feedback

In two randomized clinical trials, researchers utilized an audit and feedback intervention combined with peer comparisons to notify clinicians about their antibiotic prescribing habits.<sup>5,6</sup> In one study, clinicians received monthly emails about antibiotic prescriptions written for common respiratory illnesses that do not require antibiotics, such as colds and bronchitis.<sup>5</sup> Clinicians who were prescribing too many unnecessary antibiotics received an email with their inappropriate antibiotic prescribing rate in comparison to those who wrote zero unnecessary prescriptions, classified as 'top performers'. Antibiotic prescribing for these conditions decreased significantly, an effect that persisted one year after the intervention ended.<sup>8</sup>

In another study conducted among England's National Health Service providers, general practitioners who were prescribing high volumes of antibiotics received letters comparing their performance to other clinicians in their area.<sup>6</sup> Not only did this intervention lead to a reduction in antibiotic prescribing, but it also resulted in cost savings. These studies demonstrate that simple, low-cost, evidence-based interventions can be effective at reducing unnecessary antibiotic prescribing.

### Aetna & The 6|18 Initiative

<u>CDC's 6|18 Initiative</u> collaborates with partners — like health care purchasers, payers, and providers — to improve health and control healthcare costs.<sup>7</sup> By participating in 6|18 Initiative, health plans have the unique opportunity to improve patient safety and antibiotic use.

As part of their participation in CDC's 6|18 Initiative, Aetna replicated the letter intervention using the 2019 HEDIS® Measure Avoidance of Antibiotic Treatment for Adults with Acute Bronchitis. Aetna provided clinicians direct feedback on their performance via letters signed by their chief medical officer. The letters also offered actions that providers can take to reduce unnecessary antibiotic prescribing and additional educational resources. Our hope is that additional health plans will participate in this initiative.

For more information on this work, please email CDC at AntibioticUse@cdc.gov.

#### References

- National Center for Quality Assurance. HEDIS Measures 2017. Available at <u>National Center for Quality Assurance</u>. HEDIS Measures 2017.
- 2. Centers for Disease Control and Prevention. Core Elements of Outpatient Antibiotic Stewardship. Available at <u>Centers for Disease</u> Control and Prevention. Core Elements of Outpatient Antibiotic Stewardship.
- 3. Sanchez G, et al. Core Elements of Outpatient Antibiotic Stewardship. MMWR. 2016;65(6):1-12.
- 4. Gerber JS, Prasad PA, Fiks AG, et al. Effect of an Outpatient Antimicrobial Stewardship Intervention on Broad-Spectrum Antibiotic Prescribing by Primary Care Pediatricians: A Randomized Trial. *JAMA*. 2013;309(22):2345–2352. doi:10.1001/jama.2013.6287.
- 5. Meeker D, Linder JA, Fox CR, et al. Effect of Behavioral Interventions on Inappropriate Antibiotic Prescribing Among Primary Care Practices: A Randomized Clinical Trial. *JAMA*. 2016;315(6):562–570. doi:10.1001/jama.2016.0275.
- 6. Hallsworth M, Chadborn T, Sallis A, et al. Provision of social norm feedback to high prescribers of antibiotics in general practice: a pragmatic national randomized controlled trial. Lancet 2016;387:1743-52. http://dx.doi.org/10.1016/S0140-6736(16)00215-4.
- 7. Centers for Disease Control and Prevention. CDC's 6|18 Initiative: Accelerating Evidence into Action. <a href="https://www.cdc.gov/sixeighteen/index.html">https://www.cdc.gov/sixeighteen/index.html</a>
- 8. Linder JA, Meeker D, Fox CR, Friedberg MW, Persell SD, Goldstein NJ, Doctor JN. Effects of Behavioral Interventions on Inappropriate Antibiotic Prescribing in Primary Care 12 Months After Stopping Interventions. *JAMA*. 2017 Oct 10;318(14):1391-1392.