

## Supplement 1: Cycle 1 Semi-structured Survey Questionnaire

1. How would you rate your confidence with prescribing outpatient antibiotics?
  1. Never confident
  2. Sometimes confident
  3. Confident half the time
  4. Usually confident
  5. Always confident
2. What makes you more confident in prescribing antibiotics?
  - a. Resources (ie. Clinic information, colleagues, guidelines, & UpToDate)
  - b. Certain patients/population (ie. Distance, multiple morbidities, return patients)
  - c. Education (ie. Classes or conferences)
  - d. Specific experiences
  - e. Other: \_\_\_\_\_
3. What makes you less confident in prescribing antibiotics?
  - a. Lack of resources
  - b. Certain patients/population
  - c. Work environment
  - d. Specific experiences
  - e. Other: \_\_\_\_\_
4. Out of 10 patient visits, how many times do you prescribe antibiotics?
5. How often do you use an outside pharmacy for antibiotics?
  1. Never
  2. Rarely
  3. Half the time
  4. Most of the time
  5. Every time
6. What resources do you use to help guide antibiotic choice and duration?
  - a. UpToDate
  - b. Epocrates
  - c. CDC Apps
  - d. VA educational brochures
  - e. Clinic algorithms
  - f. Local antibiograms
  - g. National Guidelines
  - h. None
  - i. Other: \_\_\_\_\_
7. Do you have access to a VA antibiogram?
  - Yes
  - No
  - Unknown
8. What acute infections or infectious symptoms do you see most often (examples of infections: UTI, URI, pneumonia, cellulitis, diverticulitis, others) (examples of symptoms: fever, chills, cough, runny nose, sore throat, abdominal pain, dysuria, erythema)?
9. In cases in which an antibiotic is typically not recommended, what factors related to the patient and clinical setting might influence you to give an antibiotic? (ie, cough and congestion w/o fever, bilateral LE swelling and pain, asymptomatic bacteriuria)
10. Specifically for upper respiratory infections, what are reasons that you would choose to give an antibiotic? (ie, patient with diabetes, patient has a difficult personality, patient lives far away from clinic, you have been reviewed before for not giving an antibiotic, etc)
11. If you give an antibiotic, which one do you typically give for URIs?
  - Penicillins
  - Macrolides
  - Cephalosporins
  - Tetracyclines
  - Sulfonamides
  - Clindamycin
  - Fluoroquinolones
  - Other: \_\_\_\_\_
12. Why do you choose that or those antibiotics?
13. What, if any, additional resources do you think you need to feel more confident not prescribing an antibiotic?
14. Do you or have you received feedback about antibiotic prescribing? If so, how did you feel about it? Was it helpful?
15. If you have not, what would be your concerns or barriers to receiving feedback on antibiotic prescribing? Do you think it would be helpful, why or why not?
16. What have we not asked that you feel would be important to share (re: work environment, support, access, etc)?

## Supplement 2: Cycle 3 Email Intervention Example

Dear XXX,

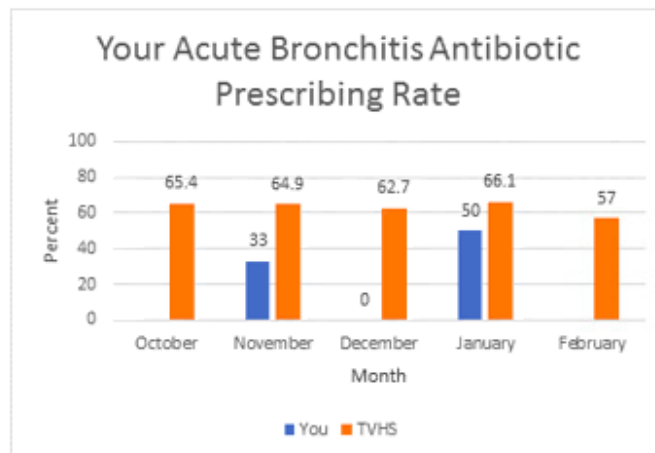
As a part of TVHS's quality improvement initiative to reduce antibiotic prescribing for bronchitis and other upper respiratory tract infections you will be receiving this monthly communication. Please note that this communication is not a part of any formal record and will not be seen by any other providers, staff with whom you work, or patients. The intention of this communication is to help you know more about your clinical practice.

Below is listed your prescribing information. It includes a monthly summary of your rank (as compared to all CBOC prescribers, #1 being the lowest rate of prescribing antibiotics for bronchitis or viral upper respiratory infection) and how often an antibiotic was prescribed out of the total visits you saw related to bronchitis. **Your current month's prescribing percentage as compared to all primary care providers in TVHS's CBOCs is given to help you compare to your peers.** Attached are links to resources that may be beneficial as you evaluate your practice.

[UpToDate: Acute Bronchitis in Adults](#)

[Antibiotics for Bronchitis: Meta-Analysis](#)

**Your Rank: Not Ranked/ No Bronchitis cases for the month**



- A zero in your prescribing rate means all bronchitis cases did not receive an antibiotic.
- No data for your prescribing rate means you did NOT have a bronchitis diagnosis for the month.

For any questions or concerns please email XXXXXX.

Supplement 3: Cycle 2 & 4 Provider Assessment of Education Materials and Response to Audit-and-Feedback Emails

	Number Who Replied Yes N (%)
<b>Cycle 2 Provider Assessment of Education Materials</b>	
Did you receive a viral prescription pad? (n=10)	6 (60%)
If so, have you used it? (n=6) *	5 (83%)
Has a CDC Bacterial vs. Viral sign been posted within your clinic rooms for patients to view and read? (N=10)	5 (50%)
If so, has it helped with conversations with patients? (n=5) *	3 (60%)
If you received these resources, have they helped divert antibiotic prescriptions in your practice? (n=6)	6 (100%)
<b>Cycle 4 Provider Response to Audit and Feedback Emails</b>	
Do you remember receiving an email regarding antimicrobial stewardship for bronchitis? (n=8)	6 (75%)
If so, was the email helpful? (n=6) *	4 (66%)
Do you remember your rank?	3 (37.5%)
Do you have any feedback related to the intervention to implement in the future?	2 (25%)

\*Lowercase n indicates different response number