

## Supplementary Online Content

**Davidson** LE, Gentry EM, Priem JS et al. A 20/20 Vision: A multimodal intervention to decrease inappropriate outpatient antibiotic prescribing for upper respiratory tract infections in a large integrated healthcare system.

**Supplement Figure 1.** Commitment Poster

**Supplement Figure 2.** Patient Handout - What You Need to Know

**Supplement Figure 3.** Pediatric Symptom Checklist

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# We are committed to only prescribing antibiotics when you need them.

Antibiotics don't help when your illness is caused by a virus.



## Why?

If you take antibiotics when you don't need them:

- You can get side effects such as diarrhea and nausea.
- Bacteria can be harder to kill next time you get sick.
- Your sickness can last longer.

## What can I do?

- Ask your doctor if your illness is caused by a virus or bacteria.
- Don't ask for antibiotics when your doctor thinks you don't need them.
- If your doctor prescribes an antibiotic, you could ask: "What bacteria are you trying to kill?"



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Learn more at [AtriumHealth.org/Germs](https://www.AtriumHealth.org/Germs)

## What you need to know: Bacteria, Viruses, and Antibiotics

AtriumHealth.org/Germs

### How are bacteria and viruses the same?

- Both are germs that can make you sick
- Both can make you a little sick or very sick
- Both can last from a few days to weeks
- Both can make you have a cough, runny nose, fever, sore throat, or loose stools
- Both can give you green or yellow mucus from your nose or coughing. This means your body is fighting your illness.

### How are bacteria and viruses not the same?

Most common infections are caused by viruses such as:

- “Cold”
- Sore throat
- Sinus infections
- Chest cold
- Bronchitis
- Flu (Influenza)

Antibiotics are drugs that kill bacteria. They can ONLY treat sickness caused by bacteria. They do NOT kill viruses.

### What happens if I take antibiotics when I don't need them?

- The side effects of antibiotics can make you sicker, such as:
  - Diarrhea
  - Nausea and vomiting
  - Allergic reaction – swelling of your face and throat, trouble breathing
  - Rash
- Your sickness can last longer
- Bacteria that live in your body can change. Bacteria can be harder to kill the next time you get sick

### How can I feel better?

- We can help with your symptoms
- Talk with your doctors to learn more

### See your doctor if you have any of these:

- Short of breath
- Chest pain
- Shaking chills
- Fever of 102 degrees or more with other symptoms
- Coughing up blood (more than a streak)
- Getting better and then get worse

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**Supplement Figure 3. Pediatric Symptom Checklist**  
**Treating your child's symptoms**

**No** Aspirin or salicylic acid in children of any age

Date\_

Age\_

Weight\_

If your child is	If your child has		Use	Comments
Less than 3 months	Stuffy nose	<input type="checkbox"/>	Saline nose drops	<b>No</b> over the counter medicine  Doctor's office phone number: _____
		<input type="checkbox"/>	Suction nose often	
	<b>Fever more than 100</b>	<input type="checkbox"/>	<b>Call the doctor</b>	
	<b>Fast breathing or working hard to breathe</b>	<input type="checkbox"/>	<b>Call the doctor</b>	
	<b>Not drinking or nursing</b>	<input type="checkbox"/>	<b>Call the doctor</b>	
3 up to 6 months	Stuffy nose	<input type="checkbox"/>	Saline nose drops	Doctor's office phone number: _____
		<input type="checkbox"/>	Suction nose often	
	Pain	<input type="checkbox"/>	Tylenol®	
	Fever over 100.3	<input type="checkbox"/>	Tylenol®	
	<b>Fever over 102</b>	<input type="checkbox"/>	<b>Call the doctor</b>	
6 up to 12 months	Stuffy nose	<input type="checkbox"/>	Saline nose drops	
		<input type="checkbox"/>	Suction nose often	
	Pain	<input type="checkbox"/>	Tylenol® or Ibuprofen®	
	Fever over 100.3	<input type="checkbox"/>	Tylenol® or Ibuprofen®	
12 months up to 24 months (2 years)	Stuffy nose	<input type="checkbox"/>	Saline nose drops	
		<input type="checkbox"/>	Suction nose often	
	Pain	<input type="checkbox"/>	Tylenol® or Ibuprofen®	
	Fever over 100.3	<input type="checkbox"/>	Tylenol® or Ibuprofen®	
2 up to 6 years	Stuffy nose	<input type="checkbox"/>	Saline nose drops	
	Pain	<input type="checkbox"/>	Tylenol® or Ibuprofen®	
	Fever over 100.3	<input type="checkbox"/>	Tylenol® or Ibuprofen®	
	Cough or sore throat	<input type="checkbox"/>	Honey	
<input type="checkbox"/>		Zarbee's Cough Syrup with Dark Honey®		
6 up to 12 years	Pain	<input type="checkbox"/>	Tylenol® or Ibuprofen®	
	Fever over 100.3	<input type="checkbox"/>	Tylenol® or Ibuprofen®	
	Cough or sore throat	<input type="checkbox"/>	Honey	
<input type="checkbox"/>		Zarbee's Cough Syrup with Dark Honey®		

Other tips: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Call your child's doctor for

- Fever higher than 100.3 degrees for 4 days in a row
- Sore throat for more than 7 days in a row
- Cough or congestion for more than 10 days in a row
- Any concerns you have. Call any time

## How long will my child's symptoms last?



- Fever: Up to 4 days
- Stuffy or runny nose: Up to 10 days
- Cough: Up to 10 days



## Special warnings about medicines- check the medicine label closely

- No medicine that has aspirin in it for children of any age
- No medicine that has "salicylic acid" in it for children of any age. Liquid Pepto-Bismol is an example
- No cough suppressant in children with asthma, such as Delsym or medicine that has Dextromethorphan in it

## Suction your baby's nose gently

1. Wash your hands before you start
2. Before placing the tip into baby's nose, push all the air out of the bulb with your thumb. Don't let go of the bulb or air will go back in.
3. Carefully and gently, place the tip of the bulb into a nostril
4. Slowly release your thumb, and let the air come back into the bulb. This will pull the mucus out of baby's nose and into the bulb
5. Remove the bulb from baby's nose and squeeze mucus out of bulb into a tissue
6. Do the same for the other nostril
7. Clean bulb syringe after each use with warm soapy water and rinse. Make sure the bulb is dry before using again



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**Supplement Figure 4. Adolescent Symptom Checklist**

**Treating your symptoms- for Teens age 12 to 18 years old**



- Here are some medicines and other ways to treat your symptoms. **Do not use if the box is not checked**
- Tell your doctor if you have problems with high blood pressure, diabetes, or other health problems
- Try to use medicine that **only** takes care of your symptom. Medicines such as Tylenol Cold&Flu®, that treat many symptoms can cause side effects
- Acetaminophen is the drug in Tylenol®. It is also used in other medicines for fever or pain. Too much acetaminophen can harm your liver. Do not take more than ordered. Check the medicine label to see if it has acetaminophen in it
- Look on the medicine label to find the active ingredient listed in the "Use" boxes below



- Show this sheet to your pharmacist if you need help finding the right medicine

If you have		Use	Such as	Comments
<b>Aches,Pain,Fever</b> 	<input type="checkbox"/>	Acetaminophen	Tylenol®	Use either Ibuprofen or Naproxen, but not both
	<input type="checkbox"/>	Ibuprofen	Advil®, Motrin®	
	<input type="checkbox"/>	Naproxen	Aleve®	
<b>Sore Throat</b> 	<input type="checkbox"/>	Throat Lozenges	Cepacol Throat Lozenges®	
	<input type="checkbox"/>	Throat Sprays	Chloraseptic Spray®	
	<input type="checkbox"/>	Herbal tea with honey	Throat Coat®	
	<input type="checkbox"/>	Gargles	Warm Salt Water Gargle	
<b>Cough</b> 	<input type="checkbox"/>	Guaifenesin and Dextromethorphan	Mucinex DM®, Tussin DM®, Robitussin DM®	Helps thin mucus Use for dry cough
	<input type="checkbox"/>	Guaifenesin	Mucinex®	
	<input type="checkbox"/>	Dextromethorphan	Delsym®, Robitussin®, Vicks Formula 44®	
<b>Stuffy Nose</b> 	<input type="checkbox"/>	Pseudoephedrine	Sudafed® Decongestant-12 hour	Must buy at the pharmacy with photo ID
	<input type="checkbox"/>	Nasal Irrigation	Saline Irrigation or Nose Spray	

## Treating your symptoms- for Teens age 12 to 18 years old

If you have		Use	Such as	Comments
<b>Itchy, Irritated, Dry Eyes</b>  	<input type="checkbox"/>	Ketotifen Eye Drops	Alaway®, Claritin Eye®, Zaditor®, Zyrtec Itchy Eye®	Helps with itchy eyes
	<input type="checkbox"/>	Eye drops with naphazoline or tetrahydrozoline	Naphcon-A®, Opcon-A®, Visine®, Clear Eyes®	Helps with red eyes
	<input type="checkbox"/>	Ocular Lubricant	Artificial Tears	Helps with dry eyes
	<input type="checkbox"/>	Cool or Warm Compress		5 to10 minutes each hour, as needed
<b>Allergy Symptoms such as sneezing, runny nose, itching, post-nasal drip</b>  	<input type="checkbox"/>	Fexofinadine	Allegra®, Aller-Ease®	
	<input type="checkbox"/>	Loratadine	Claritin®, Alavert®	
	<input type="checkbox"/>	Cetirizine	Zyrtec®	
	<input type="checkbox"/>	Levocetirizine	Xyzal®	
	<input type="checkbox"/>	Steroid nose spray with triamcinolone, budesonide or fluticasone	Flonase®, Nasocort®, Rhinocort®	

Other tips:

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### How long will my symptoms last?

Fever: Up to 5 days (most often 2 to 3 days)  
 Sore throat: Up to 9 days (most often 5 to 6 days)  
 Cough: Up to 2 weeks (most often 7 to 14 days)  
 Runny nose: Up to 2 weeks (most often 5 to 7 days)

### Call your doctor if you have any of these

- Short of breath
- Chest pain
- Shaking chills
- Fever of 102 or more with other symptoms
- Coughing up blood (more than a streak)
- Getting better and then get worse

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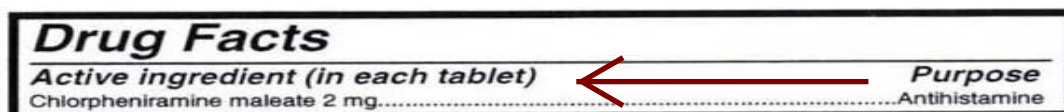
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## Supplement Figure 5. Adult Symptom Checklist

### Treating your symptoms- for Adults only

- Here are some medicines and other ways to treat your symptoms. **Do not use if the box is not checked**
- Tell your doctor if you have problems with high blood pressure, diabetes, or other health problems
- Try to use medicine that **only** takes care of your symptom. Medicines such as Tylenol Cold&Flu®, that treat many symptoms can cause side effects
- Acetaminophen is the drug in Tylenol®. It is also used in other medicines for fever or pain. Too much acetaminophen can harm your liver. Do not take more than ordered. Check the medicine label to see if it has acetaminophen in it
- Look on the medicine label to find the active ingredient listed in the "Use" boxes below





- Show this sheet to your pharmacist if you need help finding the right medicine

If you have		Use	Such as	Comments
<b>Aches,Pain,Fever</b> 	<input type="checkbox"/>	Acetaminophen	Tylenol®	
	<input type="checkbox"/>	Ibuprofen	Advil®, Motrin®	
	<input type="checkbox"/>	Naproxen	Aleve®	
<b>Sore Throat</b> 	<input type="checkbox"/>	Throat Lozenges	Cepacol Throat Lozenges®	
	<input type="checkbox"/>	Throat Sprays	Chloraseptic Spray®	
	<input type="checkbox"/>	Herbal tea with honey	Throat Coat®	
	<input type="checkbox"/>	Gargles	Warm Salt Water Gargle	
<b>Cough</b> 	<input type="checkbox"/>	Guaifenesin and Dextromethorphan	Mucinex DM®, Tussin DM®, Robitussin DM®	
	<input type="checkbox"/>	Guaifenesin	Mucinex®	Helps thin mucus
	<input type="checkbox"/>	Dextromethorphan	Delsym®, Robitussin®, Vicks Formula 44®	Use for dry cough
	<input type="checkbox"/>	Menthol	Vicks Vapor Rub®, Cough Drops	
<b>Stuffy Nose</b> 	<input type="checkbox"/>	Pseudoephedrine	Sudafed® Decongestant-12 hour	Must buy at the pharmacy with photo ID
	<input type="checkbox"/>	Chlorpheniramine	Coricidin®, Chlor-Tab®, Chlor-Trimeton®	
	<input type="checkbox"/>	Decongestant nose spray with xylometazoline, oxymetazoline or phenylephrine	Afrin®, Allerest® or Otrivin® Nasal Spray Neo-Synephrine®	Use up to 5 days
	<input type="checkbox"/>	Nasal Irrigation	Saline Irrigation or Nose Spray	

More info on the back of this sheet



## Treating your symptoms- for Adults only

If you have		Use	Such as	Comments
<b>Itchy, Irritated, Dry Eyes</b>  	<input type="checkbox"/>	Ketotifen Eye Drops	Alaway®, Claritin Eye®, Zaditor®, Zyrtec Itchy Eye®	Helps with itchy eyes
	<input type="checkbox"/>	Eye drops with naphazoline or tetrahydrozoline	Naphcon-A®, Opcon-A®, Visine®, Clear Eyes®	Helps with red eyes
	<input type="checkbox"/>	Ocular Lubricant	Artificial Tears	Helps with dry eyes
	<input type="checkbox"/>	Cool or Warm Compress		5 to10 minutes each hour, as needed
<b>Allergy Symptoms such as sneezing, runny nose, itching, post-nasal drip</b>  	<input type="checkbox"/>	Fexofinadine	Allegra®, Aller-Ease®	
	<input type="checkbox"/>	Loratadine	Claritin®, Alavert®	
	<input type="checkbox"/>	Cetirizine	Zyrtec®	
	<input type="checkbox"/>	Levocetirizine	Xyzal®	
	<input type="checkbox"/>	Chlorpheniramine	Chlor-Tab®, Chlor-Trimeton®	Found in many OTC allergy meds
	<input type="checkbox"/>	Steroid nose spray with triamcinolone, budesonide or fluticasone	Flonase®, Nasocort®, Rhinocort®	
<b>Allergy Symptoms with stuffy nose</b>	<input type="checkbox"/>	Antihistamine+ Decongestant	Allegra-D®, Claritin-D®, Zyrtec-D®	

Other tips:

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### How long will my symptoms last?

Fever: Up to 5 days (most often 2 to 3 days)  
 Sore throat: Up to 9 days (most often 5 to 6 days)  
 Cough: Up to 2 weeks (most often 7 to 14 days)  
 Runny nose: Up to 2 weeks (most often 5 to 7 days)

### Call your doctor if you have any of these

- Short of breath
- Chest pain
- Shaking chills
- Fever of 102 or more with other symptoms
- Coughing up blood (more than a streak)
- Getting better and then get worse

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## Acetaminophen Dosing Guide for Children

**No** Aspirin or Salicylic Acid in children of any age      Date \_\_\_\_\_ Age \_\_\_\_\_ Weight \_\_\_\_\_

- **Keep all medicines out of reach of children**
- **No acetaminophen for children less than 3 months old**
- **For fever more than 100 degrees in children less than 3 months old, call doctor**
- Acetaminophen and Tylenol® are the same
- Give the dose for your child’s weight as listed below
- Give every 4 hours for fever more than 100.4 degrees
- Other medications may have acetaminophen in them - do not give more acetaminophen than ordered

Weight (pounds)	Infant Concentrated Drops 160 mg per 5 ml	Children’s 160 mg per 5 ml	Chewable Tablets 160 mg per tablet
6 to 23	<b>Call Doctor</b>		
24 to 35	5 ml	5 ml (1 tsp)	1 tablet
36 to 47		7.5 ml	1 ½ tablets
48 to 59		10 ml (2 tsp)	2 tablets
60 to 71		12.5 ml	2 ½ tablets
72 to 95		15 ml (3 tsp)	3 tablets
more than 95		20 ml (4 tsp)	4 tablets

Dosing information for acetaminophen and ibuprofen from Tylenol for Health Professionals  
<https://www.tylenolprofessional.com/dosage.html>

### Give your child the right dose

- Be sure to read the right dose for your child
- **Only** use the device you get with the medicine to give the right dose
- tsp = teaspoon
- ml = milliliter
- 1 tsp = 5 ml



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## Ibuprofen Dosing Guide for Children

**No** Aspirin or Salicylic Acid in children of any age      Date \_\_\_\_\_ Age \_\_\_\_\_ Weight \_\_\_\_\_

- **Keep all medicines out of reach of children**
- **No ibuprofen for children less than 6 months old**
- Ibuprofen, Children’s Motrin®, and Children’s Advil® are all the same
- Give the dose for your child’s weight as listed below
- Give every 6 hours for fever more than 100.4 degrees

Weight (pounds)	Infant Drops 50 mg per 1.25 ml	Children’s 100 mg per 5 ml	Junior 100 mg per tablet
12 to 17	If over 6 months old, call doctor for dose		
18 to 23	1.875 ml		
24 to 35		5 ml (1 tsp)	1 tablet
36 to 47		7.5 ml	1 ½ tablets
48 to 59		10 ml (2 tsp)	2 tablets
60 to 71		12.5 ml	2 ½ tablets
72 to 95		15 ml (3 tsp)	3 tablets
more than 95		20 ml (4 tsp)	4 tablets

Dosing information for acetaminophen and ibuprofen from [Tylenol for Health Professionals](https://www.tylenolprofessional.com/dosage.html)  
<https://www.tylenolprofessional.com/dosage.html>

### Give your child the right dose

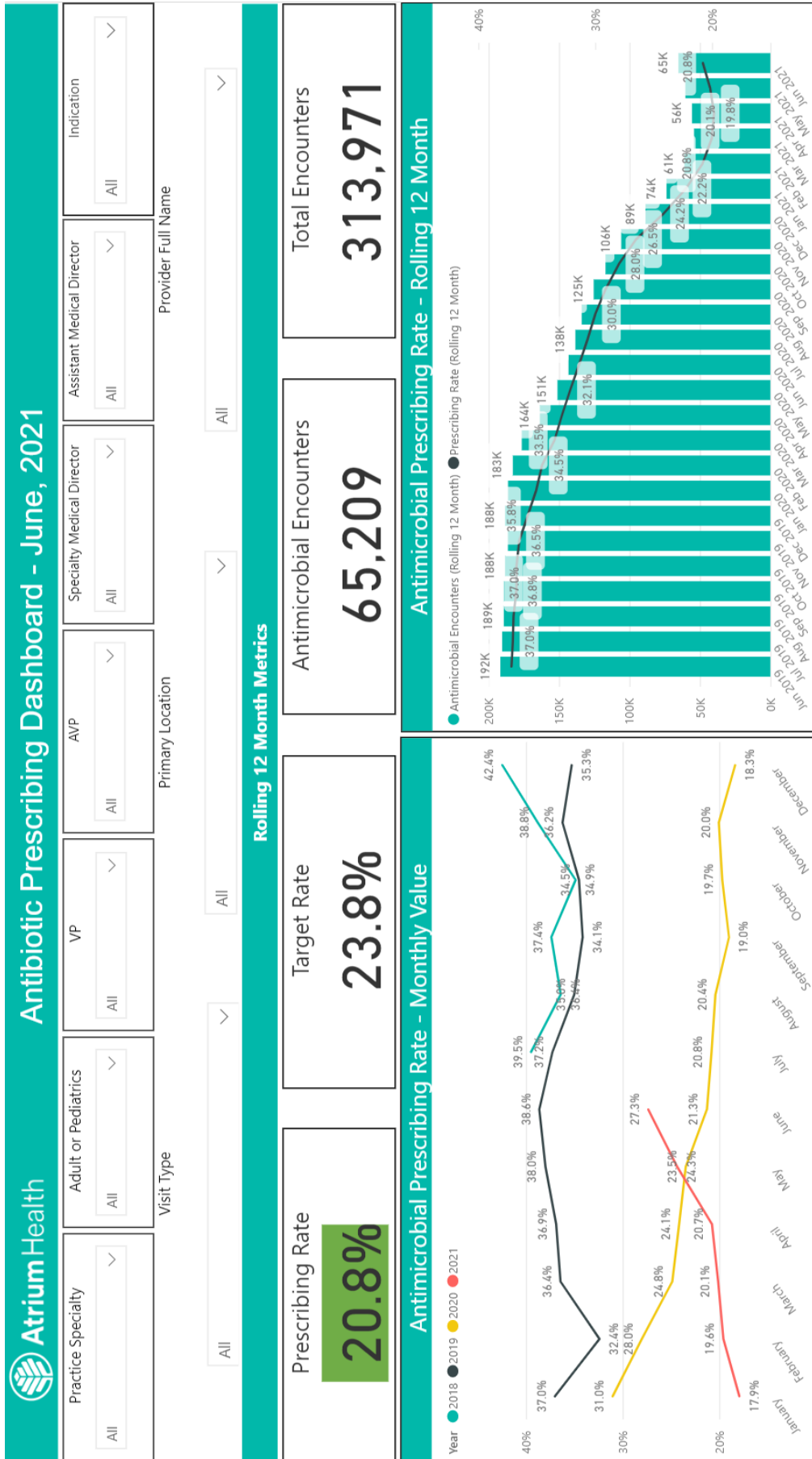
- Be sure to read the right dose for your child
- **Only** use the device you get with the medicine to give the right dose
- tsp = teaspoon
- ml = milliliter
- 1 tsp = 5 ml



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Supplement Figure 8. CHOSEN Antibiotic Prescribing Dashboard - Overview



**Supplement Table 1. Inclusion Criteria**

<b>INDICATION</b>	<b>DIAGNOSIS CODE</b>	<b>DIAGNOSIS DESCRIPTION</b>
ACUTE BRONCHITIS	J21	ACUTE BRONCHIOLITIS
ACUTE BRONCHITIS	J21.1	ACUTE BRONCHIOLITIS DUE TO HUMAN METAPNEUMOVIRUS
ACUTE BRONCHITIS	J21.8	ACUTE BRONCHIOLITIS DUE TO OTHER SPECIFIED ORGANISMS
ACUTE BRONCHITIS	J21.0	ACUTE BRONCHIOLITIS DUE TO RESPIRATORY SYNCYTIAL VIRUS
ACUTE BRONCHITIS	J21.9	ACUTE BRONCHIOLITIS, UNSPECIFIED
ACUTE BRONCHITIS	J20	ACUTE BRONCHITIS
ACUTE BRONCHITIS	466	ACUTE BRONCHITIS AND BRONCHIOLITIS
ACUTE BRONCHITIS	J20.3	ACUTE BRONCHITIS DUE TO COXSACKIEVIRUS
ACUTE BRONCHITIS	J20.7	ACUTE BRONCHITIS DUE TO ECHOVIRUS
ACUTE BRONCHITIS	J20.8	ACUTE BRONCHITIS DUE TO OTHER SPECIFIED ORGANISMS
ACUTE BRONCHITIS	J20.4	ACUTE BRONCHITIS DUE TO PARAINFLUENZA VIRUS
ACUTE BRONCHITIS	J20.5	ACUTE BRONCHITIS DUE TO RESPIRATORY SYNCYTIAL VIRUS
ACUTE BRONCHITIS	J20.6	ACUTE BRONCHITIS DUE TO RHINOVIRUS
ACUTE BRONCHITIS	J20.9	ACUTE BRONCHITIS, UNSPECIFIED
ACUTE BRONCHITIS	490	BRONCHITIS NOS
ACUTE BRONCHITIS	J40	BRONCHITIS, NOT SPECIFIED AS ACUTE OR CHRONIC
ACUTE BRONCHITIS	H67.9	OTITIS MEDIA IN DISEASES CLASS ELSEWHERE, UNSPEC EAR
ACUTE SINUSITIS	461.2	AC ETHMOIDAL SINUSITIS
ACUTE SINUSITIS	461.1	AC FRONTAL SINUSITIS
ACUTE SINUSITIS	461	AC MAXILLARY SINUSITIS
ACUTE SINUSITIS	461.3	AC SPHENOIDAL SINUSITIS
ACUTE SINUSITIS	J01.20	ACUTE ETHMOIDAL SINUSITIS, UNSPECIFIED
ACUTE SINUSITIS	J01.10	ACUTE FRONTAL SINUSITIS, UNSPECIFIED
ACUTE SINUSITIS	J01.00	ACUTE MAXILLARY SINUSITIS, UNSPECIFIED
ACUTE SINUSITIS	J01.40	ACUTE PANSINUSITIS, UNSPECIFIED
ACUTE SINUSITIS	461	ACUTE SINUSITIS
ACUTE SINUSITIS	461.9	ACUTE SINUSITIS NOS
ACUTE SINUSITIS	J01.90	ACUTE SINUSITIS, UNSPECIFIED
ACUTE SINUSITIS	J01.30	ACUTE SPHENOIDAL SINUSITIS, UNSPECIFIED
ACUTE SINUSITIS	461.8	OTHER ACUTE SINUSITIS
ACUTE SINUSITIS	J01.80	OTHER ACUTE SINUSITIS
ALLERGIC RHINITIS	477.2	ALLERG RHINITIS-CAT/DOG
ALLERGIC RHINITIS	477	ALLERGIC RHINITIS
ALLERGIC RHINITIS	J30.81	ALLERGIC RHINITIS DUE TO ANIMAL (CAT) (DOG) HAIR DANDER
ALLERGIC RHINITIS	J30.5	ALLERGIC RHINITIS DUE TO FOOD
ALLERGIC RHINITIS	J30.1	ALLERGIC RHINITIS DUE TO POLLEN
ALLERGIC RHINITIS	477.8	ALLERGIC RHINITIS NEC
ALLERGIC RHINITIS	477.9	ALLERGIC RHINITIS NOS

<b>ALLERGIC RHINITIS</b>	J30.9	ALLERGIC RHINITIS, UNSPECIFIED
<b>ALLERGIC RHINITIS</b>	477.1	ALLERGIC RHINITIS-FOOD
<b>ALLERGIC RHINITIS</b>	J30.89	OTHER ALLERGIC RHINITIS
<b>ALLERGIC RHINITIS</b>	J30.2	OTHER SEASONAL ALLERGIC RHINITIS
<b>ALLERGIC RHINITIS</b>	477	RHINITIS DUE TO POLLEN
<b>ALLERGIC RHINITIS</b>	J30.0	VASOMOTOR RHINITIS
<b>COMMON COLD</b>	460	ACUTE NASOPHARYNGITIS
<b>COMMON COLD</b>	J00	ACUTE NASOPHARYNGITIS [COMMON COLD]
<b>COUGH</b>	786.2	COUGH
<b>COUGH</b>	R05	COUGH
<b>INFLUENZA</b>	487.8	FLU W MANIFESTATION NEC
<b>INFLUENZA</b>	487.1	FLU W RESP MANIFEST NEC
<b>INFLUENZA</b>	488.19	FLU-2009 H1N1 W OTH MAN
<b>INFLUENZA</b>	488.12	FLU-2009 H1N1 W OTH RESP
<b>INFLUENZA</b>	488	FLU DUE TO IDENTIFIED AVIAN INFLUENZA
<b>INFLUENZA</b>	J09.X9	FLU DUE TO NOVEL INFLUENZA A WITH OTHER MANIFESTATIONS
<b>INFLUENZA</b>	J09.X2	FLU DUE TO INFLUENZA A WITH OTHER RESP MANIFESTATIONS
<b>INFLUENZA</b>	J09.X1	FLU DUE TO INFLUENZA A VIRUS WITH PNEUMONIA
<b>INFLUENZA</b>	487	FLU DUE TO INFLUENZA VIRUS, TYPE B
<b>INFLUENZA</b>	J10.1	FLU DUE TO OTHER INFLUENZA VIRUS WITH OTHER RESP MANIFESTATIONS
<b>INFLUENZA</b>	J11.2	FLU DUE TO UNIDENTIFIED INFLUENZA VIRUS WITH GI MANIFESTATIONS
<b>INFLUENZA</b>	J11.89	FLU DUE TO UNIDENTIFIED INFLUENZA VIRUS WITH OTHER MANIFESTATIONS
<b>INFLUENZA</b>	J11.1	FLU DUE TO UNIDENTIFIED INFLUENZA VIRUS WITH OTHER RESP MANIFESTATIONS
<b>INFLUENZA</b>	J11.00	FLU DUE TO UNIDENTIFIED INFLUENZA VIRUS WITH UNSPECIFIED TYPE OF PNEUMONIA
<b>INFLUENZA</b>	487	FLU WITH PNEUMONIA
<b>OTHERS</b>	491.8	CHRONIC BRONCHITIS NEC
<b>OTHERS</b>	491.9	CHRONIC BRONCHITIS NOS
<b>OTHERS</b>	J44.9	CHRONIC OBSTRUCTIVE PULMONARY DISEASE, UNSPECIFIED
<b>OTHERS</b>	491.21	OBS CHR BRONC W(AC) EXAC
<b>OTHERS</b>	J42	UNSPECIFIED CHRONIC BRONCHITIS
<b>OTITIS MEDIA-NS</b>	381	AC NONSUP OTITIS MED NOS
<b>OTITIS MEDIA-NS</b>	H65.11	ACUTE/SUBACUTE ALLERGIC OTITIS MEDIA (mucoid) - serous
<b>OTITIS MEDIA-NS</b>	H65.119	ACUTE AND SUBACUTE ALLERGIC OTITIS MEDIA (MUCOID) (SANGUINOUS) (SEROUS), UNSPECIFIED EAR
<b>OTITIS MEDIA-NS</b>	381	ACUTE NONSUPPURATIVE OTITIS MEDIA
<b>OTITIS MEDIA-NS</b>	H65.03	ACUTE SEROUS OTITIS MEDIA, BILATERAL
<b>OTITIS MEDIA-NS</b>	H65.02	ACUTE SEROUS OTITIS MEDIA, LEFT EAR
<b>OTITIS MEDIA-NS</b>	H65.06	ACUTE SEROUS OTITIS MEDIA, RECURRENT, BILATERAL
<b>OTITIS MEDIA-NS</b>	H65.05	ACUTE SEROUS OTITIS MEDIA, RECURRENT, LEFT EAR
<b>OTITIS MEDIA-NS</b>	H65.04	ACUTE SEROUS OTITIS MEDIA, RECURRENT, RIGHT EAR
<b>OTITIS MEDIA-NS</b>	H65.07	ACUTE SEROUS OTITIS MEDIA, RECURRENT, UNSPECIFIED EAR

<b>OTITIS MEDIA-NS</b>	H65.01	ACUTE SEROUS OTITIS MEDIA, RIGHT EAR
<b>OTITIS MEDIA-NS</b>	H65.00	ACUTE SEROUS OTITIS MEDIA, UNSPECIFIED EAR
<b>OTITIS MEDIA-NS</b>	381.4	NONSUPP OTITIS MEDIA NOS
<b>OTITIS MEDIA-NS</b>	H65.1	OTHER ACUTE NON-SUPPRATIVE OTITIS MEDIA
<b>OTITIS MEDIA-NS</b>	H65.19	OTHER ACUTE NON-SUPPRATIVE OTITIS MEDIA
<b>OTITIS MEDIA-NS</b>	H65.193	OTHER ACUTE NONSUPPURATIVE OTITIS MEDIA, BILATERAL
<b>OTITIS MEDIA-NS</b>	H65.192	OTHER ACUTE NONSUPPURATIVE OTITIS MEDIA, LEFT EAR
<b>OTITIS MEDIA-NS</b>	H65.191	OTHER ACUTE NONSUPPURATIVE OTITIS MEDIA, RIGHT EAR
<b>OTITIS MEDIA-NS</b>	H65.199	OTHER ACUTE NONSUPPURATIVE OTITIS MEDIA, UNSPEC EAR
<b>OTITIS MEDIA-NS</b>	382.9	OTITIS MEDIA NOS
<b>OTITIS MEDIA-NS</b>	H66.93	OTITIS MEDIA, UNSPECIFIED, BILATERAL
<b>OTITIS MEDIA-NS</b>	H66.92	OTITIS MEDIA, UNSPECIFIED, LEFT EAR
<b>OTITIS MEDIA-NS</b>	H66.90	OTITIS MEDIA, UNSPECIFIED, UNSPECIFIED EAR
<b>OTITIS MEDIA-NS</b>	H66.91	OTITIS MEDIA, UNSPECIFIED. RIGHT EAR
<b>OTITIS MEDIA-NS</b>	H65.93	UNSPECIFIED NONSUPPURATIVE OTITIS MEDIA, BILATERAL
<b>OTITIS MEDIA-NS</b>	H65.92	UNSPECIFIED NONSUPPURATIVE OTITIS MEDIA, LEFT EAR
<b>OTITIS MEDIA-NS</b>	H65.91	UNSPECIFIED NONSUPPURATIVE OTITIS MEDIA, RIGHT EAR
<b>OTITIS MEDIA-NS</b>	H65.90	UNSPECIFIED NONSUPPURATIVE OTITIS MEDIA, UNSPEC EAR
<b>PHARYNGITIS-NB*</b>	464	AC LARYNGITIS W/O OBST
<b>PHARYNGITIS-NB*</b>	464.2	AC LARYNGOTRACH NO OBSTR
<b>PHARYNGITIS-NB*</b>	465	ACUTE LARYNGOPHARYNGITIS
<b>PHARYNGITIS-NB*</b>	J06.0	ACUTE LARYNGOPHARYNGITIS
<b>PHARYNGITIS-NB*</b>	J05.0	ACUTE OBSTRUCTIVE LARYNGITIS
<b>PHARYNGITIS-NB*</b>	462	ACUTE PHARYNGITIS
<b>PHARYNGITIS-NB*</b>	J02.8	ACUTE PHARYNGITIS DUE TO OTHER SPECIFIED ORGANISMS
<b>PHARYNGITIS-NB*</b>	J02.9	ACUTE PHARYNGITIS, UNSPECIFIED
<b>PHARYNGITIS-NB*</b>	463	ACUTE TONSILLITIS
<b>PHARYNGITIS-NB*</b>	J03.80	ACUTE TONSILLITIS DUE TO OTHER SPECIFIED ORGANISMS
<b>PHARYNGITIS-NB*</b>	J03.90	ACUTE TONSILLITIS, UNSPECIFIED
<b>PHARYNGITIS-NB*</b>	464.4	CROUP
<b>URI (OTHER)</b>	J04.0	ACUTE LARYNGITIS
<b>URI (OTHER)</b>	J04.2	ACUTE LARYNGOTRACHEITIS
<b>URI (OTHER)</b>	J04.10	ACUTE TRACHEITIS WITHOUT OBSTRUCTION
<b>URI (OTHER)</b>	J06.9	ACUTE UPPER RESPIRATORY INFECTION, UNSPECIFIED
<b>URI (OTHER)</b>	465.8	ACUTE URI MULT SITES NEC
<b>URI (OTHER)</b>	465.9	ACUTE URI NOS

\*NON-BACTERIAL PHARYNGITIS

**Supplement Table 2. Sensitivity Analysis for Time Series Models**

<b>Sensitivity Analysis 1</b>	Family Medicine	Internal Medicine	Urgent Care	Pediatrics
Constant	50.29 (45.78 – 54.79)	50.20 (46.45 – 53.96)	53.15 (48.00 – 58.29)	42.19 (40.75 – 43.63)
Pre-slope	-.18 (-.56 - .20)	-.38 (-.73 - -.02)	-.16 (-.63 - .32)	-.17 (-.29 - -.06)
Intercept Change	1.82 (-4.22 – 7.85)	6.01 (.42 – 11.60)	3.19 (-2.01 – 8.40)	4.32 (1.32 – 7.31)
Slope Change	-.31 (-.88 - .25)	-.21 (-.83 - .41)	-.54 (-1.25 - .18)	-.39 (-.60 - -.19)
<b>Sensitivity Analysis 2</b>				
Constant	50.25 (46.42 – 54.08)	49.35 (45.95 – 52.75)	53.11 (47.86 – 58.37)	41.35 (39.60 – 43.10)
Pre-slope	-.07 (-.39 - .24)	-.13 (-.43 - .18)	-.15 (-.59 - .29)	-.04 (-.18 - .11)
Intercept Change	-6.89 (-11.40 - -2.39)	-4.15 (-8.63 - -.39)	2.05 (-5.52 – 9.62)	-.32 (-3.74 – 3.10)
Slope Change	-.10 (-.57 - .37)	-.16 (-7.1 - .39)	-.65 (-1.37 - .08)	-.51 (-.74 - -.27)
<b>Sensitivity Analysis 3</b>				
Constant	50.05 (46.83 – 53.27)	49.71 (46.73 – 52.69)	53.46 (48.14 – 58.78)	42.15 (40.68 – 43.63)
Pre-slope	-.05 (-.29 - .18)	-.21 (-.46 - .03)	-.21 (-.71 - .29)	-.17 (-.28 - -.05)
Level 1 Change	4.84 (1.60 – 8.09)	8.22 (5.88 – 10.57)	2.35 (-1.04 – 5.74)	5.14 (1.92 – 8.36)
Slope 1 Change	-1.20 (-4.06 - .06)	-2.15 (-3.41 - -.89)	-.28 (-3.75 – 3.18)	-.70 (-2.82 – 1.41)
Level 2 Change	-2.72 (-10.69 – 5.24)	-.96 (-5.23 – 3.13)	2.33 (-10.13 – 14.79)	.20 (-8.93 – 9.33)
Slope 2 Change	1.93 (-.20 – 4.05)	2.13 (.77 – 3.49)	-.30 (-3.88 – 3.28)	.33 (-1.80 – 2.47)

Notes: Sensitivity analysis 1 does not include a washout period and the pre-post cutoff was set at November 2017. Sensitivity analysis 2 does not have a washout period and the pre-post cutoff was set at April 2018. Sensitivity analysis 3 models 2 intervention periods that included the original washout period as the first intervention to assess the impact of the education only, and



the original post-period to assess the effect of the education and dashboard on prescribing rates. The final model was chosen as the best representation of the timeline of the intervention that allowed for the optimal adjustment for seasonality in the data.

## Supplement Figure 9. CHOSEN Stakeholders

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