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Patient Education: OTC Medications for Upper Respiratory Infection

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Problem Identification

- ▶ URI (Upper Respiratory Infection) is among the top 3 diagnoses in the outpatient setting.¹
- ▶ Symptomatic relief reason for most visits in first couple weeks after onset of illness.¹
- ▶ Potential role of educational resources to help patients learn how to treat URI symptoms before they become sick, and during sick visits.
- ▶ Goals to improve patient understanding, effective treatment, antibiotic stewardship and medical resource utilization.
- ▶ Prior student projects have focused on teaching patients the difference between viral and bacterial URIs.²
- ▶ Lack of resources in the office setting to teach about OTC medication/treatment options.

Public Health Cost

- ▶ \$22 in spending for annual visit costs for viral URI. ³
- ▶ On average adults with common cold 2-3 x per year. ⁴
- ▶ Cause >20 million days of missed school and >20 days of missed work. ⁵
- ▶ Patients spend millions of dollars on ineffective remedies. ¹

Community Perspectives

- ▶ “Some patients are knowledgeable regarding OTC medications; however, many do not understand in what way these medications help their specific symptoms. Also, since these medications are OTC, patients do not always understand that there are risks associated with these medications as well as potential medication interactions with medications they are regularly taking.” – Nick Florio, MD, Ridgefield Primary Care.
- ▶ “Overall, people have some sort of understanding [about the role of OTC medications], but it’s always good [for providers] to teach the patient.”-Samara Veillard, LPN, Ridgefield Primary Care.

Intervention

Method: Booklet

- ▶ To be placed in patient rooms with other educational materials.
- ▶ Also available for providers to hand out to patients presenting for a sick visit.
- ▶ Back page: defines URI, common symptoms, and expected course of symptoms.

What is a URI?

An Upper Respiratory Infection (URI) is an infection caused by a virus or bacteria. This includes illnesses such as the flu, common cold, COVID-19, sinus infections and acute bronchitis.

Symptoms may include:

Body aches, fatigue, sneezing, facial pressure, fever, headache, nasal congestion, runny nose, cough, sore throat.

Timeline

On average lasts 7-10 days but may last up to 3 weeks

Antibiotics *do not* improve symptoms or shorten illness in viral infections

Treatment of these illnesses is aimed at minimizing symptoms while the body fights the infection. Rest and fluids are also recommended. An antibiotic may also be prescribed by your provider if your illness has characteristics of a bacterial infection.



For additional questions or concerns, contact Ridgefield Primary Care and Pediatrics at (203) 438-6541

Managing your Upper Respiratory Infection (URI) Symptoms:

A Guide to OTC Medications and Treatments



Cough, sore throat, headache, fever, sneezing, nasal congestion, runny nose, or body aches? It might be a URI.

Intervention

Method: Booklet

- ▶ Inside pages of booklet explain medication options for relief of each URI symptom.
- ▶ Gives examples to allow patients to easily find medications at the drugstore.
- ▶ Blank space for providers to write additional instructions during sick visits.

Over-the-counter Options for Adult Patients:

Medication	Use for	Examples	How to Use	How it Works	Other Notes
Oral Decongestant	Nasal Congestion	Pseudoephedrine (Sudafed), phenylephrine oral (Triaminic Multi Symptom Fever and Cold, Sudafed PE)	Follow directions on packaging.	Constricts blood vessels causing tissue to shrink and airways to open.	Avoid if you have heart disease, high blood pressure, diabetes, benign prostatic hyperplasia, thyroid disease or are taking a monoamine oxidase inhibitor medication.
Nasal Decongestant Sprays	Nasal Congestion/ Runny nose	Phenylephrine nasal (Neo-Synephrine), oxymetazoline nasal (Afrin)	Clear nose by blowing your nose before use or using a saline spray. Shake bottle. Position bottle in opening of nostril, and close other nostril with your finger. Administer spray of medication while inhaling gently.	Constricts blood vessels in the nose causing tissue to shrink and airways to open.	Ask your doctor before use if you have high blood pressure. Limit use to 3 days to avoid rebound congestion. Follow package instructions for number of times to use daily. Don't share with others and clean the bottle after use.
Nasal Steroid Sprays	Nasal Congestion, allergies	Flonase (fluticasone), Nasacort (triamcinolone)	Clear nose by blowing your nose before use or using a saline spray. Shake bottle. Position bottle in opening of nostril, and close other nostril with your finger. Administer spray of medication while inhaling gently.	Reduces inflammation to open airways.	Don't share with others and clean the bottle after use.
Nasal Rinses (Saline)	Nasal Congestion, Post-nasal drip	Saline spray/neti pot	For sprays: Blow nose. With head in upright position, close one nostril and place spray bottle in other nostril. Apply two squeezes. Repeat on the other side.	Cleans and moisturizes airways in the nose.	Don't share with others and clean the bottle after use.
Antihistamines	Nasal Congestion, nasal discharge, sneezing	Brompheniramine (Dimetapp), clemastine, chlorpheniramine (Sudafed Plus), diphenhydramine (Benadryl)	Follow package directions.	Block histamine response to decrease inflammation and allergy symptoms.	May cause fatigue, drowsiness, impairment of alertness or other side effects. Avoid if you have narrow angle glaucoma or BPH.
Pain reliever	Sore throat, headache, body aches	Ibuprofen (Advil), naproxen (Aleve)	Follow package directions.	Reduces pain and inflammation.	Avoid ibuprofen, naproxen and aspirin if you have an active ulcer.
Lozenges/throat spray	Sore throat	Lozenges: Cepacol, Halls, chloraseptic. Sprays: Chloraseptic.	Follow package directions.	Lozenges: May contain benzocaine (local anesthetic), menthol (anesthetic) or pectin (calms irritation). Sprays: Numbing agents such as phenol.	
Dextromethorphan	Cough	Robitussin DM, Mucinex, Delsym, Triaminic Cold and Cough, Vicks 44 Cough and Cold	Follow package directions.	Cough suppressant.	Avoid use if you are taking a monoamine oxidase inhibitor medication. Check other cold medications you are taking to ensure they do not also contain dextromethorphan. Do not take with other dextromethorphan containing medications.
Guaifenesin	Cough	Mucinex, Tussin, Vicks DayQuil, Robitussin Chest Congestion	Follow package directions.	Guaifenesin is an expectorant medication, meaning it works by decreasing thickness of mucus so it can be coughed up more easily.	Check other cold medications you are taking to ensure they do not also contain guaifenesin. Do not take with other guaifenesin containing medications.
Acetaminophen	Fever, sore throat, headache, body aches	Tylenol	Follow package directions	Reduces pain and fever.	Avoid use if you have liver problems. Read the packaging of other over the counter medications to ensure they do not also contain Tylenol before combining. Do not take with other Tylenol (acetaminophen) containing medications.
Non-Medication Treatments	Use for	Examples	How to Use	How it Works	Other Notes
Warm Water Gargle	Sore throat		Mix 1/2 tsp salt into 8oz warm water and use to gargle.	Loosens mucus and reduces pain.	
Honey	Sore throat		Mix into warm water or tea	Antibacterial, reduces inflammation, may suppress cough	
Humidifier	Congestion		Follow package directions	Increases moisture in the air to loosen congestion	

Questions? Reach out to your doctor or pharmacist.
See medication labeling for a complete list of side effects and drug interactions.

Results

- ▶ Booklet is written in straightforward language for a 6th-8th grade reading level and gives an overview of OTC medication options.
- ▶ Pamphlet found to meet goals of patient education on symptomatic management of URI symptoms with OTC medications.
- ▶ “If patients were more aware of these medications including risks/benefits and appropriate uses, it would lead to less adverse outcomes as well as potentially less low-level office visits.” –Nick Florio, MD.

Evaluation of Effectiveness

- ▶ Effectiveness will be evaluated via verbal feedback from to providers and office staff.
- ▶ Possible role of future studies evaluating the frequency of low-level sick visits before and after intervention during the same time of year.

Recommendations for future interventions

- ▶ Educational resources with recommendations for the pediatric population.
- ▶ Distribution outside the clinic in locations such as the pharmacy and community centers.
- ▶ Seek formal feedback from patients to improve helpfulness of the booklet.
- ▶ Chart review based assessment of the number of low acuity sick visits before and after implementing this educational resource.

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