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Education and expectations for patients with viral upper respiratory infections

Kathryn Thomas
University of Vermont

Education for Patients about Effective Treatments for Seasonal Colds

KATHRYN THOMAS

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DR. PETER ANDERSON

NEW MILFORD PRIMARY CARE, NEW MILFORD CT

Problem ID and description of need

- Unnecessary antibiotic use contributes to increasingly widespread antibiotic resistance [2,4]
- Studies show patients who expect antibiotics are more likely to get them, regardless of the likelihood that it's a bacterial illness [1]
- Most patients know little about the course and causes of common cold symptoms [1]
- Most people know little about the epidemiology of upper respiratory infections and pressure providers for unnecessary antibiotics [1,3]
- Visits to doctor's offices increase patient risk of contracting illness [6]
- In places without public transport it can be difficult for patients to get to the doctor, saving them a trip can simplify their life
- Many over the counter medications are ineffective and can be expensive [3]

Public health costs and community statistics

- Cost of visits for non-influenza respiratory tract illness approached $40 billion in the year 2000 [5]
- Many over the counter medications are ineffective and have side effects that lead to additional office visits [3]
- Studies show that physicians prescribe antibiotics based in part on patient expectations [3] yet fewer than 10% of upper respiratory infections are caused by bacteria [5]
- Treatment of resistant infections across the United States costs about $20 billion, and about 8 million additional in-hospital days for patients [8]
- Antibiotic resistance has enormous long term cost to society and is one of the biggest threats to public health [4]

Community perspective and support for project

- *" If you set the standard of education so that patients understand the expected course of their illness, they are less likely to pressure for antibiotics. Not all patients understand that their upper respiratory illness is likely viral, won't be helped by an antibiotic, and may last up to 6 weeks. It all starts with education."*- Anonymous APRN
- *"Setting expectations is important. Most of my patients are kind of trained to expect reassurance when they come to the office with a seasonal cold. However, there is a lot of room for education. I can't remember ever having a cold that only lasted a week yet many seem to have that expectation. A lot of patients believe that yellow or green mucous means they need an antibiotic when, in fact, color has no bearing on the etiology of their illness. It's also important to know when their symptoms warrant a visit to the office."* - Anonymous MD

Intervention and Methodology

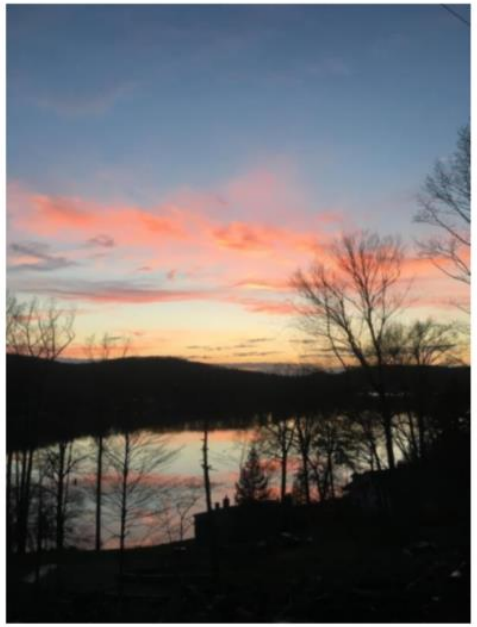
- Patients can begin education in office but also take the pamphlet home and read
- Pamphlet can be saved for the next cold and referenced again and again
- Patients can be passed along to advise neighbors, friends, and family who are all dealing with the same strain of the common cold
- Education will provide peace of mind for caretakers without the hassle of an office visit
- One stop resource for the most effective ways to treat various symptoms

How to Treat your Cold Symptoms

- Honey is one of the most effective treatments for cough. Don't give honey to children under 1yr.
- Over the counter cold remedies have little effect in children and are not generally recommended.
- Manufacturers of over the counter cold remedies are not required by law to prove they work before they hit the market- read labels!
- Supplements like Zinc and Vitamin D won't help much unless you're deficient in these minerals.
- Nasal saline can help alleviate discomfort due to postnasal drip and sore throat- especially in children.
- Rest!
- Drink plenty of fluids (aim for about 8, 8oz glasses per day).

When you probably need to see a doctor

- You are coughing up rusty brown sputum
- You've been having night sweats or lost weight without trying
- Fever is common in children with colds, but an adult with a fever above 100.5°F for more than two days should be seen by a doctor
- You've been in close contact with someone who tested positive for Influenza
- You've been sick for more than two weeks without any improvement
- You are having any chest pain, shortness of breath, or wheeze when you breathe
- Check with your doctor if you're concerned it may be something else!



WHAT TO DO ABOUT THAT PESKY COLD

New Milford Primary Care

5b

- Pamphlet is in trifold orientation
- Interior leaf (left panel) describes proven treatments for various cold symptoms
- Last page (middle) details important reasons to go to the doctor

So you've got what sounds like a cold….

Runny nose, congestion, fever, sore throat, cough, muscle aches, and fatigue are a few of the most common symptoms.

Why Not Antibiotics??

They won't work!

Odds are, your symptoms are caused by a virus and not a bacteria. Antibiotics are completely ineffective against viruses, of which there are over 200 which could be causing your symptoms!

Yellow or green sputum does NOT mean your infection is bacterial- both viruses and bacteria can cause this symptom.

Side effects

Antibiotics can have some uncomfortable side effects. For example, tetracyclines increase your risk for sunburn, and fluoroquinolones can cause tendon rupture. Any antibiotic could cause an allergic reaction. They may also put you at increased risk for other types of infections including fungal infections, other bacterial infections, and yeast infections.

Growing Antibiotic Resistance

The more we use antibiotics, the more prevalent resistance becomes. We have been using penicillin to treat infections for decades, but today penicillin is only useful for a handful of bugs.

What to expect

Expect to be sick for up to two weeks- the average cold lasts about 16 days. Additionally, 10% of people will still be symptomatic after 25 days.

Know that you are likely contagious for about two weeks, regardless of when your symptoms stopped.

Expect your cough may linger after all the other symptoms have stopped.

How to Prevent the Next one

Most colds are spread through droplets or hand to hand contact. A virus can survive up to two hours on human skin. Cover your cough and wash your hands to prevent transmission.

Studies show taking daily vitamin C supplements daily can help prevent colds. But once you have a cold taking Vitamin C won't make a difference!

Using nasal saline every day for at least six months can also reduce your risk for developing future colds.

5c

- First panel (far left) describes common symptoms of seasonal cold
- Middle panel describes important antibiotic use topics, including rising resistance
- Far right panel describes usual time course for seasonal colds as well as proven prevention strategies

Results and Response

- The abbreviated timing of the Clerkship didn't allow for much feedback from patients
- Office staff were enthusiastic about the possibility of reducing some seasonal cold visits
- Pamphlet will be readily available for next cold season and providers are hopeful this will reduce push-back when they opt not to prescribe antibiotics for upper respiratory illnesses

Efficacy and limitations

- If individuals don't currently have symptoms, they are less likely to take a pamphlet
- Pamphlets can get lost and may not last until next cold season
- Not long enough time course to evaluate for efficacy of project
- Easy to overlook giving a patient a pamphlet if there is a lot going on

Future projects or interventions

- Future projects might revise contents of pamphlet based on patient feedback
- Expansion of pamphlet contents and additions based on more recent research
- Distribution of pamphlet beyond the primary care setting would help educate a greater swath of the population
- Perhaps next flu season the pamphlet could be distributed with flu shots to reach a greater number of at-risk patients
- Future projects may look at efficacy of pamphlet and evaluate how many patients actually tried the interventions listed

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