



## Influenza Care Kit

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Influenza care package:

If you've been diagnosed with influenza, you'll likely feel ill enough to want any and all suggestions to help feel better. Much of the time honored self-help suggestions have merit and should be attended to. Hydration remains important as this illness is usually accompanied by fever so the need for hydration will be increased beyond the usual needs in the well state. Pedialyte and other oral rehydration beverages remain the standard recommendation best associated with maintaining normal hydration and electrolyte status. In recent years, flavoring has become more effective making taste tolerance more likely. There are freezable popsicles or you can do this on your own in an ice cube tray. A tiny amount of Gatorade or sport drink can be mixed in to enhance the flavor. Remember though, they have too much sugar and too little electrolyte to be effective for rehydration, so keep the volume of sport drink flavor enhancing to a minimum or you risk trouble. If the patient is still eating well or fairly well, water is a good choice for hydration. The electrolyte needs will be derived from the solid food diet and hydration from water. Nausea is not a principal symptom in influenza, but it can be an accompanying symptom. When choosing food in a potentially nauseated state, fat free options would often be best tolerated. So fruits and veggies, low to no fat carbohydrates and lean proteins make good choices. Dairy products are for the most part fat containing and threaten to be harder to digest than other choices. Even with good choices, smaller more frequent portions would be prudent if symptoms of nausea are threatening. In some instances, Zofran (ondansatrom) may be prescribed to help with nausea and vomiting.

Cough is a near certain symptom and can often last for as much as two weeks and still be quite ordinary. Likely, sleep will be disrupted and cough will be an irritant that will motivate a patient to quell coughing at all costs. The cough has its purposes though and remains a principal mechanism the lungs will use to limit the development of pneumonia. Patients with medical conditions that limit or prevent effective coughing are at heightened risk for poor outcomes. So count your blessings when you're coughing?



Sipping liquids and keeping the throat well hydrated can help with cough. Pick cold or warm beverages and work to discover which is more helpful. Lozenges for mature patients can be helpful also but the risk of choking certainly limits their usefulness in children.

Beyond infancy and the crib aged child, sleeping with the head elevated can be helpful in limiting cough. Airway humidification in a warm steamy shower or with the use of a bedside humidifier can be helpful in some patients. If you don't own a humidifier already, purchasing one for this illness is probably unwarranted given the level of improvement to be likely derived with this tool. If you have a nebulizer and medication for an asthmatic child, nebulized albuterol, levalbuterol, budesonide or saline can be an effective tool in helping to limit cough. If the patient is an asthmatic and continuous or persistent cough is an issue, office examination and "tweaking" asthma medications is far more likely to be of benefit in limiting cough than narcotic or non-narcotic cough medication.

Use of narcotic strength cough suppressants is of suspect judgement and this modality of care could be effectively argued against as a prudent maneuver. This would be especially true in the young or very old patient or those with predisposing medical conditions or conditions that limit effective coughing.

Headache and sore throat are frequent symptoms as well. Ibuprofen and acetaminophen can be helpful with both symptoms. You will likely have symptoms for a few days, so stay within the recommended dosage ranges and intervals of administration. Remember that aspirin and aspirin containing products pose special toxic hazards (Reye's syndrome) to children and adolescents with influenza or chicken pox. Anacin, Bufferin, Bayer, Excedrin, Alka-Seltzer and Pepto-Bismol may not be an exhaustive list of aspirin containing products, but should always be avoided as pain medications. Honestly, it's best to avoid these products at all times so no confusion will arise. There are almost always better and more effective choices than aspirin in pediatrics.

Antiviral medications can be prescribed to limit the duration and severity of symptoms of influenza. They work best when given early in the course of the illness. Time honored perspectives suggest that after forty-eight hours of symptoms, efficacy is limited enough to make antiviral medication use a suspect approach. In patients with severe symptoms or a predisposing medical condition that would risk an adverse outcome, antiviral medications could be used as part of prudent medical judgement



beyond forty-eight hours of symptoms. The viral genome of influenza has proved to be ever changing and adaptable. Part of that adaptation includes resistance to amantadine and Rolenza. Evolving resistance to Tamiflu (oseltamivir) is in its infancy, but threatens to make this medication less useful as a medication in coming years.

Oseltamivir is available in liquid and capsules of various sizes. Dosage is based on weight with the adult dose becoming the standard dose at eighty-eight pounds of body weight. The liquid formulation is somewhat noxious tasting and if your pharmacy's formulation is not pre-flavored, aftermarket flavoring by the pharmacist (definitely not by the patient) would be a prudent idea. With or without flavoring, liquid and capsule formulations can provoke nausea and / or vomiting about five to ten percent of the time. It can be quite difficult to know if the nausea / vomiting is a result of the influenza or the oseltamivir. A far less common consequence of the use of oseltamivir includes neuropsychiatric behavior best described as anxiety. In some insurance plans, the cost of a single treatment course can exceed \$150.00. With all these caveats in mind, you can see that a patient's use of oseltamivir may need to be discussed with the prescribing physician.

Oseltamivir can be used as a preventive medication and would be most indicated in the very young, very old and those with conditions that predispose to poor outcomes. All of the same caveats listed above apply to the therapeutic and preventive use of oseltamivir, plus one more. As all of us, (patients and doctors) have an incumbent responsibility to provide effective stewardship of oseltamivir. The more we imprudently use this drug, the faster the adaptive genome of influenza will unravel its secrets and render it ineffective. Using a portion of a treatment course, skipping or missing doses, sharing medication with family and friends and using oseltamivir when not indicated are all pathways to leaving all of us with no effective anti-influenza antiviral medication in the years ahead.

This remains a philosophical conversation with no easy answer though. In any given year, about one hundred pediatric aged patients will perish at the hands of influenza. About half will have no predisposing condition or circumstance that would have predicted the poorest of outcomes. It will be difficult to provide stewardship for oseltamivir by limiting its use by physicians when measured against the knowledge that some who perish may have been saved. Unbridled use now, without newer medications or better vaccines almost certainly means many more future deaths will occur than the lives we save now with unbridled use. It's a difficult dilemma.



Return to work and school will require resolution of symptoms to an extent that will allow enough energy to be available for the tasks of work and school. Fever should be absent one to two days without fever reducing medication being given to gain a fever-free state. Remember when picking alternatives to daycare facilities during the contagious phase of the illness, that very young family members and the aging grandparents may need to be spared exposure as serious illness consequences are more common in these age groups.

Pneumonia and other complications with influenza are not common features. That being said, and with the understanding that this is a viral illness, antibiotic use, especially at the inception of the illness will seldom be useful. One should be alert to worsening symptoms later in the course of the illness as a signal of a complication. Stay in touch with the office and return if needed if gradual recovery is derailed by worsening symptoms...

As you recover from influenza, if you have not had an influenza vaccine in the current season, strongly consider getting vaccinated as soon as medically feasible. You've had only one strain of influenza and almost always there will be one or more other strains circulating in the community you could contract. Once you are fever-free a very few days, you can be vaccinated. Injectable flu vaccine can be administered even as you finish taking oseltamivir. The nasal mist flu vaccine, Flumist, needs to be given no sooner than two days after you finish oseltamivir to be optimally effective.