

Pinnacle Pediatrics

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Happy New Year! That, of course, is the usual opening line to any newsletter at this time of year. This is often followed by the semi-sarcastic "I hope you survived the Holidays", implying that getting thru the Holiday season is akin to surviving the Bataan Death March. I hope that is not the attitude that most of you have toward this time of year. Sure, there is lots of hustle and bustle and craziness. However, the time spent with family, and the smiles on your childrens' faces, should more than compensate for the "hassle factor" of the Holidays. Yes, a recurring theme of these newsletters is Enjoy Your Children. As my oldest is now learning to drive, and my youngest are in their last year of elementary school, I can vouch for what everyone tells you -- they grow up way too fast.

This issue of the Newsletter is my annual "What to do when your child is sick" issue. Parents often ask why we see so many sick kids during the winter. The reason is two-fold. First, there are many viruses that have a predilection for cold weather, such as Influenza and RSV. Second, because everyone is cooped-up indoors, it is much easier to spread contagious illnesses.

Can you prevent your children from getting sick? Sure, put them in a reverse-flow air bubble like "Bubble Boy". More practical strategies include scrupulous hand washing, adequate amounts of sleep, plenty of exercise, maintaining full immunization status, and avoiding obviously sick individuals, particularly in areas where they congregate, such as hospitals and, ahem, Pediatricians' waiting rooms. If, as is usually the case, your child does become ill, read on for the most up-to-date information on what to do...

Fever

Almost all of you have heard me preach that fever is not dangerous, it is simply a sign of infection. My concern is not the fever, but what is causing the fever - what is the infection and, even more important, how serious does it appear to be. Any time a child has a fever, or any symptom of illness, the most important questions to ask are..."How is the child acting?" and "How is the child drinking?" If these two items seem to be okay, then it is very unlikely that there is a serious problem. Conversely, if the child is extremely irritable or lethargic, or refusing to drink for an extended period, then we need to be concerned.

Any time a child has a fever or is ill, she is entitled to act "sick", just not "real sick". She may be fussy, sleepy, not eat well. But, she needs to drink, she needs to be arousable, consolable, and interactive to reassure us that there is nothing serious going on, that she is not "toxic".

Once it has been established that the child is not toxic, then look for other "clues" as to the source of the fever, i.e. cold symptoms (runny nose, cough, congestion, sneezing), gastrointestinal symptoms (abdominal pain, vomiting, diarrhea), sore throat, earache, etc. Often in children, there are no symptoms other than fever. Most of the time, these kids have a viral illness, which may simply run its course (usually 3-5 days) without any other symptoms.

The key is not to focus on the fever. It is worthwhile to measure the temperature one time to document that there is a true fever (often kids feel warm to a parent's touch, but the temperature is normal). After that, put the thermometer away - it is not important whether the temp. is 101 or 104. The degree of the fever correlates poorly with the severity of the infection. If the child is uncomfortable with the fever (usually the case), feel free to treat the child with an antipyretic (fever reducer). Reducing the fever will not "mask" a serious illness, and if the fever is reduced, the child will likely drink better and act better, thus reassuring us that he is not "toxic". Do not be concerned, however, if the medicine does not decrease the fever - it has been clearly shown that the response to antipyretics is not indicative of the severity of the illness.

Acetaminophen (Tylenol) or Ibuprofen (Motrin, Advil) are both effective at the proper dose (15mg./kg. every four hours for Acetaminophen, 10mg./kg. every six hours for Ibuprofen). As I discussed in a recent Newsletter, the concentration of Infant Acetaminophen drops has changed from 80mg. per dropperful to 160mg. per 5cc, the same as the Children's syrup concentration. So, you need to be extra careful when administering this medication to your child that you are giving the proper amount.

Head-to-head, Ibuprofen appears to be slightly more effective than Acetaminophen. Although you will hear medical personnel recommending alternating the two medicines, I do not believe that this is a good idea. It is hard to coordinate an every four hour and an every six hour dosing, and many mistakes, leading to overdoses, have been made in this manner. Stick with one antipyretic and use it appropriately. Besides, the main point here is that Fever is Not the Enemy. We treat it to make the child comfortable, but the real concerns are as we discussed above.

This discussion does not apply to the infant under three months of age. Although fever is not dangerous for this child either, a child under three months of age with a true fever (temp. greater than 100.5F.) has a 20% chance of having a serious infection, and thus necessitates a call to the Pediatrician. Likewise, if a child greater than three months of age appears toxic, or the fever lasts more than 3-5 days, the Pediatrician should be called.

Colds

Colds are ubiquitous - everybody gets them. Because there are numerous viruses that cause colds, a child can get many colds in the same season. The usual symptoms are low-grade fever (99-102F.) for the first few days, runny nose, sneezing, congestion, and cough. The runny nose usually starts out clear, then turns cloudy around day 4, then turns clear again. A cold may make a child slightly uncomfortable, slightly lethargic and cause a decrease in appetite. But, most kids will still be fairly active and still drink well.

Cough is the single most common reason for a call to the Pediatrician. It makes the child uncomfortable, and drives parents crazy. Parents often focus on the nature of the cough (dry, wet, harsh, phlegmy, etc.), but this is usually insignificant in determining the severity of the child's illness. The only accompanying symptom that should cause concern is difficulty breathing, particularly when the child is not in the middle of a coughing spell. If the child is breathing fast or hard for a prolonged period, the Pediatrician should be notified.

As I have discussed in prior newsletters, cold and cough medicines are largely ineffective. Due to possible side-effects, they are no longer recommended in children under 6 years of age. Therapies that may make your child a little more comfortable include moisture in the air (vaporizer/humidifier, bathroom steam) and sipping beverages/sucking on lozenges (bathing the cough receptors in the back of the throat helps to decrease cough). Honey (for the child over 1 year of age) has also been shown to be mildly beneficial for cough. Salt-water (saline) nose drops with suction can help to ease congestion in the infant. Vicks under the nose may offer relief from congestion, though it has no apparent benefit when rubbed on the chest.

In the child above 6 years of age, cough/cold medicines are still of questionable benefit, but have minimal risk. Pseudoephedrine is the most effective decongestant, but is now stored only behind the pharmacist's counter, so you need to ask for it. Dextromethorphan is the most effective cough suppressant - Delsym is a long acting form that may be useful for night time cough. Antibiotics have no role in treating the common cold, which is due to a virus, as they only treat bacterial infections. Echinacea, Vitamin C and Zinc have all been purported to help alleviate cold symptoms, but there is no good scientific evidence that this is true. "A cold will last seven days if you treat, one week if you don't."

Frequently, a parent becomes concerned that their child's upper respiratory infection is a bacterial infection. This is usually due to a change to cloudy nasal discharge (though, as discussed, this is the norm around day 4) or the length of the symptoms. Most colds do last 7-10 days, and 2 weeks is not unusual. Cough may last 4-6 weeks, which is a frequent cause of concern. The typical bacterial upper respiratory infection (sinus infection) usually presents at the tail end of a cold. Symptoms include fever, marked congestion, a large amount of thick yellow or green nasal discharge, and a significant worsening of the child's activity level and appetite. These symptoms should prompt a call to the Pediatrician, as sinus infections are amenable to antibiotic therapy.

FLU

Influenza, or the Flu, is a dramatically over-diagnosed disease. Most people who think they have the Flu, don't. The Flu usually presents similarly to a cold, with upper respiratory symptoms, but with the added symptoms of high fever, muscle aches and chills. The Flu may also cause some mild G.I. symptoms (vomiting and diarrhea) but not to the extent of a true G.I. virus. The Flu almost always presents in epidemic fashion in the winter, not episodically throughout the year.

Influenza is a viral infection, so antibiotics are not useful. There are anti-viral drugs which treat Influenza. However, the older drugs, Amantadine and Rimantadine, are no longer very effective, and the newer drugs, primarily Tamiflu appear to be causing an increased number of significant side-effects. Thus, we usually do not treat Influenza, but merely offer supportive therapy, i.e. fluids and antipyretics.

The yearly Flu vaccine contains 3 strains of Influenza, based on the most likely strains to be circulating that year (the H1N1, or "Swine" Flu is 1 of the 3 components this year, as it was last year). Assuming that the scientists that make that determination are correct (usually, though not always, the case), the Flu vaccine is an effective prevention strategy to avoid Influenza infection.

SORE THROAT

In general, a sore throat (pharyngitis/tonsillitis) is due to either a virus or a bacteria. The usual bacteria that causes a sore throat is Streptococcus, or "strep". Viruses are responsible for 90% of sore throats, although in "strep season", March and April, strep may cause 50% of sore throats.

Often, a cold may start out as just a sore throat, and then on day 2 or 3 the child will develop a full-blown cold. Strep throat is often associated with a headache, abdominal pain and vomiting. Occasionally, strep throat will also be accompanied by a fine, pimply, "sand-paper-like" rash - this is called "Scarlet Fever". Although in our parents' day this was a more serious form of strep, today it does not represent a more severe illness. Children with strep may have a high fever and often have a more severe sore throat, with a bright red appearance and pus on the tonsils.

There is plenty of overlap in the presentation of viral vs. strep pharyngitis. Hence, if the Pediatrician is concerned about strep, he will usually do a throat culture, or a rapid strep test, to confirm the diagnosis. The latest generation of rapid strep tests is very accurate, and most experts no longer recommend a back-up throat culture if the rapid strep test is negative.

There is no treatment for a viral pharyngitis, just supportive measures such as pain relievers, Chloraseptic spray and fluids. Strep throat is treated with a 10 day course of antibiotics, primarily to prevent the very rare but serious complications of Rheumatic Fever.

When should your child have a throat swab? If the sore throat lasts for more than 2-3 days, and the child does not have other evidence of a viral illness (runny nose, congestion, cough, sneezing), then it is reasonable to get a throat swab. As previously stated, many colds start as a sore throat. Hence, doing throat swabs too early in the course of a sore throat subjects many children to unnecessary discomfort. In addition, because 5% of individuals will test positive even though they do not have an active Strep infection, this may result in significant over-treatment. There is no rush to make the diagnosis - antibiotic treatment initiated within 18 days of the onset of strep throat will prevent Rheumatic Fever.

PINK EYE

Pink eye, or conjunctivitis, is an infection of the conjunctival lining of the eye. This can be due to a virus or a bacteria. The primary way to assess the etiology (without doing a culture) is based on the amount of discharge from the eye. A viral conjunctivitis causes erythema (redness) of the inner lower eyelid and the sclera (the white part of the eyeball), but only causes minimal discharge (greater on awaking, then 3-4 times during the day). A bacterial conjunctivitis also causes erythema, but produces a large amount of discharge that accumulates constantly through the day.

The treatment for a viral conjunctivitis is simply warm compresses. The duration of symptoms is usually 7 days. Warm compresses are also beneficial for a bacterial conjunctivitis, especially first thing in the morning when the child's eyes are glued shut. Just let the warm washcloth soak on the eyelids for 5 minutes and the eyes will gradually open. In addition, we treat bacterial conjunctivitis with topical antibiotic drops, which will hasten the resolution of the infection (assuming you have six Secret Service men to hold the child down while you administer the drops).

Pink eye is very contagious, which is why Pre-schools and Day-cares often exclude children with pink eye. However, it is not serious or dangerous, and only mildly uncomfortable. Often, a facility will advise a parent that their child cannot come back until they are being treated, not realizing that there is no treatment for many of these kids. I have occasionally treated a child with antibiotic drops who I was certain did not need them, just to get them back into school. I do not believe children should be excluded due to a "cold in the eye", any more than they should be excluded due to a cold. The key to preventing transmission, as with so many illnesses, is washing the hands, either with soap and water or hand sanitizers, and avoiding touching other children's eyes.

GASTROENTERITIS

This is the final common illness that I will discuss. Typically, this starts with vomiting, which, fortunately, usually lasts less than 24 hours. The advice is to wait 2 hours from the last time the child vomited, and then begin sips of clear liquids (Pedialyte in the infant, any clear liquid in the older child) every 15 minutes. This is very labor intensive, as we wish to get a lot of fluid into the child, but only a little at a time. If the child vomits again, wait another 2 hours, and then start over. Gradually increase the volume as tolerated. If the child has a fever, feel free to treat this to make him/her comfortable.

Most children will also get diarrhea, usually on day 2 of the illness (some may only get diarrhea). The fluid treatment for this is the opposite of vomiting - large amounts infrequently. With diarrhea, every time the gut is challenged with something to digest, large or small, a bowel movement results. So, we try to rest the gut for hours at a time, but then challenge it with a large volume of fluid. No medications are recommended for acute diarrhea, as slowing down the intestinal motility may actually make the child sicker. We do use anti-motility agents in chronic diarrhea, but that is a different entity.

The chief goal with gastroenteritis is to prevent dehydration. The signs of dehydration are: dry lips/mucous membranes, lack of production of tears with crying , lack of urination for an extended period of time, and extreme lethargy. The risk of dehydration depends on the age of the child and the severity of the vomiting and/or diarrhea, with younger children being more susceptible. This is particularly true if the child is refusing to drink. Obviously, if the child appears dehydrated, the Pediatrician should be notified. If the child has persistent vomiting or appears to be getting significantly dehydrated, he/she may require intravenous fluids. A recent change in the treatment of these children is administration of a potent anti-emetic, Ondansetron (Zofran). This has prevented many children from requiring intravenous fluids, but is used only in severe cases, due to potential side-effects.

Like most illnesses in children, gastroenteritis is usually viral, so antibiotics are not indicated. If the diarrhea is bloody, this can indicate a bacterial etiology, and a stool culture should be considered.

I hope this discussion proves to be useful to you (actually, I hope it doesn't, meaning your children don't get sick this year - it does happen). Remember, there are links to some excellent medical websites on my website, pinnaclepediatrics.com, as well.

Best Regards,
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This issue's Back Page pokes fun at an all-too-real phenomenon in modern medicine -- funny, but true.

