

Blazer article May 2010

Feverish illness in children

Serious infections in children seem to be the number one fear with parents, and with good reason. There's a lot of good guidance out there, especially in GP waiting rooms, but I continue to meet parents who worry about things they needn't worry about but who seem less aware of things they need to act on quickly.

I've used my years of experience plus the excellent guidelines issued by the National Institute of Clinical Excellence (NICE) to write about feverish illness in children. NICE is a national governmental body set up to look at the best way to manage certain conditions. Not all of the guidelines are beyond criticism, but I give the 'Feverish Illness in Children' guidelines (2007) top marks for their clarity and their emphasis on a proper medical assessment, rather than on often misleading things like duration and height of fever. More about that later....

The first thing I'd like to say is that 'proper' bacterial infections are rare in children. These are the infections that have the potential to kill or cause disability, although few of them actually do. These are the infections that must be picked up speedily, especially in the very vulnerable – the very young, those with compromised immune systems and the disabled who find it hard to show how they feel.

Bacteria pretty much always tend to hit on one bit of the body – the lungs causing pneumonia, the brain coverings causing meningitis, the urine causing a wee infection.... All of these are infrequent in children, but a snotty cough, a viral headache, a minor cystitis can all look like scary infections if witnessed by untrained eyes. I try to say to parents, "Your child is parent-poorly but doctor-well", indicating that I do understand that they are anxious and scared, but that I am not medically worried.

The vast, vast majority of infections in children are actually due to relatively harmless viruses which can make a child feel truly awful and make them look really quite unwell to a worried parent, especially when teamed with a high fever. Children get better from these types of infections though with nothing more than lots of drinks and Paracetamol etc, although it can sometimes take ages for them to get back to normal again. Parents worry about this, but think of how long it took you to fully feel back to normal after your last bout of 'flu'. GP's see these types of infections all the time, and those who prescribe lots of antibiotics do so mainly because they simply don't have the time to tell you what I hope you'll glean from this article.

Parents (and a few doctors!) talk about viral infections which turn into 'secondary bacterial infections' but in practice, this very rarely happens. The scary-

sounding 'double pneumonia' is an old wives tale. A very good yardstick is the fact that the more bits of the body are sore, red, hot or oozing, the more likely the infection is to be caused by a harmless virus i.e. one red ear = possibly for antibiotics but probably not. Two red ears = viral or simply due to the accompanying fever and needs no antibiotics. Two red ears plus snotty nose plus cough = barn-door viral and no antibiotics and so on.

A very important thing to get across is that high temperatures do not necessarily mean serious infection. The NICE guidelines don't emphasise the degree of hotness, except in young babies, but emphasise much more important things such as rapid breathing and mottled skin with cool hands and feet. Therefore, it's a look-over by someone who knows exactly how to assess babies and children that will tell you whether your child needs specialist help or not. You can work out whether you need your doctor's help too, and there are details at the bottom of this article about an excellent booklet to tell you why you don't need to worry about that hacking cough still being there two or three weeks later!

The commonest cause of a high temperature is a viral infection. If I had a pound for every child carried into the Paediatric Assessment Unit floppy, hot and sleepy, only to end up after a good dose of Paracetamol charging round the Unit an hour later demanding crisps and pursued by relieved parents, I would be sunning myself in the Bahamas right now. It takes experience to work out which children are actually just 'poorly' with a virus, and which children are actually very sick. For the 'poorly' ones, a dose of Paracetamol, plus stripping off, plus fan nearby, plus 40 minutes to cool down followed by another 'look', does tend to show which kids can go home with advice and which need to be admitted to the ward.

A very important thing to say here is that young babies (3 months or less according to the NICE guidelines, although I am personally exceptionally cautious with babies up to about 5 or 6 months) are treated in a completely different way to robust toddlers. Any young feverish baby needs to be checked out very carefully indeed, especially if vomiting or very sleepy, and needs to be seen by a Paediatrician in almost all circumstances. This is because symptoms are often hidden in young babies, and they can be very hard to assess. Additionally, their young age means that they can go from reasonably well to very poorly in a short space of time. Don't be surprised if a baby like this is admitted straight to hospital and given an awful lot of tests and then antibiotics. The tests are called a 'septic screen', and we do them to look for any serious infection.

Any truly sick rather than 'poorly' child needs to be admitted to hospital and the cause of their infection looked for. This is done by examining a child carefully, plus often tests such as a chest x ray, blood tests and even a lumbar puncture. It's important to get some body fluid samples for bugs if at all possible before starting antibiotics, otherwise we end up with no guidance on which antibiotic to use or where the infection is. This last bit does matter, as we may need to

organise more tests e.g. a kidney ultrasound scan to keep your child safe after a proven wee infection.

If there are a couple of things that I would like GP's to try to do more, it is a) to look for urine infections in children either with a significant fever but no clear cause, or in those who seem much sicker than their 'cold' should make them, and b) to do throat and skin swabs! Waiting for test results doesn't have to delay giving antibiotics, but the results will clarify whether there was an underlying bacterial infection to worry about in the first place.

So, which are the signs that NICE tells us to look for that indicate that a child needs help very quickly indeed?

- We are very concerned about a pale, mottled child with cool feet and hands despite a fever.
- A sick child may have a racing heart rate or actually have a pulse that is weak and hard to find.
- Sick children are often hard to rouse, sleepy or have a high pitched cry.
- Children with pneumonia rather than a viral 'chest infection' may grunt and breathe very quickly with their chest braced and their ribs sucking in. This shows that they are having to work really hard to breathe.
- We also worry about dehydrated children who haven't wee'd for ages and who have dry mouths and dull, dry eyes. When their skin goes 'loose', it can indicate very serious dehydration.
- I think that most parents have the typical signs of meningitis etched on their brain, but it's always worth mentioning a baby whose soft spot (fontanelle) is bulging with a shrill cry, neck stiffness in a child whose soft spot has closed, and the bruise or pinprick like rash that doesn't fade with pressure.
- We always want to know about fits unless your child has had fever fits before, and you know exactly what to do.

Doctors and nurses are there to help. If you are worried about your child, it's important to seek advice, if only to give you more confidence and a clear idea of what you can do next time to help your child.

However, we all need to use our GP's and Practice Nurses wisely so that they can respond to those who are very unwell. To give you a better idea of when you really do need to bring your child to a doctor, try to get hold of an excellent booklet called "***When Should I Worry?***" produced by the Department of General Practice, Cardiff University 2006. If you can't find this booklet, email me on doctorjojones@btinternet.com and I will email a version back to you.