Children’s Services

Cystic fibrosis (CF)

Management of respiratory infections

One of the major objectives when treating children with cystic fibrosis is to prevent (prophylaxis), fully treat (eradicate) or to control (suppress) all types of bacterial respiratory infections. Common viral respiratory infections (colds, runny noses and coughs which are not usually treated with antibiotics in children without lung problems) often lead on to secondary bacterial chest infections in children with CF, which can cause inflammation and damage. Research has shown that appropriate antibiotic treatment can slow the decline of lung function in people with CF. Antibiotics are given in higher doses for longer periods in people with CF compared to individuals who do not have CF.

Why does my child have to take antibiotics all the time?

Research has shown that prophylactic (preventative) antibiotics can help to protect your child against certain bacterial infections. Flucloxacillin is commonly given to children under five years old to protect against Staphylococcus aureus infection. Some children do not have to take any prophylactic antibiotics - they will just take antibiotics as needed when they are unwell.

If your child has grown certain bacteria, then they may need to take antibiotics to prevent more infections and damage (chronic suppression). If your child is more prone to infections by the Haemophilus group of bacteria, then they may be prescribed Co-amoxiclav (Augmentin) to take regularly.

Sometimes children with CF are prescribed nebulised antibiotics - where liquid medication is converted into an aerosol by a nebuliser machine and inhaled directly into the lungs. For example, Colomycin is used to treat and suppress infection by the Pseudomonas aeruginosa bacterium.

Taking chronic antibiotics does not mean that your child will never grow these bacteria again, however infection should occur less often and less severely.

How will I know if my child is unwell?

An infective chest exacerbation (worsening) may be indicated by one or more of the following signs and symptoms:

- Increased cough
- Increased sputum production or change in colour (e.g. to yellow or green)
• Breathlessness or increased effort of breathing (this might include in-drawing of the chest between the ribs and at the base of the neck, known as recession)
• Tiredness and lack of energy
• Loss of appetite or weight loss
• Chest pain
• More than a 10% drop in lung function

Chest infections in CF are rarely accompanied by a fever. If a fever does occur then another source, such as a viral infection should be considered.

A clear-sounding chest does not always mean that there is no infection present.

What should I do if my child becomes unwell?

1. The CF physiotherapist can show you how to perform a cough swab on your child and the CF nurses will supply the swabs and sample bags needed.
2. Take a **cough swab or sputum sample** and send to the CF nurses to the address at the bottom of this leaflet
   • Please send the sample in a plastic bag and then place in a padded envelope and mark as ‘fragile’.
   • Make sure you put sufficient postage on the envelope.
3. A cough swab or sputum sample may also be taken by your GP or local hospital:
   • Please make sure that cystic fibrosis is written in the clinical details on form.
4. **Call the CF nurses** to let them know that your child is unwell. They will discuss increasing the dose of your prophylactic or chronic antibiotic (if your child is taking one). This increased dose should be given for two weeks and then returned to the normal dose.
5. Alternatively, you may have been given an antibiotic to start in case of illness and the CF nurses can discuss this with you.
6. During times of illness, **your child’s physiotherapy should be increased**. If you are unsure of how to do this, please contact the CF physiotherapist.
7. If there is no improvement after seven days of increased antibiotics, get in touch with the CF nurses. They will give you further advice as needed which may include changing to a different antibiotic or arranging a clinic review if required.
8. The CF nurses will let you know the result of your cough swab: this can take up to a week. Antibiotic treatment may also change, depending on these results.
9. When unwell, some children with CF require **extra calories** to help them maintain their weight gain and growth. If your child is showing signs of reduced appetite or intake, please try to increase the energy content of their diet. Your dietitian can provide information on how to do this; or if required, supplementary drinks can be prescribed.

**What if my child has just finished a course of antibiotics?**

Call the CF nurses for advice on 01223 216410.

**Please send your cough swab/sputum sample to this address:**

Caroline Saward/Emma Lally  
CF CNS  
Clinic 6, Box 45  
Addenbrooke’s NHS Trust  
Hills Road  
Cambridge  
CB2 0QQ

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We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

**Other formats:**

If you would like this information in another language, **large print** or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

**Document history**

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