******

Haematology Department

**Sickle Cell Crisis – Acute Chest Syndrome**

Information for parents and carers

**Introduction**

This leaflet aims to provide you with general information about the signs and symptoms your child may have when they are having a sickle cell crisis. If you are ever worried about your child please contact your Sickle Cell Team or take your child to the Accident and Emergency Department.

**What is acute chest syndrome?**

Acute chest syndrome is a crisis in the lungs. It is usually caused by one or more events:

* by sickled cells blocking the small blood vessels of the lungs
* an infection in the lung
* fat in the lungs

These things can cause sudden damage to lung tissue. When this happens it blocks oxygen getting into the lungs making it harder to breathe, and stops oxygen getting from the lungs to the rest of the body.

**How likely is it that my child will get acute chest syndrome?**

About half of the people with sickle cell disease will have one episode of acute chest syndrome in their life time. People who have asthma or other problems with their lungs have a higher risk of getting acute chest syndrome (Howard et al, 2015).

**What are the signs and symptoms of acute chest syndrome?**

The symptoms of acute chest syndrome are similar to those of pneumonia:

* chest pain
* back / stomach pain
* trouble breathing / fast or heavy breathing
* cough
* temperature

**What should I do if I notice any of these symptoms?**

An acute chest crisis is a life-threatening crisis and should be treated as a medical emergency. If you notice any of these symptoms you must take your child to the hospital immediately for review by a doctor.

**How is an acute chest crisis treated?**

If your child has acute chest syndrome they will be admitted to the hospital for treatment. They will receive:

* pain medicines if needed
* intravenous fluids
* oxygen
* antibiotics
* incentive spirometry.

If the acute chest episode is severe then your child will receive a blood transfusion. It may be necessary to admit your child to the Critical Care Unit. This is so that they can be monitored closely or put on special breathing machines, if their oxygen levels are too low or they are having difficulty breathing.

**When will my child be able to go home?**

You will be able to take your child home when they no longer require oxygen, they haven't had a temperature over 38°C for 24 hours or there are no further symptoms.

Your child may be given antibiotics given by mouth to take at home. It is important to restart your child's penicillin when the course of antibiotics finish.

**Will my child get an acute chest crisis again?**

Once a person has had acute chest syndrome they are more likely to get it again. Repeat episodes of acute chest syndrome can cause permanent damage to the lungs.

**How can I prevent my child getting another episode of acute chest syndrome?**

If your child has had an acute chest syndrome your doctors may recommend that they start a medicine called Hydroxycarbamide. It can reduce the amount and severity of sickle cell crisis by preventing the red blood cells from sickling. Further information can be found in the “Hydroxycarbamide” leaflet.

It is important that you help prevent infections by giving your child penicillin and making sure that they receive all the recommended immunisations.

If your child has asthma make sure you give them their inhalers or any other prescribed medicines as instructed by your doctor. Ensure you attend clinic appointments at the hospital so your child can be regularly monitored. You will also get follow up appointment in the Sickle / Respiratory Clinic.

**Further information**

If you have any questions or want any further information please contact your Sickle Cell Team on 0151 252 5070.

**Reference**

Howard, J., Hart, N., Roberts-Harewood, M., Cummins, M., Awogbade, M., Davis, B. and the BCSH Committee (2015), Guideline on the management of acute chest syndrome in sickle cell disease. Br J Haematol, 169: 492–505. doi:10.1111/bjh.13348

**Useful websites**

[www.alderhey.co.uk](http://www.alderhey.co.uk)

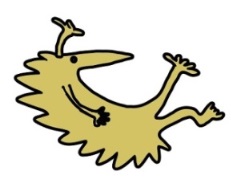
[www.sicklecellsociety.co.uk](http://www.sicklecellsociety.co.uk)

Alder Hey Children's NHS Foundation Trust is neither liable for the contents of any external internet site listed, nor does it endorse any commercial product or service mentioned or advised on any of the sites.

This leaflet only gives general information. You must always discuss the individual treatment of your child with the appropriate member of staff. Do not rely on this leaflet alone for information about your child’s treatment.

This information can be made available in other languages and formats if requested.

Alder Hey Children’s NHS Foundation Trust

****Alder Hey

Eaton Road

****Liverpool

L12 2AP

Tel: 0151 228 4811

[www.alderhey.nhs.uk](http://www.alderhey.nhs.uk)

**© Alder Hey Review Date: April 2024 PIAG: 0079**