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Haematology Department

**Sickle Cell Disease – Chronic Complications**

**Stroke**

Information for parents and carers

**Introduction**

This leaflet is designed to explain about the long term (chronic) complications of sickle cell disease. The information does not cover everything. If you are ever worried about your child then please contact your Sickle Cell Team or take your child to Accident and Emergency Department.

**How can a stroke affect my child?**

As explained in the Acute Complications leaflet a stroke occurs when the blood flow to the brain is cut off. There is also another type of stroke that can affect children and this is called a silent stroke or silent infarct.

**How likely is it that my child will get a silent stroke?**

Approximately 17% of children with sickle cell disease will have a silent stroke. (Kinney et al, 1999)

**What are the signs and symptoms of a silent stroke?**

Unlike strokes, silent strokes often have no obvious signs and symptoms. Silent strokes lead to long term changes. Your child may experience reduced concentration, attention span, memory attention or there may be a change in their behaviour. These are known as cognitive abilities. Or there may be a change in their academic achievements.

**What should I do if I notice any of these long term changes?**

If you notice any of these changes in your child it is very important that you tell your child’s Sickle Cell Team. It is important to investigate these changes and not to think that they are happening because your child is being naughty. Your sickle cell team will arrange for an assessment of your child and an MRI scan to see if there is any evidence of a silent stroke.

**Should anyone else be looking out for these changes?**

Your child’s teacher should be aware of the risk of a silent stroke for your child. Teachers spend a lot of time with children and will notice a change in their behaviour, memory and concentration. If they report any of these changes to you let your Sickle Cell Team know.

**What is the treatment for silent stroke?**

If your child has had a silent stroke the doctors will recommend they go onto a regular blood transfusion programme. This means that approximately once a month your child will come to the hospital for a blood transfusion. The aim of this treatment is to reduce the amount of sickle cell blood and help reduce the chance of your child having further crisis that may damage the blood flow to the brain.

**What is the risk of my child having a stroke if they have had a silent stroke?**

If your child has had a silent stroke then they will be at a higher risk of having a stroke unless they receive regular blood transfusions then this risk will be reduced. (Lee et al, 2006)

**Further information**

If you need any further information please contact the Sickle Cell Team on 0151 252 5070

**References**

Kinney, T., Sleeper, L., Wang, W. Zimmerman, R et al for the Cooperative Study of Sickle Cell Disease. 1999. **Silent Cerebral Infarcts in Sickle Cell Anemia: A Risk Factor Analysis** *Pediatrics* Vol103.

Lee, M. Piomelli, S., Granger, S. Miller, T. Harkness, S., Brambilla, D. and Adams, R. for the STOP Study Investigators. 2006. Stroke Prevention Trial in Sickle Cell Anemia (STOP):

extended follow-up and final results. BLOOD, Vol 108 (3).



**Useful websites**

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

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

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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.

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