NHS Commissioning Board

# Clinical Commissioning Policy Statement : Selective Dorsal Rhizotomy (SDR)

## April 2013

**Reference: NHSCB/E09/PS/a**

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# Clinical Commissioning Policy Statement: Selective Dorsal Rhizotomy (SDR)

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**Prepared by the NHS Commissioning Board.**

**Paediatric Neurosciences**


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| **POLICY STATEMENT: Selective Dorsal Rhizotomy** | **Policy Ref:**<br><br>**NHSCB/ E09/PS/a** |
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| **Treatment:** | Selective dorsal rhizotomy (SDR) |
| **For:** | Spasticity |
| **Background:** | Cerebral palsy (CP) describes a group of permanent brain disorders originating during foetal development, birth or early childhood. It is associated with abnormalities of movement, balance and posture.<br><br>Selective dorsal rhizotomy (SDR) is an irreversible division of some of the sensory nerves in the dorsal lumbar spinal cord, performed under general anaesthesia, which aims to reduce spasticity by decreasing sensory stimulation whilst preserving voluntary movement. Patients usually receive intensive physiotherapy for several months after SDR.<br><br>NICE Clinical Guideline 145 recommends that SDR can be considered to improve walking ability in children and young people with spasticity at Gross Motor Function Classification System (GMFCS) level II or III.<br><br>The incidence of cerebral palsy (based on international estimates) is between 150 and 250 per 100,000 live births per year, with about 15% having spastic diplegia and a GMFCS level of II or III. This would equate to between 155 to 258 cases of cerebral palsy with spastic diplegia and a GMFCS level of II or III who might be considered for SDR in England per year.<br><br>A number of other interventions may be used to treat patients with cerebral palsy and spasticity. Some, such as orthotics or orthopaedic surgery aim to improve mobility at joints or reduce the risk of subsequent anatomical deformities resulting from long-standing spasticity. Others aim to reduce spasticity itself e.g. oral or intrathecal medication. It is usual for patients to receive a number of interventions tailored to their individual requirements and their ability to comply with treatment. |

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| **Commissioning position:** | Selective Dorsal Rhizotomy is not routinely funded for use in spasticity. |
| **Effective from:** | 1 April 2013 |
| **Evidence summary:** | NICE considered SDR within their clinical guideline on spasticity in children and young people with non-progressive brain disorders. A NICE clinical guideline is a best practice recommendation without mandatory force. The CG145 recommendation for SDR is to:<br>*Consider selective dorsal rhizotomy to improve walking ability in children and young people with spasticity at Gross Motor Function Classification System (GMFCS) level II or III.*[3]<br>NICE reviewed the use of SDR for spasticity in cerebral palsy and published interventional procedure guidance (IPG) in 2006, which was updated in 2010 (IPG 373). This guidance was from NICE's Interventional Procedures Programme, and therefore takes into account safety and efficacy, but not cost-effectiveness. It does not constitute a recommendation that the treatment should be used, merely an indication of the circumstances in which it may be used. IPG 373 states that:<br>*Current evidence on selective dorsal rhizotomy for spasticity in cerebral palsy shows that there is a risk of serious but well-recognised complications. The evidence on efficacy is adequate. Therefore this procedure may be used provided that normal arrangements are in place for clinical governance and audit.*[1]<br>An evidence review was conducted in support of this policy.[7]<br>In summary, it found that:<br>• There is moderate quality evidence that SDR plus physiotherapy in children resulted in significant improvement in spasticity and gross motor function over 12 month follow-up.<br>• There is a small quantity of low quality evidence that suggest that improvements following SDR may persist up to three years (gait) and 20 yrs (range of movement) after surgery.<br>• Trials comparing SDR with other treatments are not of sufficiently high methodological quality to provide useful information.<br>• No cost- effectiveness evidence was identified. |

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| **Equality impact:** | The NHS CB has a duty to have regard to the need to reduce health inequalities in access to health services and health outcomes achieved as enshrined in the Health and Social Care Act 2012.The NHS CB is committed to ensuring equality of access and non-discrimination, irrespective of age, gender, disability (including learning disability), gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex (gender) or sexual orientation. In carrying out its functions, the NHS CB will have due regard to the different needs of protected equality groups, in line with the Equality Act 2010. This document is compliant with the NHS Constitution and the Human Rights Act 1998. This applies to all activities for which they are responsible, including policy development, review and implementation. |
| **Responsible CRG:** | Paediatric Neurosciences CRG |
| **Date approved by NHSCB Board:** | April 2013 |
| **Policy review date:** | During 2013 |

**References**


1. National Institute for Health and Clinical Excellence. Selective dorsal rhizotomy for spasticity in cerebral palsy. Interventional procedure guidance 373, December 2010
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5. Surveillance of Cerebral Palsy In Europe (SCPE) Network. Classification tree for sub-types of cerebral palsy. Available from http://www-rheop.ujf-grenoble.fr/scpe2/site_scpe/decisiontree.php (Accessed July 2012)
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7. Solutions for Public Health (SPH), and Bazian. Selective dorsal rhizotomy for children with spasticity secondary to cerebral palsy. Evidence review Commissioned by the National Specialised Services Transition Team (NSSTT) in England. September 2012.