National Institute for Health and Care Excellence

IP1541 Nerve transfer to partially restore upper limb function in tetraplegia

IPAC date: 8 February 2018

Com. no.	Consultee name and organisation	Sec. no.	Comments	Response Please respond to all comments
1	Consultee 1 Chair Tetrahand UK (on behalf of TetraHand UK members)	**Lay description**	Tetraplegia is when both the arms and legs are partly or totally paralysed because of nerve damage caused by trauma to the spinal cord in the neck. Some people with nerve damage lower in the neck can have nerve transfer **surgery** to try and improve function in the upper limbs. This procedure involves connecting an undamaged, functioning, but non-essential nerve near the injury to the ~~damaged~~ **non-functioning** essential nerve. The aim, with specialised ~~physio~~**therapy** is to recover strength in the muscles supplied by the nerve, and restore arm and hand function. **Therapy (to cover physio/or/hand therapy)**	Thank you for your comments. IPAC amended lay description as suggested by the consultee.
2	Consultee 1 Chair Tetrahand UK (on behalf of TetraHand UK members)	**1.3**	Patient selection and treatment should be done by a multidisciplinary team with expertise in managing spinal cord injury, and nerve and tendon transfers. This team should typically include ~~2 hand surgeons~~ **a hand surgeon with experience the surgical management of tetraplegia (one surgeon is adequate),** an occupational therapist, a physiotherapist with experience in ~~neurorehabilitation~~ **spinal injury rehabilitation,** a ~~neurorehabilitation~~ **spinal injuries** consultant and a neurophysiologist.	Thank you for your comments. IPAC amended 1.3 as follows: *Patient selection and treatment should be done by a multidisciplinary team with expertise in managing spinal cord injury, and nerve and tendon transfers. This team should typically include* ***a surgeon with experience in the surgical management of tetraplegia and nerve transfer,*** *an occupational therapist, a physiotherapist with experience in* ***spinal injury rehabilitation,*** *a* ***spinal injuries*** *consultant and a neurophysiologist.*

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3	Consultee 1 Chair Tetrahand UK (on behalf of TetraHand UK members)	**2.4**	Under general anaesthesia, with the patient in a supine position and with their arms on a board, the ~~damaged~~ **non-functioning** nerve is exposed and the **level of paralysis** ~~extent of damage~~ is defined neurophysiologically. The closest functional donor nerve is identified. It is then isolated, divided, transferred and joined to the selected damaged nerve while avoiding tension in the donor nerve. The aim is to re-innervate the target muscles and improve limb function.	Thank you for your comments. IPAC amended 2.4 as follows: *Under general anaesthesia, with the patient in a supine position and with their arms on a board, the **non-functioning** nerve is exposed and the **degree of paralysis** is defined neurophysiologically. The closest functional donor nerve is identified. It is then isolated, divided, transferred and joined to the selected damaged nerve while avoiding tension in the donor nerve. The aim is to re-innervate the target muscles and improve limb function.*
4	Consultee 1 Chair Tetrahand UK (on behalf of TetraHand UK members)	**3**	***Committee comments*** 3.5 This treatment can make a life changing difference to patients with tetraplegia who would otherwise have a poor quality of life. **– This treatment could <u>potentially</u> enhance quality of life for a patient. Cannot predict "poor quality of life" for patients with tetraplegia.** 3.6 Specialists in brachial plexus injury may be able to help assess and manage this condition. : **Provide technical help only, they are not experienced in assessment or management of tetraplegic patients** 3.7 All patients need to have rehabilitation for a long time after having this procedure., **recovery is prolonged and regular follow up during this period is necessary . Therapy input will be required during this period , the degree depending upon individual requirements**	Thank you for your comments. IPAC amended 3.5, and 3.7as follows: *3.5 This treatment can make a life changing difference to patients with tetraplegia and could potentially enhance quality of life.* *3.7 All patients need to have rehabilitation and regular follow-up for a long time after having this procedure as recovery is prolonged.* IPAC did not wish to amend 3.6.

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5	Consultee 1 Chair TetraHand UK		Further to my email with comments from TetraHandUK with regard to the above guidance, the attached list is of those clinicians whom were party to the discussion within the group that led to the creation of the consensus document emailed on the 11th January. **H:\IP\1500-1599\1541 Nerve transfer for restoration of upper limb function in tetraplegia\Consultation\Consultation comments\Tetrahand UK 2017 Members.docx**	Thank you.

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