NHS
Somerset
Clinical Commissioning Group

FUNCTIONAL ELECTRICAL STIMULATION (FES) CRITERIA BASED ACCESS POLICY

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Target audience:	SCCG: • Contracts Team • Providers • GP Practices SCCG • GP Bulletin • Web Site IFR Page **Medical Directors:** • Taunton & Somerset NHS FT • Yeovil District Hospital NHS FT • Royal United Hospitals Bath NHS FT • United Hospitals Bristol NHS FT • Weston Area Health NHS Trust • Somerset Partnership NHS FT
Application Form	Generic IFR application form

FUNCTIONAL ELECTRICAL STIMULATION (FES)

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VERSION CONTROL

Document Status:	CURRENT
Version:	1516.v2b

DOCUMENT CHANGE HISTORY		
Version	**Date**	**Comments**
V8e	2015	Remove from Guidance for Clinicians Document to separate Policy
1516.v2a	July 2017	Change CSU template to SCCG template

Equality Impact Assessment (EIA) Form OR EIA Screening Form completed. Date:	20160226 1516.v1

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FUNCTIONAL ELECTRICAL STIMULATION (FES)
Criteria Based Access Policy
Functional Electrical Stimulation (FES) is subject to this restricted policy

General Principles

Treatment should only be given in line with these general principles. Where patients are unable to meet these principles, in addition to the specific treatment criteria set out in this policy, funding approval may be sought from the CCG's Individual Funding Request (IFR) Panel by submission of an IFR application.

1. Clinicians should assess their patients against the criteria within this policy prior to treatment.

2. Patients will only meet the criteria within this policy where there is evidence that the treatment requested is effective and the patient has the potential to benefit from the proposed treatment. Where the patient has previously been provided with the treatment with limited or diminishing benefit, it is unlikely that they will qualify for further treatment.

3. On limited occasions, the CCG may approve funding for an assessment only in order to confirm or obtain evidence demonstrating whether a patient meets the criteria for funding. In such cases, patients should be made aware that the assessment does not mean that they will be provided with surgery and surgery will only be provided where it can be demonstrated that the patients meets the criteria to access treatment in this policy.

4. Patients with an elevated BMI of 30 or more are likely to receive fewer benefits from surgery and should be encouraged to lose weight further prior to seeking surgery. In addition, the risks of surgery are significantly increased. (Thelwall, 2015)

5. Patients who are smokers should be referred to smoking cessation services in order to reduce the risk of surgery and improve healing. (Loof S., 2014)

Background

Functional Electrical Stimulation (FES)

FES is a technique used to produce contractions in paralysed muscles by the application of small pulses of electrical stimulation to nerves that supply the paralysed muscle. Small electrical pulses are applied to the nerves that supply the effected muscles using self-adhesive electrodes placed on the skin. The stimulus induces a nerve impulse that is propagated to the muscle causing the muscle to contract in a manner very similar to a natural contraction. Co-currently with the motor stimulation sensory Ia afferent nerve fibres are also excited and may, through reciprocal inhibition, inhibit spasticity in the antagonist muscle and hence enable a greater range of motion. FES is used as an aid to assist walking and also as a means of practicing functional movements for therapeutic benefit.

By convention, the effects on the user are described in two ways. The orthotic effect is the direct effect of using the FES when the device is used (FES switched on).

The second effect is the training or therapeutic effect and relates to changes in walking ability when not using FES (FES switched off) that can be attributed to using FES for a period of time. This is sometimes also referred to as carry-over effect, which is the short term improvement in walking immediately following use of FES.

FES has the following practical orthotic effects:

- The foot is prevented from catching the ground as it is brought forward. This improves the safety of gait

- The foot contacts the ground at the end of the swing phase with the heel and with slight eversion. This ensures weight bearing through the centre or slightly medially to the centre line of the foot leading to greater ankle stability in stance improving the safety of weight bearing

- Walking speed is increased
- The effort of walking is reduced
- The walking range (distance) is increased
- The above affects lead to a greater confidence when walking, greater independence and participation and an overall improvement in quality of life

POLICY – CRITERIA TO ACCESS TREATMENT – CBA

1. **FES for Upper Limb is not commissioned by the CCG**

2. **Implanted FES is not commissioned by the CCG**

3. **Referrals outside of local pathway:** IFR funding authorisation is required by completion of the Generic IFR application form

4. **Lower Limb FES, external devices are commissioned**

5. **Exclusion criteria**
   a) Under 18 years of age
   b) Poor skin condition is a contraindication as sores or irritation prevents the use of self-adhesive electrodes
   c) Poorly controlled epilepsy: Where epilepsy is controlled by drugs or if there has been no fits experienced for a reasonable period, FES can be used
   d) A history of significant autonomic dysreflexia in Complete spinal cord injury above T6

6. The effect of FES on the unborn child is not known in pregnancy
7. Active medical implants such as cardiac pacemakers or other devices must be treated with caution and information must be sought from the device supplier for use of electrical stimulation in their presence
8. Additional clinical test may be required to determine the safety of FES
9. Patients with a cancerous tumour in the area of the electrical stimulation should be excluded as increased local blood flow may increase tumour growth
10. Patients with exposed orthopaedic metal work in the area of electrical stimulation should be avoided

11. Outpatient referrals local provision

Patients identified as being suitable for FES will be assessed by an accredited assessor in FES. Patients should be referred by their GP or Medical Consultant to the appropriate therapy service (IRT, Stroke Therapy Team, Neuro Outpatient Therapy at YDH or MPH) specifying FES may be appropriate to ensure the patient is seen by an accredited assessor in FES

12. **Inpatient referrals local provision**

Patients identified as being suitable for FES will be assessed by an accredited assessor in FES

13. **Community referral local provision**

ESD/ ILT therapist referrals/ stroke co-ordinators

<u>Referral Criteria</u>

1. Neurological deficit due to an upper motor neurone lesion

An upper motor neurone lesion is defined as one that occurs in the brain or spinal cord at or above the level of T12. Upper motor neurone lesions that may benefit form FES are stroke, multiple sclerosis, incomplete spinal cord injury at T12 or above, cerebral palsy, familial / hereditary spastic paraparesis, head injury and Parkinson's disease

2. Dropped foot defined as a deficit of dorsiflexion and / or eversion of the ankle

a) While this will be frequently associated with lack of heel strike, FES can be successfully used to correct inversion at first contact to significantly improve the stability of the ankle in the stance phase, improving the safety of gait

b) A dropped foot can be unilateral or bilateral In addition to drop foot, deficits in knee flexion or extension, hip extension and abduction and push off at terminal stance can be addressed

3. Lower limb: Functional ability

a) Able to passively achieve a neutral angle of the ankle
b) A resistance due to spasticity of the calf muscles can be overcome but fixed contracture preventing plantar grade is a contraindication
c) Able to obtain standing from sitting unaided
d) Use of aids such as sticks, frame or crutches is acceptable
e) Usually able to walk a minimum distance of about 10m
f) Use of aids such as ankle foot orthosis (AFO), sticks, frame or crutches is acceptable A reasonable exercise tolerance is required for treatment sessions. However, FES often reduces the effort of walking therefore poor exercise tolerance is only an exclusion criteria in extreme cases
g) There is no maximum walking distance limit. FES devices have been successfully used in cases where a dropped foot only becomes a significant problem when the device user is tired or when the deficit is relatively mild

4. Motivation, understanding and independence

a) Able to understand the aims of the treatment and be motivated to comply with treatment protocols
b) Where appropriate, carer support can assist in using the equipment
c) Where patients live alone and do not have carer assistance, they must be able to place electrodes and operate the equipment independently
d) If family or carer support is present, less independence is required

Patients who are not eligible for treatment under this policy may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy.

Applications cannot be considered from patients personally.

Provided these patients receive the full support of their general practitioner, or clinician, in pursuing their funding request an application may be made to the Individual Funding Request Panel for consideration.

It is expected that clinicians will have ensured that the patient, on behalf of who they are forwarding the application for, is appropriately informed about the existing policies prior to an application to the IFRP. This will reassure the Panel that the patient has a reasonable expectation of the outcome of the application and its context.

An application put forward for consideration must demonstrated some unusual or unique clinical factor about the patient that suggests they are exceptional as defined below:

- Significantly different to the general population of patients with the condition in question

- Likely to gain significantly more benefit from the intervention than might be expected from the average patient with the condition

If you would like further copies of this policy or need it in another format, such as Braille or another language, please contact the Patient Advice and Liaison Service on Telephone number: 08000 851067.

Or write to us: NHS Somerset Clinical Commissioning Group, Freepost RRKL-XKSC-ACSG, Yeovil, Somerset, BA22 8HR or **Email** us: somccg.pals@nhs.net

References

The following sources have been considered when drafting this policy:

1. NICE guidelines IPG278 Jan 2009: http://www.nice.org.uk/Guidance/IPG278