Mid Essex Hospital Services NHS
NHS Trust

GUIDELINE FOR THE APPLICATION AND USE OF TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION (TENS) WITHIN THE MATERNITY SERVICES	**CLINICAL GUIDELINES** **Register No: 08069** **Status: Public**

Developed in response to:	Intrapartum NICE Guidelines RCOG guideline
Contributes to Core Outcome No:	C4

Consulted With	**Individual/Body**	**Date**
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Version Number	3.0
Issuing Directorate	Obstetrics and Gynaecology
Approved by	Documents Ratification Group
Approved on	28th June 2012
Trust Executive Board Date	July 2012
Next Review Date	May 2015
Author/Contact for Information	Gemma King, Midwife
Policy to be followed by (target staff)	**Midwives**
Distribution Method	Intranet & Website Notified on Staff Focus
Related Trust Policies (to be read in conjunction with)	04071 Standard Infection Prevention 04072 Hand Hygiene 09079 Management of Normal Labour and Prolonged Labour in Low Risk Patients

Review No	Reviewed by	Review Date
1.0	Julie Bishop	October 2005
2.0	Angela Watson	October 2011

It is the responsibility of staff to ensure they are accessing the most up to date version which will always be the document on the intranet

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1.0 Purpose of Guideline

1.1 This guideline is designed to aid maternity staff in the application and use of TENS machines, commencing in the latent phase of the first stage of labour.

2.0 Equality and Diversity

2.1 The Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.

3.0 Introduction

3.1 If women wish tohave access to a TENS machine, it is up to them to make arrangements to hire or purchase one themselves.

3.2 TENS machines continue to give uncertain physiological evidence on its pain relieving properties

3.3 However 'transcutaneous electrical nerve stimulation' (TENS) is a small electrical device which delivers electrical impulses across the skin. It is thought to work in two ways:

- By selectively stimulating certain "non-pain" nerve fibres to send signals to the brain that block other nerve signals carrying pain messages.
- By stimulating the production of endorphins, natural pain-relieving hormones.

3.4 However, further research is necessary to prove its effectiveness in the latent phase of labour.

3.5 Midwives should also be aware research has shown if a woman is given control over the stimulus of labour via non pharmological measure such as TENS their tolerance can increase and subsequently their requirements for further analgesia.

4.0 Obtaining a TENS machine

4.1 TENS machines are no longer available for hire from the Physiotherapy department.

4.2 TENS machines can be hired or purchased from chemists and Pharmacies, also companies such as Boots, Mothercare, Mama tens, and large superstores including Tesco's and Babies r us and leaflets are available via the antenatal classes or antenatal clinic

5.0 Indications for the Use of the TENS Machine

5.1 The TENS machine can be used as pain relief commencing in the latent phase of first stage of labour.

5.2 There is no high-level evidence on the analgesic effect of TENS in the latent phase of labour. However there is also no consistent evidence that TENS have any adverse outcomes for mother or baby,

5.3 No consistent evidence has been found to relate TENS impacting on interventions or outcomes of labour unless contraindications present.

5.4 By encouraging choice of TENS midwives will productively assist women to experience a non pharmological method of pain relief and thus facilitate choice in labour.

6.0 Contra Indications for Use of the TENS Machine

6.1 The TENS machine should not be offered to women in established labour i.e. after 4 cm of cervical dilatation.

6.2 There is a high level of evidence to indicate that TENS is not an effective analgesic in established labour.

6.3 The TENS machine should not be used in the following cases:

- A water medium i.e. bath/ birthing pool.
- During lower segment caesarean section (LSCS)
- If the woman has a pacemaker
- The TENS machine will have to be removed prior to siting an epidural.

7.0 Technique of Application

7.1 Discussion with the woman to enable her to make an informed choice regarding options for analgesia.

7.2 Obtain verbal consent, ensuring the woman accepts and understands the procedure.

7.3 Ensure TENS machine is operating effectively prior to application.

7.4 Position the woman in a sitting or standing position.

7.5 Apply four new self-adhesive pads to the woman's back; two placed vertically just below the bra-strap line with 3 centimetres (cm) in between the pads. A further two pads should be placed on the lower back 3 cms apart. The electrode pads should be placed parallel on each side of the spine and symmetrically.
(Refer to appendix A).

7.6 Connect the electrode pads to the battery operated hand held device.

7.7 Explain to the woman how to increase the settings and familiarise the woman with the boost switch for use during the contractions. Set the TENS machine to give a pleasant tingling sensation on the back; the woman can then increase this as she wishes with the increasing intensity of contractions.

7.8 Switch off the TENS machine before removing the electrodes.

7.9 TENS can be used alone or in combination with other non- pharmacological and pharmacological methods of pain relief

8.0 Staffing and Training

8.1 Training in the application and use of TENS machines is available from experienced midwives that are based in all clinical areas within the Maternity Unit.

8.2 All midwifery and obstetric staff are to ensure that their knowledge and skills are up to date in order to complete their portfolio for appraisal.

9.0 Infection Prevention

9.1 The TENS pads are for once only use, and should be supplied by the woman herself, who will have arranged hire of the TENS equipment antenatally.

9.2 The pads should not be applied to broken skin or to skin without normal sensation.

9.3 All staff should follow Trust guidelines on infection prevention by ensuring that they effectively 'decontaminate their hands' before and after each procedure.

10.0 Audit and Monitoring

10.1 Audit of compliance with this guideline will be considered on an annual audit basis in accordance with the Clinical Audit Strategy and Policy, the Maternity annual audit work plan and the NHSLA/CNST requirements. The Audit Lead in liaison with the Risk Management Group will identify a lead for the audit.

10.2 The findings of the audit will be reported to and approved by the Multi-disciplinary Risk Management Group (MRMG) and an action plan with named leads and timescales will be developed to address any identified deficiencies. Performance against the action plan will be monitored by this group at subsequent meetings.

10.3 The audit report will be reported to the monthly Maternity Directorate Governance Meeting (MDGM) and significant concerns relating to compliance will be entered on the local Risk Assurance Framework.

10.4 Key findings and learning points from the audit will be submitted to the Patient Safety Group within the integrated learning report.

10.5 Key findings and learning points will be disseminated to relevant staff.

11.0 Guideline Management

11.1 As an integral part of the knowledge, skills framework, staff are appraised annually to ensure competency in computer skills and the ability to access the current approved guidelines via the Trust's intranet site.

11.2 Quarterly memos are sent to line managers to disseminate to their staff the most currently approved guidelines available via the intranet and clinical guideline folders, located in each designated clinical area.

11.3 Guideline monitors have been nominated to each clinical area to ensure a system whereby obsolete guidelines are archived and newly approved guidelines are now downloaded from the intranet and filed appropriately in the guideline folders. 'Spot checks' are performed on all clinical guidelines quarterly.

11.4 Quarterly Clinical Practices group meetings are held to discuss 'guidelines'. During this meeting the practice development midwife can highlight any areas for future training needs will be met using methods such as 'workshops' or to be included in future 'skills and drills' mandatory training sessions.

12.0 Communication

12.1 A quarterly ‘maternity newsletter’ is issued to all staff to highlight key changes in clinical practice to include a list of newly approved guidelines for staff to acknowledge and familiarise themselves with and practice accordingly. Midwives that are on maternity leave or ‘bank’ staff have letters sent to their home address to update them on current clinical changes.

12.2 Approved guidelines are published monthly in the Trust’s Staff Focus that is sent via email to all staff.

12.3 Approved guidelines will be disseminated to appropriate staff quarterly via email.

12.4 Regular memos are posted on the guideline and audit notice boards in each clinical area to notify staff of the latest revised guidelines and how to access guidelines via the intranet or clinical guideline folders.

13.0 References

Cochrane Database Of Systematic Review (2009) Transcutaneous Electrical Nerve Stimulation (TENS) for Pain Management in Labour.

Commission for Healthcare Audit and Inspection (2008) Towards Better Births: A Review of Maternity Services in England. Healthcare Commission: London

DOH (2007) Maternity Matters: Choice, Access and Continuity of Care in a Safe Service. London.

National Institute for Health and Clinical Excellence. (2007) Intrapartum Care: Transcutaneous electrical nerve stimulation does not relieve labour pain. London.

An illustration to indicate the correct positioning of the TENS machine pads Appendix A