Reference Number: **Version Number:** 5	**Date of Next Review: February 2024** **Previous Trust/LHB Reference Number:**

Title

Large Loop Excision of the Transformation Zone (Lletz)

Introduction and Aim

Large loop excision of the transformation zone (Lletz) is a frequently used treatment to remove cervical intraepithelial neoplasia (CIN). The advantages of Lletz over other treatment methods is that it provides a sample for histopathological analysis to determine the grade of CIN, assessment of the excision margins and exclusion of invasion (1). Lletz is easily performed under local anaesthesia in a clinic setting or less frequently under general anaesthetic if there are contraindications.

Objectives

- To ensure Lletz procedure is carried out according to the guidance provided by the NHS Cervical Screening Programme and Cervical Screening Wales

Scope

This policy applies to all healthcare professionals in all locations including those with honorary contracts who are registered with the BSCCP (British Society for Colposcopy and Cervical Pathology) to undertake Lletz treatment

Equality Health Impact Assessment	*An Equality Health Impact Assessment (EHIA) has not been completed.*
Documents to read alongside this Procedure	NHS Cervical Screening Programme, Publication number 20, last updated 5 February 2020 Public Health Wales, CSW Quality Manual, Colposcopy, Status last approved 29 April.2020
Approved by	*Gynaecology Professional Forum*

Accountable Executive or Clinical Board Director	*Ruth Walker, Executive Nurse Director*
Author(s)	*Sue Ashman* *Updated by Louise Johnson 2021*

Summary of reviews/amendments

Version Number	Date of Review Approved	Date Published	Summary of Amendments
5			References updated Written consent added Patient Group Directive added

Indication

Lletz treatment is offered for treatment of biopsy confirmed high grade CIN (2 and 3); cervical glandular intraepithelial neoplasia (cGIN) or SMILE (stratified mucin producing intraepithelial neoplasia). It can also be undertaken as a diagnostic procedure or for the treatment of persistent low grade CIN (CIN 1) and as a 'select and treat' procedure for women with high grade cytology and a high grade colposcopy impression where high grade CIN is suspected.

Prior to treatment

Women should be provided with written information prior to their visit including when the treatment is performed as part of a 'select and treat' episode:

The Colposcopist should explain that the treatment carried out in the clinic:

- May cause discomfort but is unlikely to cause pain
- Is unlikely to affect future pregnancies
  Single loop excision measuring less than 10mm in length/depth is not associated with any increase in the incidence of preterm labour and preterm pre-labour rupture of membranes (2)
- Is very effective

Women should be warned of the risks and side effects of the procedure, including:

- Haemorrhage
- Infection
- Future pregnancy outcomes
- Fertility
  Single loop excision is not associated with any increased risk of infertility but may increase the risk of mid-trimester miscarriage (2)

- With repeated excisional treatments the woman should be warned there is a risk of cervical stenosis/incompetence.
- Effects of anaesthesia/analgesia

Written consent should also be obtained once all discussed; copies of which should be given to the woman, their GP and a further copy filed in case notes.

Use of Lletz
Prior colposcopic assessment is essential prior to Lletz.
In selected cases Lletz can be performed following colposcopy, at the first visit i.e. select and treat.
A full excision of the transformation zone should not be performed if there is clinical evidence of invasion.

Contraindications
There are no known contraindications to the use of electrosurgery. The use of external or internal pacemakers, monitoring equipment, and the woman's condition may require special precautions (e.g. anticoagulation, severe orthopnoea). Colposcopic biopsy may be a procedure from which bacteraemia may occur for susceptible individuals. Antibiotic prophylaxis may be appropriate for susceptible individuals if Lletz is planned.

Equipment
An electro-surgical generator is used (e.g. ValleyLab or ERBE). The generator produces a high frequency (500 kilohertz) monopolar current in cutting and coagulation modes or combinations of these modes.

Procedure
A suitable local analgesic, usually including adrenalin/octapressin, is injected using a dental syringe. Two or three ampoules of analgesic may be injected just under the cervical epithelium to provide local infiltration to the cervix. Women may experience mild and transient palpitations shortly after application.
An approved PGD came into effect on 20th January 2020 for the administration of Citanest with Octapressin dental for women undergoing cervical treatment or vaginal biopsies and is reviewed annually.

Manufacturers operating instructions and the NHSCSP Equipment report 0401: Guidance Notes on Electrical Safety in Rooms Used for Colposcopy and the Safe Use of Electrosurgery for Lletz (3) should be read or viewed and thoroughly understood by all personnel, before use of the equipment. Copies should be kept available in the treatment room.

Under no circumstances must the active Lletz or coagulation ball be energized within the vagina but away from the excision site.
During surgical Lletz, it is normal for sparking to occur at the active electrode. These sparks are easily able to ignite fluids or dry swabs. Therefore it is important not to use spirit based fluids or dry swabs near the active electrode.

A lowest power consistent with effective cutting and haemostasis should be used in line with manufacturer's recommendations to ensure that the specimen is suitable for histology.

Attachment of the Return Electrode

It is recommended that a disposable return electrode (thigh pad) is used, positioned properly in accordance with manufacturer's guidance.

Single use plates must not be reused since the conducting gel which is used to coat the contact surface would not be intact and result in impaired conduction of the return current.

Reusable return electrodes must provide whole area contact without wrinkles.

The return electrode should not be attached in the area of prosthetic inserts. In the case of women fitted with pacemakers, advice should be sought from the pacemaker manufacturers on the use of electrosurgery and recommended location of electrodes.

Connection of the Active Electrode

Where a choice of length of active electrode lead is available from the supplier choose the shortest length that will allow the lead to run from the Lletz electrode to the connection on the generator. Any surplus lead must **not** be coiled. The lead should not be attached to the examination couch or the equipment trolley.

Positioning of the lead should allow freedom of movement whilst minimising tension on the cable.

Before use, the Lletz cutting loop should be carefully inspected and not used if the insulation is damaged.

Lead Safety

Trailing leads on the floor of the treatment room should be avoided, particularly when the woman is being brought in and taken from the room.

Only leads and connectors designed for direct connection to the equipment must be used and the manufacturer's recommendations about use, storing, cleaning and checking followed.

Electrical Isolation of the Woman

When the active electrode is energised, the whole of the woman's body is available to act as a return path due to capacitive effects. Electrical isolation of the woman from metal parts of the couch and leg supports, by use of insulating mattresses and tape is the most effective way of avoiding possible injury from burns. A discharge occurring over a large area such as the whole hand might be harmless, whereas finger tip contact with an earth path such as a metal frame would result in a painful burn. As a general rule, small area contact with the woman, such as lightly brushing the face should be avoided, when the electrode is energised. Similarly, if contact has to be made with equipment whilst it is energised, use the full hand, not a single finger.

Use of computers in colposcopy and associated electrical safety

The computer used for imaging should be connected directly to the wall mains supply and not to power sockets on trailing leads. Non medical equipment may not be included within the 'woman environment' which encompasses a volume around the woman and couch.

Colposcopist
If a metal speculum is used, the Colposcopist is brought into close contact with the source of the current and must take measures to ensure they are isolated from 'earthed' bodies. These include the examination couch and the base and supporting column of the colposcope.
The use of plastic or fully insulated metal specula, the latter being autoclavable, is advised where other means of isolation for vulnerable areas of the body are impracticable.

Smoke Evacuation
Use of a smoke evacuator to allow clear observation of the site and removal of the potential health risk to personnel is advised. The hospital vacuum system should not be used for this purpose. Portable suction units exhausting unfiltered air into the room should also be avoided.

Technique

- Colposcopy must be performed to visualise the abnormal area and plan the excision
- A speculum with a smoke extraction tube must be used
- Local analgesia is used if performed as an outpatient procedure
- The Colposcopist should aim to remove the lesion in one specimen in at least 80% of cases. Large areas may need to be removed in 2 or 3 pieces. The orientation of the multiple segments may be difficult from the point of view of histology.
- A suitable sized wire loop is selected depending upon the size of the area to be excised and the recommended depth of excision
- The cervix is positioned so that the whole lesion on the ectocervix is visible, if possible. The wire is allowed to sink at a right angle to the surface until the correct depth is reached
- Thereafter, progress parallel to the surface and usually in a horizontal rather than vertical direction. The loop is allowed to come to the surface at a right angle once again when it is removed at the opposite edge of the lesion. The angle of the loop may need to be modified, or the cervix moved for eccentric lesions or if access is difficult
- For loop specimens involving the endocervical canal a further excision may be taken from the base of the crater using a smaller loop
- The loop crater is cauterised with the coagulating current as a fulgurating non contact procedure. This aims to achieve good haemostasis
- Care must be taken not to touch the vaginal wall or speculum with the loop or diathermy ball as this is painful.
- All the samples must be sent separately identified, with appropriate labelling

Post-treatment Advice
Post treatment advice given to the women should include that:

- They may experience some 'period like' cramping pain; painkillers such as Paracetamol or Ibuprofen can be taken if necessary

- Generally no pain will be felt 'inside' even once the anaesthetic has worn off
- A blood stained discharge is likely for a few days which may then change to a brownie/black colour. This loss is generally no heavier than a period. Following this a pink watery discharge may persist for about 3 to 4 weeks
- To enable the cervix to heal and to reduce the risk of infection no tampons or sexual intercourse for a month after treatment
- Occasionally an infection may develop which will produce an offensive or bad smelling discharge or heavier than expected bleeding. This can be easily treated with a course of antibiotics from your GP
- Rarely heavy bleeding may occur and you may need to be seen by your GP, back at the Colposcopy clinic or in casualty if outside office hours
- About 1 in 20 women will need a repeat treatment at some time in the future. Therefore it is important to attend follow up colposcopy and / or smear appointments

A local clinic leaflet including a contact telephone number should be given to all women following treatment. Advice on alternative contacts outside clinic hours should also be given.
The woman is informed of her results and management plan when the histology is available.

Further Guidance
Use of dental syringes for local infiltration prior to treatment of CIN is acceptable and normal practice in colposcopy and is endorsed by the BSCCP.

References

1 . Large Loop Excision of the Transformation Zone and Cervical Intraepithelial Neoplasia:
A 22-Year Experience. Stasinou, S.M. Valasoulis, G. Kyrgios, M. Malamou-Mitsi, Vasiliki. Bilirakis, E. Pappa, L. Deligeoroglou, E. Nasioutziki, M. Founta, C. Daponte, A. Koliopoulos, G. Loufopoulos, A. Karakitsos, P and Paraskevaidis, E. Anticancer Research **September 2012** vol. 32 no. 9 **4141-4145**

2. Public Health Wales, CSW Quality Manual, Colposcopy, 31st May 2016.

3. NHSCSP Equipment Report 0401 December 2004
Guidance notes on electrical safety in rooms used for colposcopy and the safe use of electrosurgery for Lletz procedures