Appendix A

Classification of excisions

Excisions are classified according to the length of cervix excised.

- Type I - usually to 8 mm and not more than 10 mm length of cervical tissue excised
- Type 2 - not more than 15 mm length of tissue excised
- Type 3 - equivalent to 'cone biopsy' and > 15 mm length

Only type 2 and type 3 excisions will be permitted for this study.

The loop electrosurgical excision procedure (LEEP) technique

- A urine pregnancy test is mandatory prior to treatment
- The procedure is performed with the patient in the lithotomy position using a wire loop and an electrosurgical generator. Loops are available in a range of sizes, and are insulated along the shaft to prevent injury to the patient and thermal damage to the vaginal mucosa.
- An insulated speculum is inserted into the vagina to facilitate adequate visualization of the ectocervix and transformation zone. The speculum is connected to suction during the procedure to evacuate smoke generated as the cervical tissue is excised.
- Colposcopy is performed immediately prior to assess the cervix and the size of the loop used is determined according to the lesion size.
- Five to 10 mL of a local anaesthetic such as 1% lignocaine with 1:100,000 adrenaline is injected into the subdermal tissue of the ectocervix. Some practitioners infiltrate this at 3, 6, 9, and 12 o'clock. Adrenaline is a vasoconstrictor which reduces blood loss.
- Diathermy settings should be higher than those used at laparotomy and laparoscopy to reduce thermal artefact. The electrosurgical unit should be set at 70 to 80 watts on blend 1 which mixes cutting and coagulating currents and minimises thermal damage. Extensive application of coagulation current should be avoided.
- The loop is passed simultaneously around and under the transformation zone, to excise it. A single pass of the loop (side to side or posterior to anterior) to produce a specimen in one piece is essential for this study.
- Colposcopy may be performed post-procedure to assess the completeness of the excision.
- An endocervical curettage is performed following completion of excision, and haemostasis is obtained with a ball diathermy. Ferric subsulphate (Monsels' solution or paste) is applied to the base of the excision for additional haemostasis and to reduce infection risk.

- LEEP may be performed in an operating theatre, outpatient clinic or consulting rooms under local or general anaesthesia in accordance with local practice and at the discretion of the treating specialist.

Cold-knife cone biopsy technique

- A urine pregnancy test is mandatory prior to treatment
- Performed in the lithotomy position
- A weighted speculum of appropriate length and narrow Deaver retractors (or similar) are inserted into the vagina and held in place by an assistant to allow visualization the cervix.
- Colposcopic examination may be performed using Lugol's iodine or 3 to 5% acetic acid solution to help delineate the outer margins of the transformation zone.
- Some clinicians place absorbable sutures at the three and nine o'clock positions just inferior to the cervical-vaginal junction to facilitate traction and visualization of the cervix.
- The anterior lip of the cervix is grasped with a tenaculum clear of the transformation zone.
- Lignocaine and adrenaline (1:100,000) are infiltrated deep into the cervical stroma lateral to the planned outer margin of the excision.
- An 11-blade scalpel is used to excise a cone shaped piece of cervical tissue where the AIS lesion is located.
- The initial incision is perpendicular to the external cervical surface to ensure the excision of glands originally exposed in the post-menarche transformation zone now overlain by mature squamous metaplasia.
- An Allis clamp is used to gently grasp and manipulate the partially released specimen, being careful to avoid the mucosal surfaces. Mayo scissors are used to complete the incision as necessary. The specimen is then removed by cutting across the remaining base with Jorghenson scissors. The residual endocervical canal is then curetted.
- Cone biopsies are type 3 excisions but occasionally may be modified to type 2 excisions in younger women with small lesions where the full extent of the lesion is apparent.
- The procedure is performed in an operating theatre under general anaesthesia by a gynaecological oncologist or gynaecologist experienced in performing cone biopsies.
- The size and shape of the cone biopsy should be individualized and based upon careful preoperative colposcopy.
- Sutures may be required should there be significant haemorrhage from the base of the cervix following the excision.
- Packing the base of the cervix at the conclusion of the procedure with a gauze pack dipped in ferric subsulphate solution (Monsel's solution) decreases post-operative blood loss.