Information sheet for patients undergoing
Anterior Resection of the Sigmoid Colon

What is an Anterior Resection of the Sigmoid Colon?

An operation to surgically remove the sigmoid colon via the abdomen and to restore continuity of the bowel.

Indications
The operation is being performed to remove diseased tissue (diverticulitis or cancer or polyps) within the sigmoid colon.

Pre-operative preparation
Your specialist will arrange blood tests, x-rays, scans and consultations with other specialists (such as cardiologists) as appropriate. You will need to take bowel prep to thoroughly cleanse the bowel – your Practice Nurse will arrange this. If you wish you may be admitted to hospital the day before or on the day of surgery according to your wishes or on the advice of your specialist – the nurses will once again arrange this.

Anaesthesia and antibiotics
The operation will be performed under a general anaesthetic, administered by an anaesthetist. Antibiotics will be given in the operating room.

Operative procedure
The colon will be operated on through an incision made in the abdomen.

The sigmoid colon is the last part of the gut, just before it becomes the rectum. It normally lies within the pelvis and passes across the front of the sacrum to the left side of the pelvis. It then curves downwards where it becomes the rectum. Behind the sigmoid colon are the blood vessels and nerve supply to the surrounding area, and in front it is separated from the bladder (in males) and uterus (in females) by coils of the small intestine. The operation involves separating the sigmoid colon from the rectum, whilst taking great care to protect and preserve blood vessels, nerves, and other organs. It also involves cutting across the upper part of the sigmoid colon where there is healthy colon with a good blood supply.

It may be necessary to ‘rest’ the repaired colon for a period of four to six weeks after the operation. If necessary (dependant on a number of factors, including the extent of colon removed, the blood supply to the remaining colon), the surgeon will need to form an opening from the small bowel (which joins to become the colon or large bowel) onto the abdominal wall. This is called an ileostomy. It means that faecal matter flows out through this opening rather than continuing down through the repaired and healing colon. You will need to wear a collection device (a bag) on the outside of the abdomen. You will be advised and receive on-going specialist nurse support during this period. This procedure is then ‘reversed’ when the surgeon is satisfied that the colon has recovered – after a period of about six weeks. This second procedure is not a major operation.

The final part of the operation is to join (an anastomosis) the cut ends to restore continuity of the bowel. This is done with a single-use (disposable) device which places a double row of titanium (inert) staples around the circumference of the bowel.
Expected post-operative course

**Pain relief (analgesia)** – pain is an inevitable feature of surgery but it will be adequately controlled. This is achieved by either an *epidural*: a small tube inserted around the nerves in the back where they exit from the spinal cord, which continuously delivers morphine; or *Patient Controlled Analgesia* (PCA) whereby morphine is delivered into the blood stream at the push of a button by you. Both methods will be discussed with you by your anaesthetist prior to surgery. Whichever method is used, your pain should diminish so that by day 3 or 4 it will be adequately controlled by painkillers taken by mouth.

When you wake from operation you will be attached to various tubes:

An *epidural*, if used (see above).

A *urinary catheter* to drain the bladder. This is usually removed on day 2, 3 or 4.

An *intravenous drip* to supplement oral fluids and to deliver morphine if a *PCA* is used (see above). After an operation on the bowel it temporarily ceases to push things through, so care must be exercised as to how much is taken in by mouth. The nurses will advise you how much you can take, but during this period, the fluid in the drip makes up for any deficit. When the bowel starts to work properly the first thing you will experience is the passage of flatus (wind) which usually happens on day 2 or 3. At this point it is safe to take in unrestricted fluids and the drip is taken down. The first bowel motion usually happens on day 4 or 5 (but can sometimes take an extra few days), at which point a light diet is started.

A *drain* (thin tube) coming from the abdomen to drain any fluid (a natural reaction of the body) formed at the operation site.

**Prevention of Deep Vein Thrombosis (DVT):** As in long-haul plane trips there is an increased risk of this occurring due to your relative immobility. You will be fitted with graduated compression stockings and mechanical compression devices to promote blood flow in the legs. These will not stop you from mobilising which you will be encouraged to do, with the close assistance of ward staff. A blood thinning agent will also be administered on a daily basis until you are fully mobile. With these measures, less than 1% of patients will suffer from a DVT.

**Prevention of chest infections:** The physiotherapist will help you with breathing exercises to ensure proper lung inflation which will help prevent a chest infection. Less than 1% of patients will suffer from a chest infection.

**Bowel function:** The main function of the sigmoid colon is to propel stool down into the rectum so removing it will partially remove some of this ability. The remaining colon adapts and continues this task. You may notice a change in the frequency of bowel motions until the bowel has healed.
Potential complications

**Wound Complications** - some patients may experience a wound complication such as infection or a haematoma. Infection is kept to a minimum with antibiotics used at surgery. It may require a further course to help clear it.

**DVT** and **chest infection** as described previously.

**Internal bleeding** – this is most unusual, and nearly always stops without further surgery

**Anastomotic dehiscence** (leakage from the join in the bowel, within the pelvis or abdomen) will occur in a small percentage of patients at about a week after surgery. The effects are very much dependant on the size of the defect and hence the amount of leakage (of faecal material): small leaks are often not even noticed. Larger leaks may produce a localised abscess requiring drainage, usually under with a local anaesthetic. Substantial leaks will require a second operation and it may be necessary to give you a temporary colostomy (bag), which can be reversed at a later date.

**Urinary function** – you may experience difficulty voiding the bladder and increased frequency initially. If this does happen it usually improves with time and physiotherapy.

**Sexual function** – rarely, men may experience failure of erection and women vaginal dryness. It is rarely permanent.

Discharge from hospital

This will happen only when you, your specialist and the nursing staff are all happy that you have recovered sufficiently such that you manage independently at home with day-to-day activities such as feeding, dressing and washing. For most people this will be at 7-10 days after surgery.

Follow up

Arrangements will be made upon discharge for removal of stitches or clips (if appropriate) and a follow-up with the district nurse and your specialist.

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