LOW PRIORITY PROCEDURE – Policy
Surgical treatment of Hernias T32

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Policy Summary
This policy covers the management of inguinal, femoral, umbilical, ventral and incisional hernias, with criteria for referrals/treatment.

Eligibility criteria

Inguinal:
For asymptomatic or minimally symptomatic hernias, NHS Suffolk advocates a watchful waiting approach, under informed consent.

Surgical treatment should only be offered when one of the following criteria is met:
• Symptomatic i.e. symptoms are such that they interfere with work or activities of daily living OR
• The hernia is difficult or impossible to reduce, OR
• Inguino-scrotal hernia, OR
• The hernia increases in size month on month OR
• The patient is currently asymptomatic but work in a heavy manual occupation (For e.g. in removal firms lifting heavy weights) and there is an increased risk of strangulation and future complications.

Femoral:
• All suspected femoral hernias should be referred to secondary care due to the increased risk of incarceration/strangulation

Umbilical:
Surgical treatment should only be offered when one of the following criteria is met:
• pain/discomfort interfering with Activities of Daily Living OR
• increase in size month on month OR
• to avoid incarceration or strangulation of bowel OR
• The patient is currently asymptomatic but work in a heavy manual occupation (For e.g. in removal firms lifting heavy weights) and there is an increased risk of strangulation and future complications

Incisional
Surgical treatment should only be offered when both of the following criteria are met:
• Pain/discomfort interfering with Activities of Daily Living **AND**  
• Appropriate conservative management has been tried first e.g. weight reduction where appropriate **OR**  
• The patient is currently asymptomatic but work in a heavy manual occupation (For e.g. in removal firms lifting heavy weights) and there is a risk of strangulation and future complications  

**Background to the condition**

A hernia is defined as a protrusion of a sac or peritoneum, often containing intestine or other abdominal contents, from its proper cavity through a weakness in the abdominal wall. They usually present as a lump, and patients often experience pain or discomfort that can limit daily activities and the ability to work. In addition, hernias can present as a surgical emergency should the bowel strangulate or become obstructed due to the hernia.

There are many different types of hernia; those that are covered in this policy include inguinal, femoral, ventral, incision, umbilical and incisional hernias.

An inguinal hernia is a protrusion of the contents of the abdominal cavity or preperitoneal fat through a hernia defects in the inguinal area. Indirect hernias follow the inguinal canal, whereas direct hernias usually occur due to a defect or weakness in the transversalis fascia are of the Hesselbach triangle. 98% occur in men due to the vulnerability of the male anatomy. Femoral hernias follow the tract below the inguinal ligament through the femoral canal, and account for less than 10% of all groin hernias. However, due to the small size of this space through which they protrude, they frequently become incarcerated or strangulated with 40% presenting as emergencies. The incidence of femoral hernias is higher in women than men, with a ratio of 4:1.

Incisional hernias are iatrogenic, with protrusion through a defect caused during surgery. They account for 80% of ventral hernia, and may arise from 3-11% of all laparotomies, rising to >23% should wound infection occur. Other predisposing factors include diabetes, smoking and obesity. Again, they can give rise to symptoms such as discomfort or pain.

Approximate frequencies for each type of hernia are:
- Inguinal = 70-75%
- Femoral = 17%
- Umbilical 3-8.5%
- Rarer form 1-2% (epigastric/incisional)

**Rationale behind the decision**

A trial carried out by Fitzgibbons randomised 720 men to watchful waiting vs surgical repair of their inguinal hernia. Primary outcomes were pain limiting activities and their ‘physical component score’. It was found that results for these outcomes were similar between watchful waiting and surgical repair at 2 years. Although a relatively high proportion of the watchful waiting group (23%) crossed over to operative repair of the hernia (usually due to pain), there was no difference in post op complications between this group and those allocated initially to repair. Only one watchful waiting patient experience acute hernia incarceration within 2 years, with a second experiencing this at 4 years. The authors therefore concluded that watchful waiting is an acceptable option in minimally symptomatic inguinal hernias, and that in effect surgery was delayed rather than avoided. They also concluded that delaying surgical repair until symptoms increase is safe because acute incarcerations occur rarely and there was no increase in operative complications. This approach is also advocated by the BMJ clinical evidence team.
Furthermore, in a response to the article by Fitzgibbons, Flum agrees with this position and reiterates the benefits of watchful waiting where clinically appropriate.

Furthermore, the Danish hernia database recommend surgical repair in the presence of symptoms affecting daily life. In addition, they advise surgical repair in women due to the higher risk of strangulation. However, in men with minimal or absent symptoms, a watchful waiting approach is recommended.

There is also evidence from the European Hernia society supporting this recommendation and advocating a watchful waiting approach for those who are asymptomatic or minimally symptomatic. However, they recommend that those who are symptomatic should be considered for elective surgery. This approach is also in line with recommendations from other PCTs such as Buckinghamshire, Oxfordshire, West Essex and Westminster.

However, there are some conflicts in the studies looking at watchful waiting compared to early placement on the list for elective surgery. For example, Primatesta looked at the incidence of elective and emergency surgery, readmission and mortality, finding that patients who underwent emergency repair were older, had higher emergency readmission rates than electives, and significantly elevated postoperative mortality rates, and they therefore advised that elective repair of inguinal hernia should be undertaken soon after diagnosis to minimise the risk of adverse outcomes. However, in the study carried out by Fitzgibbons, patients were operated on once their symptoms (i.e. pain) increased, rather than the decision being made to delay surgery until strangulation occurred and an emergency procedure was carried out.

The case is different for femoral surgery. Femoral hernias account for less than 10% of groin hernias but 40% of these present as emergencies with incarceration or strangulation. Also, femoral hernias are more common in women (ratio 4:1) in contrast to inguinal hernias which have a higher incidence in men. Therefore, we have recommended that femoral hernias should be referred for specialist assessment, and that primary care clinicians should note that these hernias are more common in women. This view is supported by the Danish hernia database.

Incisional hernias represent approximately 80% of ventral hernias, and are more common in people who have experienced wound complications or infections post operatively. Friedrich et al recommend conservative management such as weight reduction to relieve symptoms, and that surgery should be carried out in those who are symptomatic and conservative management has given no benefit. The most common complaint is pain, with on 12% presenting acutely with incarceration or strangulation. Courtney found that only one third of incisional hernias became symptomatic and required repair. The Society for Surgery of the Alimentary Tract advise that incisional hernias occur in 3-13% of primary abdominal incisions, although recurrence rates can be quite high at 25-50%, with risk factors for hernias being wound infections, obesity, diabetes and smoking. They advised that reasons for repairing incisional hernias would include relieving symptoms, to prevent gradual enlargement over time, and to avoid incarceration and strangulation of bowel. Therefore these latter recommendations have formed the basis of our criteria for referrals and treatment for umbilical and incisional hernias.

References:
3. Evidence based management of groin hernia in primary care - a systematic review. Family Practice; 17:442-447
5. Dabbas (2011). Frequency of abdominal wall hernias: is classical teaching out of date. JRSM Short Reports: 2/5; 5
6. Fitzgibbons (2006); Watchful waiting versus repair of inguinal hernia in minimally symptomatic men, a randomised controlled trial. JAMA: 295; 285-292
7. Flum (2006): The asymptomatic hernia: If it’s not broken don’t fix it. JAMA: 295; 249
8. BMJ clinical evidence on Inguinal Hernias; Chos, Purkayastha, Anthanasiou, Tekkis and Darzi.

NHS Suffolk will monitor the adherence of the policy through the use of OPCS codes which will form the basis of compliance audit in secondary care.