Acknowledgements

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Surgical treatment of hernia policy

1.Policy Summary

This policy covers the management of inguinal, femoral, umbilical, ventral and incisional hernias and Gilmore's groin, with criteria for referrals/treatment.

2. Acknowledgement

NHS Suffolk and NHS Cambridgeshire are acknowledged as the source of this policy. The authors are also grateful for the invaluable support of the North and East London Commissioning Support Unit in ensuring liaison with individual service and business managers at the James Padget Hospital, Great Yarmouth, the Norfolk and Norwich University Hospital, Norwich and the Queen Elizabeth Hospital, Kings Lynn and their efforts to consult with clinicians in the appropriate specialities at every stage of the development of this policy. Individuals who contributed to this process are acknowledged in Appendix 1.

3. Definition

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.

4. Eligibility criteria

Inguinal:

For asymptomatic or minimally symptomatic hernias, a watchful waiting approach, under informed consent, is advocated.

Surgical treatment should only be offered when one of the following criteria is met:

symptoms of pain or discomfort that interfere with activities of daily living, **OR** the hernia is difficult or impossible to reduce, **OR**

it is an Inguino-scrotal hernia, **OR**

the hernia increases in size month on month.

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:

Symptoms of pain or discomfort that interfere with activities of daily living **OR** increase in size month on month **OR**

to avoid incarceration or strangulation of bowel.

Incisional

Surgical treatment should only be offered when **both** of the following criteria are met:

Symptoms of pain/discomfort that interfere with activities of daily living **AND** Appropriate conservative management has been tried first e.g. weight reduction where appropriate.

“Gilmore’s groin”

Not routinely funded

Diastases/Divarication of Recti

Diastases/Divarication of recti is a separation between the left and right side of the rectus abdominis muscle and causes a protrusion in the midline, but is not a 'true' hernia and does not carry the risk of bowel becoming trapped within it and thus does not require repair[14, 15]. The CCGs consider repair of divarication of recti as a cosmetic procedure and a low priority. Evidence suggests that divarication does not carry the same risks as that of actual herniation.

5. Background to the conditions

A Hernia usually presents as a lump, and patients often experience pain or discomfort that can limit daily activities and the ability to work.[1,2] 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, incisional and Gilmore's groin hernias. Approximate frequencies for each type of hernia are[5]:

Inguinal: 70-75%

Femoral: 17%

Umbilical: 3-8.5%

Rarer forms 1-2% (epigastric/incisional).

An **inguinal hernia** is a protrusion of the contents of the abdominal cavity or preperitoneal fat through a hernia defect 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.[1, 2]

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[1] with 40% presenting as emergencies[3]. The incidence of femoral hernias is higher in women than men, with a ratio of 4:1.

Incisional hernias are are a common complication of abdominal surgery and can occur through a weakness at the site of abdominal wall closure anytime after the index operation[13]. They account for 80%[4] 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.

Divarication of recti describes the deviation of the two rectus abdominis muscles on either side of the midline from each other. The condition is relatively common and asymptomatic although patients may be unhappy with the appearance of their abdomen.

6. Rationale behind the decision

A trial carried out by Fitzgibbons[6] 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 experienced 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[8]. Furthermore, in a response to the article by Fitzgibbons, Flum[7] agrees with this position and reiterates the benefits of watchful waiting where clinically appropriate.

There is also evidence from the European Hernia society[9] 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[10] 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[3] 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 clinicians should note that these hernias are more common in women. This view is supported by the Danish hernia database[16].

Incisional hernias represent approximately 80% of ventral hernias[11], and are more common in people who have experienced wound complications or infections post operatively. Friedrich et al[4] 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[11] found that only one third of incisional hernias became symptomatic and required repair. The Society for Surgery of the Alimentary Tract[12] 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.

Clinical effectiveness

The Provider will participate constructively and in a timely manner in an audit of all patients treated under this policy as agreed with the Commissioner.

Please discuss this with your directorate/ healthcare governance lead. If you require any advice in conducting an audit then contact [redacted] in Public Health, Norfolk County Council, who can advise you in preparing the audit, measuring performance, making or sustaining improvements in the care of patients in line with this policy.

7. References

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APPENDIX 1

This draft policy has been developed through consultation with the following:

Name	Designation	CCG/Acute provider
CCG clinicians		
[redacted]	GP representative	NHS Great Yarmouth and Waveney CCG
[redacted]	Clinical Advisor	NHS Great Yarmouth and Waveney CCG
[redacted]	GP representative	NHS North Norfolk CCG
[redacted]	GP representative	NHS Norwich CCG
[redacted]	GP representative	NHS South Norfolk CCG
[redacted]	CCG representative	NHS West Norfolk CCG
[redacted]	GP	NHS West Norfolk CCG
[redacted]	GP	NHS West Norfolk CCG
[redacted]	GP	NHS West Norfolk CCG
[redacted]	GP and CCG	NHS West Norfolk CCG
[redacted]	GP	NHS West Norfolk CCG
[redacted]	GP	NHS West Norfolk CCG
[redacted]	Chair	NHS West Norfolk CCG
[redacted]	Clinical Governance Lead	NHS West Norfolk CCG

CCG Colleagues		
[redacted]	Project Management Specialist	(representing) NHS Great Yarmouth and Waveney CCG
[redacted]	Commissioning Manager	NHS North Norfolk CCG
[redacted]	Commissioning Manager	NHS Norwich CCG
[redacted]	Independent Consultant	(representing) NHS South Norfolk CCG
[redacted]	Commissioning Manager	NHS West Norfolk CCG
[redacted]	Chief Officer	NHS West Norfolk CCG

Acute provider colleagues		
[redacted]	Business Manager	Norfolk and Norwich University Hospital NHSFT
[redacted]	Head of Commissioning	Norfolk and Norwich University Hospital NHSFT
[redacted]	Consultant Surgeon	James Paget University Hospital NHSFT

[redacted]	Consultant Plastic Surgeon	James Paget University Hospital NHSFT
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[redacted]	Consultant Urological Surgeon	James Paget University Hospital NHSFT
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[redacted]	Divisional Manager	James Paget University Hospital NHSFT
[redacted]	Consultant Surgeon	James Paget University Hospital NHSFT
[redacted]	Consultant General Surgeon	James Paget University Hospital NHSFT
[redacted]	Consultant General Surgeon	James Paget University Hospital NHSFT
[redacted]	Consultant Colorectal and General Surgeon	James Paget University Hospital NHSFT
[redacted]	Commissioning Manager	Queen Elizabeth Hospital NHS Trust, King's Lynn

Public Health Team		
[redacted]	Consultant in Public Health	Norfolk County Council
[redacted]	Consultant in Public Health	Norfolk County Council and Suffolk County Council
[redacted]	Speciality Registrar Public Health	Norfolk County Council
[redacted]	Consultant in Public Health	Norfolk County Council
[redacted]	FY2 Doctor	Norfolk County Council
[redacted]	GP Registrar	Norfolk County Council