Hernia Surgery in Adults
(Inguinal, Femoral, and Abdominal Hernias and Divarication of Recti)

Definition

Hernias are protrusions of organs or tissue through the tissue that contains them. This is commonly in the abdomen, where part of the intestine protrudes through the abdominal wall. In some cases, hernias may ‘incarcerate’, where the neck of the hernia closes, trapping the contents inside. This may result in obstruction of the intestine or ‘strangulation’, where the blood flow is cut off. Divarication of the recti is the separation of the rectus abdominis muscle so that the abdominal wall fails to properly hold abdominal contents in place and has similarities in clinical presentation to hernias.

Policy

It is the responsibility of referring and treating clinicians to ensure compliance with this policy. Referral proforma should be attached to the patient notes to aid the clinical audit process and provide evidence of compliance with the policy. For patients not meeting the policy criteria, clinicians can apply for funding to the Exceptional Cases Panel by completing the exceptional funding section of the referral proforma:

Click policies to access the CCG clinical policies web page: select the Hernia Surgery in Adults (Inguinal, Femoral, and Abdominal Hernias and Divarication of Recti) drop down option to access the referral proforma.

<table>
<thead>
<tr>
<th>Patients with symptoms of incarceration, strangulation or obstruction</th>
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<td>Surgery will be funded.</td>
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<th>Patients without symptoms of incarceration, strangulation or obstruction</th>
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<td>Femoral Hernia</td>
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<th>Inguinal Hernia</th>
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<tr>
<td>Patients with asymptomatic or mildly symptomatic inguinal hernias should not be referred. Surgery will not be funded unless there is:</td>
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<tr>
<td>• difficulty in reducing the hernia; OR</td>
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<td>• an inguino-scrotal hernia; OR</td>
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<td>• pain with strenuous activity, prostatism or discomfort significantly interfering with activities of daily living.</td>
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<th>Abdominal (including incisional and umbilical) hernia</th>
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<td>Surgery will not be funded unless:</td>
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<td>• there is pain/discomfort significantly interfering with activities of daily living: AND</td>
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<tr>
<td>• for patients with BMI ≥ 30kg/m², they have been advised on weight reduction to reduce the risks of recurrence and post-operative complications; OR</td>
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<tr>
<td>• the hernia is causing difficulty with the fitting of a stoma appliance, eg bag leaking or skin damage.</td>
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For incisional hernias, surgery will be funded where a significant increase in size is noted over time.

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<th>Divarication of Recti</th>
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<td>Divarification of recti as a stand-alone procedure will not be funded.</td>
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<td>These patients should not have diagnostic testing in primary care, but be referred for specialist assessment. Funding criteria for surgery are then applied as laid out in this policy.</td>
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Day surgery
For patients meeting the criteria for day-case surgery and where day-case surgery is possible, only day-case surgery should be funded.

Recurrent and bilateral hernia
These are considered in the same way as primary hernias and funding criteria for surgery will be applied as described in this policy. Referral should be made to appropriate specialists with expertise in open and laparoscopic surgery.

Notes
I. Patients should be referred directly for surgery.
II. Patients should be managed with observation and review.
III. Activities such as meal preparation, laundry, housekeeping, shopping, using the phone, driving or using public transport.

Smoking
Patients who smoke should be advised to attempt to stop smoking and referred to stop-smoking services – see stop smoking policy.

Patients with symptoms of incarceration, strangulation or obstruction: These patients need to be referred urgently.

Femoral hernia: Has a high risk of morbidity and mortality and surgery is recommended, even in the absence of symptoms\textsuperscript{2,4}.

Inguinal hernia: Surgical hernia repair is associated with low rates of mortality (0.05%)\textsuperscript{5}, but a proportion of patients are likely to experience chronic pain and discomfort, with a significant impact on Health Related Quality of Life (HRQL)\textsuperscript{6}. Randomised controlled trials of asymptomatic and minimally symptomatic patients show no difference in pain scores or general health status at 1-2 years for watchful waiting compared to surgery\textsuperscript{7,8}. In these trials, a low number of emergency hernia repairs (1.5%) occurred in the watchful waiting group over long-term follow-up (~7 years)\textsuperscript{9,10} and guidelines recommend watchful waiting for male adults with asymptomatic or mildly symptomatic hernia\textsuperscript{2,4}. Given the risks of surgical morbidity, evidence of equivalent health status following surgery and watchful waiting and low risk of emergency herniations, observation and review for asymptomatic patients is justified. However, it is recommended that, where symptoms are affecting activities of daily life, patients should be treated surgically\textsuperscript{2,4}.

Abdominal hernia: Incidence is associated with obesity\textsuperscript{11}. It increases with increasing BMI and is higher even in the overweight (BMI 25-30 kg/m\textsuperscript{2}) and non-morbidly obese (BMI 30-40 kg/m\textsuperscript{2}) (odds ratio 1.63 and 2.62 respectively) compared to lean\textsuperscript{11}. When surgery is conducted on incisional or umbilical hernias, rates of recurrence are around 5-25\%\textsuperscript{12-16} and increased BMI is associated with even higher rates of recurrence\textsuperscript{13,14,16} and with post-surgical morbidity\textsuperscript{17}. Considering the costs and risks of recurrence, surgery for these hernias should be avoided where possible by attempted weight loss.

Divarication of recti: Does not carry the risks that are associated with actual hernias and repairs are primarily cosmetic\textsuperscript{6}. There are high rates of recurrence following surgery (40\%) and other commonly reported complications include haematomas, minor skin necrosis, wound infections, dehiscence, post-operative pain and nerve damage\textsuperscript{7}. Surgery should, therefore, be avoided unless extreme symptoms present.

Groin pain with clinical suspicion of hernia (obscure pain or swelling): A quarter\textsuperscript{18} to a third\textsuperscript{19} of patients presenting with groin pain were found to have an occult hernia. Diagnostic procedures may identify the majority of occult hernias, but the specificity of some tests may be low (ultrasound -77\%, CT - 65\%)\textsuperscript{2} and incorrectly identify patients as having a hernia. Where symptoms do not indicate incarceration, strangulation or obstruction of a potential hernia, the costs of diagnostic procedures and any surgical interventions, and the risks associated with misdiagnosis and surgical morbidity, do not justify investigation with imaging tests and patients should be offered watchful waiting.

Evidence and Rationale

\begin{table}[h]
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\textbf{Day surgery} & For patients meeting the criteria for day-case surgery and where day-case surgery is possible, only day-case surgery should be funded. \\
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\textbf{Smoking} & Patients who smoke should be advised to attempt to stop smoking and referred to stop-smoking services – see stop smoking policy.  \\
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\textbf{Femoral hernia:} & Has a high risk of morbidity and mortality and surgery is recommended, even in the absence of symptoms\textsuperscript{2,4}.  \\
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Day surgery: European guidelines for the management of inguinal hernia recommend that: ‘An operation in day surgery should be considered for every patient’\(^2\). This may be possible for many cases of non-emergency hernia surgery.

Recurrent and bilateral hernias: NICE guidance recommends that “Laparoscopic surgery for inguinal hernia repair…..should only be performed by appropriately trained surgeons who regularly carry out the procedure”\(^20\).

**Numbers of People Affected**

The incidence of patients presenting in primary care rises from 11 per 10,000 person years in those aged 16-24 years to 200 per 10,000 person years in those aged 75 years or above\(^21\). Most cases are groin hernias (inguinal or femoral hernia). Inguinal hernias account for 96% of all groin hernias\(^22\) which predominantly present in men (95%)\(^21\). Femoral hernias account for 4% of groin hernias and they are more common in women than men (3:1 incidence) \(^22\).

**References**


**Glossary**

**Asymptomatic:** The lack of any symptoms of disease, whether or not a disease is in fact present.

**Hernia:** Protrusion of an internal organ of the body through a weakness in the muscle or surrounding tissue wall of the cavity that normally contains it.

**Laparoscopic surgery:** Minimally invasive surgery using a laparoscope.

**Incarceration:** Hernia becomes stuck in the groin or scrotum and cannot be massaged back into the abdomen.

**Strangulation:** Portion of the bowel is trapped, cutting off the blood supply and causing the trapped bowel to die or rupture.