



**BAPS** | British Association of  
Paediatric Surgeons



2015

# Commissioning guide:

## Paediatric orchidopexy for undescended testis

Commissioned and facilitated by



East Midlands Strategic Clinical Networks



**Sponsoring Organisation: British Association of Paediatric Surgeons**

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# Introduction

The undescended testis presents in a bimodal fashion with the majority at birth, however an additional significant number are diagnosed during childhood – the ‘ascending testis’ in whom the testis was initially located in the scrotum<sup>1-4</sup>.

At term undescended testes occur in 3-5% male infants but in the majority the testis reaches its normal scrotal position by 3 months of age<sup>5-6</sup>. A significant number of boys have a retractile testis of which a proportion will become an undescended testis<sup>7-8</sup>.

Annually in England there are around 6,000 elective orchidopexies for undescended testes<sup>9</sup>. In 1994/95 75% were performed in DGHs but by 2004/05 only 50% were managed by a local DGH and in the East Midlands in 2012/13 around 75% of orchidopexies were performed in one of the two specialised Paediatric Surgical Units<sup>9-10</sup>.

Patients and their families will benefit from assessment and surgery performed locally with selected appropriate referral to a tertiary paediatric surgical centre. Children should receive surgery in a safe, appropriate environment, which is as close to their home as possible<sup>12-13</sup>.

This is not intended as a guide for management of patients requiring an emergency scrotal exploration for suspected testicular torsion.

## Timing of surgery

The present evidence indicates that spontaneous descent of an undescended testis does not occur after 3 months, and that germ cell loss is preventable with early surgery.<sup>45</sup>

In a child with an undescended testis the maldevelopment of germ cells has been linked with a higher risk of infertility<sup>41,42</sup> and malignancy<sup>43,44</sup> within the testis later in life.

The British Association of Paediatric Surgeons, British Association of Paediatric Urologists<sup>11</sup> and the Association of Paediatric Anaesthetists have reviewed the evidence about timing of surgery and potential anaesthetic risk and arrived at a consensus of opinion that surgery should occur between 6-18 months of age.

The surgical requirement for early operating on these children should be balanced against the potential for increased anaesthetic harm in children under 1 year.<sup>35</sup>

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# 1. High Value Care Pathway for Orchidopexy in the undescended testes

## 1.1 Initial and Primary care

- All male infants should be assessed for testicular maldescent according to UK National Screening Committee Standards for 'Newborn and Infant Physical Examination'. This requires checks at 72 hours and 6-8 weeks postnatal examination<sup>34,46</sup>
- If the testis is undescended on GP review, the patient should be referred to a Consultant general paediatric surgeon or urologist with appropriate experience and skills<sup>15</sup>
- Patients with unilateral undescended testes should not be referred routinely to a paediatrician
- Patients with bilateral undescended testes require early endocrine assessment
- Imaging with ultrasound is not indicated<sup>16-17</sup>
- Patients with non-palpable testes should be referred to a tertiary paediatric surgical service for assessment<sup>20-22</sup>
- Patients with associated penile abnormalities should be referred to a Tertiary Unit for specialist paediatric surgical assessment<sup>18-19</sup>
- In older boys retractile testis can be manipulated into the scrotum and remain there but require follow up due to a 3-20% risk of permanent ascension<sup>7-8</sup>. Follow up can be carried out in primary or secondary care
- Parents and carers should be provided with relevant information and action plan

## 1.2 Secondary and Tertiary Care

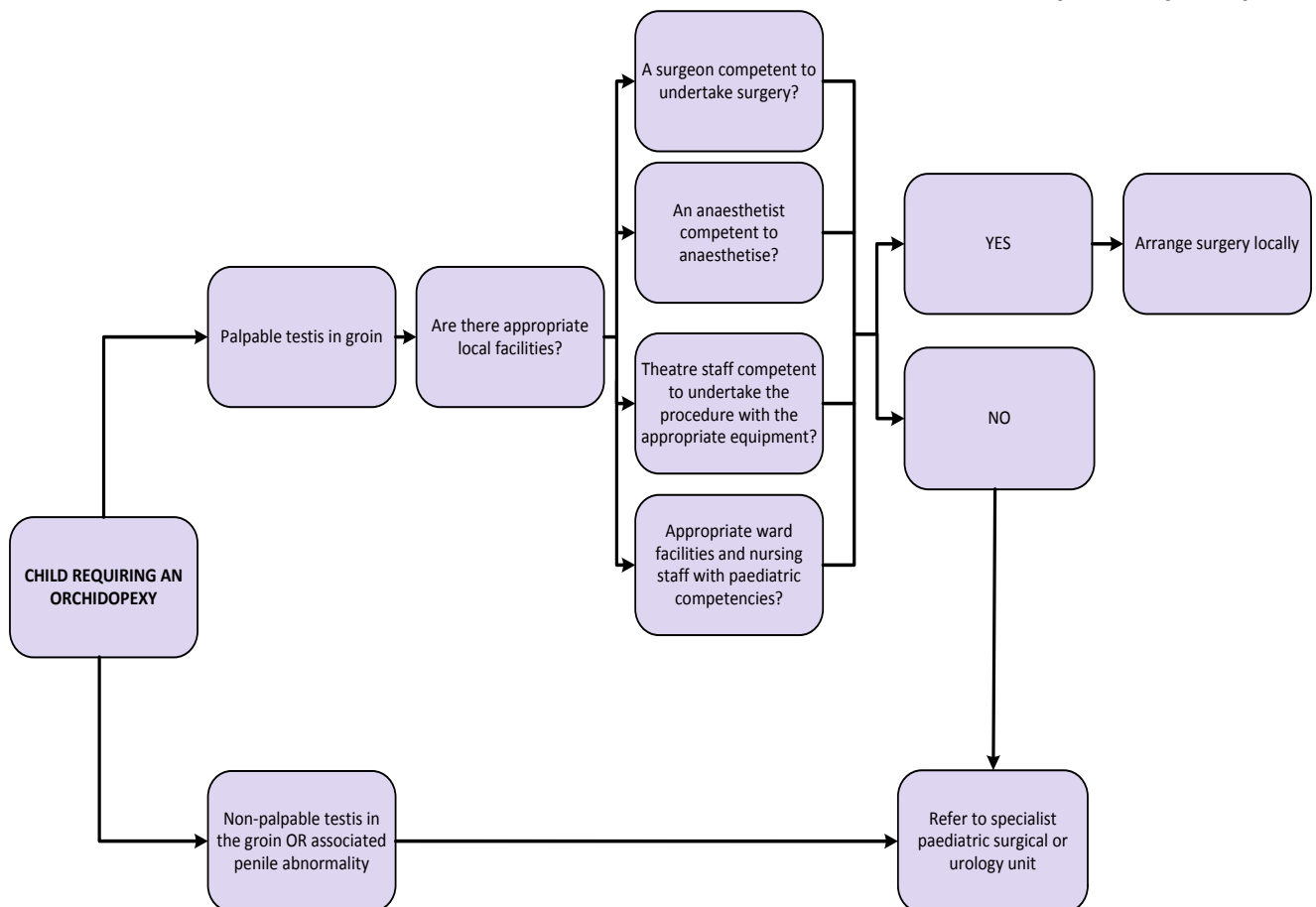
- Care should be provided within a managed clinical network of secondary and tertiary care providers
- GP referrals should be seen and assessed by aged 6 months - there is evidence that early orchidopexy benefits the testis<sup>15, 23-25</sup>
- Imaging, including ultrasound is not indicated prior to surgery but consideration should be given to any pre-assessment requirements including early endocrine assessment for those with bilateral undescended testes
- Infants with a non-palpable testis require laparoscopy and should be referred to a Tertiary Unit<sup>20-22, 31</sup>

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- If orchidopexy is indicated it should be performed between 6-18 months of age<sup>15,26,27</sup> depending on local resource and expertise
- Patient information should be given to parents or carers prior to surgery
- The majority of cases can be performed as a day-case procedure<sup>28-30</sup>
- Children must be cared for in an appropriate child friendly environment
- Children undergoing surgery must have a pain management plan on discharge
- There should be defined arrangements for emergency transfer from secondary to tertiary care
- All staff who come into contact with children and young people are trained in safeguarding to an appropriate level<sup>32,33</sup>
- An audit of process and outcomes should be performed

#### Secondary/Tertiary care pathway



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# 2. Procedures explorer for the provision of orchidopexy for an undescended testis

Users can access further procedure information based on the data available in the quality dashboard to see how individual providers are performing against the indicators. This will enable CCG's to start a conversation with providers who appear to be 'outliers' from the indicators of quality that have been selected.

The Procedures Explorer Tool is available via the [Royal College of Surgeons](http://www.rcs.org) website.



The screenshot shows activity for orchidopexies across England, for patients under 17 years in the year July 2013 to June 2014.

The OPCS and ICD-10 codes used to capture data on orchidopexy are:

Primary OPCS:

N08: Bilateral placement of testes in scrotum

N09: Other placement of testes in scrotum

Secondary OPCS:

N/A

Primary ICD-10:

Q53: Undescended testicle

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### 3. Quality dashboard for the provision of orchidopexy for an undescended testes

The quality dashboard provides an overview of activity commissioned by CCGs from the relevant pathways, and indicators of the quality of care provided by surgical units.

The quality dashboard is available via the [Royal College of Surgeons website](#).

### 4. Levers for implementation

#### 4.1 Audit and peer review measures

The following measures and standards are those expected. Evidence should be able to be made available to commissioners if requested.

	Measure	Standard
<b>Initial/Primary care</b>	Assessment	All male infants assessed at 72 hours and 6-8 week postnatal examinations
	Referral	To secondary/tertiary care by 4-6 months of age
<b>Secondary/Tertiary care</b>	Organisation	Patient care is delivered through a managed clinical network of secondary and tertiary care providers
	Intervention	Orchidopexy performed 6-18 months of age
		Surgery performed as a day-case procedure
	Patient experience	Provider demonstrates collection and monitoring of parent/carer feedback
	Network audits	Participation in regional/national audits

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#### 4.2 Quality Specification/CQUIN

Commissioners may wish to include the following measures in the Quality Schedule with providers. Improvements could be included in a discussion about a local CQUIN.

Measure	Description	Data specification (if required)
Age	Age at time of procedure	HES
Day case	Provider demonstrates > 90% (excluding those with co-morbidities)	HES

## 5. Directory

### 5.1 Patient Information

Name	Publisher	Link
Orchidopexy for a palpable testicle	British Association of Paediatric Surgeons (BAPS)	<a href="http://www.baps.org.uk/resources/documents/orchidopexy-for-a-palpable-testicle/">www.baps.org.uk/resources/documents/orchidopexy-for-a-palpable-testicle/</a>
Orchidopexy	British Association of Urological Surgeons (BAUS)	<a href="http://www.baus.org.uk/Resources/BAUS/Documents/PDF%20Documents/Patient%20information/Orchidopexy.pdf">www.baus.org.uk/Resources/BAUS/Documents/PDF%20Documents/Patient%20information/Orchidopexy.pdf</a>
Undescended testes	Patient.co.uk	<a href="http://www.patient.co.uk/health/undescended-testes">www.patient.co.uk/health/undescended-testes</a>
Undescended testicles	NHS Choices	<a href="http://www.nhs.uk/Conditions/undescendedtesticles/Pages/Introduction.aspx">www.nhs.uk/Conditions/undescendedtesticles/Pages/Introduction.aspx</a>



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### 5.2 Clinician information

Name	Publisher	Link
Standards for Children's Surgery - 2013	Children's Surgical Forum (RCSEng)	<a href="http://www.rcseng.ac.uk/publications/docs/standards-in-childrens-surgery">www.rcseng.ac.uk/publications/docs/standards-in-childrens-surgery</a>
Surgery for Children: Delivering a First Class Service- 2011	Children's Surgical Forum (RCSEng)	<a href="http://www.rcseng.ac.uk/publications/docs/CSF.html">www.rcseng.ac.uk/publications/docs/CSF.html</a>
Guidance for Provision of Paediatric Anaesthesia	Royal College of Anaesthetists	<a href="http://www.rcoa.ac.uk/gpas2015">www.rcoa.ac.uk/gpas2015</a>
Management of pain in children	College of Emergency Medicine	<a href="http://www.collemergencymed.ac.uk/Shop-Floor/Clinical%20Guidelines/College%20Guidelines/">www.collemergencymed.ac.uk/Shop-Floor/Clinical%20Guidelines/College%20Guidelines/</a>
Newborn and Infant Physical Examination: Standards and competencies-2008 <i>(Pending changes)</i>	UK National Screening Committee	<a href="http://newbornphysical.screening.nhs.uk/standards">http://newbornphysical.screening.nhs.uk/standards</a>

## 6. Benefits and risks of implementing this guide

Consideration	Benefit	Risk
Patient outcome	<ul style="list-style-type: none"> <li>• Ensure access to effective and timely local clinical management</li> <li>• Improve fertility</li> <li>• Reduce risk of later malignancy</li> </ul>	<ul style="list-style-type: none"> <li>• Patients unnecessarily referred to tertiary centres</li> </ul>
Patient safety	<ul style="list-style-type: none"> <li>• Patients have access to appropriate surgical care where needed</li> <li>• Reduce risk of complications</li> <li>• Avoid late referrals</li> </ul>	<ul style="list-style-type: none"> <li>• Unnecessary referral and examinations</li> </ul>
Patient experience	<ul style="list-style-type: none"> <li>• Improve access to parent/carer information</li> </ul>	

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Equity of access	<ul style="list-style-type: none"> <li>• Improve access to effective procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Patients and carers required to travel greater distances to receive care</li> </ul>
Resource impact	<ul style="list-style-type: none"> <li>• Reduce unnecessary referral and investigations</li> </ul>	<ul style="list-style-type: none"> <li>• Resource required to maintain and establish managed clinical networks</li> <li>• Lack of infrastructure to support secondary care</li> </ul>

## 7. Further information

### 7.1 Research recommendations

- Does orchidopexy around 1 year of age improve fertility, in comparison with surgery at an older age?
- Does orchidopexy around 1 year of age reduce the incidence of malignancy, in comparison with surgery at an older age?
- Incidence of ascending testis requiring orchidopexy
- Complications of surgery/anaesthesia in children undergoing surgery at different ages

### 7.2 Other recommendations

- Establishment and maintenance of general paediatric surgery (GPS) managed clinical networks

### 7.3 Evidence base

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#### 7.4 Guide development group for Orchidopexy

A commissioning guide development group was established to review and advise on the content of the commissioning guide. This group met twice with additional interaction taking place via email.

Name	Job Title/Role	Affiliation
Mr Salem Al-Hamali	Consultant General Surgeon	Royal College of Surgeons
Nicole Barnes	Patient representative	
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Mr Feilim Murphy	Consultant Paediatric Urologist	British Association of Paediatric Urologists
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## 7.5 Funding statement

The development of this commissioning guidance has been funded by the following sources:

East Midlands Strategic Clinical Network funded the cost of the guide development group, literature searches and contributed towards administrative costs.

The Royal College of Surgeons of England and the British Association of Paediatric Surgeons provided staff to support the guideline development.

## 7.6 Conflict of interest statement

Individuals involved in the development and formal peer review of commissioning guides are asked to complete a conflict of interest declaration. It is noted that declaring a conflict of interest does not imply that the individual has been influenced by his or her secondary interest. It is intended to make interests (financial or otherwise) more transparent and to allow others to have knowledge of the interest.

The following interests were declared by group members: None noted