



BAPS | British Association of
Paediatric Surgeons



2015

Commissioning guide:

Paediatric orchidopexy for undescended testis

Commissioned and facilitated by



East Midlands Strategic Clinical Networks



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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 scrotum¹⁻⁴.

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 age⁵⁻⁶. A significant number of boys have a retractile testis of which a proportion will become an undescended testis⁷⁻⁸.

Annually in England there are around 6,000 elective orchidopexies for undescended testes⁹. 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 Units⁹⁻¹⁰.

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 possible¹²⁻¹³.

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.⁴⁵

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

The British Association of Paediatric Surgeons, British Association of Paediatric Urologists¹¹ 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.³⁵

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^{34,46}
- 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 skills¹⁵
- 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 indicated¹⁶⁻¹⁷
- Patients with non-palpable testes should be referred to a tertiary paediatric surgical service for assessment²⁰⁻²²
- Patients with associated penile abnormalities should be referred to a Tertiary Unit for specialist paediatric surgical assessment¹⁸⁻¹⁹
- 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 ascension⁷⁻⁸. 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

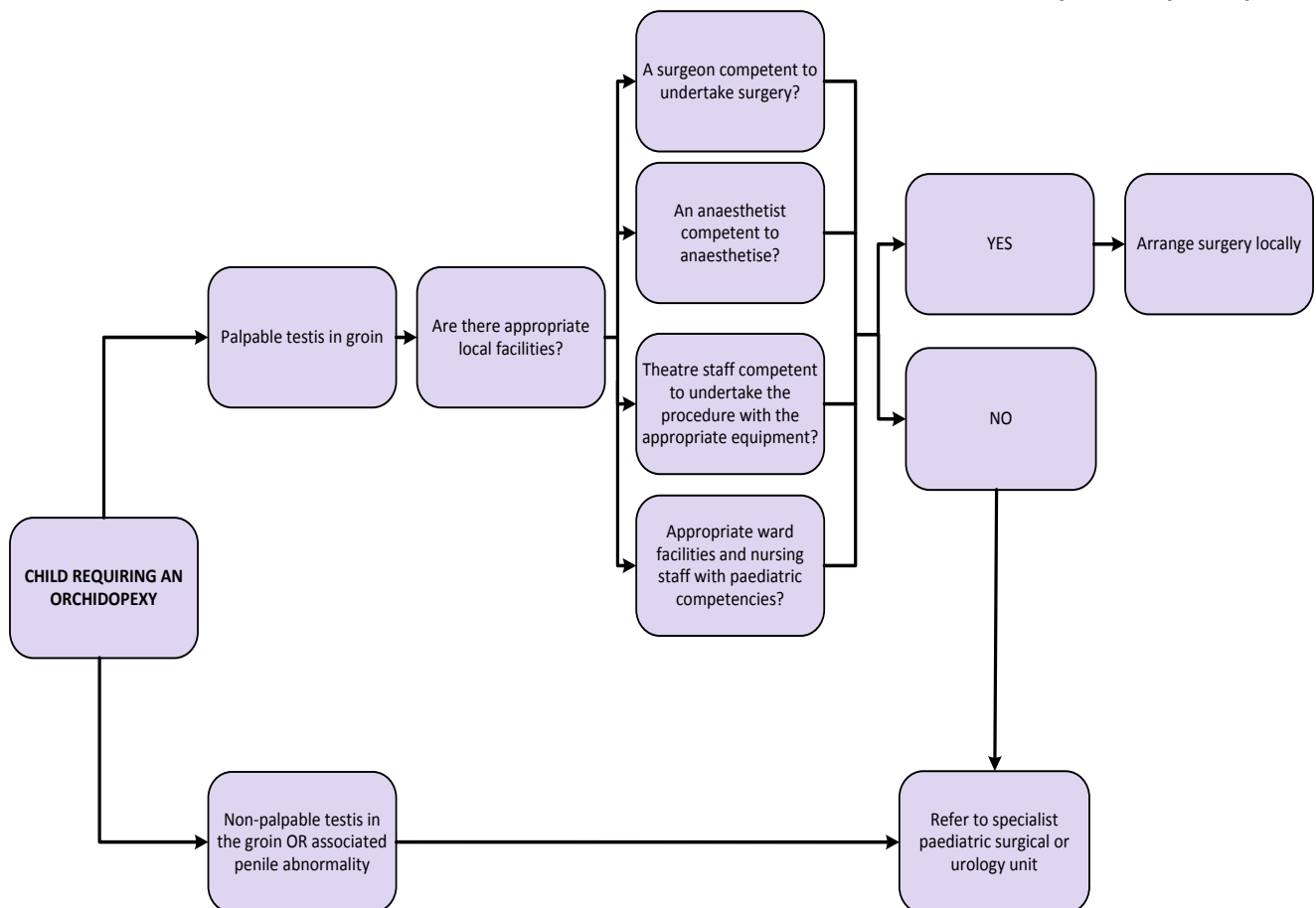
- Care should be provided within a managed clinical network of secondary and tertiary care providers
- GP referrals should be seen and assessed by aged 6 months - there is evidence that early orchidopexy benefits the testis^{15, 23-25}
- Imaging, including ultrasound is not indicated prior to surgery 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^{20-22, 31}

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- If orchidopexy is indicated it should be performed between 6-18 months of age^{15,26,27} 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 procedure²⁸⁻³⁰
- 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^{32,33}
- 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
Initial/Primary care	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
Secondary/Tertiary care	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)	www.baps.org.uk/resources/documents/orchidopexy-for-a-palpable-testicle/
Orchidopexy	British Association of Urological Surgeons (BAUS)	www.baus.org.uk/Resources/BAUS/Documents/PDF%20Documents/Patient%20information/Orchidopexy.pdf
Undescended testes	Patient.co.uk	www.patient.co.uk/health/undescended-testes
Undescended testicles	NHS Choices	www.nhs.uk/Conditions/undescendedtesticles/Pages/Introduction.aspx

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5.2 Clinician information

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

6. Benefits and risks of implementing this guide

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

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

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	
Dr Polly Davies	Consultant Anaesthetist	Royal College of Anaesthetists
Dr Emma Fernandez	Clinical and Training Standards Manager	Royal College of Surgeons
Mr Robin Gupta	Consultant General Surgeon	Royal College of Surgeons
Dr Puran Khandewal	Consultant Anaesthetist	Royal College of Anaesthetists
Dr Suganthi Joachim	Consultant Anaesthetist	Royal College of Anaesthetists
Dr Julian Law	GP	Royal College of General Practitioners
Samantha Little	Lead Commissioner Children & Families	West Leicestershire CCG
Dr Paul Martin	Consultant Anaesthetist	Royal College of Anaesthetists Association of Paediatric anaesthetists of Great Britain and Ireland
Donna Mason	Paediatric Ward Matron	Royal College of Nursing
Mr Feilim Murphy	Consultant Paediatric Urologist	British Association of Paediatric Urologists
Miss Jane Patterson	Consultant General Surgeon	Royal College of Surgeons
Mr John Quarmby	Consultant General Surgeon	Royal College of Surgeons
Mr Ashok Rajimwale	Consultant Paediatric Urologist	Royal College of Surgeons
Dr William Russell	Consultant Anaesthetist	Royal College of Anaesthetists
Mr Manoj Shenoy	Consultant Paediatric Urologist	British Association of Paediatric Urologists
Dr John Somers	Consultant Radiologist	Royal College of Radiologists

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Mr Richard Stewart	Consultant Paediatric Surgeon	Royal College of Surgeons British Association of Paediatric Surgeons
Sharon Verne	Senior quality improvement Lead	East Midlands Strategic Clinical Network
Mr Haradikar Varadaraj	Consultant Urologist	Royal College of Surgeons
Mr Alun Williams	Consultant Paediatric Urologist	British Association of Paediatric Urologists
Dr Neil Williams	Consultant Anaesthetist	Royal College of Anaesthetists

7.5 Funding statement

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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