2013

Commissioning guide:

Foreskin conditions

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Glossary

Term	Definition
Foreskin	That part of penile shaft skin and associated inner mucous membrane layer that covers and protects the glans penis and external urethral meatus. Also often referred to as the prepuce.
Phimosis	From the Greek word phimos (φῑμός - meaning muzzle) - a condition where the foreskin cannot be retracted over the glans penis.
Physiological phimosis	A normal foreskin where non-retractability is due to 'physiological' congenital adherence of the inner prepuce to the glans penis. There is no evidence of scarring.
Pathological phimosis	A condition associated with scarring of the foreskin opening leading to symptoms and non-retractability of the prepuce - usually due to balanitis xerotica obliterans.
Non-retractile foreskin	A foreskin that cannot be manipulated to expose the whole of the glans penis.
Lichen Sclerosus	A chronic, scarring, inflammatory skin condition of unknown cause that leads to narrowing of the foreskin opening and a true pathological phimosis (balanitis xerotica obliterans BXO is an old fashioned descriptive term and is not a pathological diagnosis)
Balanoposthitis	Acute inflammation of the foreskin and glans penis.
Paraphimosis	An emergency condition where the foreskin is retracted and subsequently cannot be reduced back over the glans penis leading to pain and swelling.
Meatal stenosis	Narrowing of the external urethral opening

	leading to an obstructed urinary stream.
Circumcision	Surgical removal of the foreskin.
Preputioplasty	An operation on the 'tight' foreskin with the aim of promoting retractability.
Frenuloplasty	An operation on the underside of the glans penis that is used to lengthen a short frenulum which is either preventing foreskin retraction or producing symptoms.
CQUIN	Commissioning for Quality and Innovation

Introduction

In children <18 years, pathological phimosis must be distinguished from physiological adherence of the foreskin to the glans, which is normal.

In the adult population there is a wide differential diagnosis including STDs and skin diseases such as eczema, psoriasis, lichen planus, Zoons balanitis, carcinoma in situ, and frank squamous carcinoma. Circumcision in an adult may also be undertaken for premalignant conditions, CIS and for biopsy whre disease other than lichen sclerosus cannot be excluded.

Balanitis refers to inflammation of the glans penis and posthitis refers to inflammation of the inner layer of the foreskin/prepuce. Balanoposthitis refers to inflammation of both
Balanoposthitis can be and often is chronic, not just acute.

In the financial year 2011/2012, activity and cost rates for Foreskin Conditions procedures in patients aged 18 years and below in England were as follows:

Procedure	Activity	Cost at Tariff
Circumcision	21430	£ 15,997,862.00
Frenuloplasty	1808	£ 1,317,167.00
Prepucioplasty	1212	£ 924,578.00
Other procedures	971	£ 723,574.00

No investigation or intervention is required for the healthy non-retractile foreskin.

Discrepancy between regional UK circumcision rates suggest a significant number of circumcisions are being unnecessarily performed and commissioning guidance is intended to provide the necessary information to identify and introduce conformity in the frequency of procedures undertaken though better understanding, and differentiation between disease and physiological change in the foreskin.

Non-therapeutic circumcision is not within the scope of this document.

1 High Value Care Pathway for foreskin conditions

1.1 Primary Care

In children up to and including 18 years of age, pathological phimosis (non-retraction) must be distinguished from physiological adherence of the foreskin to the glans, which is normal.[1, 2]
Non-retractile ballooning of the foreskin and spraying of urine do not routinely need to be referred for circumcision although not all ballooning is related to physiological phimosis and spraying can be due to lichen sclerosus.

The proportion of partially or fully retractable foreskin by age is:

- Birth 4%
- 6 months 20%
- 1 year 50%
- 3 -11 years 90%
- 12-13 years 95%
- 14+ years 99%

Parents and patients should be made aware of the risks and benefits of circumcision.

Referrals from primary care for physiological phimosis account for a significant clinical workload in consultation time that could be avoided.

Conservative management of the non-retractile foreskin is under-recognised and practiced in some regions. This is of particular importance in the paediatric population where too many circumcisions are undertaken for physiological phimosis thereby incurring avoidable morbidity.

When physiological phimosis is diagnosed in a primary care assessment of foreskin condition, consultation should focus on reassurance and education of parents and child. If there is concern that any pathology is evident, or if there is diagnostic uncertainty, referral to a regional centre undertaking paediatric surgery is indicated.

In the adult population there is a wide differential diagnosis including STDs and skin diseases such as eczema, psoriasis, lichen planus, Zoons balanitis, carcinoma in situ, and frank squamous carcinoma. In rare circumstances a circumcision may be undertaken to treat a malignant or pre-malignant preputial lesion that is confined to the foreskin and for biopsy if there is suspicion of pathology other than lichen sclerosus .

Currently, paediatric surgeons, paediatric urologists, adult general surgeons or urologists with a dedicated paediatric practice, paediatricians or specially trained clinical nurse specialists see outpatient referrals to regional centres.

Only a minority of children will have pathology and be subsequently listed for circumcision.

Indications for circumcision:

Pathological phimosis- The commonest cause is lichen sclerosus, balanitis xerotica obliterans BXO is an old fashioned descriptive term (BXO)
Recurrent episodes of balanoposthitis

Relative indications for circumcision or other foreskin surgery:

- Prevention of urinary tract infection in patients with an abnormal urinary tract
- Recurrent paraphimosis
- Traumatic (e.g. zipper injury)
- Tight foreskin causing pain on arousal/ interfering with sexual function
- Congenital abnormalities

Other treatment: Topical steroids may be considered. A prescription of this would not normally exceed three months and should have achieved maximal therapeutic benefit within this time.
A topical steroid such as Betamethasone (0.025-0.1%) is commonly prescribed.
Regular Outpatient follow-up is rarely necessary.
Whilst major morbidity and mortality following circumcision is very rare, these could be reduced and potentially avoided if surgical indications were more stringently applied.
Circumcision complications include;
Anaesthetic, bleeding, infection, altered sensation, poor cosmetic result, meatal stenosis, inclusion cysts, glans amputation and urethral injury.[3, 4]

Cultural circumcision is undertaken in some health authorities although provision of this service is sporadic in the NHS.

The evidence concerning the psychological impact and altered sensation with neonatal circumcision is conflicting and indeterminate. [5-6]

The role of routine circumcision in the population in prevention of urinary tract, HIV, and other sexually

transmitted infections at a population level is unclear. The WHO does not recommend routine circumcision in developed nations.[7-10]

Significant resource can be saved by education of the clinicians involved in this pathway and will facilitate more appropriate commissioning of this service.

2 Procedures explorer for foreskin conditions

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 CCGs 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 website.

3 Quality dashboard for foreskin conditions

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, with data on foreskin conditions soon to be available.

4 Levers for implementation

4.1 Audit and peer review measures

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

	Measure	Standard
Primary Care	Referral	Do not refer children or adults with physiological phimosis
	Patient Information	Patients should be directed to appropriate information
Secondary Care	Intervention	Almost all circumcisions should be daycase unless the patient has significant co morbidity

Primary Care Standard	Patient information	Patients should be directed to appropriate information including NHS Choices and Patient.co.uk
Secondary Care Intervention	Assessment	Do not offer circumcision for physiological phimosis
Secondary Care Standard	Appraisal	Inclusion of outcome data at annual appraisal/departmental audit meeting

4.2 Quality Specification/CQUIN

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

Measure	Description	Data specification (if required)
Day Case Rates	Provider demonstrates >95 % day case rate for procedure	Data available from HES

5 Directory

5.1 Patient Information for foreskin conditions

Name	Publisher	Link
Circumcision	NHS Choices	http://www.nhs.uk/conditions/circumcision/Pages/Introduction.aspx
Circumcision	EMIS	http://www.patient.co.uk/health/circumcision
Circumcision	British Association of Paediatric Surgeons(BAPS)	www.baps.org.uk/wp-content/uploads/2013/03/Circumcision-child.pdf
Circumcision	British Association of Urological Surgeons	http://www.baus.org.uk/patients/symptoms/phimosis

5.2 Clinician information for foreskin conditions

Name	Publisher	Link

The Management of Foreskin Conditions	British Associations of Paediatric Urologists and Surgeons	http://www.bapu.org.uk/wp-content/uploads/2013/03/circumcision2007.pdf
Male Circumcision: Guidance for Healthcare Practitioners	Royal College of Surgeons of England	http://www.rcseng.ac.uk/publications/docs/male_circumcision.html?searchterm=Male+Circumcision%3A+Guidance+for+Healthcare+Practitioners
Guidelines on Paediatric Urology	European Society for Paediatric Urology	http://www.uroweb.org/guidelines/online-guidelines/
Balanitis	NHS Clinical Knowledge Summaries	http://cks.nice.org.uk/balanitis#!topicsummary
The law and ethics of male circumcision: guidance for doctors	British Medical Association	http://bma.org.uk/practical-support-at-work/ethics/children
Guidelines for the management of lichen sclerosus	British Association of Dermatologists'	Br J Dermatol 2010; 163:672–82

6 Benefits and risks of implementing this guide

Consideration	Benefit	Risk
Patient outcome	Prevent unnecessary circumcision in children	Unrecognised deterioration on conservative therapy
Patient safety	Reduce chance of unnecessary surgery	
Patient experience	Increase daycase rates for circumcision Improve access to patient information	
Equity of Access	Adoption of standard to ensure equitable delivery of care	
Resource impact	Reduce unnecessary referral and intervention	Resource required to establish primary care service or community specialist provider

7 Further information

7.1 Research recommendations

Interventions for recurrent episodes of severe inflammation or tight foreskin causing pain: patient experience, patient safety, cost effectiveness:

- circumcision vs. preputioplasty vs. frenuloplasty
- Intervention for recurrent episodes of severe inflammation or tight foreskin causing pain
- patient experience pre and post-operatively, safety, cost effectiveness
- Prospective evaluation of natural history of foreskin through adulthood

7.2 Other recommendations

Improved primary care education and improved access to patient Information about the prevalence of the healthy non-retractile foreskin (physiological phimosis)

- Consider workshops or routine refresher courses to enhance understanding of all clinicians involved in assessment and treatment of foreskin conditions.

7.3 Evidence base

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7.4 Guide development group for foreskin conditions

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

Name	Job Title/Role	Affiliation
Mr Paul Jones (Chair)	Consultant Urologist	BAUS
Mr Duncan Summerton	Consultant Urologist	BAUS
Mr Kim Hutton	Consultant Paediatric Surgeon & Urologist	BAPU & BAPS
Mr Robert Wheeler	Consultant Paediatric Surgeon	BAPS
Mr Nick Wilson-Jones	Consultant Plastic Surgeon	BAPRAS
Mr Stephen Griffin	Consultant Paediatric Urologist	BAPU & BAUS
Dr Claire Williams	GP	RCGP
Dr Philip Bell	Lay representative (non-medical doctorate)	
Dr Ben Milton	GP and Clinical Lead, North Derbyshire CCG	RCGP

7.5 Funding statement

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- DH Right Care funded the costs of the guide development group, literature searches and contributed towards administrative costs.
- The Royal College of Surgeons of England and the British Association of Urological 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.

- No interests were declared by group members.