2016

Commissioning guide:

Foreskin conditions

Sponsoring Organisation: British Associations of Urological Surgeons/ British Associations of Paediatric Surgeons/ British Associations of Paediatric Urologists
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Contents

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.
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

1. 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 (CIS), and frank squamous carcinoma. Circumcision in an adult may also be undertaken for premalignant conditions, CIS and for biopsy where 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 2013/2014, activity[1] and cost rates[2] for Foreskin Conditions procedures in patients aged 18 years and below in England were as follows:

Procedure	Activity	Cost at tariff (£)
Circumcision	10,048	8,068,544.00
Frenuloplasty	513	411,939.00
Prepucioplasty	520	417,560.00
Other procedures e.g. freeing of adhesions of prepuce, dorsal slit on prepuce, stretching of prepuce, other procedures	1,093	877,679.00

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.

[1] Data taken from Health and Social Care Information Centre: Hospital Episode Statistics, Admitted Care, 2013-14 http://www.hscic.gov.uk/

[2] Data taken from payment by results in NHS for 2013-14
https://www.gov.uk/government/publications/payment-by-results-pbr-operational-guidance-and-tariffs

Non-therapeutic circumcision is not within the scope of this document although doctors who undertake circumcisions for non-medical indications (in hospitals or the community) are scrutinised in the normal way, as per any aspect of medical practice. If their practice is criticised, they can defend themselves against litigation providing they are able (i) to show that their practice is considered reasonable by their peers (in the form of an expert opinion) and (ii) that the expert opinion is viewed by a court as being able to survive logical scrutiny. [1]

2. 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.[2, 3]

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.

1.2 Secondary care

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 and appear to be a safe, less invasive treatment option and 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 (0.05%) is commonly prescribed for approximately 4 weeks. [4]

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.[5, 6]

Cultural circumcision

This 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. [7, 8]

The World Health Organisation does not recommend routine circumcision in developed nations emphasising that male circumcision should be “considered an efficacious intervention for HIV prevention in countries and regions with heterosexual epidemics, high HIV and low male circumcision prevalence”. In some African countries with high rates of HIV, it is encouraged as part of HIV prevention programmes[9-14]

Male circumcision provides only partial protection, and therefore should be only one element of a comprehensive HIV prevention package which includes: the provision of HIV testing and counselling services; treatment for sexually transmitted infections; the promotion of safer sex practices; the provision of male and female condoms and promotion of their correct and consistent use.

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 tonsillectomy

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 tonsillectomy

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 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 including NHS Choices and Patient.co.uk
Secondary Care	Assessment	Do not offer circumcision for physiological phimosis
	Intervention	Almost all circumcisions should be day case unless the patient has significant co morbidity
	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

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

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

1 Wheeler R, Malone P. Male circumcision: risk vs benefit. *Arch Dis Child* 2013; 98:321–322.

2 Gairdner D. Fate of the Foreskin. *British Medical Journal*. 1949

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4 Moreno, G., et al. (2014). "Topical corticosteroids for treating phimosis in boys." *Cochrane Database of Systematic Reviews* (9).

5 The Management of foreskin conditions. *British Association of Paediatric Urologists on behalf of the British Association of Paediatric Surgeons and The Association of Paediatric Anaesthetists.* 2007

6 Tekgul S, Riedmiller H, Gerharz E, Hoebeke P, Kocvara R, Nijman R, et al. Guidelines on Paediatric Urology. *European Association of Urology.* 2013. www.uroweb.org

7 Effect of neonatal circumcision on penile neurological sensation. Bleustein CB, Fogarty JD, Arezzo JC, Melman A. *Urology.* 2005 Apr;**65**(4):773-7

8 Male Circumcision decreases penile sensitivity as measured in a large cohort. Bronselaer GA, Schober JM, Meyer-Bahlburg HF, T'sjoen G, Vlietinck R, Hoebeke PB. *BJU Int*. 2013 May; 111(5):820-7

9 Wiysonge CS, Kongnyuy EJ, Shey M, Muula AS, Navti OB, Akl EA, et al. Male circumcision for prevention of homosexual acquisition of HIV in men. *Cochrane database of systematic reviews* (Online). 2011;(6):CD007496

10 Siegfried N, Muller M, Deeks JJ, Volmink J. Male circumcision for prevention of heterosexual acquisition of HIV in men. *Cochrane database of systematic reviews* (Online). 2009 ;(2):CD003362

11 Svoboda JS, Van Howe RS J Med Ethics. 2013 Mar 18. [*Epub ahead of print*], Out of step: fatal flaws in the latest AAP policy report on neonatal circumcision.

12 *Pediatrics.* 2013 Apr; 131(4):796-800. doi: 10.1542/peds.2012-2896. Epub 2013 Mar 18. Cultural bias in the AAP's 2012 Technical Report and Policy Statement on male circumcision.

13 *World health Organisation* 2015 http://www.who.int/hiv/topics/malecircumcision/en

14 Neill SM, Lewis FM, Tatnall FM, Cox NH. British Association of Dermatologists' guidelines for the management of lichen sclerosus 2010. *Br J Dermatol* 2010; 163:672–82.

7.4 Guide development group

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 and teleconference.

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)	
Mr Maurice Hoffman	Patient representative	

7.5 Funding statement

Funding for the literature search was provided by The Royal College of Surgeons. Funding for meetings was by the British Association of Urological Surgeons

7.6 Conflict of interest statement

Dr P Bell disclosed fees for speaking at PPI conference