



2014 UK national guideline on the management of vulval conditions

Sarah K Edwards¹, Christine M Bates², Fiona Lewis³,
Gulshan Sethi⁴ and Deepa Grover⁵

Keywords

Vulval lichen sclerosus, lichen planus, vulvodynia, psoriasis, eczema, lichen simplex, pre-malignant, vulval intraepithelial neoplasia

New in the 2014 guidelines

General advice for the management of vulval disorders
Onward referral guidelines
Vulval lichen simplex
Vulval psoriasis
Use of calcineurin inhibitors

Introduction and methodology

Objectives

This guideline offers recommendation on the management of a range of vulval disorders which may present to genitourinary medicine (GUM) clinics. Vulval disorders represent a disparate group of conditions with a variety of causes, affecting a particular anatomical site and may affect women of any age.

These guidelines concentrate on a selected group of conditions, which may be managed by genitourinary physicians, either alone or in conjunction with other specialists, dependant on local expertise. Guidance for onward referral is also included. It is not intended as a comprehensive review of the treatment of all vulval diseases. The main categories of non-infective vulval diseases are dermatoses, pain syndromes and pre-malignant conditions.

This guideline offers recommendations on the diagnostic tests and treatment regimens needed for the effective management of the following vulval conditions:

Vulval lichen sclerosus
Vulval lichen planus
Vulval eczema
Vulval lichen simplex
Vulval psoriasis
Vulval intraepithelial neoplasia
Vulval pain syndromes

It is aimed primarily at people aged 16 years or older presenting to GUM clinics.

Search strategy

This document was produced in accordance with the guidance set out in the Clinical Effectiveness Group (CEG's) document 'Framework for guideline development and assessment' at <http://www.bashh.org/guidelines>.

Four reference sources were used to provide a comprehensive basis for the guideline:

1. Medline and Embase Search up to March 2012.

The search strategy comprised the following terms in the title or abstract:

Vulval lichen sclerosus
Vulval lichen planus
Vulval eczema
Vulval lichen simplex
Vulval psoriasis
Vulval intraepithelial neoplasia
Vulval pain syndromes/vulvodynia

¹Department of Genitourinary Medicine, Cambridgeshire Community Services NHS Trust, Bury St Edmunds, UK

²Department of Genitourinary Medicine, Royal Liverpool University Hospital, Liverpool, UK

³St John's Institute of Dermatology, Guy's and St Thomas' NHS Foundation Trust, London, UK

⁴Guy's and St Thomas' NHS Foundation Trust, London, UK

⁵Department of Genitourinary Medicine, Royal Free London NHS Foundation Trust, London, UK

Lead Editor from CEG: Deepa Grover

Corresponding author:

Sarah K Edwards, Cambridgeshire Community Services NHS Trust, West Suffolk Hospital, Hardwick Lane, Bury St Edmunds, IP33 2QZ, UK.
Email: sarah.edwards6@nhs.net



NICE has accredited the process used by BASHH to produce its European guideline on the management of vulval conditions. Accreditation is valid for 5 years from 2014.
More information on accreditation can be viewed at www.nice.org.uk/accreditation

2. Green-top Guideline 58 The Management of Vulval Skin Disorders. 2011 <http://www.rcog.org.uk/files/rcog-corp/GTG58Vulval22022011.pdf>
3. British Association of Dermatology Guidelines
4. Cochrane Collaboration Databases (www.cochrane.org)

Methods

Article titles and abstracts were reviewed and if relevant the full text article obtained. Priority was given to randomised controlled trial and systematic review evidence, and recommendations made and graded on the basis of best available evidence (Appendix 1).

Piloting and feedback

The guidelines have been reviewed and approved by an expert patient, and also by the British Association Sexual Health and HIV (BASHH) patient and public engagement panel.

Management

General advice for delivery of vulval care. Vulval conditions may present to GUM Physicians, Dermatologists and Gynaecologists, and treatment modalities also span across this spectrum. Care of patients with vulval conditions is therefore best managed by a multidisciplinary approach.¹ This includes clear working arrangements between disciplines or access to a specialist multidisciplinary vulval service. The service should also have access to clinicopathological discussion and review of histology results.

General advice for all vulval conditions

- Avoid contact with soap, shampoo and bubble bath. Simple emollients can be used as a soap substitute and general moisturiser.
 - Avoid tight-fitting garments which may irritate the area.
 - Avoid use of spermicidally lubricated condoms.
 - Patients should be given a detailed explanation of their condition with particular emphasis on any long-term implications for the health of themselves and their partner(s). This should be reinforced by giving them clear and accurate written information. (The British Society for the Study of Vulval Disease produces some patient information leaflets www.bssvd.org/leaflets.asp. The British Association of Dermatologists (www.bad.org.uk), International Society for the Study of Vulval Disease (www.issvd.org) and dermnetnz.org (www.dermnetnz.org) also provide patient information.)
- The patient's general practitioner (GP) should be informed.
 - Sexually transmitted infection (STI) screening should be considered in all patients and vulvovaginal candidiasis excluded if the patient presents with vulval itch.
 - All patients should be assessed for sexual dysfunction.

Sexual partners

- Partner tracing is not required unless screening detects an STI.

Vulval lichen sclerosus²

These guidelines relate to the management of lichen sclerosus (LS) in adult females. Additional guidelines have been produced by the Royal College of Obstetricians and Gynaecologists¹ and the British Association of Dermatologists.³

Aetiology

LS is an inflammatory dermatosis of unknown aetiology. There is evidence to suggest that autoimmune factors may be involved in its pathogenesis and recent evidence has shown autoantibodies to extracellular matrix protein 1.⁴ There is an increased frequency of other autoimmune disorders in females with LS.⁵

Clinical features

Symptoms

- Itch
- Soreness
- Dyspareunia if introital narrowing
- Urinary symptoms
- Other symptoms, e.g. constipation, can occur if there is perianal involvement
- Can be asymptomatic, but this is uncommon.

Signs

- Pale atrophic areas affecting the vulva
- Purpura (ecchymosis) is common
- Fissuring
- Erosions, but blistering is very rare
- Hyperkeratosis can occur
- Changes may be localised or in a 'figure of eight' distribution including the perianal area
- Loss of architecture may be manifest as loss of the labia minora and/or midline fusion with introital

stenosis. The clitoral hood may be sealed over the clitoris so that it is buried.

Complications

- Development of squamous cell carcinoma (SCC) (actual risk < 5%)⁶
- Development of clitoral pseudo cyst
- Sexual dysfunction
- Dysaesthesia.

Diagnosis

- Characteristic clinical appearance
- Histopathology of vulval biopsy: epidermal atrophy, hyperkeratosis with sub-epidermal hyalinisation of collagen and lichenoid infiltrate. In early disease, histology can be difficult to interpret.⁷

Management

Further investigation

- Biopsy: is mandatory if the diagnosis is uncertain, and if there are atypical features or coexistent vulval intraepithelial neoplasia (VIN)/SCC is suspected.
- Investigation for autoimmune disease if clinically indicated, especially thyroid dysfunction (i.e. T4 and thyroid-stimulating hormone (TSH), and thyroid antibodies), as it is often asymptomatic and has been found to be associated (IV, C).⁵
- Skin swab: only useful to exclude co-existing infection if there are symptoms or signs suggestive of this.
- Patch testing: rarely required and only if secondary medicament allergy was suspected. The advice of a dermatologist should be sought.

Treatment

General advice

- Patients should be informed about the condition and given information (either written or web-based). Patients should be made aware of the small risk of neoplastic change. They should be advised to contact the doctor if they notice a change in appearance or texture (e.g. lump or hardening of skin), or if there is a major change in symptoms.

Recommended regimen

- Ultra-potent topical steroids,⁸ e.g. Clobetasol propionate (I, A). Various regimens are used, one of

the most common being daily use for one month, alternate days for one month, twice weekly for one month with review at three months. It can then be used as needed depending on symptoms. There is no evidence on the optimal regimen.

- 30 g of an ultra-potent steroid should last at least three months.
- Ointment bases are much better to use on the anogenital skin because of the reduced need for preservatives in an ointment base, and hence less risk of irritation or secondary contact allergy.

Alternative regimens

- An ultra-potent topical steroid with antibacterial and antifungal, e.g. Dermovate NN[®] or generic equivalent (Clobetasol with neomycin and nystatin) or an alternative preparation that combats secondary infection (such as Fucibet[®] cream) may be appropriate if secondary infection is a concern. These should only be used for a short period of time to clear infection (to try and avoid the development of contact allergy) (IV, C).

Research findings and unlicensed treatments

- Topical calcineurin inhibitors. This is *not* a licensed indication, and long-term safety and efficacy is not established.

Tacrolimus 0.1% has been shown to be effective when used for 16 to 24 weeks (IIb, B).⁹ This study, which included males and females and genital and extra genital LS, showed that 77% of evaluable patients responded to treatment with 43% showing a complete response (absence of symptoms and skin findings excepting induration and atrophy) at 24 weeks. The follow-up period was 18 months and whilst no patient was shown to have skin malignancy or dysplastic change, the long-term risks need to be studied in view of concerns about the possibility of topical immunosuppression increasing susceptibility of malignancy. A study of the related agent, pimecrolimus, showed that 42% of patients were in 'complete remission' after six-month application¹⁰ (IIb, B). Local irritancy was the most common side effect with both tacrolimus and pimecrolimus but usually improved after the initial period of use. Cases of malignancy have been reported^{11,12} and it is recommended that these agents should not be used first line.

- Oral retinoids, e.g. acitretin¹³ – these may be effective in severe recalcitrant disease (Ib, A) but should only be given by a dermatologist, experienced in the use of these agents. They are severely teratogenic

and pregnancy must be avoided for two years after finishing treatment.

- UVA1 phototherapy has been reported as successful in a small number of cases.¹⁴ (III, B)

Pregnancy and breastfeeding

- Topical steroids are safe to use while pregnant or breastfeeding.
- Topical calcineurin inhibitors are contra-indicated whilst pregnant or breastfeeding.
- Retinoids are absolutely contra-indicated during pregnancy and for at least two years before. They should be used with caution in females of child-bearing age.

Onward referral criteria

- Those with active disease that has not responded adequately to treatment should be referred to a specialised vulval clinic.
- Any patient who develops differentiated or undifferentiated VIN or an SCC on a background of LS should be seen and followed up in a specialised vulval clinic. Surgery¹⁵ should only be used for the treatment of coexistent VIN/SCC or fusion. Disease tends to recur around the scar (III, B).

Follow-up

- After three months to assess response to treatment.
- Stable disease should be reviewed annually and this can be done by the GP in those with well-controlled disease. This must be communicated to the patient and GP by the clinic.
- Patients should be informed that if they notice the development of a lump, sore area, change in symptoms or change in appearance, should prompt the patient to ask for medical review.

Auditable outcome measures

- Biopsy should be performed in patients not responding to an initial course of steroid treatment and if raised lesions develop. Target 100%
- Written or web-based information should be given to all patients Target 100%

Vulval lichen planus

Aetiology

Lichen planus is an inflammatory disorder with manifestations on the skin, genital and oral mucous

membranes. More rarely it affects the lacrimal duct, oesophagus and external auditory meatus. It is an inflammatory condition of unknown pathogenesis but it is probably an immunological response by T cells activated by, as yet, unidentified antigens. Weak circulating basement membrane zone antibodies have been shown to be present in 61% of patients with erosive lichen planus of the vulva.¹⁶ In some cases, there is overlap between LS and lichen planus.

Clinical features

Symptoms

- Itch/irritation
- Soreness
- Dyspareunia
- Urinary symptoms
- Vaginal discharge
- Can be asymptomatic.

Signs. The anogenital lesions of lichen planus maybe divided into three main groups according to their clinical presentation:

1. Classical: typical papules will be found on the keratinised anogenital skin, with or without striae on the inner aspect of the vulva. Hyperpigmentation frequently follows their resolution, particularly those with dark skin. This type of lichen planus may be asymptomatic. Vulval lesions were found in 19 out of 37 women with cutaneous lichen planus, with four of the 19 having had no symptoms.¹⁷
2. Hypertrophic: these lesions are relatively rare and can be difficult to diagnose. They particularly affect the perineum and perianal area, presenting as thickened warty plaques which may become ulcerated, infected and painful. Because of these features, they can mimic malignancy. They do not appear to be accompanied by vaginal lesions.
3. Erosive: the most common subtype to cause vulval symptoms. The mucosal surfaces are eroded. At the edges of the erosions, the epithelium is mauve/grey and a pale network (Wickham's striae) is sometimes seen. The vaginal lesions in erosive lichen planus are important to recognise early and start treatment as they can lead to scarring and complete stenosis. The lesions consist of friable telangiectasia with patchy erythema, which are responsible for the common symptoms of post-coital bleeding, dyspareunia and a variable discharge which is often sero-sanguinous. As erosions heal, synaechiae and scarring can develop.¹⁸ This type is also seen in the oral mucosa although synaechia is uncommon.

The term vulvo-vaginal gingival syndrome is used when erosive disease occurs in these three sites. The presenting symptom is usually of pain and soreness.

Complications

- Scarring, including vaginal synechia.
- Development of SCC. In one study, the incidence was as high as 3%.¹⁹

Diagnosis

- Characteristic clinical appearance. Involvement of the vagina excludes LS. Skin changes elsewhere can be helpful but overlap between lichen planus and LS is described. Immunobullous disorders such as pemphigus can look clinically similar to erosive lichen planus.
- Histopathology of vulval biopsy: irregular saw-toothed acanthosis, increased granular layer and basal cell liquefaction. Band-like dermal infiltrate mainly lymphocytic. Features may be non-specific and can overlap with LS and Zoon's.

Management

Further investigation

- Biopsy: is a necessity if the diagnosis is uncertain or coexistent VIN/SCC is suspected. Direct immunofluorescence should be performed if an immunobullous disease is considered in the differential diagnosis. Only 25% are classic on biopsy and clinicopathological discussion is important.
- Investigation for autoimmune disease especially of the thyroid (i.e. T4 and TSH if there is any suspicion of abnormality) (IV, C).⁵
- Skin swab: to exclude secondary infection especially of excoriated lesions as clinically indicated.
- Patch testing: if secondary medicament allergy or contact dermatitis suspected.
- Whilst a link with hepatitis C and sometimes B has been noted in some countries, there is no evidence of increased incidence in the UK and routine screening is not thought necessary.²⁰

Treatment

General advice

- Patients should be informed about the condition and given information (written or web-based). Patients

should be made aware of the small risk of neoplastic change. They should be advised to contact the doctor if they notice a change in appearance or texture (e.g. ulcer, lump or hardening of skin).

Recommended regimen

- Ultra-potent topical steroids, e.g. Clobetasol propionate (Iib, B). In a study of 114 patients in a vulval clinic, 89 used ultra-potent topical steroids as first-line treatment of whom 75% improved and 54% were symptom free. However, in only 9% was there resolution of signs of inflammation.¹⁹ There is no evidence on the optimal regimen.
- Maintenance treatment may be required and can either be with weaker steroid preparations or less frequent use of potent steroids.
- Vaginal corticosteroids: delivery of corticosteroids to the vagina is not easy. A proprietary preparation containing hydrocortisone (Colifoam), introduced with an applicator, is useful. Prednisolone suppositories may be used in more severe cases (IV, C).

Alternative regimens

- An ultra-potent topical steroid with antibacterial and antifungal, e.g. Dermovate NN[®] or generic equivalent (Clobetasol with neomycin and nystatin) or an alternative preparation that combats secondary infection (such as Fucibet[®] cream) may be appropriate if secondary infection is a concern. These should only be used for a short period of time to clear infection (to try and avoid the development of contact allergy) (IV, C).

Pregnancy and breastfeeding

- Topical steroids are safe to use while pregnant or breastfeeding.
- Topical calcineurin inhibitors are contra-indicated whilst pregnant or breastfeeding.
- Retinoids are absolutely contra-indicated during pregnancy and for at least two years before. They should be used with caution in females of child-bearing age.

Onward referral

Referral to a multidisciplinary vulval clinic is recommended for erosive disease and any recalcitrant cases, or those in whom systemic therapy is considered.

Systemic treatments: There is no consensus and there is little evidence base for the use of systemic agents. In the vulvovaginal–gingival syndrome, there is general agreement that azathioprine, dapsone, griseofulvin, chloroquine and minocycline, all tried empirically, are of little or no benefit:

- Oral ciclosporin may be considered.
- Retinoids can be very helpful in hypertrophic cases.
- Oral steroids are used, for example prednisolone 40 mg/day, tapered off over a few weeks; courses can be repeated as necessary for severe flares.
- The new biological agents have been used in oral and cutaneous disease. Basiliximab²¹ has been found to be effective but its use has not been evaluated in vulval disease. All these potentially toxic therapies need careful monitoring and are best supervised by a dermatologist in the context of a specialised clinic (IV, C).

Follow-up

- At 2–3 months to assess response to treatment.
- Active disease should be assessed as clinically required. Erosive lichen planus needs long-term specialised follow-up (IV, C).
- Stable disease should be reviewed annually except in well-counselled patients who control their symptoms well. If review is by the GP this should be communicated to the patient and GP by the clinic.
- Patients should be informed that if they notice the development of a lump or change in appearance they should seek medical advice urgently.

Auditable outcome measures

- Biopsy should be performed in patients not responding to an initial course of treatment and if raised lesions develop or an ulcer or erosions persist
Target 100%

Vulval eczema

Aetiology

Eczematous and lichenified diseases, as classified by ISSVD,²² include:

- Atopic: the ‘allergic’ type often seen in people who also have hay fever or asthma.
- Allergic contact: due to skin contact to a substance to which the individual is sensitive.
- Irritant contact: due to skin contact with irritating chemicals, powders, cleaning agents, etc.

Clinical features

Symptoms

- Vulval itch
- Soreness.

Signs

- Erythema
- Lichenification and excoriation
- Fissuring
- Pallor or hyperpigmentation.

Complications

- Secondary infection.

Diagnosis

- Clinical presentation (as above).
- General examination of the skin to look for other signs of dermatitis.

Management

Further investigation

- Patch testing^{23,24} – standard battery and medications (III, B).
- Biopsy (IV, C) – only if atypical features (e.g. asymmetric, localised or eroded) or failure to respond to treatment.

Treatment

Recommended regimens

- Avoidance of precipitating factor (IV, C).
- Use of emollient soap substitute (aqueous cream should not be applied as a moisturiser due to the risk of irritant effects; Hydramol can be a suitable alternative).
- Topical corticosteroid – the choice of preparation will depend on severity, 1% Hydrocortisone ointment in milder cases, or betamethasone valerate 0.025% or clobetasol propionate 0.05% for limited periods if severe or lichenified. A combined preparation containing antifungal and/or antibiotic may be required for short-term use (to try and avoid the development of contact allergy) if secondary infection suspected. Apply once daily (IV, C).

Follow-up

- As clinically required
- Long-term follow-up and psychological support may be needed.

Auditable outcomes

- Patients should be given a full explanation of their condition (including the risk of recurrence) with written or web-based information Target 100%

Lichen simplex

Aetiology

Categorised into four main groups:

- Underlying dermatoses, i.e. atopic dermatitis, allergic contact dermatitis, superficial fungal (tinea and candidiasis) infections.
- Systemic conditions causing pruritus, i.e. renal failure, obstructive biliary disease (primary biliary cirrhosis and primary sclerosing cholangitis), Hodgkin's lymphoma, hyper- or hypothyroidism and polycythaemia rubra vera.
- Environmental factors: heat, sweat, rubbing of clothing and other irritants such as harsh skincare products.
- Psychiatric disorders: anxiety, depression, obsessive-compulsive disorder and dissociative experiences are often associated with the condition. Emotional tensions in predisposed people (i.e. those with an underlying predisposition for atopic dermatitis, asthma and allergic rhinitis) can induce itch and thus begin the chronic itch-scratch cycle.^{25,26}

Clinical features

Symptoms

- Vulval itch
- Soreness.

Signs

- Lichenification, i.e. thickened, slightly scaly, pale or earthy-coloured skin with accentuated markings, maybe more marked on the side opposite the dominant hand.
- Erosions and fissuring.
- Excoriations as a result of scratching may be seen.
- The pubic hair is often lost in the area of scratching.

Complications

- Secondary infection.

Diagnosis

- Clinical presentation (as above). Psoriasis of the vulva is usually less itchy and lesions are bright red, often glazed and well demarcated and frequently involves natal cleft.
- History including mental state examination where indicated.
- General examination of the skin to look for other signs of psoriasis or lichen simplex elsewhere.

Management

Further investigation

- Screening for infection (e.g. *Staphylococcus aureus*, *Candida albicans*).
- Dermatological referral for consideration of patch testing²³ – standard battery and medicaments (III, B).
- Ferritin²⁷ (III, B).
- Biopsy (IV, C).

Treatment

Recommended regimens

- Avoidance of precipitating factor (IV, C).
- Use of emollient soap (some people may have a reaction to aqueous cream when it is used as an emollient. For this reason, it is recommended only as a soap substitute and not an emollient).
- Topical corticosteroid – potent topical steroids are required when treating lichenified areas, e.g. betamethasone or clobetasol for limited periods. A combined preparation containing antifungal and/or antibiotic may be required if secondary infection was suspected. Apply once or twice daily.(IV, C).
- A mildly anxiolytic antihistamine such as hydroxyzine or doxepin at night is helpful.
- The symptoms of pruritus often respond fairly quickly to a topical steroid but, unless the lichenification resolves, the itch-scratch cycle will remain and the symptoms will recur. A graduated reduction in the frequency of application of the topical steroid is helpful, over about 3–4 months.
- Cognitive behavioural therapy maybe helpful if there are co-existing mental health issues.

Follow-up

- Mild disease – as clinically required.
- Severe disease (i.e. when using potent topical steroids) – one month then as required.

Auditable outcome measures

- Patients should be given a full explanation of their condition with written or web-based information. Target 100%.

Vulval psoriasis

Aetiology

Psoriasis is a chronic inflammatory epidermal skin disease affecting approximately 2% of the general population. Genital psoriasis may present as part of plaque or flexural psoriasis or, rarely, as the only area affected.

Clinical features

Symptoms

- Vulval itch
- Soreness
- Burning sensation.

Signs

- Well-demarcated brightly erythematous plaques
- Often symmetrical
- Frequently affects natal cleft
- Usually lacks scaling due to maceration
- Fissuring
- Involvement of other sites, e.g. scalp, umbilicus.

Complications

- May be worsened due to Koebner effect by irritation from urine, tight-fitting clothes or sexual intercourse.

Diagnosis

- Clinical presentation (as above).
- General examination of the skin and nails to look for other signs of psoriasis.

Management

Further investigation

- Skin punch biopsy if the diagnosis is in doubt.

Treatment²⁸

Recommended regimens

- Avoidance of irritating factors.
- Use of emollient soap substitute.
- Topical corticosteroid – weak to moderate steroids are preferred but if insufficient to induce a response then intensive short-term potent steroids such as clobetasol propionate 0.05% may be used. A combined preparation containing antifungal and/or antibiotic may be required if secondary infection was suspected (e.g. Trimovate[®]). This should be for short-term use only to try and avoid the development of contact allergy (IV, C).
- Weak coal-tar preparations – may be used alone or combined or alternated with topical steroids. However, these preparations can cause irritation and folliculitis (IV, C).
- Vitamin D analogues such as Talcaltol – alone or in combination with corticosteroid; however, their usefulness may be limited by causing irritation (IV, C).

Onward referral

- Referral to a multidisciplinary vulval clinic is recommended for unresponsive or recalcitrant cases, or those in whom systemic therapy is considered.
- Systemic treatments: if required for severe and extensive psoriasis may help genital lesions but not recommended for isolated genital psoriasis.

Follow-up

- Mild disease – as clinically required.
- Severe disease – (i.e. when using potent topical steroids) one month then as required.

Auditable outcome measures

- Patients should be given a full explanation of their condition with written or web-based information. Target 100%

Other vulval dermatoses

Many other skin conditions can affect the vulva. Where the diagnosis is not obvious, patients should be referred to a combined vulval clinic or to a dermatologist.

Vulval intraepithelial neoplasia²

Aetiology. This is a vulval skin condition which may become cancerous if left untreated. It is confirmed by histological

diagnosis and can be defined as low grade or high grade. Low-grade change is usually associated with human papillomavirus (HPV) and may resolve. In GUM clinics, the commonest aetiological agent is HPV that is known as usual type and is mainly associated with HPV 16.²⁹ A second type, generally not HPV related, occurs in conjunction with LS or lichen planus (known as differentiated type).³⁰ The risk of progression to SCC is much greater with the differentiated type of VIN and needs specialised management. VIN is commoner in immunocompromised women.³¹ Smoking is also a risk factor.

Clinical features

Symptoms

- Lumps
- Erosions
- Burning and itch/irritation
- Asymptomatic
- Pain.

Signs

- Clinical appearance is very variable.
- Raised white, erythematous or pigmented lesions occur and these may be warty, moist or eroded (pigmented lesions were previously known as Bowenoid papulosis).
- Multifocal lesions are common.

Complications

- Development of SCC has been reported in between 9%³² and 18.5% of women.³³
- Recurrence is common and progression to cancer can occur following previous treatment.³³
- Psychosexual consequences have also been described (especially following surgical treatment).³⁴

Diagnosis

- Biopsy – histopathology shows loss of organisation of squamous epithelium with a variable degree of cytological atypia which is graded as undifferentiated or differentiated³⁰ and by depth. Multiple biopsies may be required as there is a risk of missing invasive disease.³⁵

Management

Further investigation

- Ensure that cervical cytology remains up-to-date – there is an association with cervical intraepithelial

neoplasia (CIN)³⁶ (this is probably only applicable to those due to HPV) (IV, C).

- All patients with VIN should be referred for up-to-date colposcopy to exclude CIN and VIN. If there are any perianal lesions, referral for anoscopy is recommended (IV, C).

Treatment.^{37,38} Most studies and research relate to full thickness VIN. Multifocal lesions can be treated in the same manner as single lesions, but may have a higher recurrence rate.²⁸

Recommended regimen

- Local excision³⁹ – this is the treatment of choice for small well-circumscribed lesions as it has the lowest rate of recurrence on follow-up (III,B).
- Imiquimod cream 5% – partial and complete clinical and histological regression has been shown in small studies but treatment limited by side effects. Only short-term follow-up data are available. This is an unlicensed indication (Ib, A).^{40,41}
- Vulvectomy – this has been effective but recurrence may occur and function and cosmesis will be impaired (IV, C).^{34,39}

Alternative regimens

1. Local destruction – a variety of techniques have been evaluated,^{30,32} including carbon dioxide laser and ultrasonic surgical aspiration,⁴² photodynamic therapy,³⁹ cryotherapy³² and laser³⁹ (IIa, B). There are anecdotal reports of treatment with diathermy. Involvement of skin appendages can occur and recurrence may ensue if the appropriate depth of treatment is not achieved. The recurrence rates at follow-up tend to be higher than for excision, but cosmesis is usually good.
2. 5 fluorouracil cream⁴³ – may lead to resolution of some lesions but the results are variable and side effects are common. No consensus on usefulness or regimen. This is an unlicensed indication (IV, C).
3. Supervision³⁵ – some lesions will spontaneously regress. This may be the best policy for partial thickness VIN. However, there is a risk of progression and patients should be made aware of this (IV, C).

Pregnancy and breastfeeding

- Imiquimod and 5 fluorouracil cream are not licensed in pregnancy.

Onward referral

- Cases of VIN should be assessed in a multidisciplinary vulval clinic, or have input from gynaecology regarding assessment for surgical excision.¹

Follow-up

- Close follow-up is mandatory. Although resolution may occur, VIN III particularly has a significant rate of progression (6.5% in one study).³³

Auditable outcome measures

- Follow-up of cases until five years after resolution Target 80%.

Vulval pain

International Society for the Study of Vulvovaginal Diseases (ISSVD) defines vulvodinia as 'vulvar discomfort, most often described as burning pain, occurring in the absence of relevant visible findings or a specific, clinically identifiable, neurologic disorder'.⁴⁴

Vulvodinia is categorised, by the ISSVD, as generalised or localised; provoked, unprovoked or a mixture of the two.

Localised provoked vulvodinia (vestibulodynia)

Aetiology

Likely to be multifactorial, a history of vulvovaginal candidiasis, usually recurrent, is the most commonly reported feature. Experimental animal study supports this association.⁴⁵

Clinical features

Symptoms

- Vulval pain – frequently felt at the introitus at penetration during sexual intercourse or on insertion of tampons. There is usually a long history.

Signs

- Focal tenderness elicited by gentle application of a cotton wool tip bud at the introitus or around the clitoris.

- Normal vestibular erythema may be seen but is not a diagnostic sign.
- There are no signs of an acute inflammatory process.

Complications

- Sexual dysfunction
- Psychological morbidity.

Diagnosis

- Clinical diagnosis made on history and examination.

Management

Further investigation

- After exclusion of other treatable causes no further investigation is required.
- Biopsy should be performed if there is any suspicion of an underlying dermatosis.

Treatment. The British Society for the Study of Vulval Disease (BSSVD) recommends a multidisciplinary approach to patient care and that combining treatments can be helpful in dealing with different aspects of vulval pain.^{46,47}

Recommended regimens

- Avoidance of irritating factors.
- Use of emollient soap substitute.
- Topical local anaesthetics, e.g. 5% lidocaine ointment or 2% lidocaine gel should be used with caution as irritation may be caused. The application should be made 15–20 min prior to penetrative sex and washing off the lidocaine just before sex or the use of condom by the partner can reduce the risk of transfer resulting in penile numbness. Oral contact should be avoided (IV, C).
- Physical therapies
 - Pelvic floor muscle biofeedback⁴⁸ (III, B).
 - Vaginal transcutaneous electrical nerve stimulation (Ib, A).⁴⁹
 - Vaginal trainers (III, B).⁵⁰
 - Cognitive behaviour therapy (III, C).⁵¹
 - Psychosexual counselling.

Alternative regimens

- Pain modifiers – the benefit of drugs such as tricyclic antidepressants, gabapentin and pregabalin is not

clear. Amitriptyline gradually titrated from 10 mg up to 75 mg according to response and side effects may be beneficial in some women (IV, C).

- Surgery – modified vestibulectomy may be considered in cases where other measures have been unsuccessful. Patients who have responded to topical lidocaine prior to sex have a better outcome (III, B).^{52,53}

Follow-up

- As clinically required.
- Long-term follow-up and psychological support may be needed.

Auditable outcomes

- Patients should be given a full explanation of their condition with written or web-based information Target 100%

Unprovoked vulvodynia

Aetiology

The aetiology is unknown and the condition is best managed as a chronic pain syndrome.

Clinical features

Symptoms

- Pain that is longstanding and unexplained.
- May be associated with urinary symptoms such as interstitial cystitis.⁵⁴
- Can also be associated with irritable bowel syndrome and fibromyalgia.

Signs

- The vulva appears normal.

Complications

- Sexual dysfunction
- Psychological morbidity.

Diagnosis

- Clinical diagnosis made on history and examination having excluded other causes.

Management

Further investigation

- After exclusion of other treatable causes no further investigation is required.
- Biopsy should be performed if any suspicion of alternative diagnosis.

Treatment. The British Society for the Study of Vulval Disease (BSSVD) recommends a multidisciplinary approach to patient care and that combining treatments can be helpful in dealing with different aspects of vulval pain.⁴⁶

Treatment-resistant unprovoked vulvodynia may require referral to a pain clinic.

Recommended regimens

- Use of emollient soap substitute.
- Pain modifiers – tricyclic antidepressants are well established in chronic pain management. Few studies have specifically examined the effect in vulvodynia; however, amitriptyline is frequently first-line treatment; dosage should be increased by small increments starting at 10 mg up to 100 mg daily according to the patient's response⁵⁵ (III, B).

Note: a recent randomised study has not confirmed the beneficial effect of amitriptyline (Ib, A).⁵⁶

- If unresponsive or unable to tolerate the side effects, gabapentin⁵⁷ (III, B) or pregabalin⁵⁸ may be used (IIb, B).

Alternative regimens

- Topical local anaesthetic, e.g. 5% lidocaine ointment or 2% lidocaine gel. A trial of local anaesthetic may be considered although irritation is a common side effect (IV, C).
- Cognitive behavioural therapy and psychotherapy⁵⁹ (IIb, B).
- Acupuncture⁶⁰ (IIb, C).
- Physiotherapy if evidence of a weak pelvic floor.

Follow-up

- As clinically required.

Auditable outcomes

- Patients should be given a full explanation of their condition with written or web-based information Target 100%

Editorial independence

This guideline was commissioned, edited and endorsed by the BASHH CEG without external funding being sought or obtained.

Acknowledgements

Dr John Evans-Jones provided feedback during the consultation period.

Conflict of interest

All members of the guideline writing committee completed the BASHH conflict of interest declaration detailed below at the time the guidelines final draft was submitted to the CEG.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sector.

Date of writing

June 2014

Proposed review date

February 2018

Cost implications

These guidelines have been revised to include a much wider group of conditions than included in the previous guidance. Many of these conditions already do present to GUM setting initially. Where appropriate, onward referral to Dermatology is recommended and is therefore unlikely to impact greatly on the cost of managing these chronic conditions.

References

- Cruickshank ME and Hay I. Green-top Guideline 58 the management of vulval skin disorders. <https://www.rcog.org.uk/globalassets/documents/guidelines/gtg58vulval22022011.pdf> (2011, accessed 26 September 2014).
- Neill SM and Lewis FM. Non-infective cutaneous conditions of the vulva. In: Neill SM and Lewis FM (eds) *Ridley's 'The Vulva'*. London: Wiley-Blackwell, 2009, pp.115–123.
- Neill SM, Lewis FM, Tatnall FM, et al. British Association of Dermatologists' guidelines for the management of lichen sclerosis 2010. *Br J Dermatol* 2010; 163: 672–682.
- Oyama N, Chan I, Neill SM, et al. Autoantibodies to extracellular matrix protein 1 in lichen sclerosis. *Lancet* 2003; 362: 118–123.
- Meyrick-Thomas RH, Ridley CM, McGibbon DH, et al. Lichen sclerosis and autoimmunity – a study of 350 women. *Br J Dermatol* 1988; 118: 41–46.
- Wallace HJ. Lichen sclerosis et atrophicus. *Trans St John's Hosp Dermatol Soc* 1971; 57: 9–30.
- Regauer S and Reich O. Early vulvar lichen sclerosis: a histological challenge. *Histopathology* 2005; 47: 340–347.
- Chi CC, Kirtschig G, Baldo M, et al. Topical interventions for genital lichen sclerosis (Review). *Cochrane Libr* 2011; 7: CD008240.
- Hengge UR, Krause W, Hofmann H, et al. Multi-centre, phase II trial on the safety and efficacy of topical tacrolimus ointment for the treatment of lichen sclerosis. *Br J Dermatol* 2006; 155: 1021–1028.
- Nissi R, Risteli J and Niemimaa M. Pimecrolimus cream 1% in the treatment of lichen sclerosis. *Gynecol Obstet Invest* 2006; 63: 151–154.
- Edey K, Bisson D and Kennedy C. Topical tacrolimus in the management of lichen sclerosis. *Br J Obstet Gynaecol* 2006; 113: 1482.
- Fischer G and Bradford J. Topical immunosuppressants, genital lichen sclerosis and the risk of squamous cell carcinoma. *J Reprod Med* 2007; 52: 329–331.
- Bousema MT, Romppanen U, Geiger JM, et al. Acitretin in the treatment of severe lichen sclerosis et atrophicus of the vulva: a double-blind, placebo controlled study. *J Am Acad Dermatol* 1994; 30: 225–231.
- Beattie PE, Dawe RS, Ferguson J, et al. UVA1 phototherapy for genital lichen sclerosis. *Clin Exp Dermatol* 2006; 31: 343–347.
- Abramov Y, Elchalal U, Abramov D, et al. Surgical treatment of vulvar lichen sclerosis: a review. *Obstet Gynecol Surv* 1996; 51: 193–199.
- Cooper SM, Dean D, Allen J, et al. Erosive lichen planus of the vulva: weak circulating basement membrane zone antibodies are present. *Clin Exp Dermatol* 2005; 30: 551–556.
- Lewis FM, Shah M and Harrington CI. Vulval involvement in lichen planus: a study of 37 women. *Br J Dermatol* 1996; 135: 89–91.
- Genadry R and Provost TT. Severe vulvar scarring in patients with erosive lichen planus. *J Reprod Med* 2006; 51: 67–72.
- Cooper SM and Wojnarowska F. Influence of treatment of erosive lichen planus of the vulva on its prognosis. *Arch Dermatol* 2006; 142: 362–364.
- Kirtschig G, Wakelin SH and Wojnarowska F. Mucosal vulval lichen planus: outcome, clinical and laboratory findings. *J Eur Acad Dermatol Venerol* 2005; 19: 301–307.
- Rebora A, Parodi A and Marialdo G. Basiliximab is effective for erosive lichen planus. *Arch Dermatol* 2002; 138: 1100–1111.
- Lynch PJ, Moyal-Barracco M, Scurry J, et al. ISSVD terminology and classification of vulvar dermatological disorders: an approach to clinical diagnosis. In: *Presented at the XXI world congress of the ISSVD*, Paris, France, 3–8 September 2011.
- Nardelli A, Degreef H and Goossens A. Contact allergic reactions of the vulva: a 14 year review. *Dermatitis* 2004; 15: 131–136.
- Haverhoek E, Reid C, Gordon L, et al. Prospective study of patch testing in patients with vulval pruritis. *Australas J Dermatol* 2008; 49: 80–85.
- Lotti T, Buggiani G and Prignano F. Prurigo nodularis and lichen simplex chronicus. *Dermatol Ther* 2008; 21: 42–46.

26. Lynch PJ. Lichen simplex chronicus (atopic/neurodermatitis) of the anogenital region. *Dermatol Ther* 2004; 17: 8–19.
27. Crone AM, Stewart EJ, Wojnarowska F, et al. Aetiological factors in vulvar dermatitis. *J Eur Acad Dermatol Venereol* 2000; 14: 181–186.
28. Meeuwis KA, de Hullu JA, Massuger LF, et al. Genital psoriasis: a systematic literature review on this hidden skin disease. *Acta Derm Venereol* 2011; 91: 5–11.
29. Hording U, Daugaard S, Iversen AK, et al. Human Papillomavirus 16 in vulvar carcinoma, vulvar intraepithelial neoplasia, and associated cervical neoplasia. *Gynecol Oncol* 1991; 42: 22–26.
30. Sideri M, Jones RW, Wilkinson EJ, et al. Squamous vulvar intraepithelial neoplasia: 2004 modified terminology, ISSVD Vulvar Oncology Subcommittee. *J Reprod Med* 2005; 50: 807–810.
31. Petry KU, Kochel H, Bode U, et al. Human papillomavirus is associated with the frequent detection of warty and basaloid high-grade neoplasia of the vulva and cervical neoplasia among immunocompromised women. *Gynecol Oncol* 1996; 60: 30–34.
32. van Seters M, van Beurden M and de Craen AJ. Is the assumed natural history of vulvar intraepithelial neoplasia III based on enough evidence? A systematic review of 3322 published patients. *Gynecol Oncol* 2005; 97: 645–651.
33. Jones RW, Rowan DM and Stewart AW. Vulvar intraepithelial neoplasia: aspects of the natural history and outcome in 405 women. *Obstet Gynecol* 2005; 106: 1319–1326.
34. Andreasson B, Moth I, Jensen SB, et al. Sexual function and somatopsychic reactions in vulvectomy-operated women and their partners. *Acta Obstet Gynecol Scand* 1986; 65: 7–10.
35. Polterauer S, Catharina Dressler A, Grimm C, et al. Accuracy of preoperative vulva biopsy and the outcome of surgery in vulvar intraepithelial neoplasia 2 and 3. *Int J Gynecol Pathol* 2009; 28: 559–562.
36. de Bie RP, van de Nieuwenhof HP, Bekkers RL, et al. Patients with usual vulvar intraepithelial neoplasia-related vulvar cancer have an increased risk of cervical abnormalities. *Br J Cancer* 2009; 101: 27–31.
37. Pepas L, Kaushik S, Bryant A, et al. Medical interventions for high grade vulvar intraepithelial neoplasia. *Cochrane Database Syst Rev* 2011; 4: Art. No. CD007924.
38. Kaushik S, Pepas L, Nordin A, et al. Surgical interventions for high grade vulvar intraepithelial neoplasia. *Cochrane Database Syst Rev* 2011; 1: Art. No. CD007928.
39. Hillemanns P, Wang X, Staehle S, et al. Evaluation of different treatment modalities for vulvar intraepithelial neoplasia (VIN): CO(2) laser vaporization, photodynamic therapy, excision and vulvectomy. *Gynecol Oncol* 2006; 100: 271–275.
40. van Seters M, van Beurden M, Kate FJ, et al. Treatment of vulvar intraepithelial neoplasia with topical imiquimod. *N Engl J Med* 2008; 358: 1465–1473.
41. Mathiesen O, Buus SK and Cramers M. Topical imiquimod can reverse vulvar intraepithelial neoplasia: a randomised, double-blinded study. *Gynecol Oncol* 2007; 107: 219–222.
42. von Gruenigen VE, Gibbons HE, Gibbins K, et al. Surgical treatments for vulvar and vaginal dysplasia: a randomized controlled trial. *Obstet Gynecol* 2007; 109: 942–947.
43. Sillman FH and Sedlis A. 5-FU/chemosurgery in the treatment of vulvar intraepithelial neoplasia. *J Gynecol Surg* 1988; 4: 171–185.
44. Moyal-Barracco M and Lynch PJ. 2003 ISSVD terminology and classification of vulvodynia: a historical perspective. *J Reprod Med* 2004; 49: 772–777.
45. Farmer MA, Talor AM, Bailey AL, et al. Repeated vulvovaginal fungal infections cause persistent pain in a mouse model of vulvodynia. *Sci Trans Med* 2011; 3: 101ra92.
46. Mandal D, Nunns D, Byrne M, et al. Guidelines for the management of Vulvodynia. *Br J Dermatol* 2010; 162: 1180–1185.
47. Spoelstra SK, Dijkstra JR, van Driel MF, et al. Long-term results of an individualized, multifaceted, and multidisciplinary therapeutic approach to provoked vestibulodynia. *J Sex Med* 2011; 8: 489–496.
48. Gentilcore-Saulnier E, McLean L, Goldfinger C, et al. Pelvic floor muscle assessment outcomes in women with and without provoked vestibulodynia and the impact of a physical therapy program. *J Sex Med* 2010; 7(2 Pt 2): 1003–1022.
49. Murina F, Bianco V, Radici G, et al. Transcutaneous electrical nerve stimulation to treat vestibulodynia: a randomised controlled trial. *BJOG* 2008; 115: 1165–1170.
50. Murina F, Bernorio R and Palmiotto R. The use of amielle vaginal trainers as adjuvant in the treatment of vestibulodynia: an observational multicentric study. *Medscape J Med* 2008; 10: 23.
51. Desrochers G, Bergeron S, Khalife S, et al. Provoked vestibulodynia: psychological predictors of topical and cognitive-behavioral treatment outcome. *Behav Res Ther* 2010; 48: 106–115.
52. Tommola P, Unkila-Kallio L and Paaavonen J. Long-term follow up of posterior vestibulectomy for treating vulvar vestibulitis. *Acta Obstet Gynecol Scand* 2011; 90: 1225–1231.
53. Eva LJ, Narain S, Orakwue CO, et al. Long-term follow up of posterior vestibulectomy for treating vulvar vestibulitis. *J Reprod Med* 2008; 53: 435–440.
54. Peters K, Girdler B, Carrico D, et al. Painful bladder syndrome/interstitial cystitis and vulvodynia: a clinical correlation. *Int Urogynecol J* 2008; 19: 665–669.
55. Reed BD, Caron AM, Gorenflo DW, et al. Treatment of vulvodynia with tricyclic antidepressants: efficacy and associated factors. *J Low Genit Tract Dis* 2006; 10: 245–251.
56. Brown CS, Wan J, Bachmann G, et al. Self-management, amitriptyline, and amitriptyline plus triamcinolone in the management of vulvodynia. *J Women's Health* 2009; 18: 163–169.
57. Harris G, Horowitz B and Borgida A. Evaluation of gabapentin in the treatment of generalized vulvodynia, unprovoked. Evaluation of gabapentin in the treatment

- of generalized vulvodynia, unprovoked. *J Reprod Med* 2007; 52: 103–106.
58. Jerome L. Pregabalin-induced remission in a 62-year-old woman with a 20-year history of vulvodynia. *Pain Res Manag* 2007; 12: 212–214.
59. Masheb RM, Kerns RD, Lozano C, et al. A randomized clinical trial for women with vulvodynia: cognitive-behavioral therapy vs supportive psychotherapy. *Pain* 2009; 141: 31–40.
60. Powell J and Wojnarowska F. Acupuncture for vulvodynia. *J R Soc Med* 1999; 92: 579–581.

Appendix I. Levels of evidence and grading of recommendations

Levels of evidence

- Ia Meta-analysis of randomised controlled trials
- Ib At least one randomised controlled trial
- IIa At least one well-designed controlled study without randomisation
- IIb At least one other type of well-designed quasi-experimental study
- III Well-designed non-experimental descriptive studies
- IV Expert committee reports or opinions of respected authorities.

Grading of recommendation:

- A Evidence at level Ia or Ib
- B Evidence at level IIa, IIb or III
- C Evidence at level IV.