

The assessment and management of genitourinary syndrome of menopause in primary care



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Background

Genitourinary syndrome of menopause (GSM) encompasses a range of anatomical and functional changes affecting the vulva, vagina, bladder and pelvic floor due to oestrogen deficiency. GSM affects up to 50% of postmenopausal individuals yet remains underdiagnosed and undertreated because of stigma and lack of awareness.

Objective

This article outlines the pathophysiology, assessment and management of GSM, emphasising trauma-informed care and culturally sensitive communication. First-line treatments include lifestyle modifications, genital skin care, lubricants, vaginal moisturisers and pelvic floor muscle training (PFMT). Topical hormonal therapies, including vaginal oestrogens and dehydroepiandrosterone (DHEA) are effective and safe, including for breast cancer survivors, with appropriate consultation.

Discussion

General practitioners have a pivotal role in initiating conversations, acknowledging symptoms and providing trauma-informed, evidence-based education and care to improve quality of life and reduce inadequate management of symptoms.

GENITOURINARY SYNDROME OF MENOPAUSE

(GSM) is a term that describes anatomical changes and symptoms occurring in the external genitalia, pelvic floor, bladder and urethra with associated loss of sexual function and libido. These changes are associated with low oestrogen levels.¹ The term was introduced in 2014 to replace 'vulvovaginal atrophy (VVA)', reflecting the broader spectrum of symptoms and anatomical sites involved.

Prevalence

Studies indicate that GSM is common, with 67–98% of postmenopausal individuals aged 50–59 years showing clinical signs of GSM during assessment.² Incidence of GSM increases with age, with 50% of patients aged 50–60 years reporting symptoms, increasing to 70% in patients older than 70 years.^{2,3}

GSM affects approximately 15% of premenopausal individuals.⁴ GSM symptoms might present premenopause during lactation.⁵ Cancer treatment, including radiation, chemotherapy and adjuvant endocrine therapies commonly induce symptoms of GSM.⁶ Symptoms are often overlooked, stigmatised or dismissed as part of 'normal' ageing or cancer treatment, leading to inadequate diagnosis and management.^{7,8}

Pathophysiology of GSM

Oestrogen receptors are distributed throughout the vagina, vulval vestibula, urethra and bladder and on autonomic and sensory neurons.⁹ Testosterone receptors are present in the labia majora and minora, the clitoris, the vestibule and in the three layers of the vaginal mucosa.^{10,11} Progesterone receptors are present in the vagina and at the vulvovaginal epithelial junction.⁹

Oestrogen receptors in the superficial layer of the vagina maintain the health of the vaginal epithelium by promoting adequate blood supply, lubrication and collagen production. Oestrogen helps maintain the acidic environment (pH <4.5) of the vagina, favouring lactobacilli colonisation, a key feature of healthy microbiome of the vagina.¹²

Hypo-oestrogenism reduces the number of blood vessels and decreases collagen and elastin production. This causes genital tissue thinning and pallor, loss of elasticity, altered smooth muscle cell function and microbiome disruption, leading to the clinical features of GSM (Box 1). Androgens can influence structural changes, due to loss of collagen and muscle, including a reduction in rugae and shortening of the vagina.¹³

GSM might be associated with reduced quality of life and sexual functioning, and individuals with GSM have a higher

Box 1. Anatomical and functional changes in genitourinary syndrome of menopause

- Loss of labial and vulval fullness
- Reduction of labia majora and clitoral hood
- Narrowing of the introitus and vaginal shortening
- Loss of vaginal rugae, thinning epithelium, petechiae
- Vaginal dryness, loss of lubrication
- Sparser and coarser pubic hair
- Vulval burning, dryness, irritation or itching
- Recurrent vaginal discharge/odour (non-Candida)
- Prolapse and pelvic floor weakening
- Altered sensation and reduced clitoral stimulation
- Dyspareunia
- Urethral meatal prominence (caruncle) and thinning of urethral epithelium
- Urinary infections and incontinence

Box 2. Helpful questions to explore genitourinary syndrome of menopause symptoms^{16,37}

- Does anything feel different in or around your vulva or vaginal area?
- Have you noticed any more vaginal dryness than usual?
- Have you experienced any discomfort/pain, itching, burning or irritation?
- Is sexual intercourse painful or uncomfortable?
- Have you noticed any changes in vaginal discharge (either increased or reduced)?
- Have you noticed any change in passing urine or not being able to hold urine?
- Have you noticed any changes in sexual enjoyment or how you feel during sexual activity?
- Are there any cultural practices related to menopause or genital care that are important for you to observe?
- Are there any stories, ideas or concerns you have about your menopause or genital care?

Box 3. Resources for genitourinary syndrome of menopause for health professionals

Australasian Menopause Society

- www.menopause.org.au
- www.menopause.org.au/index.cfm//health-professionals/information-sheets
- <https://hub.menopause.org.au/Channel/ResourcesforConsumers/FactSheetsforConsumers>
- https://menopause.org.au/images/stories/education/docs/AMS_Diagnosing_Menopause_Symptom_Score.pdf

Jean Hailes for Women's Health

- www.jeanhailes.org.au/health-a-z/vulva-vagina
- www.jeanhailes.org.au/resources/perimenopause-and-menopause-symptom-checklist

Sexual Health Victoria

- <https://shvic.org.au/for-you/genital-health/genital-skin-care>

likelihood of urinary symptoms, all of which might interfere with interpersonal relationships.⁸ There might be a loss of libido, superficial or deep dyspareunia and/or decreased arousal and orgasm. Bleeding or spotting might occur during or after intercourse.

Urinary symptoms include recurrent urinary tract infections, urgency and urge incontinence, stress incontinence, dysuria and voiding issues. Urinary incontinence can affect 30–60% of perimenopausal and postmenopausal individuals.¹⁴ Mucosal prolapse at the urethral meatus might lead to a urethral caruncle, causing dysuria, bleeding and, less commonly, pain.

Assessment

Clinicians should consider trauma-informed care for individuals with GSM and use culturally appropriate language to support patient choice and safety throughout history-taking, examination and treatment.^{7,15,16}

Many individuals do not seek help for GSM because of embarrassment, stigma or the assumption that symptoms are inevitable with age.⁸ Clinicians might also

underdiagnose because of time pressures, discomfort discussing sexual health or limited awareness of treatment options.⁸

Acknowledging that GSM symptoms are common and that there are treatments available is a useful strategy to start a discussion. Questions can be part of a systematic menopause review (Box 2), menopausal symptom score sheets (Box 3) or asked opportunistically if symptoms are disclosed.

Asking about genital skin care and products used is essential, as commonly used soothing products might contain hidden irritants (eg perfumes, alcohol, paraben preservatives or sulphates). Ask about vulval hygiene practices and potential irritants such as soaps, bath gels, powders, lubricants, condoms, panty liners or pads.

Document the onset, nature, duration and severity of symptoms, including their impact on daily life and emotional wellbeing. A psychosocial and sexual history should include sexual partner status, sexual activity frequency, history of sexually transmissible infections and how symptoms affect intimacy. Consider if opportunistic health screening is required, including cervical (self-taken if appropriate), bowel and breast cancer screening.

Box 4. Differential diagnoses of genitourinary syndrome of menopause

- Dermatological conditions of the vulva (eg lichen sclerosus or planus, eczema, psoriasis, contact or allergic dermatitis)
- Vulvodynia
- Vaginismus
- Vaginal or vulval malignancy
- Chronic pelvic pain
- Trauma
- Foreign bodies
- Autoimmune diseases:
 - Diabetes
 - Lupus erythematosus
 - Crohn's disease

Physical examination might help identify or exclude vulvovaginal conditions (Box 4). Obtain informed consent and explain the process using a trauma-informed approach.¹⁷ Digital examination might reveal reduced elasticity at the posterior fourchette and pelvic floor muscles might be in spasm. If a speculum examination is required (and it might be postponed until treatment has improved symptoms), a small

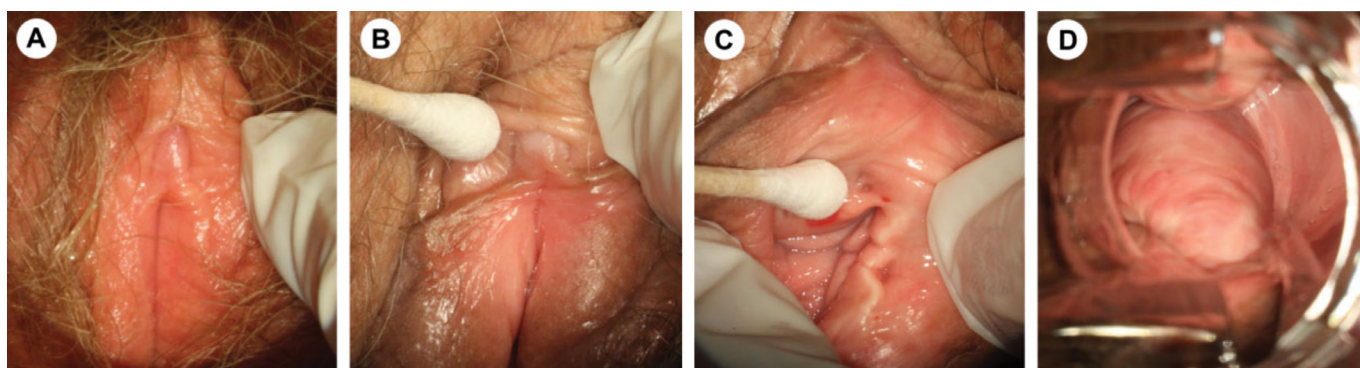


Figure 1. Atrophy of the vulva, clitoris and vagina associated with genitourinary symptoms in menopause. **A.** Vaginal atrophy is associated with pale, dry, shiny vulvar tissue and loss of adipose tissue in the labia majora and labia minora. **B.** The prepuce and clitoris are often pale and reduced in size. **C.** Examination shows that the introitus might be narrowed and friable. **D.** In vaginal atrophy, the vaginal walls lack rugae and might be pale and/or erythematous.

Adapted from Goldstein I, Dicks B, Kim NN, Hartzell R. Multidisciplinary overview of vaginal atrophy and associated genitourinary symptoms in postmenopausal women. *Sex Med* 2013;1(2):44–53. doi: 10.1002/sm2.17, licensed under the terms of the Creative Commons CC BY license.

or paediatric speculum might be needed. The vaginal epithelium might appear thin, dry and lack rugae (Figure 1).

Investigations

Investigations are selectively undertaken on the basis of clinical findings and to further investigate differential diagnoses (Box 4). Investigate any unexplained or postmenopausal bleeding to exclude gynaecological malignancy.

A vaginal or vulval swab might be taken if there is a vaginal discharge or a vulvitis to exclude infection. A vulval biopsy (referring to a vulval dermatologist or gynaecologist if this is not part of your practice) might be necessary, too, if there are signs of lichen sclerosus, lichen planus, autoimmune blistering condition or cancerous change (Box 5).¹⁸

Box 5. Physical findings where a vulval biopsy would be recommended

- Thickened pale sclerotic areas
- Red or pink erosions
- Ulcers or blisters that are not healing and negative for infectious cause
- A new raised lesion especially if singular
- Lesions with atypical texture
- Lesions with atypical pigmentation

Urinary investigations might be required if symptoms are related to the bladder and urethra.

Treatment

Qualitative studies of patients' perspectives on GSM have identified the need for education on treatments, including usage instructions and validation of GSM for optimal management.^{19,20}

Genital skin care

First line treatment focuses on relieving symptoms and improving vulvovaginal comfort through lifestyle modifications and topical non-hormonal therapies.²¹

Simple changes in clothing and hygiene practices can significantly reduce irritation and discomfort. Patients should be advised to wear breathable underwear made from natural fibres such as cotton and change clothing that is damp regularly.

Gentle cleansing practices are essential. Washing with cool water is recommended, and if cleansing products are needed, hypoallergenic, fragrance-free washes should be used. After bathing, the area should be gently patted dry or dried using a hairdryer on a cool setting. Barrier creams might be beneficial in protecting the skin and maintaining moisture.

Personal lubricants and vaginal moisturisers

Lubricants and vaginal moisturisers are effective for managing the symptoms of vulvovaginal dryness, discomfort and dyspareunia, though they do not correct the underlying pathophysiology of GSM.²¹

Lubricants are used at the time of intercourse, whereas vaginal moisturisers provide longer-term relief. Lubricants can be water-based, oil or silicone-based. Water-based lubricants are compatible with condoms, silicone toys and pessaries. Water-based lubricants can be rapidly absorbed by drier skin and lose their lubrication properties, so they might need to be applied frequently. Silicone lubricants remain present for longer. An Australian study found that older users expressed a preference for silicone over water lubricants for sexual comfort.²² Oil-based lubricants are good for hydration but are not compatible with latex condoms.

Moisturisers rehydrate dry tissues by changing the fluid content in the vaginal epithelium, absorbing and adhering to it, and mimicking vaginal secretions, hence improving hydration and lowering the pH.²³

In addition, tissue integrity, elasticity and pliability are improved.²¹ Moisturisers contain water and other substances such as hyaluronic acid or polycarbophil. They should be applied regularly 1–3 times a week as their effectiveness lasts for approximately 3 days.²⁴

Hormonal therapies

Topical vaginal hormonal treatments containing oestrogen or dehydroepiandrosterone (DHEA) are effective for managing vulvovaginal symptoms of menopause if symptoms do not respond to first line treatments.^{25–28}

If systemic menopause hormone therapy (MHT) is used for other menopause symptoms there can be improvement of GSM; however, up to 25% of individuals with GSM will still have discomfort.²⁸ Vaginal hormone therapy can be used simultaneously with systemic MHT if needed for further symptom relief.²⁷

In Australia, vaginal oestrogen options include estriol (available as creams and ovules) and estradiol (available as vaginal tablets). These therapies restore local oestrogen levels with minimal systemic absorption and do not require additional progestogen. Regular use improves vaginal moisture, elasticity and epithelial integrity, reduces dyspareunia and lowers the risk of recurrent urinary tract infections and urgency-related symptoms.^{25,26} Maximal absorption occurs in the first 2 weeks of initiating nightly treatment when the vaginal epithelium is the most symptomatic.²¹ Relief of symptoms occurs, but achieving the full therapeutic effect might take up to 8 weeks.²¹ As tissue quality improves, transitioning to a maintenance regimen of 2–3 applications per week is recommended.²¹

Prasterone (DHEA), a 6.5 mg vaginal insert, is approved in Australia for moderate to severe vulvovaginal symptoms. It is a waxy ovule inserted nightly into the vagina with an applicator or finger. It is converted locally into oestrogens and androgens within vaginal epithelial cells, without affecting endometrial tissue.²⁹ Clinical trials have shown significant improvements in vaginal dryness, pH and dyspareunia.³⁰

Ospemifene, an oral selective oestrogen receptor modulator (SERM), is used internationally for vulvovaginal atrophy but is not currently available in Australia. It shares contraindications with systemic oestrogen therapies. It was not associated with breast or gynaecological cancer recurrence in one study with a 6-month follow-up, but more long-term studies are required.³¹

Laser therapies

Vaginal laser treatments have been investigated as non-hormonal options. Evidence is limited by small, non-randomised studies.²¹ High-quality trials have not shown significant benefits over placebo.^{21,32}

Physiotherapy

Pelvic floor muscle training (PFMT) provided by specialist pelvic floor physiotherapists has been found to reduce the signs and symptoms of GSM.³³ PFMT can improve blood flow in the arteries supplying vulvovaginal tissues, improve muscle function and increase vulvovaginal tissue elasticity. These changes improve urinary symptoms and continence, enhance sexual function and reduce sexual discomfort.³³

Sexual dysfunction

Managing GSM sexual dysfunction requires a biopsychosocial approach.³⁴ Referral to pelvic floor physiotherapy for down-training and PFMT is recommended.³³ Additional options include vaginal dilators with lubrication for introital narrowing or vaginismus, topical lidocaine for vulvodynia, and vibrators or self-stimulators for arousal or anorgasmia.²¹ Frameworks such as PLISSIT (permission, limited information, specific suggestions and intensive therapy) or ALLOW (ask, legitimise, limitations, open up, work together) methods can support initial discussions in general practice.^{34,35} Persistent or complex cases benefit from referral to psychosexual therapy.³⁴

GSM management post breast cancer

GSM affects up to 70% of breast cancer survivors because of the hypo-oestrogenic effects of adjuvant therapy, causing vaginal dryness, discharge, urinary incontinence and sexual dysfunction.²⁵ These side effects often lead to poor adherence and early discontinuation of adjunct therapy.²¹

Management should be trauma-informed and culturally safe (Box 2) incorporating breast cancer recurrence risk, symptom severity, prior response to treatments and the person's own preferences.³⁴ First-line options include non-hormonal moisturisers, lubricants, PFMT and dilator therapy.^{21,27}

If symptoms persist, vaginal oestrogen might be considered, particularly for patients on tamoxifen or with hormone receptor-negative tumours.²¹ Systematic reviews and cohort studies have found no increased risk of recurrence or mortality with vaginal oestrogen use in breast cancer survivors.^{25,34} The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) guidelines support use after oncologist consultation, with estriol preferred for its limited conversion to more potent oestrogens, though no clinical data confirm superior safety.³⁵

Evidence for prasterone (DHEA) is limited. A small pilot study in aromatase inhibitor-treated survivors showed GSM improvement with low oestradiol levels.³⁶ Further research is needed. Current guidelines do not recommend its use post-cancer²¹ but individual use might be considered after specialist input if other options fail.²⁷

Conclusion

GSM is a chronic, progressive condition driven by oestrogen deficiency, with far-reaching effects on urogenital and sexual health and overall quality of life. Despite its prevalence, GSM remains underdiagnosed and undertreated. Management ranges from lifestyle changes and non-hormonal therapies or local hormonal treatments to physiotherapy and sexual therapy.

General practitioners are well positioned to improve quality of life by identifying GSM early, initiating conversations and offering trauma informed assessment and evidence-based interventions.

Key points

- GSM affects 50% of postmenopausal individuals aged 50–60 years, increasing to 70% of those aged 70 years, but only a small proportion seek or receive treatment.
- Offer trauma informed and culturally sensitive assessment to assist with decreasing stigma and increasing diagnosis.
- Discuss sexual dysfunction as topical treatments can help, and support good sexual health.
- First-line management includes education, skin care, lubricants and moisturisers as well as pelvic floor physiotherapy.

- Topical oestrogens and vaginal DHEA are effective and safe to use and can be considered for post-breast-cancer treatment with specialist consultation.

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