

Management of genital herpes: a guide for GPs

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Although there is no curative treatment for genital herpes, antiviral therapy can reduce the duration of symptoms and the frequency and severity of recurrences. This article discusses the diagnosis of genital herpes, the treatment options available and the GP's role in management.

Genital herpes is caused by the herpes simplex virus (HSV). There are two types of HSV – type 1 and type 2, and both types can infect either the orolabial region or the anogenital region. Historically, oral herpes was mainly caused by HSV-1 and anogenital herpes was mainly caused by HSV-2 but that has changed over the last few decades. Mouth infections are still caused almost entirely by HSV-1, but genital infections are now more likely to be caused by HSV-1 than HSV-2.¹

After the initial infection, HSV becomes latent in the local sensory ganglia, and occasionally reactivates to cause either asymptomatic viral shedding or symptomatic genital ulceration. It therefore results in a lifelong infection with recurrences.

HSV is endemic worldwide. In 2012, the World Health Organization estimated the global prevalence of HSV-1 to be 67%² and that of HSV-2 to be 11.3%.³

Primary HSV is often asymptomatic, with up to 80% of people with a positive HSV antibody test unable to recall ever having had any symptoms of herpes. This means that most genital herpes is transmitted when patients do not have any symptoms.

There is no curative treatment, but there are options to reduce the frequency and severity of recurrences for those patients who are experiencing a troublesome number of outbreaks.

Classification of HSV infections

Herpes infections are defined as either primary, where there has been no herpes infection before, or secondary, where the patient has been infected with one type of herpes and now presents with the other type. Prior infection with HSV-1 does not confer immunity to infection from HSV-2 but it does modify the symptoms, typically meaning they are less severe.⁴ Both primary and secondary infections can have recurrences.

The first-episode infection can be primary or secondary, or the first clinical recurrence of a previously undiagnosed infection.



Symptom/sign	Differential diagnosis
Dysuria	Urinary tract infection, lichen sclerosus, thrush, eczema, shingles, anal fissure
Superficial dyspareunia	Lichen sclerosus, thrush, vulvodynia, shingles
Vaginal discharge	Thrush, chlamydia, gonorrhoea, bacterial vaginosis, trichomonas, foreign body, physiological
Urethral discharge	Chlamydia, gonorrhoea, non-specific urethritis, urinary tract infection
Genital ulceration	Syphilis, Behcet's disease, Crohn's disease, tropical ulcers, malignancy
Proctitis	Lymphogranuloma venereum, syphilis, gonorrhoea

Table 1. Differential diagnosis of genital herpes

Signs and symptoms

Genital herpes can be asymptomatic, such that the majority of patients with serological evidence of herpes infection have no recollection of any episodes of clinical herpes. For patients who are symptomatic, common symptoms include painful ulceration in the anogenital region, vaginal or urethral discharge, superficial dyspareunia and external dysuria. Up to a third of patients experience painful lymphadenitis. A herpes episode can also be accompanied by systemic symptoms – fever, flu-like illness and malaise. This is more common at the first presentation.

Signs can vary from multiple ulcers over the anogenital skin to small breaks in the skin, or erythema alone. This is another reason why many herpes infections remain undiagnosed.

Ulcers are usually bilateral at the initial episode, but they are often unilateral in recurrences. This can make it difficult to distinguish a herpes recurrence from an attack of shingles.

With easy access to the internet, patients often self-diagnose and may come to their appointment saying: “I think I have herpes.” It is important to ensure that all such patients have an examination, as it is easy to find misinformation on the internet and it is always better to have a definite diagnosis, especially with a condition as socially sensitive as genital herpes.

The internet can be a source of valuable support and advice for patients, as long as they are accessing reputable websites.

Some good websites to signpost patients to include:

- Herpes Viruses Association: <https://herpes.org.uk>
- The Family Planning Association: <http://www.fpa.org.uk/sexually-transmitted-infections-stis-help/genital-herpes>
- British Association for Sexual health and HIV (BASHH) guidelines patient information: <https://www.bashhguidelines.org/media/1039/hsv-pil-2015-screen-friendly.pdf>

Box 1. The role of the internet

If a patient presents with a single or painless ulcer then a diagnosis of syphilis should be considered. This is more common in men who have sex with men (MSM), and can affect any part of the anogenital region. A sexually-transmitted infection (STI) screen at a genitourinary medicine (GUM) clinic should always include the offer of syphilis serology.

The first episode is often the worst, with worse symptoms (particularly pain) than in subsequent episodes. In severe cases, patients may go into urinary retention, either secondary to the pain or because of autonomic neuropathy. In these instances, they may benefit from admission and temporary suprapubic catheterisation.

Diagnosis

A thorough clinical examination is of paramount importance, as the differential diagnosis is wide (see Table 1), and the ramifications of a herpes diagnosis for the patient are considerable, especially with regard to possible adverse psychological outcomes. Do not rely on a patient's self-diagnosis (see Box 1).

Any patient with a suspected new herpes diagnosis should be referred to a GUM clinic for definitive tests, but if a same day or urgent referral is not possible then they should have diagnostic tests in primary care.

Tests for HSV should always include virus typing to differentiate between the two types. A nucleic acid amplification test (NAAT) is the gold standard; swabs should be taken from the base of the ulcer. In MSM with proctitis, a rectal swab should be taken. Some centres still use HSV culture for diagnosis, but this will miss up to 30% of PCR-positive samples so this is not recommended as a standard test.

It is possible to use an antibody test to diagnose herpes, but these tests have a lower sensitivity and specificity than NAAT tests and type-specific immune responses can take many weeks to develop, so that the result can be negative in the early stages of the infection. However, serology can be helpful when investigating recurrent genital ulcers of unknown cause, in pregnancy, and to help with counselling for couples where one partner may be negative and one positive for herpes.

The median recurrence rate for genital herpes caused by HSV type 2 is 0.34 recurrences per month, or four per year, whereas that for type 1 is only one recurrence per year. If herpes infection is suspected, then tests for other STIs should always be offered, including an HIV test.

With severe episodes, the patient is often in too much pain to be able to tolerate a speculum examination. In such cases, it is advisable to ask the patient to return for a full examination and STI screen two weeks later.

Often the worst part of a genital herpes diagnosis for a patient is the psychological element, especially with regard to the social stigma associated with the condition. When telling a patient that they have genital herpes, it is best to be as matter of fact as possible, and avoid terms such as ‘incurable’.

If a patient has not adjusted to the diagnosis within a year then they should be referred for counselling. GUM clinics may have access to specialist counselling or psychology services for patients who are struggling with their diagnosis.

Which patient groups are most susceptible?

Partners of patients with HSV are susceptible to acquiring the infection. Transmission rates are reduced by the use of condoms, and by avoiding sex during an outbreak as well as when any prodromal symptoms are present.

Prophylaxis for the unaffected partner is not usually recommended, but in some cases it may be appropriate for an unaffected partner who is pregnant to have a blood test to ascertain whether she has been exposed to the same type of herpes as her partner before. This will aid the obstetrician and GUM physician when making decisions about her care.

In patients who have HIV, a new HSV infection can activate HIV shedding and thus increase the risk of HIV transmission to their partner. Conversely, infection with HSV type 2 can increase the risk of HIV acquisition.

HSV recurrences in people with HIV are likely to be more frequent and more severe. A different dose of antiviral medication is recommended, and they are more likely to need long-term suppressive therapy. Liaison with their HIV physician is highly recommended. In severe cases, they may require hospital admission to bring an outbreak under control.

Treatment options

The mainstay of medical treatment for HSV is oral aciclovir. There are two main alternatives – valaciclovir and famciclovir, both of which are prodrugs. They have not been shown to be more efficacious than aciclovir in head-to-head trials,⁵ but they do allow for fewer doses per day, so may be useful for some patients.

If a patient presents within five days of the beginning of the episode then medical treatment can reduce the length of time the ulcers are present. For pain relief, especially when urinating, lidocaine ointment can be helpful.

When a patient presents with a recurrence, they are often too late for any benefit to be incurred from taking antiviral medication, and as symptoms are often less severe they can often be managed with conservative measures such as salt-water bathing. It can also be helpful to prescribe some medication for them to take at the first sign of any future recurrences. These signs include tingling or numbness in the affected area. Up to half of patients experience such a prodrome before a recurrence.

If a patient is experiencing very frequent episodes of genital herpes then they can be considered for suppressive therapy. All the trials of suppressive therapy have been carried out on those who have had more than six recurrences a year, so this is the cut off used by the British Association for Sexual Health and HIV (BASHH) guidelines in recommending who to start on suppressive therapy. This reduces the frequency and severity of attacks. Ideally a patient should only be started on suppressive therapy if they have been given a definite diagnosis of herpes. Suppressive therapy should be prescribed for a year in the first instance. After the first year, the therapy should be stopped and then the patient should be monitored for at least two recurrences before a decision is made whether to restart the treatment. The options then are to restart medication continuously or to use episodic therapy. This is where the patient takes a short course of medication at the onset of symptoms but then stops until the next episode occurs.

	Initial episode (all for five days)	Recurrence / episodic therapy	Suppressive therapy (for one year in first instance)
<i>Aciclovir</i>	400mg 3 times daily or 200mg 5 times daily	800mg 3 times daily for 2 days or 200mg 5 times daily for 5 days	400mg twice daily or 200mg 4 times daily
<i>Valaciclovir</i>	500mg twice daily	500mg twice daily for 3 days or 500mg twice daily for 5 days	500mg once daily
<i>Famciclovir</i>	250mg 3 times daily	1g twice daily for one day or 125mg twice daily for 5 days	250mg twice daily

Table 2. Recommended treatment regimens for genital herpes, according to the 2014 British Association for Sexual health and HIV (BASHH) guidelines⁶

All pregnant women with new onset genital herpes should be referred to a GUM physician for an assessment.

Women who acquire herpes in the first or second trimester should be offered treatment with aciclovir 400mg three times daily for five days at the time of the initial episode, and then be re-started on aciclovir 400mg three times daily at 36 weeks gestation, with the intention of continuing it until delivery. Pregnant women can be reassured that they can still expect a vaginal delivery, and that the risk of transmission to the baby is very low.

However, if the infection is acquired for the first time in the third trimester, the risk of vertical infection of the neonate is very high and the outcome for the baby can be devastating, with high morbidity and mortality. Therefore, for women who acquire HSV in the third trimester of pregnancy, a caesarean will be recommended to reduce the risk of neonatal infection. The woman should also be started on aciclovir 400mg three times daily, and be advised to continue this until delivery. In addition, they should be offered a test for HSV type 1 and HSV type 2 immunoglobulin G (IgG) antibodies. If the antibody test is positive, then the woman can be reassured that she has been exposed to herpes before and that the risk to her baby is correspondingly lower.

Aciclovir is not licensed for use in pregnancy, but it is considered safe and is the recommended treatment in the 2014 joint BASHH/RCOG guidelines.⁷

Patients with known genital herpes who become pregnant are recommended to start suppressive therapy from 36 weeks of pregnancy onwards. This takes the form of aciclovir 400mg three times daily. This is different to the non-pregnant regimen of taking it twice daily, due to the greater volume of distribution of the drug in pregnancy.

Box 2. Genital herpes in pregnancy

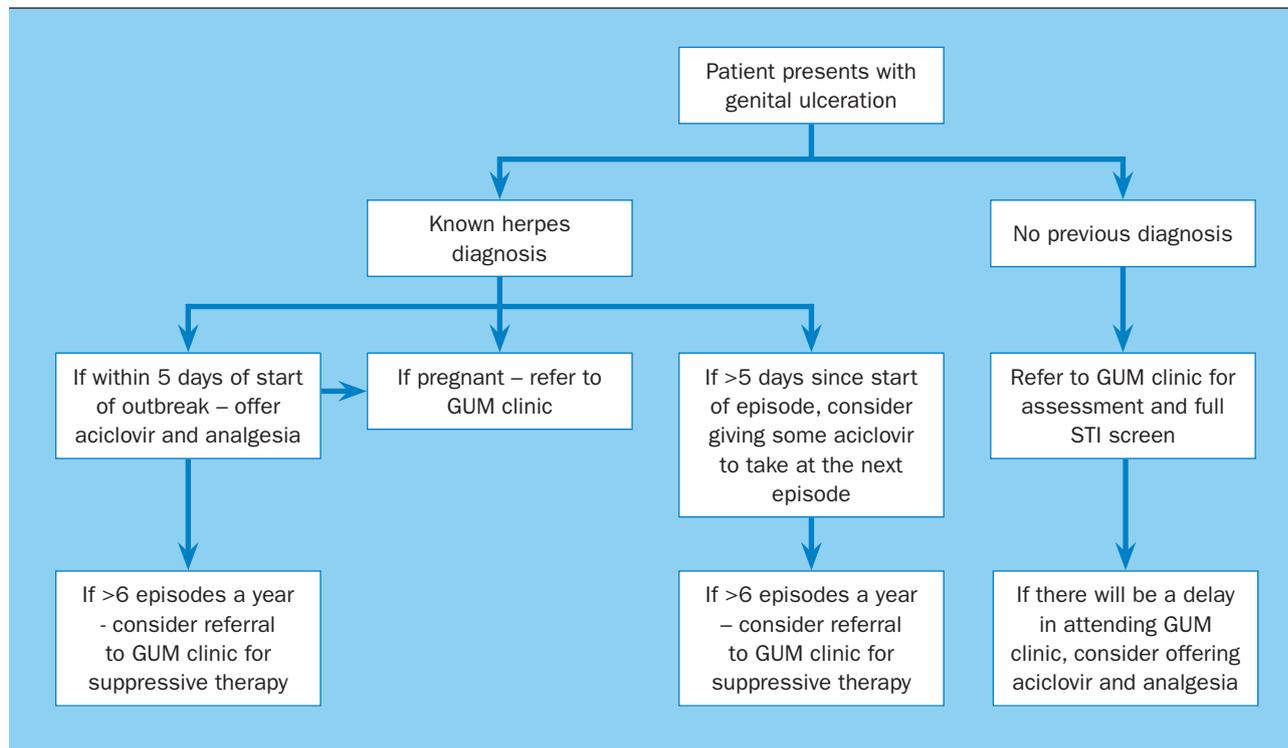


Figure 1. Management of genital herpes

Table 2 shows the recommended drug treatment regimens from the 2014 BASHH guidelines.⁶ Specific recommendations for the management of pregnant women with genital herpes are outlined in Box 2.

GP's role in management

Patients will often present to their GP with genital symptoms rather than to a sexual health or GUM clinic, so it is important that GPs know how to manage an episode of herpes. With primary infection, patients should ideally be referred to a GUM clinic for initial assessment and treatment. If they are not able to attend immediately, they should be advised to go to GUM after two to three weeks for a full STI screen.

Patients with frequent recurrences should be referred to a GUM physician for further investigation and treatment. If they are started on suppressive therapy then they will often be referred back to the GP for ongoing management. Aciclovir has a very good safety profile and patients do not need any blood monitoring when taking it long-term.

A flowchart summarising the management of genital herpes is shown in Figure 1.

Conclusion

When dealt with sensitively, genital herpes can be a very satisfying condition to manage. A confident and reassuring manner at the first consultation will go a long way to help the patient come to terms with their diagnosis, but even so, they may benefit from a follow-up appointment to monitor their progress. It is important to remember that adequate pain relief should be given for

both initial and recurrent infections, and that complicated cases should be referred to a GUM clinic for further management.

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Declaration of interests

None to declare.

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