JWC International Consensus Document

Best practice in the management of hidradenitis suppurativa lesions

HidraMed Solutions

Contents

Consensus panel

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Introduction

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease that is estimated to affect around 1% of the population, although incidence is uncertain.[1,2] HS presents as extremely painful, predominantly intertriginous skin lesions, and this pain can be exacerbated by skin damage from maceration or traumatic adhesive removal.[3] HS lesions often become open and discharge malodorous fluid, which, if not contained, can stain clothes and bedsheets, causing stigma and embarrassment. Patients are prone to secondary infection. HS can be a lifelong condition with no known cure that often starts after puberty and has an unpredictable disease course. Managing HS lesions is a daily challenge, requiring anti-inflammatory and analgesic medications, as well as frequent dressing changes. Consequently, HS is a debilitating disease that can have a devastating impact on a patient's practical, psychological and socioeconomic quality of life.

There has been limited research specific to lesional management, as opposed to general disease management, in HS, and much of the available evidence is limited to postoperative wounds.[4] Moreover, there is a lack of standardised clinical guidelines, protocols and pathways for the best-practice management of HS lesions and associated pain. HS lesions often go under-recognised and misunderstood, leaving both clinicians and patients feeling helpless.[5] The management of HS lesions can get lost between the separate specialties of dermatology and wound care. Clinicians are left to rely on evidence, guidance and interventions adapted from other types of hard-to-heal wound, rather than tailored to the requirements of HS lesions. Meanwhile, patients often resort to homemade management options, which may be suboptimal, ineffective or even harmful. This trial-and-error approach is likely to delay the initiation of effective treatment and prolong avoidable pain and disease progression.[4,6]

This *Journal of Wound Care* international consensus document is intended to address these gaps by providing best-practice guidance on managing HS lesions. This consensus document is based on the outcomes of two expert panel meetings held in March and July 2024. The panel comprised wound-care experts and dermatologists from the US and Canada. However, the document is intended to be relevant for a wide multidisciplinary and international readership of both clinicians and patients across different healthcare settings, services and systems. Where possible, the document's recommendations are informed and supported by citations to published evidence, identified through a narrative literature review. Other recommendations are based on the expert opinion, professional experience and clinical judgement of the consensus panel without reference to published literature. This expert opinion is presented under the label 'consensus statement', without indictating greater significance compared with the rest of the document.

This consensus document should provide clinicians with confidence and a practical standardised care pathway for diagnosing, assessing and managing HS lesions. The pathway aims to ensure a smooth patient journey, with prompt and appropriate interventions and specialist referrals. The pathway should also empower patients to effectively self-manage their lesions, where possible. It is hoped that this guidance will reduce pain and discomfort and promote healing in patients with HS lesions, having a positive impact on clinical, financial and quality-of-life outcomes.[7,8]

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Executive summary

Presentation

- The exact aetiology of hidradenitis suppurativa (HS) is unclear, but it is thought to be linked to a defect in the body's ability to clear keratin, causing hyperkeratinisation and occlusion of hair follicles. As such, it is an inflammatory disease.
- HS lesions most commonly occur in the groin, armpits or below the breasts in women and in the perineum or buttocks in men.
- HS lesions are usually intact at first, later developing into abscesses and tunnels that drain as the disease progresses.
- The formation of abscesses and tunnels can cause biofilm formation (a layer of bacteria that sticks to a surface), contributing to chronic inflammation and secondary infection.
- Irritant contact dermatitis (caused by prolonged exposure to exudate) and medical adhesive-related skin injury (MARSI) (skin tearing from removal of medical adhesive products) can damage the skin around HS lesions, causing increased pain, infection and, potentially, hospitalisation.

Impact

- HS is a debilitating disease that has a significant effect on people's quality of life, impairing their ability to socialise, exercise, perform daily tasks and form intimate relationships.
- People with HS are at greater risk of experiencing anxiety, depression and other psychiatric conditions, due to the pain, inconvenience and stigma attached to the disease.
- HS presents a significant financial burden to both the patient, due to potential employment challenges and need to purchase dressings and cleansing solutions, and healthcare systems, which can face additional expenditure on medical supplies and extra administrative tasks.

Diagnosis, assessment and referral

- HS is clinically diagnosed according to how the lesions present, where they present and how often they recur.
- Physical presentation of HS should be staged according to the Hurley Staging System or other staging tools to guide appropriate intervention.
- Given that HS causes significant pain in patients, including nociceptive and neuropathic pain, this should be measured using self-reported assessment scales and multidimensional pain assessment tools.
- This consensus document presents a referral pathway for patients, outlining their journey through various healthcare departments and practitioners to support a more seamless referral journey.
- Prompt referral to dermatologists and wound care specialists is crucial to enabling early diagnosis, pain management and symptom relief.

General management

- Both systemic and topical anti-inflammatory medications can be used to reduce inflammation in HS, thereby reducing symptom severity and increasing periods of remission.
- Pain is a significant symptom that greatly affects the patient's quality of life, and it must be treated holistically, with consideration of psychological effects.
- Clinicians should establish a trusting relationship with patients before advising on smoking cessation and weight loss, as this should improve overall health outcomes.

Surgical management

- Surgical interventions can be initiated to manage moderate-to-severe cases of HS if anti-inflammatory medication has not successfully reduced the size of lesions.
- Surgical interventions include incision and drainage (draining pus to provide rapid pain relief), deroofing (removing skin overlying a lesion to decrease pain and shorten healing time) and lesional/regional excision (removing single or multiple lesions to reduce risk of recurrence).

Lesional management

- The intertriginous areas should be cleansed regularly using a non-cytotoxic antiseptic solution with a surfactant.
- Barrier films can be used in addition to dressing, but care must be taken to avoid trapping moisture and causing maceration, as well as MARSI on dressing removal.
- Various types of dressings can be used to provide pressure, minimise pain, absorb exudate and manage malodour.
- Patients have resorted to various methods to keeping dressings in place, such as using strong adhesives, bandages, low-adherent tape or tight-fitting sports clothes, but these can risk MARSI, discomfort or increased pain.

Education

- Awareness of HS must be increased among primary care providers (e.g., GPs, nurses and emergency department staff) to ensure timely diagnosis and referral, as well as among specialists (e.g., dermatologists, wound care specialists and surgeons) to increase competence and dispel misconceptions of the disease.
- Clinicians in the US must be aware of current reimbursement requirements for dressings used in HS, and may benefit from referrals to wound care specialists as they routinely document information required to demonstrate medical necessity.
- Patients with HS should be thoroughly educated on all aspects of the disease in order to promote adherence to skin-cleansing protocols, enable effective self-management of lesions and minimise the risk of disease progression.

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Presentation

Pathophysiology

The symptoms of HS arise from chronic inflammation of the hair follicles, but the exact aetiology of this disease process remains unclear. However, it has been proposed that a defect in the body's ability to clear keratin leads to the hyperkeratinisation and subsequent occlusion of the hair follicles. These hair follicles then rupture and discharge their contents, including bacteria, into the dermis, initiating a substantial inflammatory response.[9] HS commonly occurs together with severe acne, pilonidal cyst and dissecting cellulitis of the scalp, together termed follicular occlusion syndrome.[10]

HS occurs in women and men of all ages, although it tends to first present after puberty. Prevalence data on sex and ethnicity is variable and inconclusive,[11] with some evidence for higher HS rates in women and people with dark skin tones.[4,12,13] Potential risk factors include certain common comorbidities (*Box 1*), and HS is associated with obesity and nicotine use (through smoking or vaping), but whether these are triggers of HS remains uncertain.[14-18]

Abscess formation and development of sinus tracts and tunnelling predispose to bacterial colonisation, biofilm formation and secondary infection, which exacerbate lesions and provoke chronic inflammation.[11,12] Although HS lesions may appear to be small on the surface, they are often associated with deep tunnelling and heavy exudate production, which are challenging to treat.

Consensus statement: HS is neither contagious nor linked to poor personal hygiene, even though these remain persistent and harmful misconceptions.

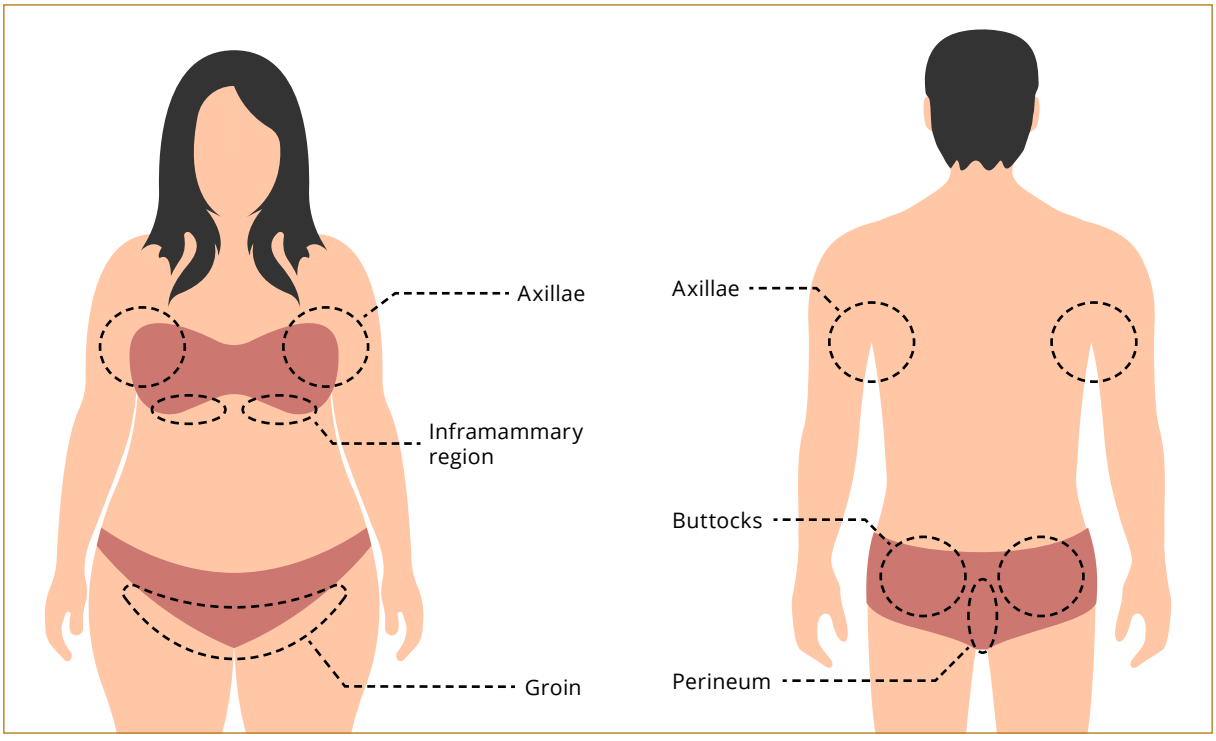
Box 1. Common comorbidities of hidradenitis suppurativa[14-16]

- Arthritis
- Diabetes
- Inflammatory bowel disease
- Metabolic syndrome
- Polycystic ovary syndrome
- Pyoderma gangrenosum
- Spondyloarthropathies

Lesions

HS is characterised by recurrent inflammatory skin lesions. These lesions most commonly occur in intertriginous areas, such as in the perineum or buttocks in men and in the groin, armpits (axillae) or below the breasts (inframammary region) in women (*Figure 1*), although they can occur almost anywhere on the body.[19]

Figure 1. Typical anatomical locations of hidradenitis suppurativa lesions



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HS lesions are associated with itching, discomfort and pain directly caused by pro-inflammatory processes. Patients typically experience this pain in intense acute flares, which have been described as 'sharp and searing, like being struck with a fireplace poker from the inside'.[20]

HS lesions have a variety of characteristic presentations, typically beginning with comedos, papules, pustules, nodules and plaques, before progressing to abscesses, tunnels and ulcers (*Figure 2*).[21] Lesions tend to be intact at first, without an opening onto the skin surface. As the disease progresses, abscesses and especially tunnels can start to drain, producing copious amounts of liquid discharge (exudate). These draining lesions can be especially painful[22] and difficult to heal.[23] Draining lesions also tend to give off an unpleasant smell, with this malodour occurring due to bacterial metabolism and the production of volatile fatty acids, and they are associated with high exudate and increased bacterial burden.[24,25]

Consensus statement: Advanced HS lesions may involve full-thickness loss of the epidermis and some of the dermis, either through ulceration or due to surgical deroofing or excision. These open lesions have wound-like characteristics, such as exudate production and a distinct bed and edge.

Figure 2. Types of hidradenitis suppurativa lesion[21]

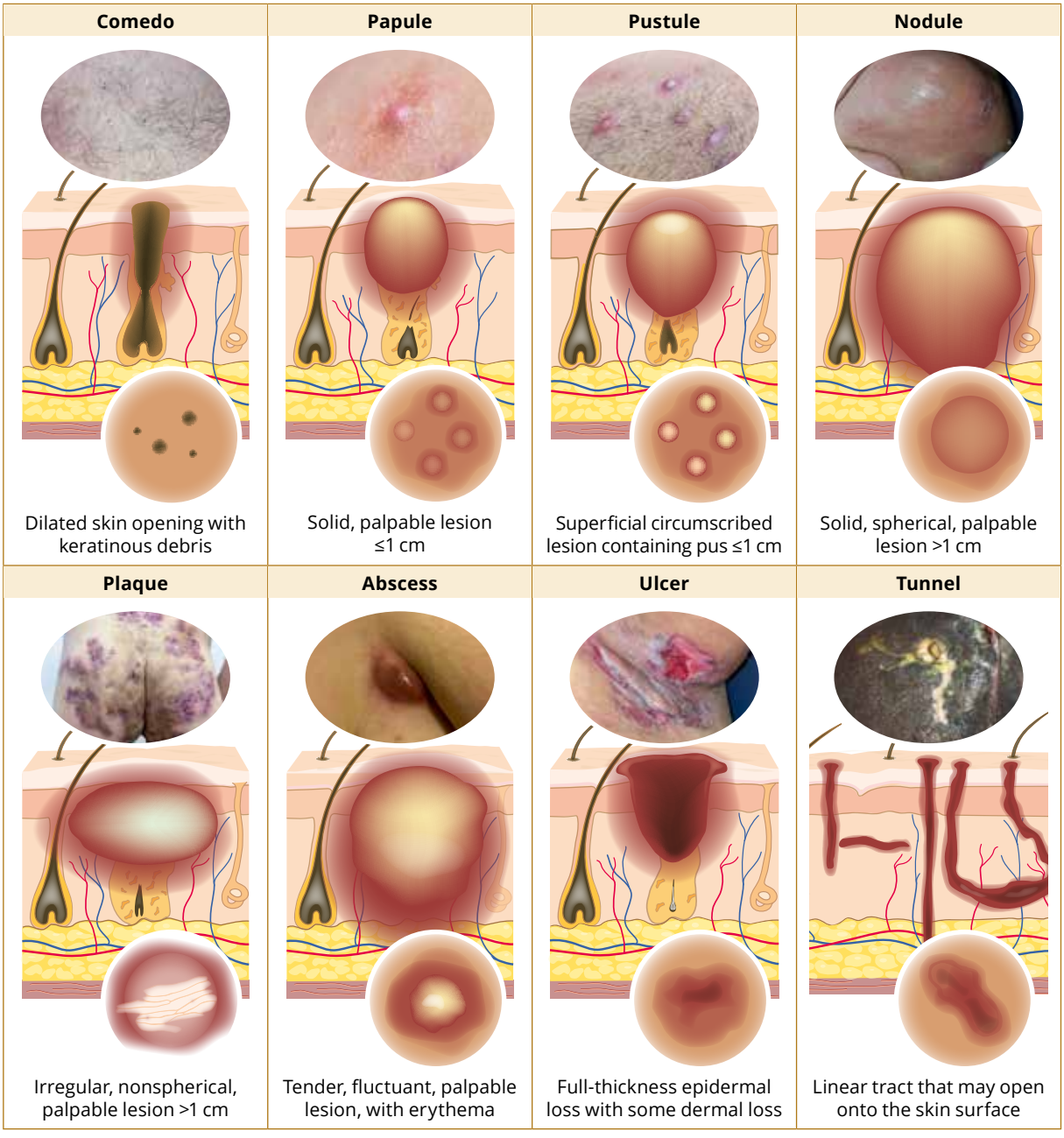

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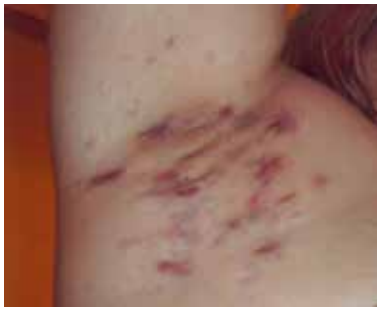
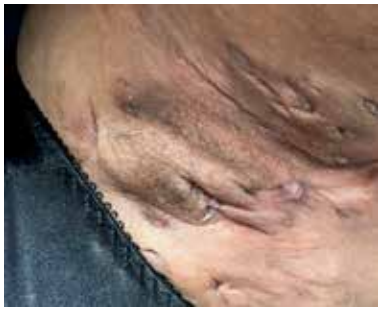
Figure 3. Dermal changes secondary to hidradenitis suppurativa lesions

Hypergranulation	Fibrotic scarring	Skin contractures
		
Chris Sayed	Science Photo Library	BRI72783 via Creative Commons

Open lesions can develop pink or red granulation tissue, which is normally a sign of healing. However, in some cases, granulation tissue can grow excessively to extend above the skin surface, which is known as hypergranulation (*Figure 3*).[26] Hypergranulation can be caused by persistent inflammation, maceration, irritation, friction or infection, which can impede healing.

Severe HS can cause fibrotic scarring, which has a distinctive cord-like appearance and can lead to permanent disfigurement.[27,28] In rare cases, patients may also experience skin contractures, which can become severe enough to limit joint mobility.[29,30] Scarring and skin contracture can cause non-inflammatory chronic pain.[31]

Bacterial burden

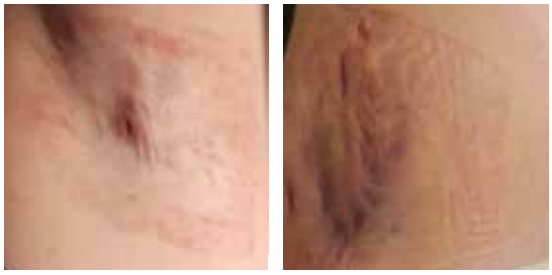
Although HS is an inflammatory disease and not caused by bacteria, it can be exacerbated by a raised bacterial burden. Formation of abscess and tunnels increases bacterial burden and can lead to biofilm formation.[4,32] Biofilm is a polymicrobial community protected by a coating comprising extracellular polymeric substances, which, when well established, is associated with wound chronicity, as it is resistant to topical antiseptics and systemic antibiotics.[33] Biofilm has been found in many HS skin samples, particularly in draining or open lesions.[34] This biofilm can have a positive feedback with commensal bacteria, provoking and exacerbating chronic inflammation. Moreover, uncontrolled bacterial burden may result in secondary infection, resulting in increased pain, raised exudate levels and delayed healing.[35]

Perilesional skin damage

The skin around HS lesions is prone to damage from both irritant contact dermatitis and medical adhesive-related skin injury (MARSI) (*Figure 4*).

Irritant contact dermatitis is caused by prolonged contact with exudate, which contains high levels of corrosive proteolytic enzymes.[36] High exudate levels can overhydrate (macerate) the skin, particularly when combined with perspiration.[37] In HS, irritant contact dermatitis is exacerbated by the typical location of lesions in intertriginous areas, where skin folds impede air circulation and sweat evaporation, increasing maceration.[38] In skin folds, the friction of delicate tissue rubbing together increases inflammation and denudation. The resulting combination of corrosion, maceration and excoriation can lead to intense redness, itching and pain, as well as further breakdown of the perilesional skin, increased risk of infection and hospitalisation.[39]

Figure 4. Medical adhesive-related skin injury in hidradenitis suppurativa



Suzanne Moloney

MARSI refers to stripping, tearing or blistering of the skin caused by frequent, traumatic removal of medical adhesive products, such as tapes and dressings.[40] MARSI can be extremely painful and may involve dermatitis, folliculitis and maceration.[40,41] In HS, the high frequency of dressing changes required to absorb the high levels of exudate can increase the risk and severity of MARSI. Moreover, MARSI can be exacerbated by using adhesives to keep dressings securely in the intertriginous areas where HS tends to occur. Consequently, patients often experience their most severe episodes of HS-related pain during dressing changes, causing patients to associate dressing change sessions with extreme pain.[42,43]

Patients may also develop an allergy to adhesives used in dressings, leaving the skin vulnerable to allergic contact dermatitis.[44]

Consensus statement: The severity and frequency of irritant contact dermatitis and MARSI can be reduced with appropriate perilesional skin care and use of dressings and retention systems.

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Impact

Practical impact

HS is often a debilitating disease. Pain, scarring and bulky dressings can impede mobility, with restricted movement potentially hampering a patient's ability to perform daily tasks, socialise, undertake sporting activities and form intimate relationships. Pain can also make it difficult to sleep, leading to fatigue.[45]

Highly exuding lesions require wound dressings to absorb the exudate, which may be bulky, and the dressings need to be changed frequently as they become saturated. On average, people with HS change their dressings 2.8 times a day, usually for around 6 months of the year.[7] Many patients also report having to change underwear three times a day.[45] Failure to change dressings on time risks leakage and staining of bedclothes and garments, which can be a constant source of anxiety.

The need for frequent dressing changes can make it difficult for patients to work, socialise or travel, potentially leading to social isolation. The association between HS flares and higher ambient temperatures can also discourage patients from going outside, especially in warmer places and at hotter times of the year.[46] The unpredictable disease course and risk of frequent or unremitting relapses can make it difficult to plan any activity. Frequent and time-consuming dressing changes, alongside the need to wash stained garments and bedclothes and shop for appropriate clothes and dressings, significantly limits the patient's time for other activities, such as work, social or family life.[7,45,47]

HS can also affect a patient's choice of clothing, as they try to accommodate and disguise bulky dressings, as well as hide any stains. Female patients may also resort to wearing seamless pants, men's underwear or wireless bras for those with larger breasts, which can make them feel self-conscious and affect self-esteem and body image.

Psychological impact

Intense pain and inability to live a normal life can have a severe impact on mental wellbeing.[48,49] This impact is exacerbated by scarring, odour and staining, which may provoke feelings of embarrassment, guilt and stigmatisation, affecting social confidence, body image and sexual function.[50]

Consequently, HS is associated with increased prevalence of anxiety, depression and other psychiatric conditions.[22,51,52] This psychological impact does not appear to be linked with disease severity, and even mild HS can have a profound negative effect on a patient's mental wellbeing.[53]

The psychosocial and quality-of-life impacts of HS are greater than other skin conditions, such as atopic dermatitis and psoriasis.[54,55] The lifelong duration of HS is especially daunting and can trigger feelings of hopelessness and despair. This, combined with significant morbidity, quality-of-life impairment and lack of effective treatment, has led both clinicians and patients to describe HS as a 'heartsink' condition.[48,56,57]

Consensus statement: Ineffective or bulky dressings that impede movement, show through clothing or are prone to leakage are likely to undermine patient confidence, dignity and mental wellbeing.

Socioeconomic impact

Uncontrolled HS can have a notable negative economic impact on patients, health systems and wider society.[50,58-60]

The pain and exudate associated with HS can prevent patients from working effectively or at all, requiring them to take frequent sick days or even leave employment entirely. On average, patients with HS in employment are absent from work for 34 days a year due to hospital appointments, emergency admissions or periods of hospitalisation.[58] Consequently, HS is linked to higher unemployment and disability rates, lower-income jobs and slower income growth, as well as less paid leave and a higher risk of leaving the workforce.[30,58]

Consensus statement: Uncontrolled exudate, pain and malodour contribute to stigma and social isolation, which can keep patients from working and thus risking their economic security.

The financial burden of HS will vary according to how care is accessed, funded and reimbursed in a particular healthcare system. Frequent dressing changes can be very expensive for patients who are not supplied with appropriate cleansing solutions and dressings through their respective health system. Otherwise, health services often have to bear the economic burden of frequent dressing changes, as well as the higher administrative burden and treatment costs associated with undiagnosed, late presenting or uncontrolled cases of HS.

Consensus statement: Early diagnosis and prompt, appropriate treatment of HS should reduce the economic burden of unnecessary emergency admissions and hospitalisations.

The options for HS management available to patients are often influenced by financial factors.[47,61,62] Patients who have to purchase their supplies may be unable to afford the most effective products, possibly resulting in worse outcomes.[62]

Consensus statement: Clinicians should be aware of the socioeconomic factors in HS treatment and, where relevant, work with national health services and insurance providers for coverage. Clinicians should also be mindful of the patient's ability to afford recommended supplies. Further research is required on the health and socio-economic burden of HS.

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Diagnosis, assessment and referral

Diagnosis

HS is clinically diagnosed according to three key criteria:[28]

1. Classic lesional presentation (comedos, papules, pustules, nodules and plaques, before progressing to abscesses, ulcers and tunnels)
2. Classic lesional distribution (axillae, inframammary region, groin, perineum or buttocks)
3. Chronicity and recurrence (occurrence of more than two lesions within 6 months).[4,12,32]

A differential diagnosis can be made against other dermatological conditions that involve skin lesions with nodules, abscesses or tunnels (*Figure 5*). There is minimal need for extensive workup with laboratory testing, biopsy or routine cultures to diagnose HS, as there is limited evidence that these are associated with specific and consistent HS markers.[4,27,63] Biopsies are usually only indicated if there is suspicion of concurrent malignancy, such as squamous cell carcinoma.

Early diagnosis of HS is imperative to make appropriate referrals, initiate treatment and steer the best possible course through a difficult disease. Untreated HS is liable to progress in severity, leading to worse pain and a greater risk of tunnels, scarring, skin folds and reduced mobility. However, patients with HS symptoms may delay presenting to a clinician for several reasons, such as embarrassment, potential stigmatisation and concern that the minor symptoms in the initial stages do not warrant professional advice.[64]

When patients do seek care, they are most likely to present to a primary care provider, who may not make the correct diagnosis. In primary care, awareness and understanding of HS may be limited by a lack of focus on this disease in pre-registration education or on-the-job primary-care training. In such cases, patients with HS are likely to see several specialists, including colorectal surgeons, gynaecologists and dermatologists, before they are correctly diagnosed.[65] Therefore, HS is prone to frequent and repeated misdiagnosis, and consequent delays in correct diagnosis and appropriate treatment are common,[65] with an average diagnostic delay of 7–10 years.[66] This can allow the disease to progress and irreversibly damage areas of skin. Such delays can cause patients to distrust and disengage from medical care.[65,67,68]

Assessment

The physical presentation of HS should be staged to guide appropriate interventions. HS severity is often classified using the Hurley Staging System (*Figure 6*).[69] Other staging tools are available,[70,71] including the Sartorius Score[72] and the dynamic, if relatively undifferentiated, International Hidradenitis Suppurativa Severity Score (IHS4).[73] These assessments often use presence of tunnels as a marker of disease activity and severity.[24,25] Malodour and exudate can be assessed with the Hidradenitis Suppurativa Odor and Drainage Scale, which assesses the usual and worst extent of exudate in specific locations, as well as the effect of malodour and exudate on wellbeing (*Appendix 1*).[74]

Consensus statement: HS assessments should always involve a grading tool based on the number, type and distribution of lesions. Complementary assessment tools for exudate, malodour, pain and/or quality of life need only be used where clinically useful.

Pain intensity can be measured on a scale of 1–10 with self-reported assessment scales, such as the Numeric Rating Scale (*Appendix 2*), Visual Analogue Scale[75] and Wong-Baker FACES Scale.[76] Standalone use of such unidimensional scales can be useful for assessing acute pain.[77] However, holistic management of chronic pain benefits from multidimensional pain assessment encompassing not only intensity but also type and triggers, alongside functional and sociopsychological assessment.[4,31,77]

Patients with HS can experience nociceptive pain, usually secondary to potential tissue damage, and neuropathic pain, usually due to nerve damage, both of which can be exacerbated by procedural pain. Pain type can be assessed with descriptors, such as 'aching', 'throbbing' and 'sharp', which commonly indicate nociceptive pain, compared with 'shooting', 'stabbing' or 'burning', which are associated with neuropathic pain.[78]

Pain triggers can be determined by comparing the timing of pain onset with potential triggers, such as inflammation or infection, as well as asking patients whether relief occurs spontaneously or following surgical drainage.

Multidimensional pain assessment tools include the Brief Pain Inventory[79] and the Short-Form McGill Pain Questionnaire (*Appendix 3*).[80] The most appropriate pain assessment tool should be selected based on local protocols, as well as the individual patient's needs and capacity for self-assessment.

Consensus statement: Lesions should be assessed for uncharacteristic, sudden worsening or change in appearance or distribution, including notably high pain, redness (erythema) and firmness (induration), as these inflammation indicate potential infection alongside the underlying inflammatory disease process.

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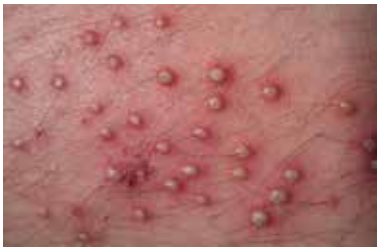
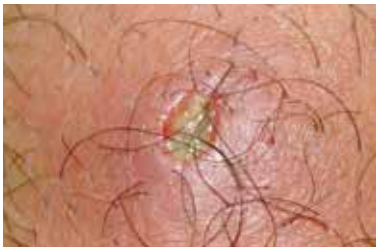
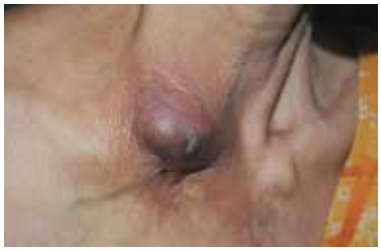
Figure 5. Differential diagnoses for hidradenitis suppurativa lesions

Folliculitis	Furunculosis	Scrofuloderma
		
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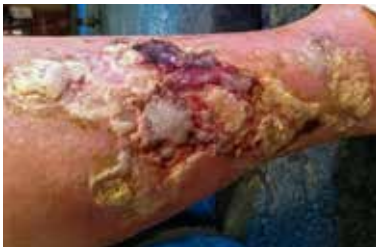
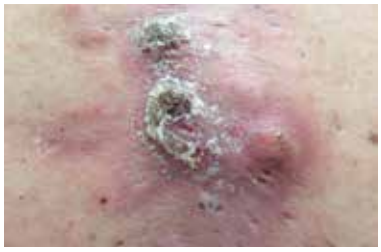
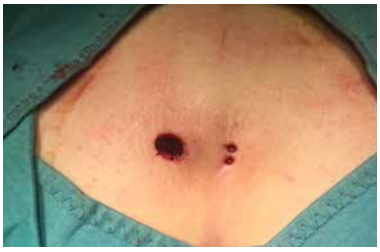
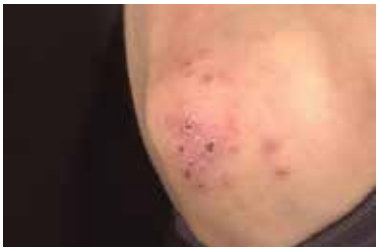
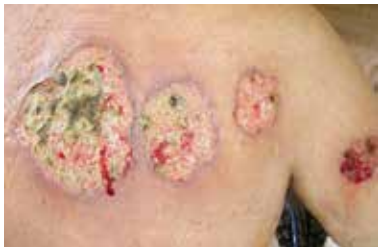
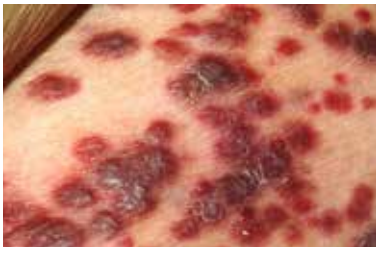
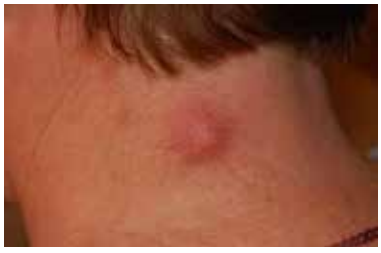
Inflammation of the hair follicles, often secondary to bacterial infection[66*]	Bacterial infection of hair follicles[152]	Cutaneous tuberculosis resulting in cold abscesses that rupture into tunnels or ulcers with bluish edges[153]
Sexually transmitted infections	**Deep mycoses**	**Acne conglobata**
		
Wound Care Plus LLC	Chris Sayed	Thomas Brinkmeier via Creative Commons
Some sexually transmitted infections may present with swollen lymph nodes or exuding lesions[154]	Rare infections caused by fungi, resulting in lesions in exposed areas, such as hands, feet and face[155]	Severe form of acne vulgaris[156]
Pilonidal disease	**Cutaneous Crohn's disease**	**Pyoderma gangrenosum**
		
Lord Lucan via Creative Commons	D Ashok and P Kiely via Creative Commons	Monopol via Creative Commons
Often-sacrococcygeal cysts and tunnels filled with nests of hair[157]	Extraintestinal skin manifestation of Crohn's disease[158]	Ulcerative skin disease in the category of neutrophilic dermatoses[159]
Squamous cell carcinoma	**Kaposi's sarcoma**	**Epidermal cyst**
		
Alex G Ortega-Loayza	OpenStax College via Creative Commons	Steven Fruitsmaak via Creative Commons
Non-melanoma skin cancer arising from keratinocytes that can develop as malignant transformations of chronic wounds[160,161]	Angioproliferative tumour, presenting as red-blue, purple or brown-black macules, papules and nodules (often associated with HIV)[162]	Benign cyst derived from the upper portion of a hair follicle, encapsulated and typically filled with keratin and lipid-rich debris[163]

*may coexist with hidradenitis suppurativa as part of the same follicular-occlusion process

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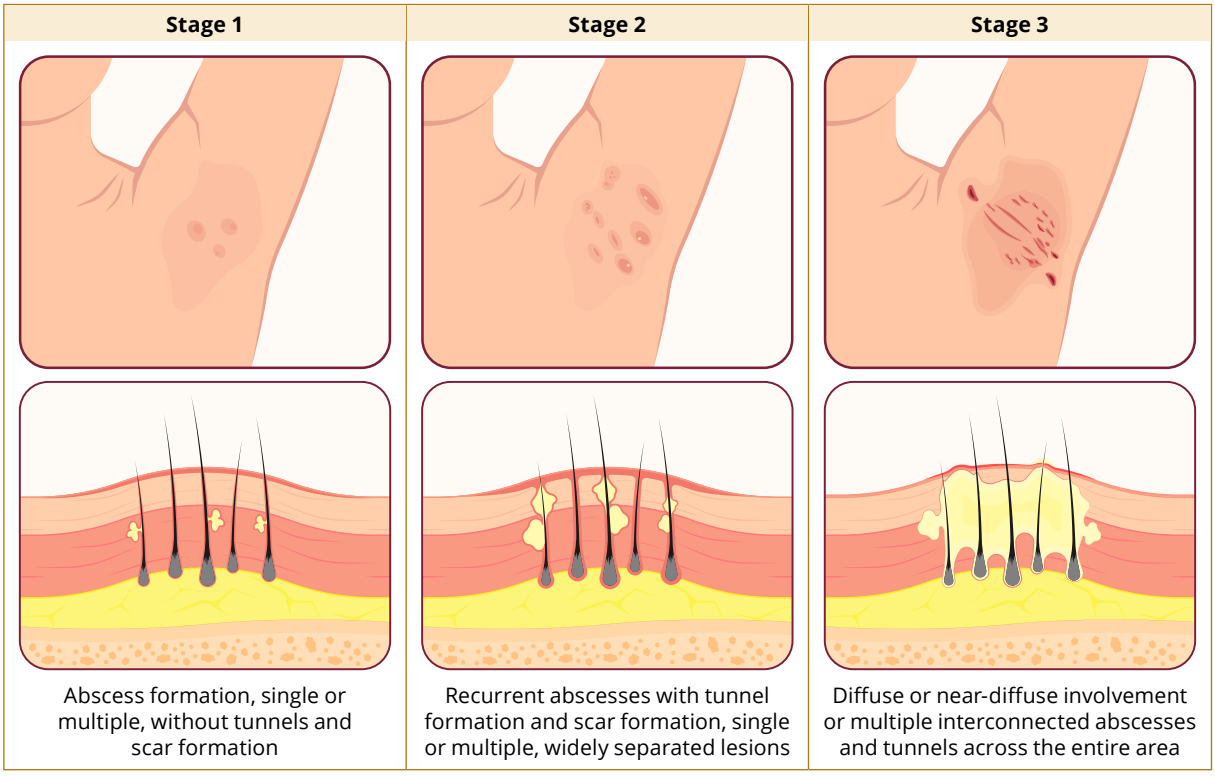
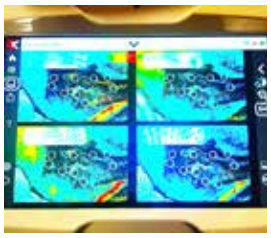
Figure 6. Hurley Staging System for hidradenitis suppurativa classification[69]



Pepermpron via Adobe Stock

Figure 7. Imaging in hidradenitis suppurativa

Wound Care Plus LLC



Wound Care Plus LLC

Guidance on the identification, assessment and management of local and system wound infection has been produced by the International Wound Infection Institute.[35] It outlines the signs and symptoms of each stage in the infection continuum, which ranges from contamination, through to local wound infection and systemic infection.

Technical innovation means that suspected infection can be assessed at the point of care with imaging technologies, although these are not yet widely available.[81] Fluorescence imaging can ascertain the bacterial load once chronic inhibitory bacterial load reaches 10^4 CFU/g or beyond.[82] Near-infrared spectroscopy can confirm or rule out a potential inflammatory process when using the total haemoglobin image (*Figure 7*).

Holistic impact on quality of life can be measured with the disease-specific Hidradenitis Suppurativa Quality of Life Score (*Appendix 4*)[83] or the general Dermatology Life Quality Index.[84] The impact of open lesions on quality of life could also be assessed with the Wound-QoL questionnaire.[85]

Consensus statement: Promoting consistent use of grading tools should improve the quality of data collected to inform practice.

Referral

Even once a diagnosis has been made, patients may not always be referred to the medical discipline best able to treat the disease, which can delay access to effective treatment.

In places including the US, there are no clear established referral pathways for patients presenting with HS. A negative experience of inappropriate referrals can leave patients frustrated and liable to refuse further referrals, seeing them as unnecessary extra steps that will increase the overall time and cost burden on their lives. To avoid this, the present consensus document outlines an effective referral pathway for HS (*Figure 8*).

The patient journey usually begins in primary care. Primary-care providers are responsible for recognising the signs and symptoms of potential HS and making initial specialist referrals. They can also play a crucial role in the early treatment of HS by prescribing first-line anti-inflammatory

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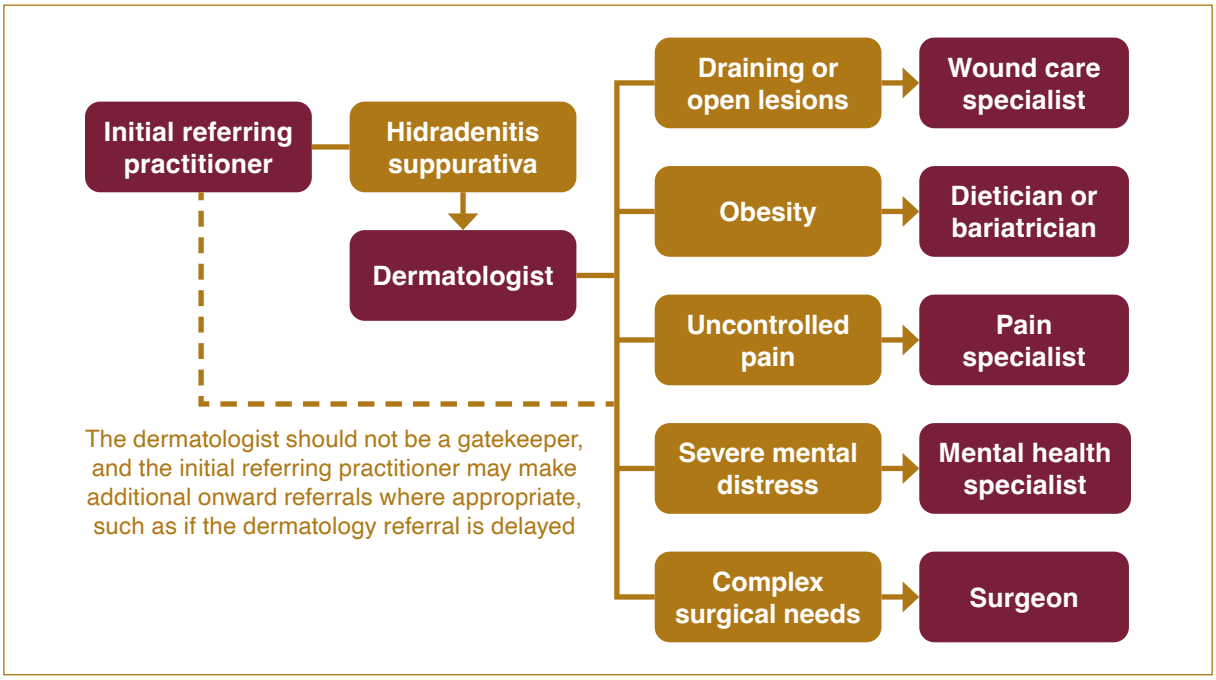
Figure 8. Suggested referral pathway for hidradenitis suppurativa



and analgesic medications, as well as initiating necessary conversations around smoking cessation and weight management, especially where a therapeutic relationship has been established.

As standard practice, all patients presenting with suspected or diagnosed HS should be promptly referred to a dermatologist, even if at an early stage. Dermatologists are usually responsible for a full HS assessment, prescribing medical management of the inflammatory disease process and initiating other aspects of best-practice care. Ideally, patients should be referred to a dermatologist with specialist expertise in treating HS.

US primary-care providers can identify appropriate specialists from a list on the HS Foundation website (www.hs-foundation.org). However, dermatologists with established expertise in HS can become overwhelmed with referrals, seeing up to 50 patients with HS a week. Depending on where the service is based, this can result in long waiting times to see specialists once referred, ranging from 4 months to 2 years. Patients may also have to travel long distances to access the right specialist. In the UK, limited dermatology resources mean that treatment at early stages generally begins in primary care.

Depending on the patient's presentation, they may require additional onward referrals, which should be made by the initial referring clinician or the dermatologist at the earliest opportunity.

Prompt referral to wound care is particularly important for providing immediate symptom relief, involving draining of ulcerous lesions with uncontrolled pain, exudate and malodour. Wound care is often needed when patients are waiting for systemic therapies to become available or take effect.

Consensus statement: Early access to a wound care specialist can facilitate disease modification in areas that matter most to patients, such as pain, exudate and malodour, contributing to more effective overall disease management with better long-term outcomes.

Wound care is also required following deroofing or excision, where patients will require a weekly review. Referral to a wound care specialist can be beneficial for patients who need more effective dressings for draining or open lesions, or to manage irritant contact dermatitis or MARSI. Patients with HS should have prompt access to specialist wound care wherever possible, even if this can be more challenging in some settings, including remote locations.[86,87]

Specialties beyond dermatology that are involved in treating HS potentially include wound care, surgery, dietetics, bariatrics, physiotherapy, pain, smoking cessation and/or mental health. Long-term multidisciplinary care is commonly required. As such, effective communication and coordination are essential for good clinical outcomes. Referral forms should provide clear contact details to enable discussion between professionals, and referrals should be acknowledged when received.

Specialists across different disciplines with specialist interest in HS should aim to establish formal or informal networks for sharing knowledge, setting up avenues for referrals and facilitating more effective multidisciplinary management. Telehealth technologies can help to support multidisciplinary collaboration.

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General management

HS is generally managed with an appropriate combination of anti-inflammatory (e.g., biologic), antibiotic and analgesic medications, as well as optimisation of risk factors (such as weight loss and smoking cessation). Treatment should be tailored to the challenges of specific presentations and based on patient preferences.

Medical management

Various medications can be used to supress the inflammatory disease processes underlying HS, therefore reducing the severity of symptoms such as pain, swelling and erythema, as well as infection and suppuration (*Table 1*). Treating the root cause of inflammation can slow the disease process and encourage longer periods of remission.

Systemic medications used to reduce inflammation in HS include antibiotics[88,89] and corticosteroids,[90] as well as immunomodulating biologics, including the tumour necrosis factor inhibitor adalimumab and the interleukin-17 inhibitors secukinumab and bimekizumab.[88,90-96] The biguanide metformin, used to treat diabetes and polycystic ovary syndrome, has also shown efficacy in reducing HS severity, although the evidence is limited and the mechanism of action is unknown.[94] Other systemic medications sometimes used in HS include colchicine,[91,97] zinc gluconate[98] and the retinoid acitretin.[99]

Topical medications include antibiotics[88,89,91,97] and intralesional corticosteroids.[95] The topical antimicrobial keratolytic resorcinol has been shown to rapidly resolve inflammatory nodules and abscesses in small studies, although availability is limited to compounding pharmacies, and it is associated with skin irritation in some patients.[92] Antibiotics also help to reduce bioburden,[88,89,91,97] and topical antibiotics such as metronidazole gel can reduce malodour.[100,101] Moderate-to-strong topical steroids may be used to treat hypergranulation by controlling the inflammatory process and minimising exudate.

Table 1. Anti-inflammatory medications used in hidradenitis suppurativa

Route	Type	Examples
Systemic	Systemic antibiotics	Amoxicillin clavulanate, clindamycin, clindamycin + rifampin, dapsone, doxycycline, ertapenem, metronidazole, minocycline, trimethoprim + sulfamethoxazole
	Systemic steroids	Betamethasone, prednisone
	Immuno-modulators	Adalimumab, secukinumab, bimekizumab
	Biguanides	Metformin
	Retinoids	Acitretin
Topical	Topical antibiotics	Clindamycin, metronidazole
	Topical steroids	Triamcinolone acetonide
	Antimicrobial keratolytics	Resorcinol

Consensus statement: When prescribing antibiotics, it is important to adhere to antimicrobial stewardship principles and local antibiotic prescribing guidelines, based on local surveillance data, to reduce the risk of multidrug resistance and adverse events.

Some patients have anecdotally reported effectively treating their active HS lesions with over-the-counter topical products, such as Vicks VapoRub, tea tree oil, witch hazel, healing balms, bleach baths or Epsom salt baths. However, there is usually no clinical evidence assessing the impact of these products on pain or healing to support their use.[62]

Consensus statement: Safe and appropriate self-management can be encouraged, but home remedies should be assessed for patient risk, such developing contact allergies. Expert experience has found sitz baths (warm, shallow bath usually placed over a toilet seat) and bidets to be useful for cleansing and soothing buttock, anogenital and perineal areas affected by HS.

Pain management

Minimising pain is essential to HS management. Anti-inflammatory medications can control the inflammatory disease processes that underly pain, while appropriate dressing use can reduce pain resulting from irritant contact dermatitis and MARSI.[102] However, patients often also require analgesic medication, especially for acute pain. Analgesics should be prescribed with a stepped approach, beginning with oral and topical analgesics, such as diclofenac gel or lidocaine.[103] Some patients find short-term comfort with ice packs or warm compresses, although long-term use may harm the skin.[62] If these first-line treatments fail, patients can be prescribed opioids, but only for the shortest period necessary.[22,104] Stepwise analgesic prescription may follow a similar structure to the World Health Organization analgesic ladder.[105]

Pain is rated by patients as the most important symptom of HS,[22] but it is often overlooked and undertreated. Patients with HS often experience multiple types of pain and thus require a multimodal strategy for long-term pain management.[22]

Pain management should be holistic, as patients report that their pain is related not only to the severity and duration of the disease, but also to psychological symptoms and reduced

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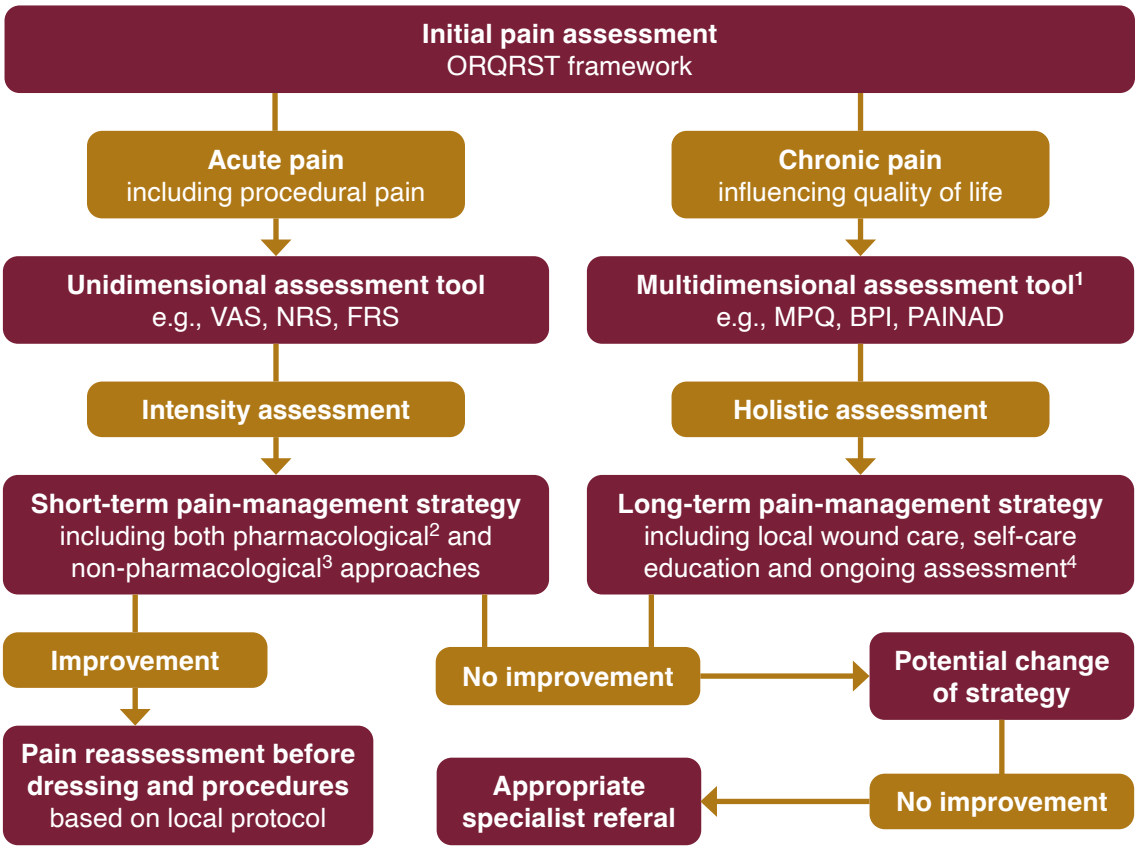
Figure 9. Decision aid to support the holistic management of wound-related pain



Notes

[1] Multidimensional assessment should include history of previous effective pain-management strategies.

[2] Pharmacological approaches should follow the WHO Analgesic Ladder and may include psycho-pharmaceuticals for chronic pain.

[3] Non-pharmacological approaches may include distraction, warmth/cold application, aromatherapy, exercise and/or positioning.

[4] A long-term strategy should be developed and agreed with the individual and consider their holistic (biopsychosocial) needs, such as age, maturity, cognitive function and experience with pain and previous care.

BPI=Brief Pain Inventory; FRS=Faces Pain Scale; MPQ=McGill Pain Questionnaire; NRS=Numerical Rating Scale; ORQRST=Onset, Provocation, Quality, Radiation, Severity and Time; PAINAD=Pain Assessment in Advanced Dementia; VAS=Visual Assessment Scale; WHO=World Health Organization

functionality.[56] Even having the opportunity to voice their pain experience and feel as if they are being heard can help patients manage their pain.

Pain management should also be collaborative, with referral to pain specialists and for psychological therapies, as appropriate.[4,106] A multimodal, holistic and multidisciplinary pain-management strategy can be guided by a decision aid from the European Wound Management Association (*Figure 9*).

Risk-factor management

Obesity is a potential risk factor for HS, so patients should be supported to identify methods to enable them to lose weight. HS is also linked with nicotine use, so patients can be advised to stop smoking, although it is unclear whether this link is causative.[17,18] There is limited evidence that smoking cessation and weight loss directly improve HS symptoms, but they should improve overall health outcomes.[107,108]

Consensus statement: Advice should avoid stigmatising patients for smoking, vaping and unhealthy eating, especially as these may be coping mechanisms for a painful and debilitating disease. These conversations should be built on good rapport and a trusting clinical relationship to avoid lowering patients' self-esteem. Smoking and obesity may present barriers to accessing necessary surgical interventions; but there is no clear evidence that nicotine cessation or weight management can prevent surgical complications.

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Surgical management

Several surgical interventions can be used to manage moderate-to-severe HS where anti-inflammatory medication has not been sufficient to reduce the size of the lesions (*Figure 10*). The choice of intervention should be based on disease location, severity and presence of tunnels, as well as the relative advantages and disadvantages of the procedures.[109]

Consensus statement: Surgical management of HS lesions is not a standalone solution, and it must be integrated as an adjunctive part of a holistic care strategy, alongside anti-inflammatory medication, pain management and ongoing lesional management.

Incision and drainage

Incision and drainage is indicated for painful abscesses and involves cutting into the abscess to drain the pus. This can provide rapid pain relief, although it is unlikely to resolve the underlying chronic disease activity.[110]

Deroofing

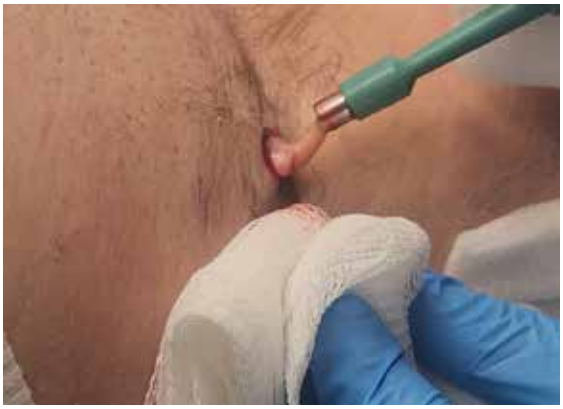
Deroofing is indicated for simple tunnels or recurrent inflammatory nodules, and it involves the removal of all or most skin overlying a lesion to expose the underlying abscesses and tunnels, while leaving the bed of the exposed area intact. Deroofing decreases pain, shortens healing times and can be locally curative. Moreover, the procedure is inexpensive, tissue-sparing and well-tolerated by patients, as well as simple enough to be performed at the bedside under local anaesthesia. However, deroofing will increase the open area of the lesion.[111,112]

Lesional/regional excision

Lesional/regional excision is typically indicated for interconnected tunnels and scarring, such as those seen in stage 3 HS, or lesions that recur after deroofing. It involves the removal of either the tissue around a single lesion (lesional excision) or a larger area containing multiple lesions (regional excision).[113] Lesional/regional excision is indicated at Hurley stage 3, in areas where extensive scarring has occurred and/or that have been unresponsive to medical therapy and where primary closure is not an option. The aim is to remove the entire area of disease activity, which can reduce (if not fully remove) the risk of further recurrences. However, lesional/regional excision carries risks of infection, delayed healing and skin contractures.[27]

Figure 10. Surgical interventions for hidradenitis suppurativa lesions

Incision and drainage

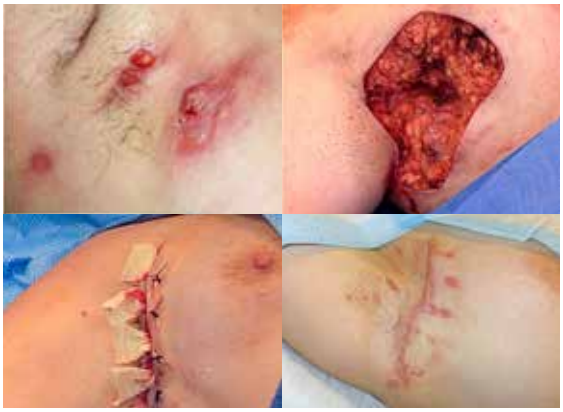


Christopher Sayed

Deroofing

Science Photo Library

Regional excision



Abigail Chaffin

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Lesional management

HS lesions require regular ongoing management to minimise bioburden and symptoms, such as pain, exudate and malodour. This should always involve antimicrobial cleansing and in draining or open lesions also includes use of dressings, which may be supported by barrier films and dressing retention systems.

Cleansing

In people with HS, the skin of the intertriginous areas should be regularly cleansed as part of a standard skincare routine to minimise the potential ingress and spread of bacteria to reduce inflammation and avoid tissue breakdown. This is particularly important in draining or open lesions, where the lesion bed, edges and surrounding skin should be cleansed at every dressing change to reduce bacterial burden and consequent pain and malodour.

In HS, cleansing should generally be performed with a non-cytotoxic antiseptic (and potentially anti-inflammatory) solution, such as polyhexanide, octenidine or hypochlorous acid, with the addition of a surfactant. These solutions can decrease bacterial burden and disrupt biofilm better than sterile water and normal saline.[114,115] Cleansing solutions containing hydrogen peroxide and chlorhexidine may be used in intact skin,[116] but they are cytotoxic and risk damaging key cells required for healing, so they are not recommended in open lesions. Chloridetriclosan, benzalkonium and benzoyl peroxide are also used for cleansing in HS, but their use is based only on experiential evidence, and benzoyl peroxide, although effective as an antiseptic, can irritate the skin.[4,19,28,117-123]

Consensus statement: Long-term frequent cleansing with an antiseptic solution can dry out the skin. Therefore, intact skin in quiescent HS at risk of drying can be cleansed with sterile water or potable (safe to drink) tap water filtered through a sterile filter. When using potable tap water for cleansing, the tap should be run briefly to remove contaminants before use. Patients should be advised that daily showering in warm potable water is acceptable and that dressings should be removed before showering.

Patients should be informed that cleansing may increase pain. If cleansing is painful, this can be reduced by warming the cleansing solution to room temperature (or slightly warmer) and applying topical analgesics, as required.[61,124]

Consensus statement: The cleansing solution should be applied gently using a soft cleansing cloth or monofilament pad to minimise friction. A gauze compress soaked in cleansing solution can be left in place over the affected area for 10–15 minutes to help reduce the bacterial burden and offer some relief from pain and discomfort. After cleansing the skin, particularly within skin folds, it should be thoroughly dried by gently patting with a soft towel or allowed to air dry.

In open or deroofed HS lesions, the gauze or soft pad used for cleansing can also be used to gently debride any devitalised tissue (slough or necrotic tissue) and debris from the lesion bed, edges and surrounding skin.[119] This aims to remove pro-inflammatory cytokines and proteases, reduce bacterial burden and disrupt biofilm formation, thereby reducing pain and inflammation.[109,125] If this causes short-term acute pain, patients should be offered an appropriate analgesic and permitted to refuse or stop at any time.[119] More aggressive forms of debridement are generally not appropriate for HS lesions.[125]

Barrier films

As an adjunct to dressing, perilesional skin and intertriginous areas at risk of irritant contact dermatitis can be protected with a barrier film. These products coat the skin with a thin, flexible, breathable and moisture-resistant barrier to reduce contact with exudate and perspiration. Several types of barrier film are available, based on oils (e.g., petrolatum), zinc oxide, silicone (e.g., dimethicone) or cyanoacrylate polymers (*Table 2*).

Non-occlusive silicone- or cyanoacrylate-based barrier films are recommended over traditional occlusive zinc oxide- or oil-based barrier films. This is because occlusive barrier films, while inexpensive and available over the counter, can trap moisture in the skin and cause maceration; impede dressing

Table 2. Considerations for different types of barrier film[38]

Base	Visibility	Occlusion	Removal	Use under adhesives	Cost	Adhesion in humid areas
Oil (e.g., petrolatum)	Transparent in thin layers	Occlusive	Required	Unsuitable	Less expensive	Less effective
Zinc oxide	Opaque	Occlusive	Required	Unsuitable	Less expensive	Less effective
Cyanoacrylate polymers	Transparent	Non-occlusive	Not required	Suitable	More expensive	More effective
Silicone (e.g., dimethicone)	Transparent	Non-occlusive	Not required	Suitable	More expensive	Less effective
Silicone skin-protection ointments	Transparent	Non-occlusive	Not required	Unsuitable	More expensive	More effective

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absorbency and adhesion; and be difficult to remove, while oil-based films may be flammable and zinc oxide may cause pain and friction through rubbing.

Cyanoacrylate-based barrier films only require twice-weekly reapplication, while silicone-based barrier films remain on the skin for 24–72 hours and are available in the form of foam applicators, sprays and wipes for easy application in hard-to-reach areas. Cyanoacrylate- and silicone-based barrier films have shown greater adhesion in humid areas in incontinence-associated dermatitis.[38,126,127]

If using adhesive dressings, a non-occlusive barrier film can be first applied to the skin underneath the dressing to protect against MARSI on dressing removal. However, allowing adequate circulation to dry the barrier film in the intertriginous areas affected by HS can be challenging. Waiting for a barrier film to dry significantly increases the dressing-change duration in a disease where changes are often frequent and time-consuming.[40,41]

Dressings

Draining and open lesions typically produce exudate and thus should be covered with an appropriate dressing to absorb the exudate, protect against contamination and optimise the healing environment, as well as to minimise malodour and the risk of irritant contact dermatitis and MARSI.

Consensus statement: Patients should be provided with appropriate dedicated dressings wherever possible. Non-specialist absorbent products, such as incontinence pads, menstrual pads and diapers, are likely to be less effective, less comfortable and harder to retain, presenting a greater risk of leakage and embarrassment.

A vast array of dressings is available for general wound care, but only some are suitable for HS lesions (*Table 3*). While there is evidence supporting the use of some dressings over others in general wound care, there are only a limited number of significant studies specific to HS.

Consensus statement: To ensure patient-centred care, dressing choice should be guided by a thorough patient assessment, including discussing their personal circumstances, preferences and previous experiences of dressing use. Patients' dressing needs should be regularly re-evaluated and their treatment plan adjusted, as required, to optimise care costs and clinical outcomes. Care plans should specify who is responsible for ongoing management, re-evaluation and prescription needs.

Intact lesions generally do not require dressing, but if they are painful they can be dressed with a non-adherent contact layer, simple wound pad or foam dressing to cushion against pressure and minimise pain.

Draining or open HS lesions require dressings that can absorb and retain the copious amount of exudate produced. The dressing's absorbency will also need to be sufficient to protect perilesional skin from exudate, which can cause maceration and irritant contact dermatitis, increasing the risk of further damage and infection.[37] Superabsorbent dressings, which contain a blend of cellulose and fluid-retaining superabsorbent polymers to absorb and retain large volumes of fluid, are appropriate for high exudate levels and have been shown to sequester bacteria and pro-inflammatory cytokines.[128]

Consensus statement: An appropriately absorbent dressing should increase wear time, in turn decreasing the frequency of dressing changes and the associated time and financial burdens. Longer intervals between dressing changes might help to reduce social isolation. Informing patients about the predicted dressing change frequency, based on an assessment of the lesions' exudate volume and the dressing's absorptive capacity, can help give patients greater confidence to plan their lives.

It is important to retain a relatively moist lesional environment when using superabsorbent dressings, as an optimum state of hydration facilitates cell migration, release of growth-factors and autolytic debridement.[129,130]

Table 3. Dressing options for exudate management

Dressing type	Indication	Fluid retention	Considerations
Non-adherent contact layer	Low or managed exudate	No capacity	• Material (e.g., silicone) allows atraumatic removal • Usually requires separate means of securement (e.g., adhesive secondary dressing, bandage or tubular bandage) • Suitable where exudate is primarily managed by an absorbent secondary dressing
Foam	Low-to-moderate exudate	Limited capacity	• Available in adhesive or non-adherent (atraumatic) variants
Gelling fibre	Moderate-to-high exudate	Moderate capacity	• Conformable to lesion bed • Maintains a moist healing environment • Encourages autolytic debridement • Potential to stick to wounds and impede dressing changes
Superabsorbent	High-to-very-high exudate	High capacity	• Helps to protect the surrounding skin from irritant contact dermatitis

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Consensus statement: An optimal dressing system needs to balance the increased retention capacity of thick padded dressings with the potential for such bulky dressings to be cumbersome and significantly limit mobility and range of movement.

Dressings need to be a suitable shape and size to cover the difficult anatomical sites of HS lesions.[47,131] For example, a typical 10×10 cm square wound dressing may not be suitable. An ideal HS dressing should be flexible enough to conform to skin folds and other concave surfaces, especially as they move. A flexible dressing should also maximise the patient's range of movement. Likewise, a dressing may need to be larger than the visible open lesion, covering the entire area affected, both visible and subcutaneous, including satellite lesions and underlying tunnels. As patients with HS also often change their own dressings, these should ideally be easy to self-apply, adjust and remove.[47]

Dressings are also key to managing malodour. A sufficiently absorbent dressing should lock away the microbes that cause malodour along with the exudate. Persistent malodour can be managed with dedicated anti-odour dressings, such as those containing activated charcoal, to adsorb malodorous toxins from the wound, although charcoal can become inactive in high exudate.[132] Antimicrobial dressings can also help with malodour.[133] Use of home-made solutions to disguise odour, such as essential oils, pomades, talcum powder, olive oil and other fragrances, should be discouraged as these may present the risk of contact allergy and have negative effects on wound healing and skin integrity if applied to open lesions or within intertriginous folds.[45,134]

Consensus statement: Draining or deroofed abscesses should be covered with a contact layer to minimise MARSI and a soft, absorbent dressing to manage exudate.

The historical practice of packing drained or deroofed abscesses and tunnels is not recommended, because it is associated with increased pain, anxiety and healing times and has no significant impact on long-term resolution or recurrence of abscesses and tunnels.[110,135-137] Postoperative wounds following extensive deroofing or excision where there are large volumes of exudate or delayed healing may be treated with negative pressure wound therapy (NPWT).[138,139]

Consensus statement: Hypergranulation treatment, based primarily on steroids, can be supplemented with non-adherent (e.g., silicone) dressings to reduce friction and irritation, as well as antimicrobial dressings (e.g., silver) if linked to infection. Silver nitrate has been used to treat hypergranulation, but it presents risks of pain and localised tissue necrosis.

Figure 11. HidraWear dressing retention system

The HidraWear dressing retention system has three components:

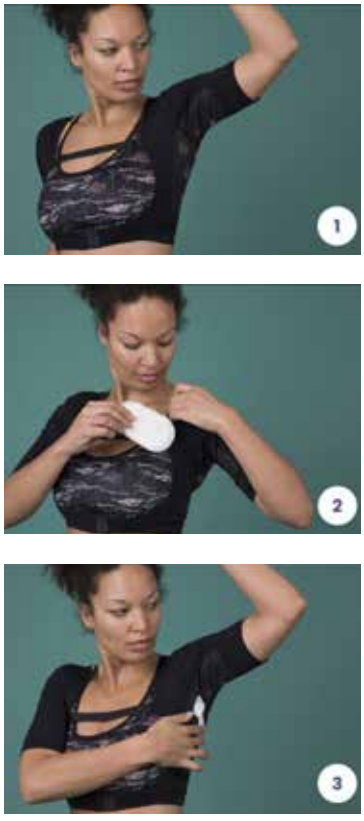
1. A flexible, discreet and breathable baselayer
2. A soft superabsorbent dressing to absorb moderate-to-heavy exudate or a super-soft foam dressing to absorb low-to-moderate exudate
3. An external SecureLock Technology fastener to hold dressings securely and attach them to the skin without using adhesives.

This combination of components can give patients confidence that their dressings are secure and unlikely to leak, while avoiding the pain and skin damage associated with repeated use of adhesives. The design is intended to be easy for patients to apply, to facilitate self-care. The baselayers include crop tops, T-shirts and briefs that cover the axillae and inframammary, perineal and anogenital regions most affected by HS. They are designed to look like regular clothing and come in various sizes for both men and women.

A pilot study of HidraWear in 15 women with HS reported the following impacts on quality of life over a 21-day period:[7]

- Improved Dermatology Life Quality Index score (mean 19.3 to 4.53), including the ability to work and study, perform everyday tasks and form personal and sexual relationships
- Less dressing-related pain according to the Visual Assessment Scale (mean 5.5/10 to 0.8/10)
- Discontinuation of analgesia before dressing change (n=5/15 to n=0/15)
- Greater body confidence and confidence in the dressing system
- Increased comfort
- Easier application, adjustment and removal than traditional baselayers
- Less time spent managing wounds.

Patients also reported less stretching, contorting and need for additional equipment, such as a mirror, to apply their dressings. The study concluded that a dressing system tailored to the needs of patients with HS can significantly reduce pain and improve many aspects of quality of life.[7]



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Dressing retention systems

Dressings used on HS lesions must be retained against the skin to prevent slippage, leakage and consequent staining, malodour and embarrassment. Effective retention is also necessary to prevent friction, shear and chafing of dressings, including uncomfortable bunching or pinching. Moreover, patients who do not trust the retention of their dressing may limit their range of movement with the intention of preventing it from coming unstuck and falling off. However, with adhesive dressings, retention can be a challenge in the intertriginous areas affected by HS, which are generally hairy, affected by heat and perspiration and subject to frequent movement and flexion, all of which impede adhesion.

Consensus statement: Although the hairiness of intertriginous areas can impede adhesion, patients should be discouraged from waxing or shaving there, as this may increase the risk of skin trauma and irritation. Trimming hair short may be a safer option.

One solution to keeping dressings in place is to use strong adhesives. However, strong adhesives increase the risk of MARSI, even if changed less frequently, and especially if the dressing has dried out and adhered to the wound bed.[140,141] Therefore, to prevent painful dressing changes, it is preferable to avoid strongly adhesive dressings and tapes, as well as dry, woven gauze dressings that shed fibres and adhere to the lesional wound.[6] If using adhesive dressings and tapes, silicone medical adhesive removers can be applied during changes to aid gentle, atraumatic removal.[40,41,142]

MARSI is best avoided by using non-adherent or low-adherent dressings, such as those made of soft silicone or cohesive materials.[6,47] However, non-adherent or low-adherent dressings can easily become displaced or bunched, leading to leakage and irritant contact dermatitis.[47] Therefore, additional solutions are usually required to keep them in place.

Some patients with HS use bandages, netting or low-adherent tape to keep dressings in place and avoid strong adhesives, thereby minimising the risk of MARSI. However, these solutions are not ideal. Bandages or netting can be awkward to apply in the intertriginous areas, especially as most patients with HS change their own dressings. Low-adherent tape can be bulky and visible, causing additional discomfort and embarrassment.

Other patients use tight-fitting sports clothing and shapewear for dressing retention. These garments are not specifically designed for this purpose, and there is no evidence of their efficacy. Such garments can exacerbate pain due to constriction, as well as exert mechanical stress on the lesions when they are put on or taken off. Moreover, they may not be made of suitable moisture-wicking fabric.

The HidraWear dressing retention system with SecureLock Technology (*Figure 11*) was developed with these challenges in mind. SecureLock Technology is specifically designed to minimise the risks of both irritant contact dermatitis and MARSI in HS.[7]

Consensus statement: The potential of non-adhesive dressings and baselayers to minimise the risk of MARSI and dressing-change frequency could prove cost-effective, as well as improve the patient's comfort and quality of life. In the US, such systems may be available through reimbursement schemes. Therefore, where possible, patients with HS who have open lesions should have access to treatment that includes non-adhesive securement systems especially designed for HS. However, it should be recognised that some patients with HS may prefer options not specific to HS, such as traditional dressings or tubular mesh garments for dressing retention.

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Education

More widespread professional and patient education should help to improve care for people with HS.

Professional education

Consensus statement: HS is a challenging and complex disease, and effective diagnosis and management require sufficient awareness and understanding among health professionals. Therefore, health professionals who may encounter HS at any stage are responsible for improving their knowledge and skills in recognising and managing HS lesions.

Raising awareness and understanding of HS among primary-care providers, such as GPs, nurse practitioners and emergency department staff, is imperative to promote timely diagnosis, referral and treatment. Primary-care providers should be educated on the signs and symptoms of HS, the appropriate referral pathway and the basics of initial treatment. Professional and public education should also aim to dispel misunderstandings about the cause of HS and encourage empathy and compassion for what patients endure.[143]

For dermatologists, wound care specialists and surgeons, more in-depth education on HS management will increase the number of specialists with the baseline level of confidence, competence and expertise to care for this difficult disease (*Figure 12*). Moreover, ongoing and regularly updated HS education will help specialists stay up to date with best practice and developments in the field, as well as prevent the perpetuation of myths around HS, including the misconception that there is no treatment. Multidisciplinary education that shares knowledge between dermatology and wound care should help to bridge the gap between specialties. Ideally, HS should be included in undergraduate education for clinicians across all specialties involved in managing patients with the disease, not just dermatologists.[144,145]

Box 2. US reimbursement requirements for dressings for hidradenitis suppurativa

- Full-thickness skin involvement, such as extensive draining tunnels and ulcerous or deroofed lesion
- Moderate-to-high exudate volume
- Documented debridement (autolytic, enzymatic or mechanical) of the lesion bed
- Documented size and location of lesion
- Compliance with ordering requirements and restrictions
- Dressing covered by the insurance company or accessible from a third-party supplier
- Frequency of dressing changes
- Billable ICD-10 diagnosis codes:
  - L98.499 for non-pressure chronic ulcer of the skin of other sites with unspecified severity
  - L98.419 for non-pressure chronic ulcer of the buttocks or skin with unspecified severity
  - L73.2. for hidradenitis suppurativa (official specific principal diagnosis)

Reimbursement

Clinicians treating HS in the US should know the reimbursement requirements for dressings (*Box 2*). Most US private, commercial or state-funded public-assistance insurance policies cover advanced dressings, although insufficient coverage and the cost of policy deductibles may restrict access in some cases. Furthermore, decision-making may vary according to differences between states' access to and the purchase cost of products and treatments.[146,147] Referrals to wound care specialists can be beneficial in increasing patient access to wound-care supplies. Any prescriber can prescribe dressings, but wound care clinics may have the advantage of routinely documenting the information required to demonstrate medical necessity.[148]

Internationally, health systems differ in how dressings are funded. In the UK, dressings are generally available through wound-care formularies, where the choice of products is dictated by procurement processes and product costs. Coding requirements can be complex, and HS does not feature in assessment templates for wound care. For example, in primary care HS is likely to be coded as an 'abscess'.

Patient education

The fact that diagnosis and treatment of HS can often be incorrect or delayed suggests a lack of awareness about the disease among patients and professionals. Patients with HS should be thoroughly educated on all relevant aspects of the disease (*Box 3*).

Box 3. Key points for patient education

- Cause and symptoms of hidradenitis suppurativa, emphasising that the disease is not contagious or due to poor hygiene
- Lifestyle modification, including smoking cessation and weight loss
- Anti-inflammatory medications
- Pain management and analgesics
- Surgical options
- Cleansing solutions and techniques
- Management of lesions
- Dressing and dressing-retention options
- Dressing changing technique, including hand hygiene
- Range of motion exercises that can be performed during dressing changes
- When and where to get help during a new flare
- Details of support groups

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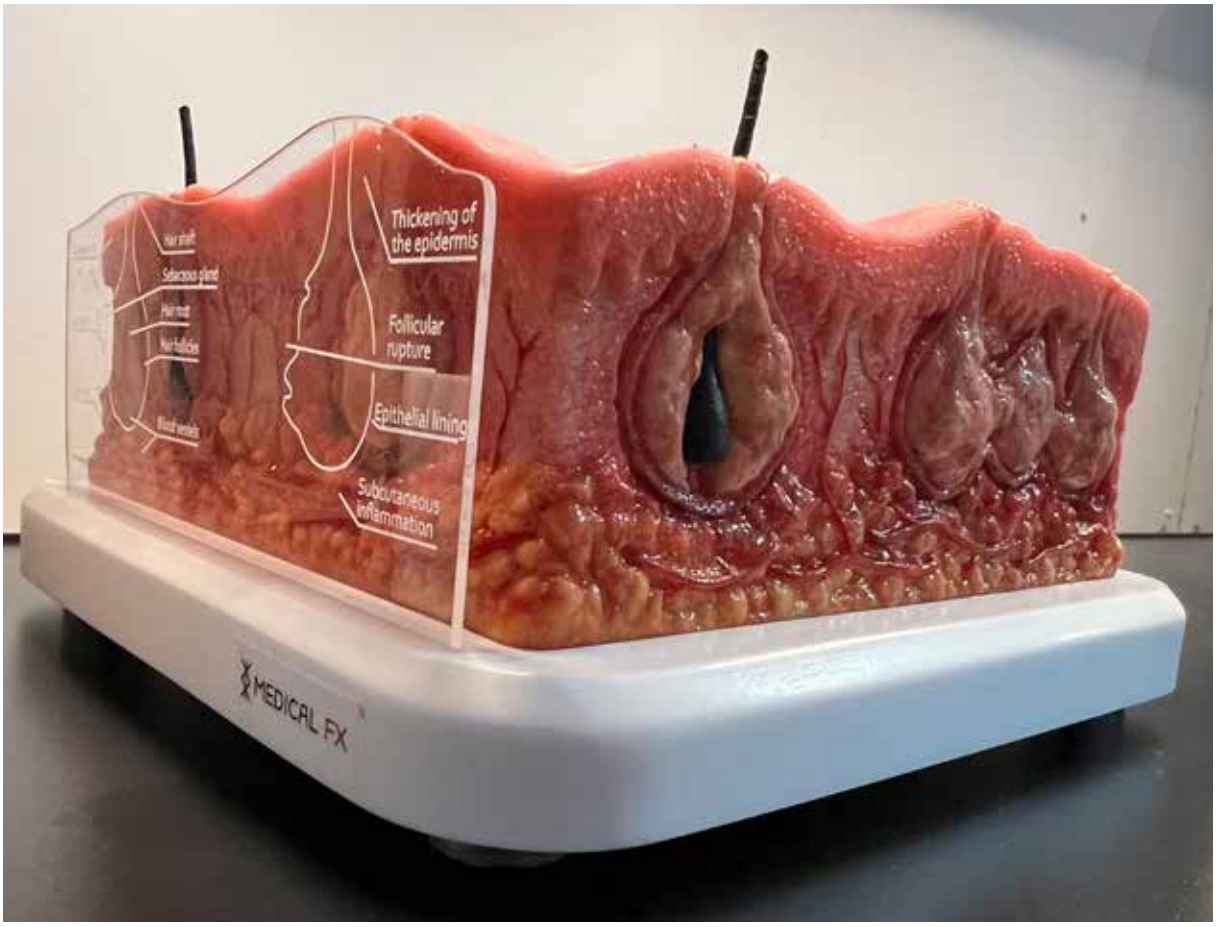
Figure 12. Educational model of hidradenitis suppurativa lesions



Laura Swoboda

Consensus statement: Patient education should aim to dispel the common myths that HS is contagious and linked to poor hygiene, which can lead to self-blame and reluctance to seek treatment among patients.

Education should explain the importance of thorough skin cleansing. Consulting guidance on product selection and correct use, with reference to common brand names and images of packaging, should help to minimise confusion, facilitate uptake and promote adherence (which can be affected by the cost of over-the-counter antiseptic skin cleansers).[149]

Patients experiencing acute flares of HS typically have to self-manage their lesions daily, and research suggests that patients would like their dermatologists to spend more time counselling them on the management of acute flares and lesions.[62] Dermatologists have also recognised the need for more patient education on caring for their lesions, including use of dressings.[7]

Education should aim to help patients develop a long-term management plan and empower self-care. This includes changing their own dressings, as they feel appropriate, to help them feel clean and hygienic and thus increase their social confidence and mental wellbeing. However, patients should also understand the potential for inpatient admissions and know when to seek professional advice, to minimise the risk of the disease progressing untreated and reaching a crisis point.[150]

Consensus statement: While patients with chronic conditions can become experts in self-management, those with HS should not be left to navigate a pervasive and debilitating disease alone. Ongoing professional support is essential to educate and advocate for patients, as well as to facilitate access to – and informed decisions about – appropriate treatments. Patient education should be delivered with a combination of specialist consultations and multimedia materials, including information leaflets, educational videos and website signposting.

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Conclusion

HS is a painful and debilitating skin disease that has a major impact on a patient's quality of life. HS lesions are intensely painful and, when open, produce high levels of exudate and malodour. However, while HS is typically lifelong and cannot be fully cured, appropriate support can help patients navigate the disease, manage its symptoms and minimise their impact on quality of life.

This international consensus document offers guidance on diagnosing and managing HS lesions, based on the best available evidence and expert opinion. It emphasises the importance of prompt recognition, diagnosis and referral of HS to initiate timely treatment, prevent deterioration and improve outcomes. It also provides best-practice guidance for managing lesions according to a patient's specific presentation. A holistic treatment strategy should include anti-inflammatory medication and antiseptic skin cleansing, along with any appropriate lifestyle modifications, analgesics and surgical interventions. Treatment of draining and open lesions often requires appropriate dressings that effectively absorb exudate, without causing traumatic removal.

Lesional pain, exudate and malodour are typically the main drivers of poor quality of life in HS and thus require prompt and effective relief. This can be achieved by prioritising access to specialist wound care for lesional management, including antimicrobial cleansing and absorptive dressing, as well as interventions to resolve irritant contact dermatitis and MARSI.

This consensus document should be used not only by dermatologists and wound care specialists, but also by primary care providers, surgeons and other health professionals likely to encounter patients with HS. HS cannot be effectively managed in isolation, and a truly interprofessional approach is required to offer timely and effective treatment that improves clinical outcomes and patient quality of life.

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Appendices (assessment tools)

Appendix 1. Hidradenitis suppurativa Odor and Drainage Scale[74]

In the past 7 days...		
Usual amount of drainage by area	Head and neck	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Armpits	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Trunk	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Groin	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Buttocks	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Genital perianal area	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Other area	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
Worst amount of drainage by area	Head and neck	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Armpits	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Trunk	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Groin	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Buttocks	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Genital perianal area	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
	Other area	☐ None (1) ☐ Mild (2) ☐ Moderate (3) ☐ Severe (4) ☐ Very severe (5)
I felt embarrassed about the drainage		☐ Never (1) ☐ Rarely (2) ☐ Sometimes (3) ☐ Often (4) ☐ Always (5)
The drainage interfered with my sex life		☐ Never (1) ☐ Rarely (2) ☐ Sometimes (3) ☐ Often (4) ☐ Always (5)
The drainage made me select specific clothes		☐ Never (1) ☐ Rarely (2) ☐ Sometimes (3) ☐ Often (4) ☐ Always (5)
I felt embarrassed about the odour		☐ Never (1) ☐ Rarely (2) ☐ Sometimes (3) ☐ Often (4) ☐ Always (5)
The odour interfered with my sex life		☐ Never (1) ☐ Rarely (2) ☐ Sometimes (3) ☐ Often (4) ☐ Always (5)
The typical odour I perceived coming from areas affected by hidradenitis suppurativa		☐ None (1) ☐ Slight (2) ☐ Moderate (3) ☐ Strong (4) ☐ Very strong (5)

Appendix 2. Numerical Rating Scale[75]

1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Appendix 3. Short-Form McGill Pain Questionnaire[80]

Sensory dimension	Affective dimension
☐ Throbbing	☐ Tiring/exhausting
☐ Shooting	☐ Sickening
☐ Stabbing	☐ Fearful
☐ Sharp	☐ Punishing/cruel
☐ Cramping	
☐ Gnawing	
☐ Hot/burning	
☐ Aching	
☐ Heavy	
☐ Tender	
☐ Splitting	

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Appendix 4. Hidradenitis Suppurativa Quality of Life Score[83]

In the past 7 days...						
Symptoms	Pain	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Itch	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Drainage	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Odour	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
Psychosocial impact	Embarrassment	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Low mood or depression	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Anxiety or nervousness	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Sexual desire	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
Activities	Choice of clothes	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Sexual activities	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Sleeping	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Getting dressed	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Concentration	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Exercising	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Washing yourself	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Walking (not for exercise)	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)
	Ability to work or study	☐ None (0)	☐ Some (1)	☐ Moderate (2)	☐ High (3)	☐ Extreme (4)

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