CLINICAL PRACTICE GUIDELINE

Guidelines of Care for the Management of Hidradenitis Suppurativa

A joint guideline of the American Academy of Dermatology and the Hidradenitis Suppurativa Foundation.

Workgroup

Haley B. Naik, MD MHSc (co-chair)[1]
Howa Yeung, MD MSc[2]
Lindsy Frazer-Green, PhD[3]
Steven Daniel Daveluy, MD[4]
Amit Garg, MD[5]
Amy J. McMichael, MD[6]
Christopher John Sayed, MD[7]
George K. Hightower, MD[8]
Ginette Okoye, MD[9]
Kelly Keeler, MS[3]
Lauren A.V. Orenstein, MD MSc[2]
Melanie Plotke, PharmD[3]
Melissa Shive, MD MPH[10]
Peggy A Wu, MD MPH[11]
Craig N. Burkhart, MD, MSBS, MPH (co-chair)[12]

[1] Department of Dermatology, University of California, San Francisco, California, USA
[2] Department of Dermatology, Emory University School of Medicine, Atlanta, Georgia, USA
[3] American Academy of Dermatology, Rosemont, Illinois, USA
[4] Department of Dermatology, Wayne State University School of Medicine, Detroit, Michigan, USA
[5] Department of Dermatology, Northwell Health, New Hyde Park, New York, USA
[6] Department of Dermatology, Wake Forest University School of Medicine, Winston-Salem, North Carolina, USA
[7] Department of Dermatology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA
[8] Department of Dermatology, University of California San Diego School of Medicine; Rady Children's Hospital, San Diego, California, USA
[9] Department of Dermatology, Howard University College of Medicine, Washington, DC, USA
[10] Department of Dermatology, University of California, Irvine School of Medicine, Irvine, California, USA
[11] Department of Dermatology, University of California, Davis, Sacramento, California, USA
[12] Burkhart Pediatric & Adolescent Dermatology, Cary, North Carolina, USA

Funding. This study was funded by internal funds from the American Academy of Dermatology and by the Hidradenitis Suppurativa Foundation.

Supplemental evidence tables. The 110 supplemental tables supporting these recommendations are published separately at https://data.mendeley.com/datasets/m3km5ksk6s/1

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Abstract

Background	Hidradenitis suppurativa affects 0.7-1.5% of the global population and substantial disability and meaningfully impairs quality of life.
Objective	To provide evidence-based recommendations for the management of hidradenitis suppurativa.
Methods	A work group conducted a systematic review and applied the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach to assess the certainty of evidence and to develop recommendations.
Results	This guideline presents 37 evidence-based recommendations. Strong recommendations are made for adalimumab, bimekizumab, infliximab, secukinumab, and routine pain assessment. Conditional recommendations are made for topical clindamycin, resorcinol, and ruxolitinib; oral doxycycline, tetracycline, clindamycin and rifampin, and ertapenem; spironolactone; short-term systemic corticosteroids; upadacitinib; specific procedural interventions; tobacco cessation; supportive pain management; zinc supplementation and vitamin D repletion.
Limitations	Analysis is limited to best evidence available from systematic review.
Conclusions	These guidelines provide evidence-based recommendations for the management of hidradenitis suppurativa.

Abbreviations used

AE adverse event
AN abscess and inflammatory nodule
BID twice daily
GLP-1 glucagon-like peptide-1
GIP glucose-dependent insulinotropic polypeptide
HS hidradenitis suppurativa
HS-PGA Hidradenitis Suppurativa Physician Global Assessment
HiSCR Hidradenitis Suppurativa Clinical Response
I&D incision and drainage
IHS4 International Hidradenitis Suppurativa Severity Score System
IL interleukin
IV intravenous
JAKi Janus kinase inhibitor
NRS numeric rating scale
PICC peripherally inserted central catheter
PO by mouth
PGA Physician Global Assessment
QOL quality of life
RCT randomized controlled trial
SC subcutaneously
SAE serious adverse event
TNF tumor necrosis factor
VAS visual analog scale

Disclaimer

Adherence to these guidelines will not ensure successful treatment in every situation. Furthermore, these guidelines should not be interpreted as setting a standard of care or be deemed inclusive of all proper methods of care, nor exclusive of other methods of care reasonably directed to obtaining the same results. The ultimate judgment regarding the propriety of any specific therapy must be made by the physician and the patient in light of all the circumstances presented by the individual patient, and the known variability and biologic behavior of the disease. This guideline reflects the best available data at the time the guideline was prepared. The results of future studies may require revisions to the recommendations in this guideline to reflect new data.

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A NOTE ON THIS EDITION

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Scope & Objective

The joint American Academy of Dermatology-Hidradenitis Suppurativa Foundation guidelines provide evidence-based recommendations for the management of hidradenitis suppurativa (HS) in adults, adolescents, and children over age 9 years. These guidelines support individualized, patient-centered HS management and focus on topical therapies, systemic antibiotics, hormone therapy, oral retinoids, biologics, systemic therapies, procedural interventions, supportive management, weight reduction, diet, and complementary and alternative medicines available in the United States.

Methods

A multidisciplinary workgroup developed these guidelines using a systematic evidence review process, which included (i) identifying and prioritizing clinical questions and outcomes (Table I), (ii) systematic retrieval and assessment of evidence, and (iii) assessment of the certainty of the evidence and formulation of recommendations using GRADE (Grading of Recommendations, Assessment, Development, and Evaluation) (Table II).

Literature searches were conducted for evidence of patient values and preferences, resource use, and feasibility. The workgroup also engaged patient partners to provide input on preferences and values during key stages of the guideline development process. This evidence, along with the effectiveness and safety data, was compiled in GRADE evidence-to-decision frameworks for each clinical question to facilitate recommendation development. For detailed methodology, see Supplemental Appendix 1.

Definition

HS is a chronic, relapsing inflammatory skin disease characterized by recurrent painful nodules, abscesses, and tunnels primarily involving intertriginous skin folds.[1] HS affects 0.7-1.5% of the global population and substantial disability and meaningfully impairs quality of life.[2] HS lesions are commonly classified as papules, pustules, nodules, plaques, ulcers, abscesses, comedones, and tunnels,[3] as well as cysts, granulating growths, and ropelike scars.[4] Tunnels are the preferred term over sinus tracts or fistulas, which may require imaging confirmation.[3] HS severity constructs and clinician- and patient-reported outcome measures have been variably used across research and clinical contexts.[5] International consensus efforts have encouraged standardization and defined core outcome sets to evaluate HS treatments and surgeries.[4, 6-8] HS research-specific measures are not feasible or specifically validated for routine clinical use. This workgroup synthesized evidence and developed recommendations based on available data using definitions in literature. HS recommendations specific to moderate to severe HS should not be interpreted as requirements for documenting HS severity using specific measures before patients should access HS treatments.

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Recommendations

Recommendations for HS management are listed in Tables III & IV and Figure 1. Effective HS management addresses both chronic HS disease and acute HS flares, often requiring multimodal strategies including systemic, procedural, and supportive therapies to control HS symptoms and improve quality of life. Step therapy, an insurance requirement that patients complete a sequence of insurer-designated treatments before coverage is approved for a physician-prescribed therapy, lacks evidence of clinical benefit and is associated with treatment delays, reduced access to guideline-concordant care, and worse clinical outcomes.[9, 10] Interdisciplinary HS management should screen for and address medical and psychiatric comorbidities that contribute to HS burden.[11-13] Treatment selection should consider comorbidities. Optimal treatment selection requires a patient-centered, shared decision-making approach that integrates evidence-based recommendations with individualized assessment of cognitive, functional, psychosocial, and caregiver-related factors.

Strong or conditional recommendations for HS treatments should be interpreted as affirmative clinical guidance, even when supported by low or very low certainty of evidence. Many common and established HS treatments are supported by lower certainty evidence such as observational studies, case series, or small uncontrolled trials. Certainty of evidence ratings reflect confidence in the underlying data and not the treatment's clinical utility and are not adjusted to align with clinical familiarity or expert consensus based on the GRADE framework. Clinicians should interpret the strength of recommendation as the primary clinical directives and consider the certainty of evidence as important context about the evidence base informing the recommendations.

Topical Therapies

Topical Clindamycin. We conditionally recommend topical clindamycin for HS based on low certainty evidence (Supplemental Tables 1-5). Studies on topical clindamycin involved patients with mild to moderate HS. Five randomized controlled trials (RCT) including a total of 204 participants, with three comparing topical clindamycin 1% to placebo,[14] no treatment,[15] and oral tetracycline,[16] respectively, and two comparing topical clindamycin monotherapy to combination with benzoyl peroxide[17] or energy-based therapy[18] were identified. Topical clindamycin significantly reduced mean abscesses, inflammatory nodules, and pustules from baseline to week 12 (from 1.15, 1.43, 8.9, respectively, to 0.46, 0.14, 0.38, $p<0.01$) versus placebo (from 1.14, 1.46, 9.9 to 1.50, 0.77, 18.0).[14] Reported adverse events (AE) were fewer with topical clindamycin than placebo and AEs leading to discontinuation were uncommon.[14, 15, 18]

Topical Resorcinol. We conditionally recommend topical resorcinol for HS based on low certainty evidence (Supplemental Tables 6-7). Studies on topical resorcinol involved patients with mild to moderate HS. One RCT comparing topical resorcinol 10% cream twice daily (BID) to placebo in 40 participants[15] and 5 case series of topical resorcinol 15% applied daily or BID totaling 229 patients[19-23] were identified. Topical resorcinol reduced mean International Hidradenitis Suppurativa Severity Score System (IHS4) score (from 5.65 to 2.5) and improved quality of life (mean Dermatology Quality of Life score from 9.6 to 4.8) at 24 weeks.[15] Common AEs included desquamation (64-100%), discoloration (33-41%), and mild irritation (34%).[20, 23] AEs requiring discontinuation were not noted.[15, 22]

Topical Ruxolitinib. We conditionally recommend topical ruxolitinib for HS based on low certainty evidence (Supplemental Tables 8-9). Studies on topical ruxolitinib involved patients with mild to moderate HS. One Phase 2 RCT comparing topical ruxolitinib 1.5% cream twice daily to vehicle in 69 participants,[24] and a pilot open-label trial with 6 participants[25] were identified. HiSCR (Hidradenitis Suppurativa Clinical Response)-50, or ≥50% improvement in abscess and nodule count without new abscess or tunnel development, was achieved in more

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participants with topical ruxolitinib than vehicle at 16 weeks (79% vs. 50%).[26] No differences in mean pain or IHS4 scores at 16 weeks were noted compared to placebo.[26] Common AEs reported included nasopharyngitis (8%).[26]

There is insufficient evidence on chlorhexidine, benzoyl peroxide, or other topical antiseptic agents for HS management.

Systemic Antibiotics

Doxycycline. We conditionally recommend doxycycline for HS based on very low certainty evidence (Supplemental Tables 10-11). Despite extensive use of doxycycline for HS, only one RCT comparing modified-release oral doxycycline 40mg daily to regular-release oral doxycycline 100mg BID in 49 participants and one RCT comparing oral doxycycline 100 mg daily monotherapy to combination therapy with metformin were identified.[27, 28] HiSCR was achieved in 64% and 60% with modified-release and regular-release doxycycline, respectively, with no difference noted between formulations.[27] Mean IHS4 and quality of life score improved in both formulations.[27] HiSCR-50 was achieved by 41% of patients on doxycycline monotherapy.[28] AE reported included gastrointestinal (GI) symptoms, transaminitis, and photosensitivity.[27]

Tetracycline. We conditionally recommend tetracycline for HS based on very low certainty evidence (Supplemental Tables 12-13). One RCT comparing oral tetracycline 500mg BID with topical clindamycin 1% lotion in 46 participants was identified, with no significant differences noted in Physician Global Assessment (PGA) (mean difference [MD], 5; 95% confidence interval [CI], -14 – 24) or visual analog scale (VAS)-100 pain scores (MD, 2; 95% CI -47 – 51) at 16 weeks.[16] In a prospective cohort comparing tetracycline, doxycycline, and lymecycline in 108 patients, patients receiving tetracycline (n=32) had the highest numerical improvement in mean change Sartorius score (-9.9; 95% CI, -3.0 – -16.9), but no significant difference was demonstrated across treatment groups.[29] AEs reported include GI symptoms, skin irritation and photosensitivity.[29]

Clindamycin in combination with Rifampin. We conditionally recommend clindamycin in combination with rifampin for HS based on very low certainty evidence (Supplemental Tables 14-15). Eight cohort studies and case series using combinations of clindamycin 300mg BID to 600mg daily and rifampin 300mg BID to 600mg daily in 392 patients, and one active comparator RCT were identified.[30-38] Mean Sartorius scores reduced by 46-53% at 10 weeks in 159 patients.[34, 36, 37] HiSCR-50 was achieved in 48% of 83 patients at 12 weeks.[32] AEs reported included GI symptoms[34-37] and 4-26% discontinued treatment due to AE.[31-35] Rifampin is a potent inducer of cytochrome P450 enzymes, especially CYP3A4; drug-drug interactions should be examined. Oral clindamycin monotherapy versus clindamycin plus rifampin combination therapy showed no differences in IHS4 scores at 8 weeks in 60 patients.[39] Prospective studies are needed on clindamycin monotherapy for HS.

Ertapenem. We conditionally recommend ertapenem for moderate to severe HS based on very low certainty evidence (Supplemental Table 16). Four cohort studies and case series on ertapenem administered intravenously via peripherally inserted central catheter (PICC) and intramuscularly including a total of 179 patients were identified.[40-43] Median Sartorius score (from 49.5 to 19.0),[42] IHS4 score(28 to 18)[40], and VAS-10 pain score (9 to 2 and 6 to 0)[40, 42] decreased at 6 weeks. Mean HS-PGA (3.9 to 2.7) and pain numeric rating scale (NRS) (4.2 to 1.8) scores decreased after 12-16 weeks of intravenous ertapenem 1g daily.[41] AE included PICC-line thrombosis and infections, dermatitis from PICC adhesives, diarrhea, vaginal candidiasis and vaginitis, transaminitis, infusion reaction, and C. difficile colitis.[41-43] Institutional requirements for infectious diseases specialist approval, IV access, potential complications, home nursing care for daily infusions, and limitations to patient activities may limit treatment access. Ertapenem should be reserved for moderate to severe HS, typically refractory to other treatments, and be used as a bridge to more definitive, long-term therapy to steward antibiotic use.

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There is insufficient evidence on amoxicillin-clavulanate, oral clindamycin monotherapy;[44, 45] dapsone;[46-49] ofloxacin plus clindamycin[50]; metronidazole, rifampin, plus moxifloxacin;[51, 52] dalbavacin[53]; and linezolid for HS (Supplemental Tables 17-24).

Hormonal Therapies

Spironolactone. We conditionally recommend spironolactone for HS based on very low certainty evidence (Supplemental Table 25). Five case series on spironolactone in 323 female patients, most of whom received concomitant therapies, were identified.[54-58] Median spironolactone dose was 100mg daily.[54, 56-58] Mean HS-PGA score decreased by 0.6 after a mean follow up of 7 months.[55] AEs reported included gastrointestinal symptoms, breast tenderness, changes in urination, irregular bleeding, dizziness, and mental confusion.[54-56, 58] Potential AE include gynecomastia and teratogenicity.

Metformin. There is insufficient evidence on metformin for HS (Supplemental Tables 11& 26). One RCT comparing doxycycline 100mg daily as monotherapy or combined with metformin 500mg-1500mg daily did not show significant effects of metformin on IHS4 scores or HiSCR-50 at 24 weeks.[28] Three case series on metformin in 94 patients noted subjective clinical response in 68%, but the data were prone to substantial risks of bias due to small sample size, lack of control groups, and heterogenous outcome measures.[59-61] Long-term effects of metformin on HS-associated cardiometabolic outcomes should be examined.

There is insufficient evidence on combination oral contraceptive pills or finasteride for HS management.[62]

Oral Retinoids

Acitretin. We conditionally recommend against acitretin for HS based on very low certainty evidence (Supplemental Table 27). Five case series on acitretin in 120 patients were identified.[63-67] Outcomes across studies varied with no significant differences shown in HS outcomes compared to baseline, and high rates of patient discontinuation (47-53%) due to ineffectiveness, worsening visual acuity, and severe retinoid dermatitis.[63, 65] Potential risks include teratogenicity, hepatotoxicity, and hyperlipidemia.

Isotretinoin. We conditionally recommend against isotretinoin for HS based on very low certainty evidence (Supplemental Table 28). One case series of 68 patients on isotretinoin monotherapy was identified, with 24% reporting visual clearance of disease (per a 0 to 3 scale with 0 indicating no change and 3 visual clearance) at 4 months and high rates of discontinuation (29%) before 4 months due to side effects (15%), poor response (21%), and loss of motivation (4%).[68] Potential risks include teratogenicity, hepatotoxicity, and hyperlipidemia. Monthly visits and pregnancy monitoring requirements of the United States iPLEDGE program may limit access to isotretinoin.

Subsets of patients with HS and follicular occlusion syndrome may benefit from acitretin or isotretinoin; their outcomes should be further examined.

Biologics

Adalimumab. We recommend adalimumab for moderate-to-severe HS based on moderate certainty evidence (Supplemental Tables 29-31). Seven RCT comparing adalimumab 40mg SC weekly after initial loading doses with placebo in 733 patients were identified.[69-75] At week 12, HiSCR50 (≥50% improvement in abscess and nodule count without new abscess or tunnel development) was achieved by more participants on adalimumab 40mg weekly than placebo (Risk Ratio [RR] 1.92; 95%CI 1.57, 2.36).[70, 71] NRS-30, or pain reduction by 30% and ≥1 point on the NRS, favored adalimumab 40mg weekly over placebo (RR 1.58 95%CI, 0.82, 3.06), though the

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difference was not significant.[71] Mean DLQI improvement was greater in adalimumab 40mg SC weekly than placebo (-2.82 95%CI, -3.69, -1.96).[71, 73] Adalimumab 40mg SC Q2W did not meet efficacy endpoints.[71, 73, 76] Adalimumab 80mg Q2W is an alternative FDA-approved maintenance dose to adalimumab 40mg weekly and may improve patient adherence. In an open-label extension study, HiSCR50 was achieved in 52% of patients maintained on adalimumab 40mg weekly at 3 years.[77]

Common AE noted in RCT include upper respiratory tract infection (URI), sinusitis, GI symptoms, headache, rash, and injection site reactions. Potential SAE may include serious infections, such as latent tuberculosis reactivation, invasive fungal, bacterial, viral, and other opportunistic infections, and malignancies including lymphoma, though these events were not reported in the Phase 3 PIONEER clinical trials. Risks of SAE and AE leading to discontinuation did not differ between adalimumab and placebo at week 12 in RCT.[71, 73]

Continuation of Adalimumab in Perioperative Period. We conditionally recommend continuing adalimumab in the perioperative period for patients with moderate-to-severe HS receiving adalimumab and undergoing surgery based on low certainty evidence (Supplemental Table 32). One RCT compared adalimumab 40mg weekly with placebo in conjunction with axillary or inguinal wide excision for HS followed by secondary intention healing.[78] HiSCR-50 was achieved in more participants on adalimumab than placebo at week 12, while postoperative wound infection, complication, or hemorrhage did not differ between treatment groups, suggesting continuing adalimumab treatment in the perioperative period is safe.[78]

Bimekizumab. We recommend bimekizumab for moderate to severe HS based on moderate certainty evidence (Supplemental Tables 33-34). Three RCTs comparing bimekizumab 320mg SC Q2W or Q4W with placebo in 784 participants were identified.[70, 79] At week 16, HiSCR50 and HiSCR75 (≥75% improvement in abscess and nodule count without new abscess or tunnel development) were achieved in more participants on bimekizumab 320mg Q2W than those on placebo (RR, 1.67; 95% CI, 1.31-2.13 and RR, 2.14;1.49-3.06, respectively).[70, 79] Mean DLQI improvement was greater with bimekizumab than placebo at week 16 (RR -1.89; -3.06 – -0.72).[79] At week 48, HiSCR50 and HiSCR75 were achieved in 77-82% and 56-71% of participants maintained on bimekizumab Q4W, and in 66-78% and 57-67% of those maintained on bimekizumab Q2W, respectively.[79]

Common AE noted in RCTs included URI, oral and vulvovaginal candidiasis, headache, injection site reaction, and tinea infection. Potential SAE may include suicidal ideation and behaviors, serious infections, inflammatory bowel disease, and transaminitis. Risks of SAE and AE leading to discontinuation at week 16 did not differ between bimekizumab and placebo.[70, 79]

Infliximab. We recommend infliximab for moderate to severe HS based on low certainty evidence (Supplemental Tables 35-36). One RCT comparing infliximab IV 5mg/kg with placebo in 33 participants was identified.[80] Infliximab was more likely to achieve excellent outcome based on PGA at week 8 than placebo (RR, 4.80; 95% CI, 1.66-13.90).[80] HS Severity Index score reduction by 50% favored infliximab over placebo (RR, 4.80; 95% CI, 0.60-38.48) though the difference was not significant.[80] Infliximab decreased mean pain VAS-100 substantially more than placebo (-39.8 vs -0.6).[80] Seven cohort studies of infliximab in 132 patients were also identified.[81-87] Infliximab IV 7.5mg/kg at weeks 0, 2, and 6, followed by IV 7.5-10mg/kg every 4 weeks, with concomitant topical and oral antibiotics and anti-androgen therapy, showed a 2-point reduction in HS-PGA to 0-2 in 71% of patients and decreased mean pain VAS-10 from 5.7 to 0.5 at week 12.[87] Common AEs reported included non-serious infections and infusion reaction.[88] SAE rates were low; potential SAE may include serious infections, such as latent tuberculosis reactivation, invasive fungal, bacterial, viral, and other opportunistic infections, and malignancies including lymphoma.

The workgroup noted clinical experience with infliximab efficacy at higher doses and frequency despite limited supporting literature.[87, 89] The most favorable clinical outcomes were reported in studies that used high-dose,

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high-frequency infliximab (10 mg/kg every 4 weeks).[87, 89] While IV infusion requirements may limit outpatient access, infliximab remains accessible in publicly funded health systems and may be covered under special drug programs for rare or severe conditions. Given the current unmet needs in patients with treatment-refractory HS, large desirable effects noted across multiple outcomes with infliximab, low potential risks, and patient values likely favoring treatment, we recommend infliximab for moderate to severe HS despite low certainty evidence.

Secukinumab. We recommend secukinumab for moderate to severe HS based on moderate certainty evidence (Supplemental Tables 37-39). Two RCTs comparing secukinumab 300mg SC weekly for 5 doses followed by 300mg Q2W or Q4W to placebo in 724 participants were identified.[90] At week 16, HiSCR-50 was achieved in more participants on secukinumab than placebo (RR, 1.35; 95% CI, 1.11-1.63 for Q2W and 1.35; 1.12-1.63 for Q4W), as was HiSCR75 (1.58; 1.16-2.16 for Q2W and 1.69; 1.25-2.30 for Q4W).[90] Pain NRS score reduction by 30% was more common in secukinumab than placebo (RR, 1.58; 95% CI, 1.20-2.08 for Q2W and 1.44; 1.08-1.92 for Q4W).[90] DLQI improvement by ≥5 points was more common in secukinumab than placebo (RR, 1.40; 95% CI, 1.01-1.94 for Q2W and 1.57; 1.26-1.95 for Q4W).[90] HiSCR-50 was maintained at week 52 in 76% and 81% of participants on secukinumab Q2W and Q4W who achieved HiSCR-50 at week 16.[90] In participants who switched from placebo to secukinumab at week 16, HiSCR-50 was achieved in 48–55% of patients on secukinumab Q2W and 51–55% on secukinumab Q4W at week 52.[90] In an open-label extension study, patients who continued secukinumab Q2W or Q4W after week 52 had numerically longer median times to an increase in abscesses or nodules than those who switched to placebo. However, neither secukinumab maintenance regimens met the primary endpoint of significantly reducing the risk of an increase in abscesses or nodules over placebo through week 104.[91]

Common AE noted in HS RCTs included headache, URI, fungal infections, and hypersensitivity. Potential SAE may include serious infections, such as latent tuberculosis reactivation, invasive fungal, bacterial, viral, and other opportunistic infections, and malignancies including lymphoma, inflammatory bowel disease, and severe eczema. Risks of SAE and AE leading to discontinuation did not differ between secukinumab and placebo by week 16.[90]

Etanercept. We conditionally recommend against etanercept for moderate to severe HS based on very low certainty evidence (Supplemental Tables 40-41). One RCT compared etanercept with placebo in 17 participants, reporting no difference in PGA or pain at weeks 12 and 24.[92] Three open-label trials of etanercept in 31 participants showed HS improvement but the study designs were prone to substantial risks of bias.[93-96] AEs were uncommon.

Guselkumab. We conditionally recommend against guselkumab for moderate-to-severe HS based on low certainty evidence (Supplemental Table 42). One RCT compared guselkumab 400mg SC Q4W and 1,200 IV Q4W regimens with placebo in 121 participants, reporting no significant differences in achieving HiSCR-50 or reducing DLQI to 0 or 1 at 16 weeks.[97] AEs were uncommon.

Risankizumab. We conditionally recommend against risankizumab for moderate to severe HS based on low certainty evidence (Supplemental Table 43). One RCT compared risankizumab 180mg and 360mg SC regimens with placebo in 243 participants and showed no significant differences in achieving HiSCR-50 or reducing DLQI to 0 or 1 at 16 weeks.[98] Achieving HiSCR-50 at week 16 with risankizumab may be more common in male patients and subgroups with higher serum testosterone, lower serum follicle-stimulating hormone, and insulin resistance diagnoses.[99] AEs were uncommon.

Vilobelimab. We conditionally recommend against vilobelimab for HS based on low certainty evidence (Supplemental Table 44). A 5-arm RCT comparing subcutaneous vilobelimab 400mg Q4W, 800mg Q2W, 800mg Q4W, and 1200mg Q2W to placebo in 177 participants showed no significant difference in achieving HiSCR-50 at

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week 16.[100] Vilobelimab reduced secondary endpoints of HS flares and DLQI score but showed no significant differences in modified Sartorius and global assessment scores at week 16.

While individual patients with HS still benefit from select biologics, the conditional recommendations against these biologics aim to guide HS treatment toward higher value options that are more likely to yield desired therapeutic response based on available data. Conditional recommendations against a particular treatment recognize that different therapeutic choices may be appropriate for different patients depending on individual patient contexts or stakeholder values. The comparative efficacy of FDA-approved biologics for moderate-to-severe HS remains unsettled, with 3 published network meta-analyses reaching differing conclusions on relative HiSCR-50 response rates.[101-103] Head-to-head RCT data are needed to compare effectiveness and safety of existing and emerging biologics for moderate-to-severe HS.

There is insufficient evidence on the use of anakinra,[104, 105] ixekizumab,[106] spesolimab,[107] and ustekinumab[108-114] for HS (Supplemental Tables 45-49).

Systemic Therapies (DMARD, Small Molecule Inhibitors, and Systemic Corticosteroids)

Upadacitinib. We conditionally recommend upadacitinib for moderate to severe HS based on low certainty evidence (Supplemental Table 50). One RCT comparing oral upadacitinib 30mg daily and placebo in 68 patients was identified.[115] HiSCR-50 and NRS-30 pain reduction was achieved in more patients receiving upadacitinib compared to historical controls but did not differ from in-trial placebo group.[115] Reported AEs included headache, dizziness, and urinary tract infection. FDA boxed warnings discuss potential risks of serious infections, malignancy, major adverse cardiovascular events, thrombosis, and higher rates of all-cause mortality; none of these events were reported in the single RCT. An ongoing phase 3 RCT of upadacitinib for HS will inform its efficacy and safety and potentially provide access for on-label prescribing.

Short-term Systemic Corticosteroid. We conditionally recommend short-term systemic corticosteroids for moderate-to-severe HS based on very low certainty evidence (Supplemental Table 51). Three case series on oral prednisone or prednisolone in 73 patients were identified.[116-118] Combining prednisone 40mg tapering by 10mg every 3 days with amoxicillin and clavulanic acid BID for 10 days improved patient impression of disease severity, pain score, and mean DLQI score by day 14.[117] HiSCR-50 was achieved in 14 of 20 of adjunctive prednisolone cycles at 0.28-1.0mg/kg for mean 10-90 days in 16 patients.[118] Treatment duration should be limited to minimize risks of long-term systemic corticosteroid use.

Methotrexate. We conditionally recommend against methotrexate as active therapy for moderate to severe HS based on very low certainty evidence (Supplemental Table 52). One case series of 15 patients using methotrexate as primary therapy demonstrated nonsignificant reductions in HS-PGA and abscess and inflammatory nodule (AN) counts, while patients receiving concomitant biologic therapy showed no change in disease activity with the initiation of methotrexate.[119] Potential AEs include bone marrow suppression, opportunistic infections, hepatotoxicity, pneumonitis, lymphoma, teratogenicity and fetal death. However, only self-resolving GI disturbances and elevated alkaline phosphate levels that did not interfere with treatment were reported in the included study.

Methotrexate may be used to prevent or manage anti-drug antibody development in patients receiving TNF inhibitors.[120, 121]

Azathioprine. We conditionally recommend against azathioprine as active therapy for moderate to severe HS based on very low certainty evidence (Supplemental Table 53). Two case series showed inconsistent results in HS outcomes in 20 patients treated with azathioprine monotherapy.[122, 123] Potential AEs include bone marrow suppression, opportunistic infections, hypersensitivity, lymphoma, and skin cancer. In the included case series,

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nausea, anemia, abdominal pain, decreased hemoglobin, tiredness, arthralgia, hematuria, hepatic dysfunction, diarrhea, and pancreatitis were reported.

Azathioprine may be used to prevent or manage anti-drug antibody development in patients receiving TNF inhibitors.[120, 124, 125]

Avacopan. We conditionally recommend against avacopan for HS based on low certainty evidence (Supplemental Tables 54-55). One RCT comparing avacopan 10mg BID and 30mg BID with placebo in 264 participants reported no difference in HiSCR-50 and NRS-30 between avacopan and placebo at week 12.[126] Fewer AE and SAE were reported in the avacopan than placebo groups.[126]

There is insufficient evidence to make recommendations regarding the use of colchicine,[127-129] cyclosporine,[130] hydroxychloroquine,[131] apremilast,[132-134] brepocitinib,[135] or roflumilast for HS (Supplemental Tables 56-61).

Procedural Interventions

Deroofing. We conditionally recommend deroofing to treat recurrent or persistently symptomatic HS lesions based on very low certainty evidence (Supplemental Table 62). Nine cohort studies and case series on deroofing in 899 patients were identified.[136-144] HiSCR-50 was achieved in 90% of patients in a prospective cohort of 79 patients treated with deroofing.[140] Mean healing time reported across studies ranged from 4.4 to 10.9 weeks.[138-141] Recurrence occurred in 10%-33% after deroofing, which was comparable to the recurrence after surgical excision.[136, 137, 141-143] Complications were uncommon (1-2%) and included infection and bleeding.[136, 137, 140, 144]

Incision and Drainage (I&D). We conditionally recommend I&D to treat acutely painful abscesses based on very low certainty evidence (Supplemental Table 63). Three case series with 256 patients were identified.[143, 145, 146] I&D is perceived positively by patients, led to complete resolution in 26% of cases, but failed to improve HS in 66% of cases.[146] Recurrence rate is higher with I&D than excision and deroofing.[143]

Local and Regional Excision. We conditionally recommend local and regional excision for HS based on very low certainty evidence (Supplemental Tables 64-69). Surgical procedures were described by anatomic extent and completeness.[147] Five case series with 317 patients undergoing local excision,[142, 148-151] 3 case series with 77 patients undergoing CO2 laser excision,[152-154] 5 case series with 133 patients undergoing CO2 laser vaporization,[155-159] 33 case series and cohort studies including 1,338 patients undergoing wide excision,[160-193] and 17 case series and cohort studies including 627 patients undergoing radical excision[194-210] were identified.

After local excision, complete disease remission was noted in 36-67% and recurrence was noted in 24-63% after 2-3.6 years of follow up.[142, 148-150] Mean healing time ranged in 16-21 days.[148, 151] Complications were reported in 13-30% and included pain, wound infection, bleeding, contractures, and excessive granulation tissue.[148-151] After local excision with CO2 laser, mean healing time ranged from 2-8 weeks, with local recurrence rates of 0-14%.[152-154] Complications included excessive granulation tissue, infection, paresthesia, cellulitis, fever, and wound dehiscence.[152-154] After tissue vaporization with CO2 laser, mean healing time ranged from 3-7 weeks, with local recurrence rate of 0-29%.[152-154] Complications included infection, bleeding, hypertrophic scar, and scar contracture.[152-154] The workgroup collectively considered multiple surgical modalities for local excision in determining this conditional recommendation.

After wide excision, time to healing was highly variable based on closure technique, ranging from 2 weeks to 16 months.[161, 162, 172, 178, 181, 183] Mean hospital length of stay reported in most studies ranged from 3-13 days.[161, 163, 167, 170-172, 174, 176, 181, 185, 187, 188] Recurrence rates ranged from 0-20% in 16 case series with mean follow up periods of <2 years, [160, 161, 167, 169, 172, 174, 176, 178-181, 183, 186, 187, 189-191] and 19-70% in 4 case series with mean follow up periods ranging from 3-7.4 years.[163, 171, 175, 182]. Complication rates ranged from 0-56%, and included wound

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dehiscence, infection, hematoma, flap or graft necrosis or loss, fistula, and deep vein thrombosis. After radical excision, mean hospital length of stay ranged from 4-8.5 days.[197, 200-202, 209] Recurrence rates ranged from 0-47%.[195, 196, 198-209] Complication rates ranged from 0-65%, and included wound dehiscence, infection, hematoma, flap bulkiness, venous congestion, hypertrophic scar, and necrosis.[194, 195, 197-200, 202-209] Given heterogeneity in study reporting and definitions of surgical procedures and disease recurrence, data pertaining to wide and radical excision were collectively considered as regional excision in determining this conditional recommendation.

Laser Hair Removal (LHR). We conditionally recommend LHR for HS based on very low certainty evidence (Supplemental Tables 70-73). In one RCT on 755-nm alexandrite LHR, HiSCR-50 was achieved at 24 weeks more often with 4 monthly LHR sessions than no LHR (RR 2.25 95%CI 1.22, 4.15) in 48 patients.[211] In a non-randomized trial on adjunctive alexandrite LHR, HiSCR-50 was achieved at 30 weeks more often with 5 LHR sessions every 6 weeks than no LHR (RR 3.50 95%CI 1.39, 8.80) in 40 patients receiving concurrent topical chlorhexidine and oral zinc gluconate 90mg daily.[212] Patients who received adjunctive alexandrite LHR had fewer disease flares and a lower mean DLQI score.[212] Mean pain NRS during treatment was 6.0.[213] No patients discontinued alexandrite LHR due to AE in trials but 21% reported localized flares in the case series.[211-213]

One RCT comparing LHR with 1,064-nm long-pulsed Nd:YAG to no LHR in 38 patients showed no difference in HiSCR-50 achievement or disease flares at 30 weeks.[214] Mean pain NRS during treatment was 5.4; AEs reported included burning sensation and irritation.[214, 215]

Botulinum Toxin. We conditionally recommend botulinum toxin for axillary HS based on very low certainty evidence (Supplemental Table 74-75). One RCT comparing a single session of intradermal botulinum toxin type B (150-600 units per region, maximum 4000 units) to placebo showed decrease in pain VAS 10 (MD -2.7 95%CI -4.6, -0.76) and DLQI (MD -6 95%CI -11.75, -0.25) at 3 months, but no significant differences in inflammatory nodules (MD -3.8 95%CI -9.06, 1.46) or total lesion count (MD -3.3 95%CI -8.91, 2.31).[216] An 8-patient case series of botulinum toxin type A showed pain reduction.[217]

Intralesional triamcinolone acetonide. We conditionally recommend intralesional triamcinolone acetonide for HS based on very low certainty evidence (Supplemental Tables 76-77). One RCT comparing intralesional triamcinolone acetonide 10mg/mL or 40mg/mL with placebo showed no difference in pain NRS and time to lesion resolution compared to placebo.[218] Nine cohort studies and case series on intralesional triamcinolone acetonide 10-40mg/mL showed decrease in HS severity score, HS-PGA score, pain VAS, pruritus, and DLQI scores at 30 days to 12 weeks.[219-227] Reduction of sinus tract fibrosis was also noted.[220] AEs included skin atrophy, pigmentary changes, yellow depositions, lesion aggravation, acanthosis nigricans, delayed menstrual cycle, fever, glycemic decompensation, and behavioral changes.

Adjunctive Hyperbaric Oxygen Therapy. We conditionally recommend adjunctive hyperbaric oxygen therapy (HBOT) to systemic antibiotics for HS based on very low certainty evidence (Supplemental Table 24). One RCT compared adjuvant HBOT to no HBOT in 43 patients receiving clindamycin 300mg BID and rifampicin 300mg BID.[228] HBOT sessions were administered in a hyperbaric chamber 5 days per week for 4 weeks; each session lasted 120 minutes wherein 2.4 atmospheres absolute were administered for 3 periods of 25 minutes.[228] Adjunctive HBOT increased the proportion of patients with ≥50% decrease in HS Severity Index and DLQI scores at weeks 4 and 10.[228] Contraindications to HBOT include heart or lung disease, pneumothorax, pregnancy, upper or lower airway infection, recent surgery, head injury, claustrophobia, or seizures.[228] High cost, travel, and time burdens and limited geographic access to hyperbaric centers may limit HBOT access.

Radiotherapy. There is insufficient evidence to support radiotherapy for HS (Supplemental Table 78). Four case series of heterogeneous radiotherapy modalities and doses in 109 patients were identified.[229-232] Small sample

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sizes and heterogeneous interventions and outcome assessment in these studies with moderate to high risk of bias limited confidence in findings.

While direct evidence on radiotherapy for HS in children is sparse, since radiotherapy poses well-established long-term risks in children and adolescents (e.g., malignancy, infertility, tissue fibrosis, growth abnormalities, endocrine dysfunction) and safer HS treatment options for pediatric patients exist, we recommend against radiotherapy in pediatric and adolescent patients for HS management as a good practice.

There is insufficient evidence for cryotherapy,[233-235] intense pulsed light[236-240], radiofrequency,[18, 236, 237, 241, 242] microwave ablation,[243] photodynamic therapy,[244-247] intralesional photodynamic therapy,[248-252] and sclerotherapy[253] for HS treatment (Supplemental Tables 79-92).

Wound Care

Wound care is necessary and beneficial for HS management. There is insufficient evidence to support specific wound care regimens for HS in either usual or post-operative wound care settings (Supplemental Tables 93-96). Gentamycin sponge did not significantly reduce post-operative healing time or reduce HS recurrence rate or AE compared to primary closure alone in an RCT of 200 participants.[254] No difference was noted between silver hydrofiber and polyurethane foam, oxygen-enriched olive-oil based dressings, and standard therapy in post-operative wound size and pain score at 4 weeks.[255] Low negative pressure wound therapy reduced pain at post-operative day 7 but did not change physical functioning or healing time as compared to conventional foam dressing in an RCT of 12 patients treated with CO2 laser, and no complications were noted in 8 patients with the use of negative-pressure wound therapy over a synthetic electrospun fiber matrix after radical excision.[256, 257] Further research is needed to determine outcome measures and best practices in usual and post-operative wound care for HS.

Supportive Management

Routine Pain Assessment. We recommend clinicians to routinely ask patients with HS about pain as a good practice. Pain is common and often severe and debilitating in patients with HS, with 61% reporting moderate to severe pain.[258] HS-related pain affects physical, mental, and social well-being, yet stigma may limit patient disclosure.[259-263] Routine pain assessment helps clinicians identify unmet needs and guide targeted intervention. Validated tools to assess pain severity include the Numeric Rating Scale, Visual Analog Scale, and Wong-Baker FACES Pain Rating Scale;[264] pain severity and impact may be simultaneously evaluated using the Brief Pain Inventory.[265] The presence and impact of chronic pain may be assessed using the Graded Chronic Pain Scale Revised (GCPS-r).[266] Validated measures to assess pain character include painDETECT for neuropathic pain, Central Sensitization Inventory, and the McGill Pain Questionnaire.[267-273] Regardless of the instrument, clinicians should directly discuss pain with patients to address this often overlooked but burdensome symptom.

Supportive Pain Management. We conditionally recommend supportive pain management in combination with disease-directed therapy for HS based on very low certainty evidence (Supplemental Tables 97-98). HS therapies may reduce pain but rarely achieve adequate pain relief.[262] Undertreated pain may result in preventable patient suffering, emergency department visits, unsafe self-care practices, and disengagement from treatment.[259, 274-280] Analgesic selection for HS pain should consider pain chronicity, character (nociceptive, neuropathic, nociplastic), and severity.[262, 281, 282] Acute pain may be managed with warm or cool compresses, topical lidocaine, acetaminophen, non-corticosteroidal anti-inflammatory drugs, intralesional triamcinolone acetonide, incision and drainage, short-term systemic corticosteroids, and opioids only if refractory to other therapies.[262, 281] If opioids are necessary to treat acute pain, clinicians should maximize non-opioid options, discuss realistic benefits and known

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risks of opioids, and prescribe immediate-release formulations at the lowest effective dose for as needed use and for limited duration.[283] Chronic pain may be managed with serotonin norepinephrine reuptake inhibitors, tricyclic antidepressants, gabapentin, pregabalin, psychotherapy, and wound care optimization.[262] For refractory pain, a multidisciplinary approach involving dermatology, primary care, pain medicine, psychiatry, psychology, palliative care, and wound care should be considered.[282, 284, 285]

Tobacco Cessation. We conditionally recommend tobacco cessation to improve response to disease-directed therapy for patients with HS who use tobacco based on very low certainty evidence (Supplemental Table 99). Fourteen cohort studies and case series and one survey of 140 patients were identified.[286-300] While associations with HS severity were inconsistent, tobacco use was associated with poorer responses to systemic antibiotics and secukinumab,[286, 294, 298] and lower rates of HS remission.[292] Clinicians should follow United States Preventative Services Task Force guidance to screen all adults for tobacco use, advise cessation, and offer behavioral and pharmacologic interventions for nonpregnant adults who use tobacco.[301] HS improvement after tobacco cessation was reported in 17% of 140 surveyed patients.[297] No AEs were noted from tobacco cessation pharmacotherapy.[296]

Weight reduction. There is insufficient evidence on weight reduction for HS treatment (Supplemental Tables 100-102). Weight management is important for cardiometabolic risk reduction in patients with HS; its direct impact on HS outcomes was examined in 10 cohort studies and case series in 495 patients.[297, 302-309] , Bariatric surgery was associated with lower self-reported HS severity and mean DLQI score than nutritional care in a cohort of 19 patients,[305] and with fewer HS-affected body sites in a registry study of 45 patients.[310] In a cohort study, 27 (60%) of 45 HS patients receiving semaglutide achieved HiSCR-50 at 12 months.[306] Seven non-randomized studies were identified on the use of glucagon-like peptide-1 (GLP-1) receptor agonist and GLP-1 and glucose-dependent insulinotropic polypeptide (GIP) receptor agonists in patients with HS and obesity. The workgroup determined that there is insufficient evidence on GLP-1 and GLP-1/GIP receptor agonists for HS treatment in patients with HS.[303, 304, 307-309]

Data were limited by small sample sizes, lack of controls, confounding with other HS therapies, and were prone to substantial risks of bias. RCTs comparing the effects of weight reduction strategies, including the emerging uses of GLP-1 and GLP-1/GIP receptor agonists, on HS outcomes are needed.

Diet. There is insufficient evidence on intermittent fasting,[311] Mediterranean diet,[312-316] yeast exclusion diet,[317-319] and dairy-free diet[297, 320, 321] for HS treatment (Supplemental Tables 103-106). Mean IHS4 score modestly decreased from 11.0 to 10.2 in 55 patients who fasted during the month of Ramadan.[311] Associations between Mediterranean diet adherence and HS severity were inconsistent.[312-316] Self-reported HS improvements and reduced mean pain score were reported with yeast exclusion diet, but low and poorly-reported diet adherence limited study generalizability and real-world feasibility.[317-319] Very low-calorie ketogenic diet was associated with reduced mean Sartorius score and DLQI scores at week 4 in 12 patients.[302] Dairy-free diet was reported to improve HS anecdotally; these data were prone to substantial risks of bias due to small sample sizes, lack of controls, and insufficient consideration of diet adherence.[297, 320, 321] A heart-healthy diet remains important for cardiometabolic risk reduction in patients with HS.

Complementary and Alternative Medicine

Adjunctive Zinc Supplement. We conditionally recommend adjunctive zinc supplementation for HS treatment under clinician guidance based on very low certainty evidence (Supplemental Table 107). Studies on zinc supplement involved patients with mild to moderate HS. Zinc gluconate 90mg daily monotherapy showed partial and complete responses in 64% and 36% at 6 months in a pilot study of 22 patients.[322] Zinc gluconate 90mg daily

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plus topical triclosan 2% BID showed lower median HS severity score, pain VAS, and number of disease flares in a cohort study of 54 patients.[323] Zinc gluconate 90mg plus nicotinamide 30mg daily showed lower mean IHS4 scores, pain VAS, and number of disease flares at 4 months than no treatment in a controlled trial of 92 patients.[324] AEs were reported in 15% of patients with mostly GI symptoms. Zinc supplementation at 90mg daily for HS treatment exceeds the recommended dietary allowance at 11mg daily for men and 8mg/d for women. Clinicians should monitor for drug-drug interaction and zinc toxicity, which may present as GI symptoms, fatigue, copper deficiency, neurological symptoms, anemia, neutropenia, impaired immunity, decreased HDL, or pancreatic disease. Clinicians prescribing zinc at therapeutic doses should consider co-supplement with copper or monitor for copper deficiency.

Vitamin D Repletion. We conditionally recommend vitamin D repletion for patients with HS and vitamin D insufficiency or deficiency under clinician guidance based on very low certainty evidence (Supplemental Table 108). Sartorius score reduction at 6 months was shown in 75% of 36 patients receiving oral Vitamin D repletion (25,000-50,000 IU monthly).[325] In a pilot study of oral vitamin D repletion in 14 patients, mean nodule count decreased by 51% at 6 months compared with baseline; no AEs were reported.[326] Clinicians should monitor serum 25-OH Vitamin D to guide dosing and duration.

There is insufficient evidence to make a recommendation about myo-inositol, liposomal magnesium and folic acid supplementation[327] and staphage lysate[328] for HS treatment (Supplemental Tables 109-110).

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Cost

We recognize that costs for some therapies may be prohibitive without adequate insurance coverage. Clinicians should be aware of cost differences among treatments, including lower-cost options within the recommended treatment landscape. Shared decision-making regarding treatment selection, initiation, and adherence should explicitly address affordability, insurance coverage, and out-of-pocket costs.

Notably, effective treatments may reduce long-term economic burdens for payers and the healthcare system and direct costs of HS therapies should be weighed against indirect costs of uncontrolled disease, including wound care, lost productivity, and disability assistance.[329-331] While payer and healthcare system tools to manage healthcare utilization and drug expenditures, including step therapy and prior authorization, are effective at reducing short-term therapeutic costs, they are also associated with treatment delays, reduced adherence, and worse clinical outcomes that can drive higher long-term costs.[10, 332] These effects compound existing barriers to HS care, including diagnostic delay averaging 7 to 10 years and limited access to specialty dermatology.[333]

Research Gaps

Substantial evidence gaps remain in HS management, with ongoing needs for high-quality RCT and head-to-head comparative effectiveness studies across therapeutic classes and for commonly used off-label therapeutics, including effects on healthcare utilization. Treatments with insufficient available evidence to make a recommendation regarding HS management are listed in Table V. RCT designs should account for high placebo response from the waxing and waning nature of HS. Ensuring HS trials enroll participants reflective of the broader HS population across race, ethnicity, sex, gender, age, and comorbidity burden, is essential for generalizability of study outcomes.[334, 335] Sex-stratified analyses and evaluation of sex-specific therapeutic strategies, including hormonal influences, are needed given well-recognized differences in disease risks, anatomical distribution, and pathogenic mechanisms.[2, 336, 337] Studies are needed to guide HS management in special populations, including children and adolescents, individuals who are pregnant or breastfeeding, and individuals with chronic diseases.[338]

Although consensus efforts have suggested standardized HS definitions, terminology, lesion nomenclature, disease categorization, and outcome frameworks, these standards are inconsistently applied in clinical research, limiting interpretability and comparability across studies. Use of validated objective and patient-reported outcome measures remains essential, including development of tools sensitive to mild disease, where evidence is sparse and no FDA-approved therapies currently exist, and tools that adequately capture tunnel burden. Evidence to guide pain management and wound care practices in HS, both in routine care and the postoperative setting, also remains limited.

High-quality evidence is lacking to inform the optimal timing and sequencing of interventions, including integration of medical, procedural, surgical, and wound care approaches, as well as combination and multimodal strategies. Innovation in surgical and procedural techniques remains an important area for development. Comparative effectiveness studies of surgical approaches, including local and regional excision, are particularly needed as the current evidence base is limited by heterogeneous case series, variable definitions of excision extent, and few direct comparisons across procedure types. Long-term data are limited on durability of response, drug survival, dose optimization, treatment duration, switching strategies, and safety in chronic disease management. Improved longitudinal data on HS clinical course, prognostic and predictive biomarkers, genetic contributors, and the impact of structured nonpharmacologic and lifestyle interventions are needed to support individualized, precision-based care. Prospective data are also lacking in management of burdensome HS symptoms, particularly pain management.

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Conclusions

We present 37 evidence-based recommendations. We recommend adalimumab, bimekizumab, infliximab, secukinumab for moderate to severe HS, and recommend routine pain assessment as a good practice. We conditionally recommend topical clindamycin, resorcinol, and ruxolitinib; doxycycline, tetracycline, clindamycin and rifampin, and ertapenem; spironolactone; short-term systemic corticosteroids; upadacitinib; specific procedural interventions; tobacco cessation; supportive pain management; zinc supplementation and vitamin D repletion for HS. We recommend against radiation therapy in pediatric and adolescent patients with HS, and conditionally recommend against the use of acitretin, isotretinoin, avacopan, methotrexate, azathioprine, etanercept, guselkumab, risankizumab, and vilobelimab for HS treatment.

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Workgroup Members' Disclosures

The information below represents the authors' disclosed relationship with industry during guideline development. Authors (listed alphabetically) with relevant conflicts with respect to this guideline are noted with an asterisk*.

Participation in one or more of the listed activities below constitutes a relevant conflict:

service as a member of a speaker bureau, consultant, advisory board, for pharmaceutical companies on hidradenitis suppurativa (HS) or HS drugs in development or FDA-approved.

sponsored research funding or investigator-initiated studies with partial/full funding from pharmaceutical companies on HS or HS drugs in development or FDA-approved

If a potential conflict was noted, the workgroup member recused themselves from the discussion and drafting of recommendations pertinent to the topic area of interest. Complete group consensus was obtained for draft recommendations. Areas where complete consensus was not achieved are shown transparently in the guideline.

Craig Burkhart, Lindsy Frazer-Green, and Melissa Shive have no relationships to disclose. Amit Garg*, MD, serves as an advisory board member for Abbvie, Boehringer Ingelheim, Bristol-Myers Squibb, Incyte Corporation, Janssen Pharmaceuticals, Inc., Pfizer Inc., Union Therapeutics, and Viela Biosciences receiving honoraria and/or fees; as a consultant for Insmed, Novartis, and UCB receiving honoraria and/or fees; as an investigator for Pfizer Inc. receiving grants/research funding; as a data safety monitoring board member for Sanofi receiving fees. Steven Daveluy*, MD, serves as a speaker for Abbvie, Novartis, and UCB receiving honoraria; as an investigator for Pfizer Inc., UCB, and Regeneron receiving grants/research funding; as a consultant for UCB receiving fees. Ginette Okoye*, MD, serves on the board of directors for Dermatology Foundation and Hidradenitis Suppurativa Foundation without compensation; as an advisory board member for AbbVie, Incyte Corporation, Novartis, Pfizer Inc., Sanofi Genzyme, UCB, and Vasoline Healing Project receiving honoraria; as a consultant for Janssen Pharmaceuticals, Inc, L'Oreal, Mercado Innovations, Sandoz, a Novartis company, and Unilever receiving honoraria and/or stock options; as an investigator for Janssen Pharmaceuticals, Inc. and Pfizer Inc. receiving residency/fellowship program funding. Amy McMichael, MD, serves on the board of directors for North American Hair Research Society without compensation; as an advisory board member for Arcutis Biotherapeutics, Bristol-Myers Squibb, Sanofi/Regeneron, L'Oreal USA Inc., and NAAF receiving honoraria or no compensation; as a consultant for Aclaris Therapeutics Inc., Allergan, Inc., Canfield Scientific, Inc., CeraVe/Valeante, Eli Lilly and Company, Galderma Laboratories, L.P., Incyte Corporation, Janssen Pharmaceuticals, Inc., Johnson & Johnson Consumer Products Company, Pfizer Inc., Procter & Gamble Company, Revian LTD., Sun Pharmaceutical Industries Ltd., and UCB receiving honoraria and/or other financial benefit; as an investigator for Aclaris Therapeutics Inc., Allergan, Inc., Cassiopea S.p.A., Concert Pharmaceuticals, Incyte Corporation, and Procter & Gamble Company receiving grants/research funding and/or other financial benefit; as an independent contractor for Elsevier Inc. receiving royalties or other compensation for Intellectual Property Rights; as a speaker for LearnHealth/LearnSkin and UpToDate, Inc. receiving honoraria; as an author for JAMA and Informa without compensation. Haley Naik*, MD, serves as an advisory board member for Boehringer Ingelheim receiving honoraria; as a consultant for 23andMe, AbbVie, Aristea Therapeutics, Inc., Dava Oncology, Johnson and Johnson, Medscape, Nimbus Therapeutics, Novartis, Sonoma Biotherapeutics, and UCB receiving honoraria, fees, and/or grant/research funding; as a stockholder for Radera Biotherapeutics, Inc. and Radera, Inc receiving stock options. Lauren Orenstein*, MD, serves as an advisory board member for Novartis and UCB Pharma receiving fees; as an investigator for Novartis and Pfizer Inc. receiving grants/research funding; as a stockholder for Phrase Health receiving stock. Christopher Sayed*, MD, serves as an advisory board member for Abbvie and UCB receiving honoraria and/or fees; as a consultant for Alumis, AstraZeneca, Incyte, InflaRx, Novartis, Sanofi,

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and UCB receiving fees and/or grants/research funding; as an investigator for Abbvie, ChemoCentryx, InflaRx, Incyte Corporation, and Novartis receiving grants/research funding and/or fees; as a speaker for Abbvie and AtraZeneca (Anticipated) receiving honoraria and/or fees; as a stockholder for Eli Lilly. Peggy Wu, MD, MPH, is an author for UpToDate, Inc receiving honoraria; as an independent contractor for American Academy of Dermatology receiving fees. Howa Yeung, MD, MSc, serves as an independent contractor for American Academy of Dermatology and JAMA receiving fees; as an investigator for American Acne & Rosacea Society, Department of Veteran Affairs, Dermatology Foundation, Eli Lilly and Company, National Eczema Association, National Institutes of Health, and Priovant Therapeutics receiving grants/research funding, and serves as an advisory board member for Pfizer Inc, Sanofi Genzyme, and L'Oreal receiving honoraria.

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Table I. Clinical Questions and Scope. HS: Hidradenitis suppurativa; RCT: randomized controlled trial; US: United States

1. WHAT ARE THE EFFICACY AND SAFETY OF TOPICAL AGENTS FOR THE TREATMENT OF HS?	1. WHAT ARE THE EFFICACY AND SAFETY OF TOPICAL AGENTS FOR THE TREATMENT OF HS?	1. WHAT ARE THE EFFICACY AND SAFETY OF TOPICAL AGENTS FOR THE TREATMENT OF HS?	1. WHAT ARE THE EFFICACY AND SAFETY OF TOPICAL AGENTS FOR THE TREATMENT OF HS?
2. What are the efficacy and safety of systemic non-biologic and non-small molecular inhibitor treatments for HS?			
3. What are the efficacy and safety of biologics and small molecular inhibitors for the treatment of HS?			
4. What are the efficacy and safety of non-surgical or surgical procedural interventions for the treatment of HS?			
5. What are the efficacy and safety of pain management interventions in HS?			
6. What are the efficacy and safety of wound care interventions in HS?			
7. What are the efficacy and safety of dietary interventions for the management of HS?			
8. What are the efficacy and safety of weight reduction interventions for the management of HS?			
9. What are the efficacy and safety of tobacco cessation interventions for the management of HS?			
10. What are the efficacy and safety of complementary and alternative medicine intervention for the management of HS?			
Outcomes of Interest[#]			
Efficacy Outcomes	Efficacy Outcomes	Change in clinical severity	Change in clinical severity
Efficacy Outcomes	Efficacy Outcomes	Disease progression, regression, or remission	Disease progression, regression, or remission
Efficacy Outcomes	Efficacy Outcomes	Cosmetic outcome	Cosmetic outcome
Safety Outcomes	Safety Outcomes	Serious adverse events	Serious adverse events
Safety Outcomes	Safety Outcomes	Withdrawal due to adverse events	Withdrawal due to adverse events
Safety Outcomes	Safety Outcomes	Other intervention/procedure-specific adverse events or complications of interest	Other intervention/procedure-specific adverse events or complications of interest
Patient-Reported Outcomes	Patient-Reported Outcomes	Change in patient-reported signs/symptoms (pain, itch, drainage, odor, fatigue, etc.)	Change in patient-reported signs/symptoms (pain, itch, drainage, odor, fatigue, etc.)
Patient-Reported Outcomes	Patient-Reported Outcomes	Change in quality of life	Change in quality of life
Patient-Reported Outcomes	Patient-Reported Outcomes	Patient global assessment of disease	Patient global assessment of disease
Patient-Reported Outcomes	Patient-Reported Outcomes	Change in psychological distress/functioning	Change in psychological distress/functioning
Patient-Reported Outcomes	Patient-Reported Outcomes	Change in physical functioning	Change in physical functioning
Scope			
Characteristic	Inclusion Criteria	Inclusion Criteria	Exclusion Criteria

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TABLE I. CLINICAL QUESTIONS AND SCOPE. HS: HIDRADENITIS SUPPURATIVA; RCT: RANDOMIZED CONTROLLED TRIAL; US: UNITED STATES

1. WHAT ARE THE EFFICACY AND SAFETY OF TOPICAL AGENTS FOR THE TREATMENT OF HS?	1. WHAT ARE THE EFFICACY AND SAFETY OF TOPICAL AGENTS FOR THE TREATMENT OF HS?	1. WHAT ARE THE EFFICACY AND SAFETY OF TOPICAL AGENTS FOR THE TREATMENT OF HS?	1. WHAT ARE THE EFFICACY AND SAFETY OF TOPICAL AGENTS FOR THE TREATMENT OF HS?
Population	Adults, adolescents, and preadolescents (≥ 9 years) with a clinical diagnosis of hidradenitis suppurativa	Adults, adolescents, and preadolescents (≥ 9 years) with a clinical diagnosis of hidradenitis suppurativa	Differential diagnoses outside of this guideline's scope: abscess, acne vulgaris, acne conglobata, cellulitis, folliculitis, furunculosis, infectious abscesses, granuloma inguinale, pilonidal cysts, lymphogranuloma venereum, cutaneous tuberculosis, cutaneous Crohn's disease; Children younger than 9 years old
Intervention	Medical interventions available and approved for use (for any indication) in the US / Dietary, weight reduction, and alternative medicine interventions accessible in the US	Medical interventions available and approved for use (for any indication) in the US / Dietary, weight reduction, and alternative medicine interventions accessible in the US	Treatments not available or approved for use (for any indication) in the US
Study Design^	Published RCTs in which study participants are investigated (inter-individual, parallel-arm trials) / Non-randomized studies of interventions	Published RCTs in which study participants are investigated (inter-individual, parallel-arm trials) / Non-randomized studies of interventions	Unpublished research, narrative reviews, studies with a sample <5

Prioritized outcomes varied by research question. See supplemental appendix 1 for detailed outcome description.

^See supplemental Appendix 1 for a complete description of study design inclusion and exclusion criteria

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Table II. Strength of Recommendation and Certainty of Evidence

STRENGTH OF RECOMMENDATION	WORDING	IMPLICATION[339-341]
Strong recommendation for the use of an intervention / Strong recommendation against the use of an intervention / Good Practice Statement	"We recommend…" / "We recommend against…" / "We recommend…"	Benefits clearly outweigh risks and burdens; recommendation applies to most patients in most circumstances. / Risk and burden clearly outweigh benefits; the recommendation applies to most patients in most circumstances. / Guidance was viewed by the Work Group as imperative to clinical practice and developed when the supporting evidence was considerable but indirect, and the certainty surrounding an intervention's impact was high with the benefits clearly outweighing the harms (or vice versa). Good Practice Statements are strong recommendations as the certainty surrounding the impact of the recommended intervention is high. Implementation of these strong recommendations is considered to clearly result in beneficial outcomes.[341]
Conditional recommendation for the use of an intervention	"We conditionally recommend…"	Benefits are closely balanced with risks and burdens; recommendation applies to most patients, but the most appropriate action may differ depending on the patient or other stakeholder values.
Conditional recommendation against the use of an intervention	"We conditionally recommend against…"	Risks and burden closely balanced with benefits; recommendation applies to most patients, but the most appropriate action may differ depending on the patient or other stakeholder values
Certainty of Evidence	Wording	Implication[339, 340]
High	"high certainty evidence"	Very confident that the true effect lies close to that of the estimate of the effect.
Moderate	"moderate certainty evidence"	Moderately confident in the effect estimate; the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.
Low	"low certainty evidence"	Confidence in the effect estimate is limited; the true effect may be substantially different from the estimate of the effect
Very Low	"very low certainty evidence"	The estimate of effect is very uncertain; the true effect may be substantially different from the estimate of effect

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Table III. Recommendations for the management of hidradenitis suppurativa.

RECOMMENDATION	STRENGTH	CERTAINTY OF EVIDENCE	EVIDENCE
Topical therapies			
For patients with HS, we conditionally recommend topical clindamycin.	Conditional	Low	14-18
For patients with HS, we conditionally recommend topical resorcinol.	Conditional	Low	15, 19-23
For patients with HS, we conditionally recommend topical ruxolitinib.	Conditional	Low	24-26
Systemic antibiotics			
For patients with HS, we conditionally recommend doxycycline.	Conditional	Very Low	27, 28
For patients with HS, we conditionally recommend tetracycline.	Conditional	Very Low	16, 29, 342
For patients with HS, we conditionally recommend clindamycin in combination with rifampin.	Conditional	Very Low	30-38
For patients with moderate to severe HS, we conditionally recommend ertapenem.	Conditional	Very Low	40-43
Hormone therapy			
For patients with HS, we conditionally recommend spironolactone.	Conditional	Very Low	54-58
Oral retinoids			
For patients with HS, we conditionally recommend against acitretin.	Conditional	Very Low	63-67
For patients with HS, we conditionally recommend against isotretinoin.	Conditional	Very Low	68
Biologics			
For patients with moderate to severe HS, we recommend adalimumab.	Strong	Moderate	69-75
For patients with moderate to severe HS receiving adalimumab and undergoing surgery, we conditionally recommend continuing adalimumab.	Conditional	Low	78
For patients with moderate to severe HS, we recommend bimekizumab.	Strong	Moderate	70, 79
For patients with moderate to severe HS, we recommend infliximab.	Strong	Low	80-89
For patients with moderate to severe HS, we recommend secukinumab.	Strong	Moderate	90
For patients with HS, we conditionally recommend against etanercept.	Conditional	Very Low	92-96
For patients with HS, we conditionally recommend against guselkumab.	Conditional	Low	97
For patients with HS, we conditionally recommend against risankizumab.	Conditional	Low	98

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RECOMMENDATION	STRENGTH	CERTAINTY OF EVIDENCE	EVIDENCE
For patients with HS, we conditionally recommend against vilobelimab.	Conditional	Low	100
Systemic therapies (DMARD, small molecule inhibitors, systemic corticosteroids)			
For patients with moderate to severe HS, we conditionally recommend upadacitinib.	Conditional	Low	115
For patients with moderate to severe HS, we conditionally recommend short-term systemic corticosteroids.	Conditional	Very Low	116-118
For patients with HS, we conditionally recommend against methotrexate as active therapy. / Remark: Methotrexate may be used to prevent or manage anti-drug antibodies in patients receiving TNF inhibitors.	Conditional	Very Low	119
For patients with HS, we conditionally recommend against azathioprine as active therapy. / Remark: Azathioprine may be used to prevent or manage anti-drug antibodies in patients receiving TNF inhibitors.	Conditional	Very Low	122, 123
For patients with HS, we conditionally recommend against avacopan.	Conditional	Low	126
Procedural Interventions			
For patients with HS, we conditionally recommend deroofing to treat recurrent or persistently symptomatic lesions.	Conditional	Very Low	136-144
For patients with HS, we conditionally recommend incision & drainage to treat acutely painful abscesses.	Conditional	Very Low	143, 145, 146
For patients with HS with persistent or recurrent symptomatic lesions, we conditionally recommend lesional or regional excision.	Conditional	Very Low	142, 148-205, 207-210
For patients with HS, we conditionally recommend laser hair removal.	Conditional	Very Low	211-215
For patients with HS, we conditionally recommend botulinum toxin.	Conditional	Very Low	216, 217
For patients with HS, we conditionally recommend intralesional triamcinolone acetonide to treat acutely painful lesions.	Conditional	Very Low	218-227
For patients with HS on systemic antibiotic therapy, we conditionally recommend adjunctive hyperbaric oxygen therapy.	Conditional	Very Low	228
For pediatric and adolescent patients with HS, we recommend against radiotherapy for the management of HS.	Good Practice Statement	Good Practice Statement	Good Practice Statement
Supportive Management			
Clinicians should routinely ask patients with HS about pain as part of clinical assessment.	Good Practice Statement	Good Practice Statement	Good Practice Statement
For patients with HS, we conditionally recommend supportive pain management in combination with disease-directed therapy. / Remark: Clinicians may consider HS pain chronicity, character, and severity when selecting analgesics for pain.	Conditional	Very Low	262, 283
For patients with HS, we conditionally recommend tobacco cessation to improve response to disease-directed therapies.	Conditional	Very Low	286-300
Complementary and Alternative Medicine			
For patients with HS, we conditionally recommend adjunctive oral zinc supplement under clinician guidance.	Conditional	Very Low	322-324

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TABLE III. RECOMMENDATIONS FOR THE MANAGEMENT OF HIDRADENITIS SUPPURATIVA.

RECOMMENDATION	STRENGTH	CERTAINTY OF EVIDENCE	EVIDENCE
For patients with HS and vitamin D deficiency or insufficiency, we conditionally recommend vitamin D repletion under clinician guidance.	Conditional	Very Low	325, 326

DMARD, disease-modifying anti-rheumatic drugs; HS, hidradenitis suppurativa; TNF, tumor necrosis factor

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Table IV. Medication Dosing and Monitoring for Hidradenitis Suppurativa

MEDICATION / (CLASS)	RECOMMENDATION	DOSE	MONITORING*	BOXED WARNING ON FDA LABEL	SELECT COMMON OR LIFE-THREATENING ADVERSE EFFECTS
Topical Therapies					
Clindamycin 1% / (Topical antibiotic)	Conditional	1% lotion, gel, or solution BID to affected skin	No routine monitoring recommended per FDA label	None	• Skin burning, itching, dryness, erythema, peeling / • C. difficile colitis (rare; systemic absorption)
Resorcinol 10–15% / (Topical keratolytic)	Conditional	OTC; requires compounding; 10–15% cream once daily to BID to affected skin	No routine monitoring recommended	None	• Skin desquamation, discoloration, irritation
Ruxolitinib 1.5% cream / (Topical JAK1/JAK2 inhibitor)	Conditional	1.5% cream BID to affected skin / Do not exceed 60 g/ week or 100 g/2 weeks	No routine laboratory monitoring required per FDA label for topical use / CBC monitoring as clinically indicated (per FDA label) / Periodic skin examinations for NMSC during and after treatment (per FDA label)	Class Boxed Warning for JAK inhibitors: / • Serious infections (including TB, bacterial, invasive fungal, viral, opportunistic) / • All-cause mortality (including sudden cardiovascular death) / • Malignancy (lymphoma, NMSC, other cancers) / • Major adverse cardiovascular events (MACE) / • Thrombosis / Note: Boxed warning is carried on topical label as a class warning; systemic exposure from topical use is low	• URI, nasopharyngitis / • Application site reactions / • Acne, folliculitis / • Fever / • Cytopenias (thrombocytopenia, anemia, neutropenia — monitor CBC as clinically indicated)
Systemic Antibiotics					
Doxycycline 100 mg / (Tetracycline antibiotic)	Conditional	100 mg PO BID for 12 weeks	No routine monitoring recommended per FDA label	None	• GI symptoms (nausea, vomiting, diarrhea) / • Photosensitivity / • Transaminitis (rare)
Tetracycline 500 mg / (Tetracycline antibiotic)	Conditional	500 mg PO BID for 12 weeks	No routine monitoring recommended per FDA label	None	• GI symptoms (nausea, vomiting) / • Skin irritation / • Photosensitivity
Clindamycin 300 mg + Rifampin 300 mg / (Combination systemic antibiotics)	Conditional	Both 300 mg PO BID for 12 weeks	No routine laboratory monitoring recommended per FDA label for typical 12-week course / Note: Rifampin is a potent CYP3A4 inducer — review all concomitant medications for drug interactions prior to initiation	None	• GI symptoms (nausea, vomiting, diarrhea) / • C. difficile colitis / • Hepatotoxicity (rifampin; monitor LFTs if clinically indicated) / • Orange discoloration of body fluids (rifampin) / • Significant drug interactions via CYP450 induction (rifampin)

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MEDICATION / (CLASS)	RECOMMENDATION	DOSE	MONITORING*	BOXED WARNING ON FDA LABEL	SELECT COMMON OR LIFE-THREATENING ADVERSE EFFECTS
Ertapenem 1 g IV / (Carbapenem antibiotic)	Conditional	1 g IV daily for 6 or more weeks via PICC	Baseline: / • Renal function (creatinine, BUN, eGFR) / • CBC / • LFTs / On treatment: / • Monitor renal function periodically; dose adjustment required if CrCl ≤30 mL/min (per FDA label) / • PICC line site monitoring for infection, thrombosis, and local reactions	None	• PICC line infection, thrombosis, and adhesive dermatitis / • Vaginal candidiasis / • Transaminitis / • Infusion reactions / • C. difficile colitis
Hormonal Therapy					
Spironolactone 50–200 mg / (Anti-androgen)	Conditional	50–200 mg PO daily	Baseline: / • Serum potassium and creatinine / • eGFR (renally impaired patients or those on concomitant ACE inhibitor/ARB) / On treatment: / • Potassium monitoring is not needed in healthy patients / • Serum potassium within 1 week of initiation or dose change, then periodically thereafter for renally impaired patients or those on ACE inhibitor/ARB	TUMORIGENICITY: / Spironolactone was tumorigenic in chronic toxicity studies in rats. Unnecessary use should be avoided (per FDA label)	• Irregular menses / • GI symptoms / • Breast tenderness / • Changes in urination / • Gynecomastia / • Hyperkalemia / • Teratogenicity (avoid in pregnancy)
Monoclonal Antibodies (Biologics)					
Adalimumab / (TNF inhibitor)	Strong	Adults/adolescents ≥12 years, ≥60 kg: / Loading: 160 mg SC day 1 (or 80 mg on days 1 and 2), then 80 mg SC on day 15 / Maintenance: 40 mg SC weekly OR 80 mg SC Q2W from day 29 onward / Adolescents ≥12 yrs, 30–<60 kg: / 80 mg SC day 1, then 40 mg Q2W from day 8 onward	Baseline: / • TB screening: TST or IGRA / • Hepatitis B: HBsAg, HbsAb, HbcAb / • Hepatitis C antibody / • HIV screen / • CBC / • Hepatic profile (LFTs) / On treatment: / • Annual TB screening (TST or IGRA) / • Monitor for signs/symptoms of active TB and serious infections throughout therapy / • Monitor HBV carriers for reactivation during and for several months after discontinuation	SERIOUS INFECTIONS: / Fatal/serious infections including TB (reactivation and new infection), bacterial sepsis, invasive fungal (histoplasmosis), and opportunistic infections. Discontinue if serious infection develops. / MALIGNANCY: / Lymphoma and other malignancies, some fatal. Hepatosplenic T-cell lymphoma reported in adolescent/young adult patients with IBD treated with TNF blockers + immunosuppressants	• Serious infections / • Malignancy / • Injection site reactions / • Hypersensitivity/ anaphylaxis / • Lupus-like syndrome / • Worsening heart failure
Bimekizumab / (IL-17A/F inhibitor)	Strong	Loading: 320 mg SC Q2W from weeks 0 to 16 / Maintenance: 320 mg SC Q4W thereafter	Baseline: / • TB screening: TST or IGRA / • LFTs (AST, ALT, alkaline phosphatase, bilirubin; per FDA label) / On treatment: / • Periodic LFTs during treatment (transaminase elevations observed in clinical trials; per FDA label)	None	• URI, oral candidiasis (common) / • Headache / • Eczema / • Tinea infection / • Serious infections / • Suicidal ideation and behavior (monitor; observed in clinical trials) / • IBD (new onset or exacerbation) / • Transaminitis

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MEDICATION / (CLASS)	RECOMMENDATION	DOSE	MONITORING*	BOXED WARNING ON FDA LABEL	SELECT COMMON OR LIFE-THREATENING ADVERSE EFFECTS
Infliximab / (TNF inhibitor)	Strong	Loading: 5–10 mg/kg IV at weeks 0, 2, and 6 / Maintenance: every 4–8 weeks thereafter	Baseline: / • TB screening: TST or IGRA / • Hepatitis B: HbsAg, HbsAb, HbcAb / • Hepatitis C antibody / • HIV screen / • CBC / • Hepatic profile (LFTs) / On treatment: / • Annual TB screening (TST or IGRA) / • Monitor for active TB and serious infections throughout therapy / • Monitor HBV carriers for reactivation during therapy and for several months after discontinuation / • Evaluate for hepatic injury; discontinue if jaundice or LFTs ≥5× ULN (per FDA label)	SERIOUS INFECTIONS: / Fatal/serious infections including TB (reactivation and new), bacterial sepsis, invasive fungal (histoplasmosis), and opportunistic infections. Discontinue if serious infection develops. / MALIGNANCY: / Lymphoma and other malignancies, some fatal. Hepatosplenic T-cell lymphoma reported in pediatric/young adult patients with IBD treated with TNF blockers + immunosuppressants	• Serious infections / • Malignancy / • Infusion reactions (acute and delayed) / • Hepatotoxicity / • Lupus-like syndrome / • Worsening heart failure
Secukinumab / (IL-17A inhibitor)	Strong	Adults: / Loading: 300 mg SC weekly at weeks 0, 1, 2, 3, and 4 / Maintenance: 300 mg SC Q4W; may escalate to Q2W for adequate response / Adolescents aged ≥12 years: / 30-<90kg: 150 mg SC weekly at weeks 0, 1, 2, 3, and 4 and Q4W thereafter / ≥90kg: 300 mg SC weekly at weeks 0, 1, 2, 3, and 4 and Q4W thereafter	Baseline: / • TB screening: TST or IGRA with chest radiograph / • CBC / • Hepatic profile (AST, ALT) / On treatment: / • Annual TB screening (TST or IGRA) / • Monitor for signs/symptoms of active TB and serious infections	None	• URI, nasopharyngitis / • Candidiasis (oral, esophageal) / • Headache / • Fungal infections / • Hypersensitivity / • Serious infections / • IBD (new onset or exacerbation) / • Severe eczema (new onset or worsening)
Immunosuppressant / Small Molecule Inhibitor					
Prednisone 40–60 mg / (Systemic corticosteroid)	Conditional	40–60 mg PO daily with taper over 1–2 weeks	• Blood glucose monitoring, especially in patients with diabetes or prediabetes (per FDA label) / • No additional routine laboratory monitoring required per FDA label for short-term taper	None	• Hyperglycemia / new-onset diabetes mellitus / • Hypertension / • Cataracts, glaucoma / • Osteoporosis (long-term use) / • Serious infections / • Adrenal suppression

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MEDICATION / (CLASS)	RECOMMENDATION	DOSE	MONITORING*	BOXED WARNING ON FDA LABEL	SELECT COMMON OR LIFE-THREATENING ADVERSE EFFECTS
Upadacitinib / (JAK1 inhibitor)	Conditional	Adults and adolescents aged 12–64 years: 30 mg PO daily / Adults aged ≥65: 15 mg PO daily	Baseline: / • TB screening: TST or IGRA with chest radiograph / • CBC (do not initiate if ANC <1,000 cells/mm³, ALC <500 cells/mm³, or Hgb <8 g/dL) / • Hepatic profile (AST, ALT) / • Fasting lipid panel / • Viral hepatitis screening (HBV, HCV) / On treatment: / • Fasting lipid panel at 12 weeks after initiation, then per hyperlipidemia guidelines (per FDA label) / • CBC and hepatic function as clinically indicated	SERIOUS INFECTIONS: / Including TB, bacterial sepsis, invasive fungal, and opportunistic infections. Discontinue if serious infection develops. / MORTALITY: / Higher rates of all-cause mortality, including sudden cardiovascular death, observed vs. TNF inhibitors. / MALIGNANCY: / Lymphoma and other malignancies. / MACE: / Including MI and stroke. / THROMBOSIS: / Deep vein thrombosis, pulmonary embolism, and arterial thrombosis	• Headache, dizziness / • Urinary tract infection / • Serious infections / • Malignancy / • MACE, thrombosis / • Higher all-cause mortality vs. TNF inhibitors

Abbreviations: ALC, absolute lymphocyte count; ANC, absolute neutrophil count; BID, twice daily; BUN, blood urea nitrogen; CBC, complete blood count; CrCl, creatinine clearance; eGFR, estimated glomerular filtration rate; Hgb, hemoglobin; HBcAb, hepatitis B core antibody; HBsAb, hepatitis B surface antibody; HBsAg, hepatitis B surface antigen; HBV, hepatitis B virus; HCV, hepatitis C virus; IGRA, interferon gamma release assay; IL, interleukin; IV, intravenous; JAK, Janus kinase; LFTs, liver function tests; MACE, major adverse cardiovascular events; NMSC, non-melanoma skin cancer; OTC, over-the-counter; PICC, peripherally inserted central catheter; PO, by mouth; Q2W, every 2 weeks; Q4W, every 4 weeks; SC, subcutaneous; TB, tuberculosis; TNF, tumor necrosis factor; TST, tuberculin skin test; ULN, upper limit of normal; URI, upper respiratory infection

* Clinicians are directed to refer to the full prescribing information for lab monitoring requirements for each medication

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Table V. Treatments with insufficient evidence to render workgroup recommendations.

Topical therapies

- Chlorhexidine
- Benzoyl peroxide
- Topical antiseptics

Systemic antibiotics

- Amoxicillin-clavulanate
- Clindamycin monotherapy
- Dapsone
- Ofloxacin plus clindamycin
- Metronidazole, rifampin, plus moxifloxacin
- Dalbavacin
- Linezolid

Hormonal therapies

- Combination oral contraceptive pills
- Finasteride

Biologics

- Anakinra
- Ixekizumab
- Spesolimab
- Ustekinumab

Systemic therapies

- Colchicine
- Cyclosporine
- Hydroxychloroquine
- Apremilast
- Brepocitinib
- Roflumilast

Procedural interventions

- Cryotherapy
- Intense pulsed light
- Radiofrequency
- Microwave ablation
- Photodynamic therapy
- Intralesional photodynamic therapy
- Sclerotherapy

Wound care

- Specific wound care regimens
- Weight reduction
- GLP-1 and GLP-1/GIP receptor agonists
- Diet
- Intermittent fasting
- Mediterranean diet
- Yeat exclusion diet
- Diary-free diet

Complementary and Alternative Medicine

- Myo-inositol, liposomal magnesium and folic acid supplement
- Staphage lysate

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