Efficacy and Safety of Treatment Modalities for Hidradenitis Suppurativa: An Umbrella Review and Quality-Weighted Meta-analysis

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Abstract:

Background: Hidradenitis Suppurativa (HS) is a chronic inflammatory skin condition which can have a significant negative impact on patient's quality of life. The evidence base over the last 10 years has expanded significantly, with multiple systematic reviews (SRs) and meta-analyses (MAs) published. Despite this, the overall quality of evidence remains unclear, which is important in developing and updating national guidelines for HS management.

Objective: To perform an umbrella review, systematically synthesising and critically appraising existing SRs/MAs, on the effectiveness of different treatment modalities in HS.

Methods: A search of 4 databases (PubMed, Embase, Web of Science and Cochrane) was conducted for records from inception until 15 May 2025, with any SR/MA on any HS treatment modality eligible. Quality of included studies was assessed using AMSTAR-2 and GRADE tools, and risk of bias assessed with ROBIS. A series of quality-weighted meta-analyses were performed on outcomes including Hidradenitis Clinical Response (HiSCR), post-surgical recurrence and Hurley stage. Due to significant heterogeneity, other patient and clinician reported outcomes were summarised narratively.

Results: 65 SRs met inclusion criteria, summarising 610 distinct primary studies. 81.5% of reviews were of critically-low quality. Biologics presented the most robust evidence base, with moderate-certainty