Key Highlights:

- The authors reviewed literature and gathered knowledge and evidence of visual and indirect clinical indicators of wound biofilm to propose an algorithm designed to facilitate clinical recognition of biofilm.
- In the absence of a point-of-care test for confirmation of wound biofilm, clinicians can utilize the algorithm as a part of routine wound assessments to aid biofilm identification in chronic wounds and hence guide subsequent management practices.
- While additional wound biofilm research and guidance is needed and is being published at a rapid pace, this algorithm can help support the current need to more readily recognize the clinical manifestations of biofilm and decide on an optimal course of care.

Clinical Algorithm for Wound Biofilm Identification:

1. Does the surface substance detach easily and traumatically from the underlying wound bed using physical removal techniques such as swabs, pads or sharp debridement?
   - Yes: probably biofilm with increasing confidence
   - No: probably host devitalised tissue, e.g., slough, fibrin

2. Does the surface substance persist despite use of autolytic or enzymatic debridement?
   - Yes: probably planktonic bacteria
   - No: underlying comorbidity

3. Does the surface substance reform quickly (in 1-2 days) in the absence of frequent intervention (e.g., cleansing, debridement)?
   - Yes: probably planktonic bacteria
   - No: underlying comorbidity

4. Does the wound respond poorly to topical or systemic antibiotics?
   - Yes: probably planktonic bacteria
   - No: underlying comorbidity

5. Does the wound respond poorly or slowly to dressings that contain antiseptic agents (e.g., silver, iodine, PNH®), including products that may control biofilm in vitro (e.g., cledoxomer iodine, nanocrystalline silver or ionic silver-containing carboxymethyl cellulose dressings)?
   - Yes: probably planktonic bacteria
   - No: underlying comorbidity

6. Does the wound respond favourably to multi-modal strategies such as physical debridement, cleansing, and topical antimicrobial agents and dressings?
   - Yes: probably planktonic bacteria
   - No: underlying comorbidity

References: