**Infection-Biofilm evaluation tool**

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Bacteria have been found to form multicellular aggregates which have collectively been termed “biofilms.” It is hypothesized that biofilm formation is a means to protect bacterial cells including protection form the immune response of humans. At times, the biofilms are abundant enough to see, and removed by simple wiping. However, recent evidence has shown that the removal of these visible portions is insufficient, and that biofilms can continue to form even with daily wiping. We invented a new technology to visualize biofilms which are present after clinically wiping or sharp wound debridement. Our method is based on a variation of impression cytology in which a nitrocellulose membrane was used to collect surface biofilm components, which were then differentially stained. In a prospective study, positive staining of biofilms had higher risk of either increase or unchanged wound slough generation, suggesting that the changes in wound slough formation can be predicted clinically using a non-invasive wound blotting method. Furthermore, if we can eliminate the remaining biofilm guided by this technology, the wound area reduction was significantly promoted. Taken together, the novel biofilm detection technology can help clinicians to perform biofilm-based wound therapy in the clinical setting.