Captiswab vs. BD Competitor swab: 16S rDNA extraction efficacy for panel of M40-A2 species

Aim: Verify 16S rDNA extraction efficacy for downstream molecular diagnostic testing.

Methods: Each sample was initially inoculated and left at room temperature for either 48 or 24 hours as outlined in the M40-A2 protocol. Test organisms utilized in this study were those specifically listed in M40-A2 for establishing performance claims and quality control of swab transport systems. These include a representative panel of aerobes, anaerobes and fastidious bacteria. Each sample was then extracted per standardized protocols at CLIA-certified MicroGenDx Laboratories (Lubbock, TX). Samples were mechanically lysed and extracted using the Qiagen TissueLyser. Samples were then stored at -20°C prior to amplification. Samples were then amplified for 16S rDNA using the Veriti 96 Well Thermal Cycler (Applied Biosystems). Next, 1µl of each sample was added to each well of the E-Gel (2% Agarose) (Invitrogen) and ran using the E-Base for a period of six minutes.

Results: Figure 1 shows the comparison of the nine bacterial species tested using Captigen's Captiswab versus a competitor's swab. Terminal lane contains an E-Gel low range quantification DNA ladder for size comparison.