IMPACT OF SWAB MODEL ON XPERT® *vanA*/*vanB* PCR ASSAY PERFORMANCES

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Prevention of dissemination of glycopeptide-resistant enterococci (GRE) is a major task in infection control. The Xpert *vanA/vanB* PCR assay (Cepheid) has excellent performance in screening for rectal carriage of GRE. It requires the use of a double-swab (LQ STUART, Copan) incompatible with our clinical microbiology laboratory work-flow. In our laboratory, we routinely use swabs coupled with a transport medium (Amies Eswab LQ, Copan). Their use in detecting GRE by PCR Xpert *vanA/vanB* has never been evaluated. In this study, we compared how the two types of swabs impacts the performance of the Xpert PCR.

AIM	MATERIAL	METHODS	RESULTS
THRESHOLD OF SENSITIVITY	**Suspensions of contaminated feces** with GRE isolates **10 non-related isolates** *vanA* (n=6) *vanB* (n=3), *vanA* and *vanB* (n=1) **3 inocula** 10^6, 10^4 et 10^2 CFU/mL	100 µL transport medium → **Eswab** (LQ Amies Eswab, Copan) → Buffer S → Xpert *vanA/vanB* PCR assay direct inoculation → **Double swab** (LQ STUART, Copan) → Buffer S → Xpert *vanA/vanB* PCR assay	**Sensitivity threshold : 10^4 CFU/mL** with the two swab models for 9/10 isolates. For one isolate, better sensitivity for double-swab compared to Eswab (10^4 vs 10^6 UFC/mL)
CLINICAL EVALUATION	**Patient feces** known with GRE carriage (n=13)	100 µL transport medium → **Eswab** (LQ Amies Eswab, Copan) → Buffer S → Xpert *vanA/vanB* PCR assay direct inoculation → **Double swab** (LQ STUART, Copan) → Buffer S → Xpert *vanA/vanB* PCR assay	**100% of concordance for the two swab models**

CONCLUSIONS

The results show **marginal difference in the performance of the Xpert *vanA/vanB* assay**. They confirm the possibility to use of the Eswab in routine without major impact on clinical results. This approach is of particular interest as it enables us the concomitant search of GRE and carbapenemase-producing enterobacteria from the same swab.