

TABLE 1

Panel B. The findings of Ryndock et al. (2015):⁸

- Used a carrier testing methodology to study the effectiveness of a commonly used high-level disinfectant: 0.55% ortho-phthalaldehyde (Cidex OPA), an automated device cleared by the FDA for high-level disinfection: Trophon EPR (Nanosonics, Ltd) and 0.87% hypochlorite solution (Pure Bright Germicidal Ultra Bleach; *KIK International*) for the inactivation of HPV, types 16 and 18;
 - Reported that the infectivity of HPV was insignificantly reduced by 0.55% *ortho*-phthalaldehyde when used according to their labeling;
 - Reported that, in comparison, 0.87% hypochlorite solution, which is an EPA-registered intermediate-level disinfectant, was significantly more effective when used according to their labeling, although it did not completely inactivate the HPV; and
 - Reported that the Trophon EPR completely inactivated native, infectious virions of HPV (types 16 and 18^{*}) when used according to its labeling instructions.
- Expresses concerns that some high-level disinfectants for the processing of intracavitary ultrasound probes may be ineffective against HPV and therefore may inadvertently pose an increased risk of a patient's exposure to this virus.
 - Acknowledges direct transmission of HPV via an inadequately reprocessed intracavitary ultrasound probe or flexible endoscope is difficult to prove;
- Recommends that the current criteria and test methods used to define, classify and regulate high-level disinfectants be reviewed and revised.
- Suggests that the selection of a high-level disinfectant requires further consideration and be based, too, on its effectiveness for the inactivation of HPV;
- Recommends use of enhanced risk management policies in the healthcare setting to prevent HPV transmissions via contaminated instrumentation;
- Suggests that the Trophon EPR be considered for the high-level disinfection of reusable semi-critical instruments whenever the risk of HPV contamination and transmission is a concern.

^{*} Whereas when tested at its minimum effective concentration of 31.5% (at 56° C) the Trophon EPR completely inactivated HPV type 16, this device did not completely inactivate HPV type 18, achieving, however, a 5.20 log₁₀ reduction in the infectivity of this latter type of HPV.