

Colli-Pee[®], the urinomics solution

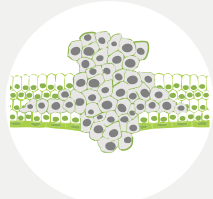
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BARRIERS WITH CURRENT SAMPLING METHODS

ONCOLOGY

- 29.5 million new cases estimated by 2040¹
- 9.6 million deaths worldwide in 2018¹

Obtaining a tissue sample is not always feasible and the process can be invasive, painful, expensive, and difficult to perform.⁴



HPV - CERVICAL CANCER

- Up to 80% sexually active women infected by HPV²
- 4th most common cancer in women¹

Pap smears can be invasive, discomforting, and requires a clinician to perform. Some women also face religious and cultural barriers.⁶



STIs

- 376 million new cases curable STIs / year³
- STI surveillance systems in 70% countries worldwide³

Clinic-based sampling and conventional culture methods for screening can be time intensive, and can be uncomfortable.⁷

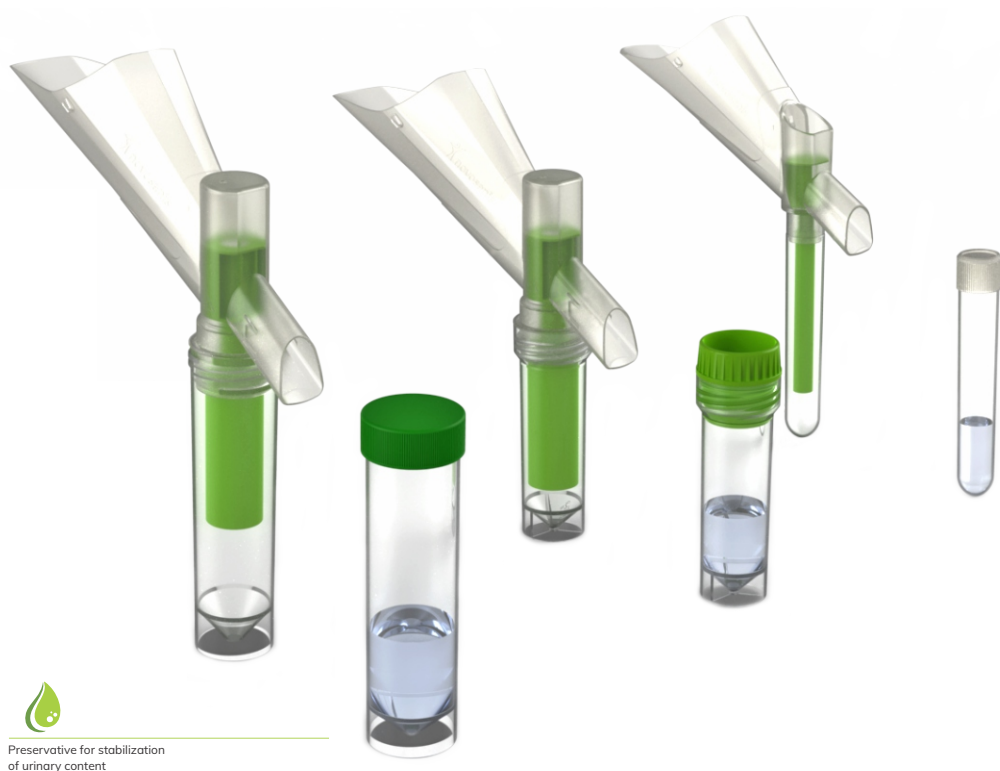


FIRST-VOID URINE: AN EMERGING SAMPLE TYPE

Urine is easily accessible, non-invasive, available in larger quantities and applicable for home collection. Urine can be used to detect sexually transmitted infections (STI) and certain types of cancer. However urine fractions are not the same. First-void urine, generally termed the first 20 to 30 mL of urine flow, contains higher concentrations of STI-related DNA than other fractions^{8,9}. Additionally, first-void urine is important to identify cancer biomarkers for cervical⁸ and prostate cancer¹⁰.

Collecting a first-void urine sample with a standard urine cup can be awkward, messy and inconvenient for the user.

For this reason, Novosanis developed Colli-Pee[®], a patented sampling device allowing volumetric and standardized first-void urine collection. The platform consists of variants capturing different volumes, ranging from 4 to 45 mL**. Collector tubes can be prefilled with a preservative, allowing longer storage and shipment of urine at room temperature.

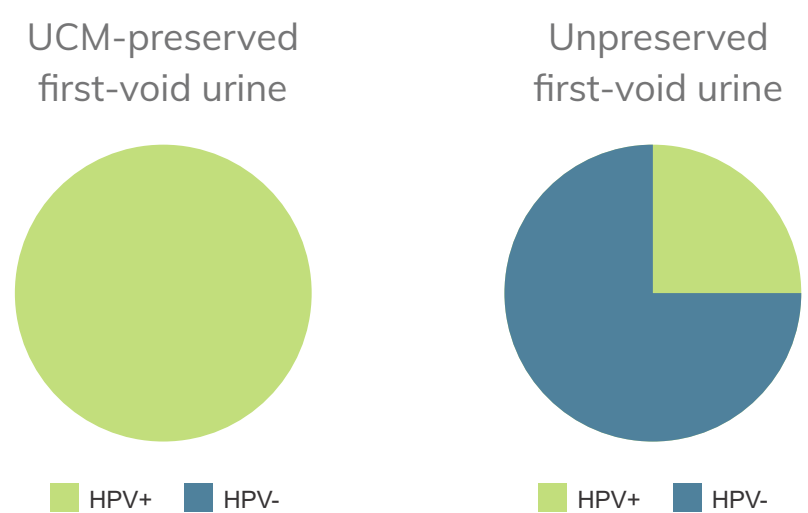


Preservative for stabilization of urinary content

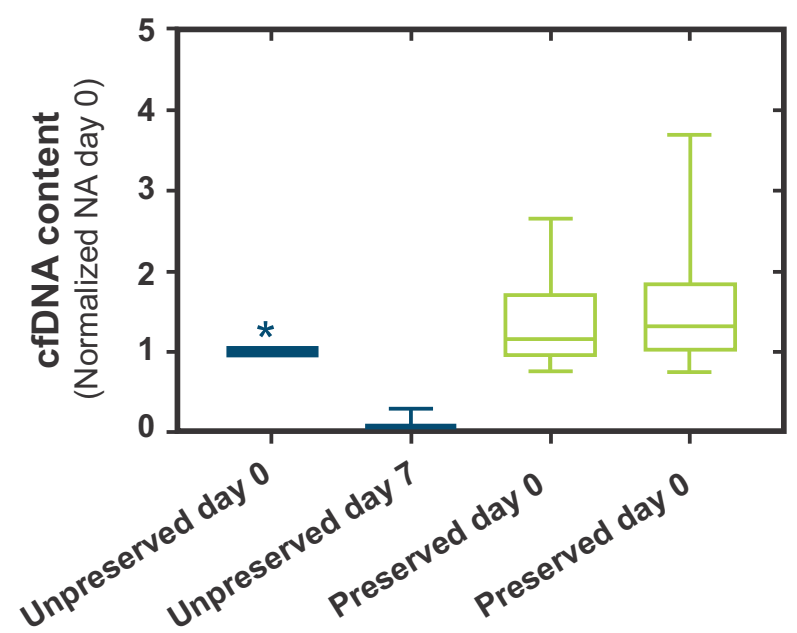
URINE PRESERVATION

To broaden the scope of urine as a sample type and use it for various applications, methods to stabilize urine samples are necessary.

UCM (Urine Conservation Medium) prevents degradation of HPV DNA. After 7 days of storage at room temperature, HPV16 was detected in all samples spiked with 1000 copies/μL of HPV16 plasmids where UCM was added, and only in 25% of the unpreserved samples.

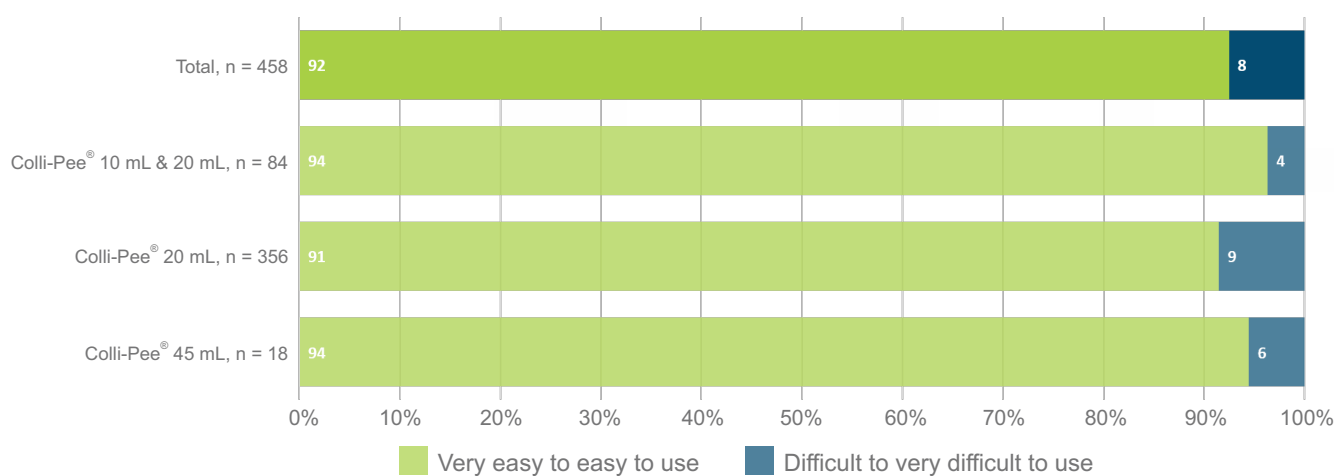


Use of UAS (Urinary Analyte Stabilizer) effectively preserves the quantity of cfDNA as evaluated through β-globin qPCR.



* Normalization control

USABILITY OF COLLI-PEE[®]



Pooled result from 7 individual studies show that 92 % of a total of 458 users rated the variants as very easy to easy to use.

CONCLUSION

Colli-Pee[®] is user-friendly, non-invasive and can be used at home by both men and women. The variants allow the collection of both smaller and larger volumes, offering additional applications in the fields of infectious disease and uro-oncology.

Colli-Pee[®] Small Volumes captures up to 10 mL of urine, allowing a more concentrated urine sample for STI detection, and is compatible with many high-throughput instruments. Colli-Pee[®] Large Volumes captures up to 45 mL of urine, supports multi-omic testing and can resolve issues of low analyte concentration.

References

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** Some registrations are in process