

NOTE: All references must be noted within abstract text as highlighted in the sample below and coincide with the completed references listed at the end of the abstract.

E19 Right Under Our Noses: Understanding Missed Opportunities for Collection of Saliva as Evidence

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Learning Objective: This presentation will utilize crime lab data to demonstrate the importance of the collection of saliva as potential DNA evidence on skin surfaces for days, even after patients have showered or bathed. After attending this presentation, attendees will better understand the importance of considering this type of evidence collection, that saliva is a very hardy and an important source of potential evidence, and that the forensic nurse should always give consideration to saliva as a viable source of biological evidence. It may, in fact, be their best potential, most probative, or only source.

Impact Statement: This presentation will impact the forensic science community by showing that sharing the results of the DNA with the forensic nurses will provide better outcomes and collection. Forensic program managers will learn if the staff is collecting evidence with positive results. This promotes forensic collaboration and reinforces positive teamwork.

Biological evidence collection time frame recommendations published in the Department of Justice's National Protocol for Sexual Assault Medical Forensic Examinations are generally accepted as the baseline standard for evidence collection time frames throughout the United States.^{1,2} However, in practice, these collection time frames can vary widely throughout the country. Despite the development and open access to these recommendations, as well as scientific evidence that supports them, potential DNA evidence opportunities are missed. Lack of access to trained medical professionals such as forensic nurses, knowledge gaps about time frame standards among collectors, local evidence collection policies and procedures, and resource limitations all contribute to these potential missed evidence collection opportunities.¹⁻³ Even when evidence collection is less than invasive, such as the collection of touch DNA or saliva from skin surfaces, specimens can easily be overlooked if forensic nurses and practitioners think that evidence has been washed away or degraded.^{4,5} Specifically, specimens potentially containing saliva are more likely to provide DNA evidence than some might think.⁵ Evidence suggests that potential DNA from skin surfaces where saliva may be present be collected for up to four days.¹ This is even true in cases where patients have showered, bathed, or otherwise washed their bodies.⁵ Not only does the literature support this, but real-life application in California crime labs supports this as well.

To help with the backlog, a Research Assistantships for Diverse Scholars (RADS) program was started that allowed the forensic nurse to FedEx® directly to the crime lab three probative swabs with one reference sample. The crime lab then sent monthly RADS reports to the Forensic nursing program. This resulted in a practice change. There was an increase in collection of samples for saliva after the nurses began receiving the reports from the laboratory. This increased the number of samples for saliva past 24 hours based on history. This demonstrates the importance of communication between the crime lab and the forensic nurse who is collecting the specimens.

References:

1. National Institute of Justice, Office of Justice Programs, U.S. Department of Justice . (2017). *National best practices for sexual assault kits: A multidisciplinary approach*. (Report # NCJ 250384). <https://www.ncjrs.gov/pdffiles1/nij/250384.pdf>.
2. Office on Violence Against Women, U.S. Department of Justice (2013). *A national protocol for sexual assault medical forensic examinations: Adult/adolescents* (2nd ed.). (Report #NCJ 228119). <https://www.ncjrs.gov/pdffiles1/ovw/241903.pdf>.
3. Linden J. A. (2011). Clinical practice. Care of the adult patient after sexual assault. *The New England journal of medicine*, 365(9), 834–841. <https://doi.org/10.1056/NEJMcp1102869>.
4. Valentine, J. L., Presler-Jur, P., Mills, H., & Miles, S. (2021). Evidence Collection and Analysis for Touch Deoxyribonucleic Acid in Groping and Sexual Assault Cases. *Journal of forensic nursing*, 17(2), 67–75. <https://doi.org/10.1097/JFN.0000000000000324> Contribution to the Development of Guidelines in the Analysis of Biological Evidence in Sexual Assault Investigations.
5. Williams, S., Panacek, E., Green, W., Kanthaswamy, S., Hopkins, C., & Calloway, C. (2015). Recovery of salivary DNA from the skin after showering. *Forensic Science, Medicine, and Pathology*, 11(1), 29-34. <https://doi.org/10.1007/s12024-014-9635-7>

Salvia; DNA; Forensic Nursing