

National forensic medical consumable validation

The validation of forensic DNA grade consumables used nationally within Sexual Assault Referral Centres (SARCs)

Key details

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Police region	North West
Collaboration and partnership	<ul style="list-style-type: none"> • SceneSafe, UK police forces and SARCs • Forensic Capability Network <p>This project is supported by the College of Policing Bursary Scheme.</p>
Level of research	PhD
Project start date	April 2024
Date due for completion	April 2026

Research context

This study was a national validation of the suitability of forensic DNA grade consumables used to recover forensic evidence in Sexual Assault Referral Centres (SARCs).

It is essential that the consumables and forensic kits used in the recovery, storage, transportation and analysis of forensic evidence do not compromise the integrity of the samples collected or adversely affect the analytical process in any way. To do so could potentially diminish the value and

reliability of the forensic evidence. This in turn would increase the risk of an investigation being misled, poor judicial outcomes being made in the courts, or could even result in a miscarriage of justice. These risks have long been recognised (Sullivan and others 2004) together with the consequences of contaminated consumables misleading criminal investigations (Neuhuber and others 2009).

The aim of this national validation was to demonstrate that consumables used in a SARC to recover forensic DNA evidence are free from detectable levels of DNA up until their point of use. Every SARC across England and Wales participated in this study, providing approximately five forensic DNA grade consumables from their stores which were tested for DNA. All 258 consumables tested were negative for detectable levels of DNA, demonstrating that the consumable receipt, storage and handling procedure for all 55 SARCs is fit for purpose as their consumables remain free from detectable levels of DNA up until the point they are used to recover forensic DNA evidence from victims.

Research methodology

This project was managed and coordinated by Michelle Gaskell (Quality Specialist) through the Forensic Capability Network's national SARC Accreditation Support Network. 55 SARCs across England and Wales participated. Data has been provided from the DNA testing of 258 consumables by a forensic service provider.

Interim reports or publications

Michelle Gaskell, June Guinness & Kevin Sullivan. 2024. 'Validation of consumables used in the recovery of DNA evidence within Sexual Assault Referral Centres (SARCs)'. Forensic Science International: Synergy, 9, 100559.

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References

Sullivan K and others. 2004. ['New developments and challenges in the use of the UK DNA database: Addressing the issue of contaminated consumables'](#). Forensic Science International,

146S, S175-176.

Neuhuber F and others. 2009. '[Female criminals – It's not always the offender!](#)' Forensic Science International: Genetics Supplement Series, 2(1), pp 145–146.