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SARC Environmental Monitoring Study

The latest updates

We're delighted to report that the Forensic Science Regulator (FSR) supports the FCNs recommendations to remove the requirement for SARCs to need an air flow of >20 whole room replacement per hour within their forensic medical examination rooms.

The requirement for this air replacement system was raised as a national risk by Policing, NHS, Charities and SARC Service providers due to the high cost for the installation of such an air flow system estimated to be up to ~£1 million per site for some SARCs, without fully understanding why such a rigorous system was necessary for SARC services. The issue was further compounded by some facilities being unable to gain planning permission for such systems.

The FCN conducted a SARC Environmental Monitoring Study where no detectable levels of DNA had been identified on negative control samples in SARCs without an airflow replacement system. This research led to a further study to identify if a > 20 whole room replacement system was indeed necessary to reduce the level of DNA in the air. This study involved 4 SARCs each testing DNA in the air on 5-6 separate occasions using a Coriolis Air Sampler and control swabs to understand the risk of DNA contamination in SARCs with and without this airflow system.

Results from the study demonstrated that there are no detectable levels of DNA in the air in the forensic medical examination rooms of SARCs with or without this airflow system.



Image taken in the forensic medical examination room in Willow Tree SARC during the SARC Environmental Monitoring Study. Michelle Gaskell-FCN Quality Specialist, Danielle Swift - Mountain Healthcare Implementation Manager & Rebecca Havvas- Mountain Healthcare SARC Manager.



Images taken in the forensic medical examination room in G4S's Horizon SARC during the SARC Environmental Monitoring Study.

The outcomes from the FCN SARC Environmental Monitoring Study will save Policing, NHS, Charities and SARC Service Providers up to £50 million nationally

Therefore, the installation of a >20 whole room replacement system does not appear to be necessary for the purposes of reducing the risk of DNA contamination.

Using the data from this Study the FCN made a formal proposal to the Forensic Science Regulator, Gary Pugh, to change this requirement in the FSR-G-212 Forensic Medical Examination guidance document.

Mr. Pugh has accepted the recommendation to reduce the air change rate from >20 times whole room replacement air changes per hour requirement to a >10 times whole room replacement air changes per hour recommendation, and the guidance is in the process of being changed to reflect that change.

A >10 whole room replacement per hour system shall be recommended based on [building recommendations for medical general treatment facilities](#).

Where this recommendation cannot be met by the October 2025 accreditation deadline, additional assurance that the risk of airborne contamination is being managed should be provided for example, by periodically running a process negative control in which a wetted control swab is exposed to the SARC environment during the examination process prior to processing.

The FCN will continue to offer support to SARCs to implement appropriate measures to mitigate the risks.

Where physical building changes or new build has been identified or is necessary then the requirements set out in the FSR Code of Practice sections apply.

The FCN would like to make a special thank you to all of the SARCs who participated in this study; your continuous support and participation in the SARC Environmental Monitoring Air Flow Study has contributed to a national change significantly benefiting SARCs nationally.



G4S's Horizon SARC Manager Shabnam Khan said: "I was delighted to take part in the Environmental Monitoring study in partnership with the FCN at the G4S flagship SARC in Hodge Hill, Birmingham. The instrument was easy to use, and Michelle's guide and training was excellent. The study was conducted over a week in our brand-new examination suites".

If you would like any further information or have any questions relating to this Study please contact the project lead
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SARC PPE Contamination Study

What really is the risk of contamination from PPE to forensic evidence in a SARC?
Find out the outcomes from this study in one of the next FCN SARC News articles

Does Pig Skin or Vinyl Replicate Human Skin for the Recovery of Body Fluids?

The experiments have been conducted and the results are in.
Find out the outcomes from this study later this month in the FCN SARC News