

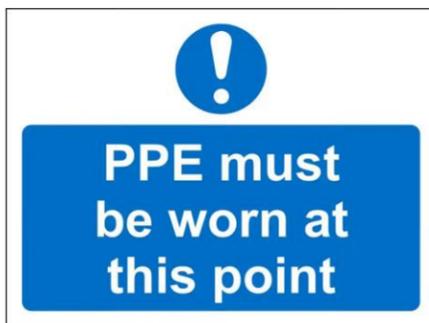
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SARC PPE: What is the risk of contamination?

SARC consumables pose a risk of contaminating forensic DNA evidence, therefore all consumables that come into contact with potential forensic DNA evidence are advised to be forensic DNA grade. To find out more about Forensic DNA Grade consumables visit this [blog](#).

The PPE worn by forensic healthcare practitioners who conduct the forensic medical examination in a SARC does not come into contact with forensic evidence so should these items be forensic DNA grade?

The FCN worked with SceneSafe to conduct experiments to find out the risk of potential contamination to forensic evidence if PPE did come into contact with a patient during the forensic medical examination.



The full report is available on [Knowledge Hub](#) FCN-SAR-REP-0004

The Experiments...

Non forensic DNA grade PPE was taken from its sealed packaging and tested for the presence of DNA using moist and dry swabbing of target areas. Low levels of DNA were identified on these garments. This is as expected because these consumables are not forensic DNA grade.

3 different types of non forensic DNA grade PPE were tested: disposable long sleeve scrub suits, over sleeves and howie type coats.



We tested these items for potential transfer of DNA by lightly wiping multiple times the cuff region of the garments on to exposed skin of a volunteer "patient" and then sampling from the contacted skin by moist and dry swabbing. This process was repeated to assess transfer from the stomach region of the garments when pressed on to exposed skin.

We also assessed the impact of handling cuff and stomach areas of the PPE with ungloved hands for a minute, prior to these coming into contact with the volunteer's skin.

The Results...

In all cases of contact between freshly unpackaged PPE and the volunteer, only a partial DNA profile attributable to the volunteer's skin was detected, therefore transfer from the PPE was not apparent

Where the items had been deliberately handled prior to contact, more DNA was detected but was too low level to be able to determine a contributor additional to the volunteer's skin.

The Conclusions...

For the PPE tested in this exercise, the contamination risk posed by using individually packaged but non forensic DNA grade items is considered to be acceptable given the scenarios mimicked here of inadvertent contact.

Additionally, the contamination risk is further mitigated by operational good practice whereby the examination and evidential recovery SOPs prioritise sampling from areas at risk of practitioner/patient contact first during the examination processes, prior to any contact.

Taking both these factors in combination it is considered to be unnecessary as a DNA anti-contamination measure for these lab coats/ surgical scrubs/arm coverings used in SARCs to be forensic DNA grade.

Gloves: What is the Risk of Contamination?

Outcomes from the SARC Glove Working Group

The SARC Glove Working group explored current glove processes in SARCs, data has been gathered through SARC surveys and various national meetings. It is clear that nationally gloves are routinely changed through out the medical examination process especially at high risk points and some SARCs have a glove cleaning process in place.

It is recognised that nationally processes are slightly different therefore the points at which the gloves are changed or cleaned differ between most SARCs.

The group explored current glove processes in other forensic disciplines, in particular DNA laboratories and CSIs and the options for a best practice glove process for SARCs was explored.

This was achieved through the development of the glove end to end risk assessment and a glove process map.

The group recognise that it is not possible to make detailed national blanket recommendations of the glove best practice processes because of the differences in the SARC facilities and processes.

To find out more about the SARC processes and the work conducted by the working group, check out the FCN-SAR-GUI-0034 Glove Working Group- Briefing & FAQs which can be found on [Knowledge Hub](#) in the SARC Accreditation Support Group in the Guidance Folder.

The group have issued **FCN-SAR-GUI-0033- SARC Glove Process Risk Assessment** (which is also available on [Knowledge Hub](#)), to be used by the SARCs as a template to update the process map with their SARC specific process and then work through the risk assessment of this process; identifying the risks, assessing the risks, identifying the mitigations already in place and determining further actions required to mitigate the gaps.



The purpose of this document is to record justifications for the SARCs glove process demonstrating that the risks have been considered and appropriately mitigated.