



## International Journal of Health Research and Medico-Legal Practice

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### LETTER TO EDITOR

# Errors requiring rectification in the collection of forensic exhibits by medical professionals in sexual assault cases for DNA profiling

Yadav DS\*

Dear Sir,

While analyzing the exhibit in sexual assault cases for DNA profiling, the Forensic scientists at Forensic Science Laboratory detected some errors that require rectification. Few observed errors and suggestions to improve the output are:

1. **Preserving foetus or product of conceptus of the victim in formalin:** Foetus or product or conception requiring forensic examination (DNA Profiling) should never be stored in formalin. It should be stored in a normal saline solution. Alternatively, if possible, the blood can be collected from the foetus and spread on clean filter paper, FTA Card, or surgical cotton gauze and air dried before packaging & sealing in a paper envelope (Never pack in an airtight polyethene pouch).
2. **Collection of semen sample of accused:** It is observed that the semen sample of the suspect is collected and submitted to the laboratory. It is not advisable and not ethical to collect semen samples from suspects, until and unless asked by the laboratory in some rare and exceptional conditions.
3. **Collection of reference blood samples:** After collection of reference or control blood samples from victim and suspects, it should be preferably spread on filter paper or FTA Card or surgical cotton gauze and air-dried before packaging and sealing in a paper envelope. Air-dried samples can be stored safely for a longer duration at room temperature. They can easily be transported compared to liquid blood samples, which require storage in cool conditions (fridge) and transportation with ice packs/dry ice to save from degradation.
4. **Delayed medical examination and collection of exhibits:** The victim of sexual assault should be examined at the earliest for the collection of exhibits. The time lapsed is inversely proportional to the positive result.
5. **Failure to mention the time and date of medical examination:** It should be mentioned in the medico-legal report/seizure memo. The date and time of the

offence or incidence should also be mentioned when available.

6. **Failure to seal the exhibits and sample seal:** The chain of custody of exhibits is highly significant for any case to sustain in a court of law. The medical officer collecting the exhibit should carefully supervise the sealing of exhibits with his seal before handing over the parcels to the police officer/messenger. One sample seal with a clear impression on a separate paper or cloth should be provided. Preferably encircle the seal and sign to make it more unique.
7. **Sealing of exhibits with a seal impression of a coin:** A coin is not unique in nature, so its impression can't serve as a unique seal for crime exhibits. Hence never seal any exhibits with such seals.
8. **Failure to take consent/blood authentication forms from the victim and accused.** Taking consent from both is necessary and if the victim is minor take consent from the guardian.
9. **Submitting blank envelopes or items which do not expect to have biological exhibits:** The blank envelopes without the exhibits don't serve any purpose. It is observed that medical officers using survivor kits send whole kits consisting of dozens of envelopes, out of which only 1-2 exhibits have collected samples. So, if it's known to the medical officer that items do not have any samples collected in it, it should not be sealed and sent to the laboratory, because it simply increases the number of exhibits and wastes time while examining cases in the laboratory.

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