



Quality Division Use Only

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| Quality Tracking #: | 2022-056 | Classification: | Corrective Action |
| Non-Conformance Level: | Class II | Section: | Client Services & Case Management |
| Date of Discovery: | 10/21/22 | Date of Incident: | 10/21/22 |

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|---|---------------------------------------|
| Forensic Case Number(s), if applicable: | Agency Case Number(s), if applicable: |
| 2022-12623 | 141657122 |

Description of Non-conformance:
On 10/21/22 when a Client Services/Case Management (CS/CM) Specialist was transferring evidence from the Houston Police Department Property Room to HFSC, she physically and electronically placed toxicology evidence in the room temperature forensic biology storage vault.

Additional Information/Follow-Up:
The CS/CM Specialist had mistaken the toxicology evidence (item #1) as biology evidence, therefore it was transferred and stored with other biology evidence in room temperature. The toxicology evidence was packaged in a manila envelope, not a typical DWI kit which is a plastic clamshell container, therefore it appeared to be consistent with typical biology evidence. In some instances, such as if the blood collection took place at a hospital, the blood tubes may not be packaged in a DWI kit if one is not available to the stakeholder. Instead, the tubes are placed into a manila envelope upon submission to the property room.

The error was discovered approximately 2 hours and 45 minutes later when another CS/CM Specialist was creating requests in JusticeTrax for the auto-requested toxicology cases that were received that day. The JusticeTrax report she was using for the list of cases showed this case as “submitted” and not “accepted” like all the other cases. This difference caused the Specialist to investigate and later discover that the evidence was incorrectly transferred and stored as biology evidence.

Toxicology evidence is required to be refrigerated to preserve biological samples. This evidence was at room temperature for less than 3 hours. In a study involving blood alcohol samples, Laurens et al. (Forensic Leg Med 2018;58:155-163) reported ethanol concentrations prepared at 0.20 and 0.50 g/dL remained consistent (i.e., within the uncertainty of measurement) at room temperature for 10 weeks before a significant decrease was observed. Based on the results in this study, if this blood sample contains alcohol, the room temperature storage would not have a significant effect, if any, on the alcohol concentration. The blood alcohol analysis report was issued on 12/8/2022 with the result of “no ethanol detected”. At the time of this quality report the drug analysis has not yet been completed. Without knowing what drug(s), if any, are present in the sample it is difficult to evaluate if the storage conditions may have had any effect on drug concentrations as analyte stability would vary by drug.



Summary of Root Cause Analysis:

Note: Incidents are documented for tracking purposes and trend analysis. Root Cause Analysis is not required for incidents.

The factors that lead to this nonconformance were that best practices were not followed by the Specialist who retrieved the evidence from the property room and that the evidence was packaged similarly to biology evidence and not in the typical plastic DWI kit. HFSC supplies DWI kits to the Joint Processing Center, where most HPD blood draws take place for DWIs, but not to hospitals throughout the city of Houston. Therefore, if the blood is drawn at a hospital a DWI kit is likely not available for the stakeholder and the tubes instead are placed in an envelope upon submission to the property room.

Actions Taken:

Upon discovery, the evidence was transferred to the toxicology refrigerator and the following comment was made in the chain of custody, "From Porter Lee LIMS. This item was inadvertently received in Porter Lee and placed in the biology vault on Shelf B-RT-04A on 10/21/2022 at approximately 10:14 AM. Updating the electronic COC to reflect the physical and electronic movement of evidence."

On 11/15/2022, the CS/CM manager held a refresher training session for the evidence team. The CS/CM supervisor went through the evidence acceptance process beginning at the property room to the evidence storage and all the best practices for these processes. He explained that the best practices are there to prevent nonconformances such as this from happening. A Toxicology Supervisor presented on the importance of evidence storage, difficulties the toxicology analysts may face during testimony regarding the evidence, and the importance of the evidence team's role in the initial evidence handling. The Quality Specialist explained the corrective action process, the importance of root cause analysis and actions taken, and reviewed past corrective actions with the CS/CM specialists. The intent of this training was to explain the importance of the evidence team's job functions and instill the importance of following their workflows and best practices to prevent a similar nonconformance. Since CS/CM's processes and best practices already include several checks and measures to ensure that evidence gets delivered to the correct location, it was not beneficial to add or change their process, instead the quality division and CS/CM management agreed that the most beneficial action would be to retrain the evidence team on their processes and best practices.

In addition, since there are some scenarios when blood tubes are collected in a location that a DWI kit may not be available to an officer, as of 1/12/2023, HFSC supplied DWI kits to the property room for blood tube evidence that is submitted that is not already packaged. Property room personnel agreed to accommodate this change and instruct officers to package tubes in the kit when submitting the evidence. These kits will not only ensure all the toxicology evidence visibly look the same, but also provide more protection to the glass blood tubes.

The CS/CM evidence team handles over 5,000 items of toxicology evidence every year. Prior to this instance and a similar instance in June 2022, this issue had not recurred since 2018. It is the goal of all parties involved to prevent similar recurrences, however because this is done manually, there is an inherent risk associated with this process.



Houston Forensic Science Center
Incident/Corrective Action Report
Quality Division

Section Manager: Ashley Henry

Date: 02/09/23

Division Director: Amy Castillo

Date: 02/14/23

Incidents or Corrective Actions that involve the Biology/DNA section are reviewed by the Technical Leader and CODIS Administrator.

Technical Leader: N/A

Date: _____

CODIS Administrator: N/A

Date: _____

Quality Director: Jackeline Moral

Date Closed: 02/22/23