

Chain of Custody

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Definition/Introduction

The chain of custody is the most critical process of evidence documentation. It is a must to assure the court of law that the evidence is authentic, i.e., it is the same evidence seized at the crime scene. It was, at all times, in the custody of a person designated to handle it and for which it was never unaccounted. Although it is a lengthy process, it is required for evidence to be relevant in the court. The continuity of possession of evidence or custody of evidence and its movement and location from the point of discovery and recovery (at the scene of a crime or from a person), to its transport to the laboratory for examination and until the time it is allowed and admitted in the court, is known as the chain of custody or chain of evidence.

Issues of Concern

Importance of the Chain of Custody

The chain of custody proves the integrity of a piece of evidence.^[1] A paper trail is maintained so that the persons who had charge of the evidence at any given time can be known quickly and summoned to testify during the trial if required.

A record of the chain of evidence must be maintained and established in the court whenever presenting evidence as an exhibit.[2] Otherwise, the evidence may be inadmissible in the court leading to serious questions regarding its legitimacy, integrity, and the examination rendered upon it.[3] The chain of custody needs to document every transmission from the moment the evidence is collected, from one person to another, to establish that nobody else could have accessed or possessed that evidence without authorization. Although there is no limit on the number of transfers, it is crucial to keep this number as low as possible.

Evidence requires conscientious handling to avert tampering. The chain of custody is said to be the sequential documentation or trail that accounts for the sequence of custody, control, transfer, analysis, and disposition of physical or electronic evidence. The goal is to establish that the evidence is related to the alleged crime, was collected from the scene, and was in its original/unaltered condition rather than having been tampered with or "planted" deceitfully to make someone seem guilty. The chain of custody maintains the integrity of the sample. The traceability of the record of the control, transfer, and analysis of samples indicates the transparency to the procedure.[4]

Maintaining the chain of custody is critical in forensic practice.[5] This step of documentation is vital because everything done for the examination and analysis of the evidentiary sample must be authorized and recorded. The liability for the condition rests with everyone coming in contact with it. The documentation should be comprehensive with information regarding the circumstances of evidence collection, the people who handled the evidence, period of the guardianship of evidence, safekeeping conditions while handling and/or storing of the evidence, and how evidence is handed over to subsequent custodians every time a transfer occurs (along with the signs of individuals involved at the respective stage). It prevents police officers and other labs/law officials involved from tainting the evidence or misplacing the piece of evidence as it would eventually be traceable back to them, and they would be held responsible for the same.[6]

Clinical Significance

The Relevance of the Chain of Custody Documentation

The documentation of the chain of custody serves three primary purposes; to ask relevant questions regarding the evidence to the analytical laboratory, to maintain a record of the chain of custody, and to document that the sample/evidence was handled only by approved personnel and was not accessible for tampering before analysis.

The investigator or the person responsible for collecting evidence must complete the labels of the sample container/bags and the chain of custody forms to enable tracking of the sample. Each sample container label must receive a unique identification code and other relevant information such as location, date and time of collection, the name, and signature of the person who collected the sample, and signature of the witness(es). It is vital that the evidence is appropriately packed to avoid damage during transport and must be preferably sealed in tamper-evident/resistant bags or with tamper-evident tapes.

A separate chain of custody form must accompany different evidence bags. The chain of custody form shall at least include the following information:

- Unique identifier
- Name and signature of the sample collector
- Official address and contact number
- Name of the recipient
- Laboratory's address
- Details of each sample, including:
 - - Unique identifier and matrix
 - Date and time of collection
 - Type of analysis required
- Signatures of everyone involved in the chain of possession with date and time
- Date and method of delivery

- Authorization for the analysis of the sample
- Any other information about the sample

Custody of the Evidence

Each time the charge of evidence is changed, an entry of signature, date, and time is necessary for the chain of custody form. A sample shall be deemed to be in custody if it is in actual physical possession of the authorized custodian in a secured place without access to unauthorized personnel or any opportunity for tampering.

An illustration of the chain of custody in case of the recovery of a blood-stained flat iron rod at the scene of a murder depicted in the routine text is as follows:

"Investigating officer Steve collects the iron rod, packs it, and hands it over to forensic analyst Jack. Forensic analyst Jack analyses the iron rod at the laboratory and collects fingerprints and blood from the iron rod. Jack then hands over the iron rod and all the collected evidence from the iron rod to the evidence receiving clerk Tom. The evidence receiving clerk, Tom, then stores the evidence in the evidence storage locker. Tom keeps a record of all those who have accessed the original evidence."

During the trial, if the defense counsel raises queries on the chain of evidence, the records will demonstrate that the iron rod in the evidence storage is the same as that collected from the scene of a crime. Still, if inconsistencies persist and the prosecution cannot prove who had the iron rod at a given point of time, then the chain is deemed broken, and the defense counsel may seek in the court to have the resultant evidence annulled.

Other Scenarios of the Chain of Custody Usage

- Apart from crime scene investigation, the other areas which also find the use of the chain of custody maintenance include (but are not limited to):
- Civil litigation
- In dope testing of athletes

- Managing the chain of source, e.g., to improve the traceability of food products (to ensure authenticity to ethically sourced meat), or to ensure that wood products originate from sustainably managed woodlands
- In research (involving the use of animals) to know whether the animals were ethically raised/sourced or not
- In clinical trials
- In the fields of history, art collection to see the provenance (timeline of the ownership, custody, and/or location of the painting, document, or a piece of art/antique)
- Postal services; supply chain integrity
- The procurement of drugs for execution
- Seizure of controlled/prohibited substance
- Seizure of money/gold ornaments/other valuable items by customs, income tax, or revenue departments
- In violence and abuse cases
- In firearms injuries, etc.[\[2\]\[4\]\[7\]\[8\]\[9\]\[4\]](#)

The chain of custody is particularly significant in environmental sampling that can help identify contamination and can be used to fix accountability. The laboratories should also be aware of other legal implications such as chain of custody, expert testimony, and appropriateness of scientific evidence.[\[10\]](#)

Chain of Custody in Legal Drug Testing

For drugs of abuse testing using urine samples, it is essential that the donor/athlete/sportsperson identifies the sample and that the urine cup is sealed (preferably by themselves). The chain of custody forms should then be signed by the donor/athlete, followed by the person who collected the specimen. In the case of an insentient patient in the emergency room, the nurse who collects the urine/blood sample can identify it in the patient's place.

A related illustration depicted at the "American Association for Clinical Chemistry"- *Clinical Laboratory News* by Professor Amitava Dasgupta is as follows:

"Police officer Ramsey seizes the urine sample collected from the suspect, and police officer Fred transports the sample to the forensic/drug testing laboratory. At the laboratory, case receiving staff, Paul, receives the sample, and scientist Derek analyzes it and detects a metabolite of a banned substance/drug. Scientist Derek gives the result to principal scientist Evan, who confirms the result."

Ramsey, Fred, Paul, Derek, and Evan would have to sign the chain of custody form sequentially. Each one of them would be required to testify to recognize and establish the condition of the sample while in their custody while maintaining the chain, which will eventually prove that the suspect abused the banned substance.

Chain of Custody in Clinical/Medical Drug Testing

A drug test in a clinical setting using urine or blood samples is usually necessary in cases of the suspected overdosing patient getting admitted in the emergency department except for the cases where the results are positive, and the patient was in an accident or instances which may result in a trial. The screening for drugs in urine samples is usually via immunoassays.[11] Analytical methods confirm the initial results on the clinician's request.

The result of medical drug testing is confidential information. Even if the drug screen is positive, it cannot be evidence against the individual for disciplinary or penal action. Hence, the chain of custody is not required. It is necessary to confirm the results of the initial positive immunoassay, as it may be necessary in court as evidence. In these cases, the chain of custody is essential.

Conclusion

Maintaining the chain of custody should be considered a professional and ethical responsibility by those in charge of the evidence. It is imperative to create appropriate awareness regarding the importance and correct procedures of maintaining the chain of custody of evidence among the people dealing with such cases. It is often ignored and given very little

significance as a presumably un-important and straightforward procedure. Still, it must remain in mind that it is the most critical procedure which ultimately decides the admissibility of evidence in the court of law.

Review Questions

- [Access free multiple choice questions on this topic.](#)
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