

CHAIN OF CUSTODY AS THE BACKBONE OF FORENSIC SCIENCE: A CRITICAL LEGAL ANALYSIS

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Abstract:

The increasing reliance on forensic science has significantly transformed modern criminal justice by introducing scientific methods for establishing guilt or innocence. However, the evidentiary reliability of forensic science does not depend solely upon scientific accuracy but also upon the procedural integrity governing the collection, preservation, handling, analysis, and presentation of evidence. The concept of chain of custody serves as the fundamental mechanism ensuring such integrity by maintaining a continuous and verifiable record of evidence from the crime scene to the courtroom.

This research paper extensively analysis the procedure of chain of custody. It mainly discusses the meaning and tends to define the chain of custody. This paper outlines the availability of legislative framework in India which deals with the chain of custody and the admissibility of evidence in the courts and also deals with the new criminal enactments i.e. Bharatiya Nagarik Suraksha Sanhita, 2023 and Bharatiya Sakshya Adhinyam, 2023. There are many instances where the prosecution fails to prove beyond reasonable doubt in criminal cases and the accused gets acquitted on ground of contamination of crime scene, loss of integrity of evidence which leads to inadmissibility of evidence in the case. Chain of custody has a direct linkage with the admissibility of evidence in court. This paper also exclusively deals with the question of whether India is in need for a uniform standardized procedure for chain of custody or a national policy for standard operating procedure to be followed by the officials involved in the investigation. In this paper we compare the existing scholarly works related to chain of custody and identify the research gap in this paper. This paper also analyses the judicial interpretation of chain of custody and also the cases where judiciary stressed the importance of chain of custody. There are instance cases where the judiciary were restrained to acquit the accused due to the broken chain of custody.

The paper concludes by recommending standardized statutory guidelines, technological evidence-tracking systems, institutional training, and judicial reforms to strengthen evidentiary integrity and enhance public confidence in the administration of criminal justice in India.

Introduction:

The administration of criminal justice has undergone a significant transformation with the growing reliance on forensic science as an objective and scientific method of investigation.

Modern criminal trials increasingly depend upon scientific evidence such as DNA analysis, fingerprint identification, toxicological reports, ballistic examinations, and digital records to establish guilt or innocence. Unlike traditional testimonial evidence, forensic evidence claims

a higher degree of reliability because it is based on scientific principles. However, the evidentiary value of forensic science does not merely depend upon scientific accuracy; it fundamentally relies on the manner in which evidence is collected, preserved, handled, transported, analysed, and presented before a court of law. This procedural integrity is ensured through the concept known as the chain of custody.

Chain of custody is the most important and, at the same time, the most critical process of documenting evidence: in criminal and civil law, the term “chain of custody” refers to the order in which evidence was dealt with during the investigation of a case. In other terms it may be referred as the chronological sequence in which the items of evidence are to be handled for the successful investigation of a case. The chain of custody is a fundamental mechanism for establishing the authenticity of evidence within the judicial process. The absence of such a standard has led to inconsistencies in the judicial assessment of admissibility of evidence, particularly in cases where the chain of custody is either incomplete or subject to dispute. Chain of custody is a necessary procedure to secure the credibility of the evidence recovered from the crime scene. It plays a major role in the admissibility of the evidence in the court of justice. It must be proved in the court that the evidence is handled through the correct chain of custody, and only then will the evidence be admissible in the court of law. The chain of custody stands as the indispensable backbone of forensic science, meticulously documenting the journey of physical evidence from crime scene collection to courtroom scrutiny, thereby safeguarding its integrity against tampering, contamination, or loss. It is essential to assure the judicial authority that the evidence is authentic and that it is the same that is seized at the scene of the crime. The fundamental point of correct maintenance of the chain of custody consists in the possibility of access to the original exhibit.

This critical legal analysis examines the role of chain of custody in the field of forensic science. This paper interrogates the chain of custody's pivotal role, exposing systemic vulnerabilities in documentation, handling, and judicial application, particularly within the Indian legal framework under the Indian Evidence Act, 1872, Bharatiya Sakshya Adhinyam, 2023, Code of Criminal Procedure, 1973, Bharatiya Nagarik Suraksha Sanhita, 2023 and specialized statutes like the NDPS Act. Rising caseloads in narcotics (NDPS) and sexual offenses (POCSO) amplify its stakes; a single breach can cascade into acquittals, eroding public trust in the judiciary. For instance, Supreme Court rulings underscore that while absolute perfection is unnecessary, substantial compliance proves authenticity beyond doubt.

This research paper titled “*Chain of Custody as the Backbone of Forensic Science: A Critical Legal Analysis*” seeks to examine the legal significance of chain of custody within forensic investigations, analyse judicial approaches concerning evidentiary integrity, and critically evaluate procedural shortcomings affecting the admissibility and reliability of forensic evidence in India.

Scope of study:

This research paper analyses the importance of chain of custody as an indispensable procedure for the integrity and admissibility of the forensic evidence within the criminal justice system. The research primarily focuses on analysing the legal dimensions of chain of custody rather than the technical or laboratory-based scientific processes involved in forensic examination. The study explores how proper documentation, preservation, handling, and transfer of evidence influence judicial determination of reliability and proof.

The scope of this research is limited to the Indian legal framework regulating the evidentiary domain, particularly the provisions under Indian Evidence Act, 1872, procedural safeguards prescribed in the Code of Criminal Procedure, 1973, and the evolving evidentiary

regime introduced by the Bharatiya Sakshya Adhiniyam, 2023 and the upgraded procedural law under the Bharatiya Nagarik Suraksha Sanhita, 2023.

The study covers the application of chain of custody principles to both physical and electronic evidence, including biological samples, weapons, narcotic substances, digital devices, CCTV recordings, and electronic records. Special emphasis is placed on the growing importance of digital forensic evidence, where risks of alteration, duplication, and unauthorized access make uninterrupted custody crucial for maintaining evidentiary authenticity.

However, the research does not undertake an in-depth scientific examination of forensic testing techniques such as DNA profiling, ballistic science, or chemical analysis, as these fall within the domain of forensic science rather than legal analysis. Similarly, the study does not include empirical field research or statistical surveys but relies on doctrinal legal research, case law analysis, and secondary academic sources. Employing doctrinal research, statutory interpretation, case analysis, and scholarly review this paper critiques procedural gaps without empirical surveys or primary data collection. Recommendations target policy reforms for Indian forensic labs and courts.

Geographically, the study is primarily limited to the Indian criminal justice system, while limited comparative references to international practices may be used only to highlight best practices and identify procedural improvements. The objective of this limited scope is to critically evaluate whether existing Indian legal mechanisms sufficiently preserve the evidentiary value of forensic material and to suggest reforms for strengthening accountability in evidence management.

Review of literature:

Many scholarly works have identified the essentials of chain of custody for the integrity of

evidence but it also establishes the gaps in the Indian practice.

In the paper of The Chain of Custody in the Era of Modern Forensics: From the Classic Procedures for Gathering Evidence to the New Challenges Related to Digital Data, PMC central outlines the importance of the establishment of the chain of custody and its correct management in the various phases of evidence analysis, it is essential in the future to properly train the personnel involved in the collection, transport, and analysis of samples.²⁶³

In the article of Securing the Links: A Framework for Chain of Custody in Indian Courts by Anushka Jain addresses as the chain of custody serves as a fundamental safeguard in ensuring the authenticity and reliability of evidence within the judicial process. Despite its recognised importance, the absence of a standardised approach in Indian courts for addressing gaps in the chain of custody poses a significant risk to the integrity of judicial determinations. This paper has underscored the need for a comprehensive and clearly defined standard to guide courts in assessing the admissibility of evidence, particularly when the chain of custody is incomplete or disputed.²⁶⁴

In forensic science: journey from crime scene to courtroom by Indian Journal of Integrated Research in Law Forensic science remains indispensable to modern criminal justice, but its contribution depends on procedural discipline, laboratory competence and clear legal standards. The lifecycle from crime scene to courtroom must be managed as a single chain: loss or error at an early stage cannot be undone by later analysis.²⁶⁵

In Forensic and Electronic Evidence 2025: Chain of Custody, DNA, and Admissibility expresses the difficulties in the procedure of chain of custody for preserving the electronic evidence. The

²⁶³ The Chain of Custody in the Era of Modern Forensics: From the Classic Procedures for Gathering Evidence to the New Challenges Related to Digital Data, PMC central

²⁶⁴ Securing the Links: A Framework for Chain of Custody in Indian Courts by Anushka Jain

²⁶⁵ forensic science: journey from crime scene to courtroom by Indian Journal of Integrated Research in Law

problem gets even more complicated when it comes to electronic evidence. Digital data can be changed, erased, or corrupted without any signs showing it. So, the procedure of creating an unalterable chain of custody for electronic evidence should be very detailed in the documentation of every human who had access to the data, every piece of equipment that was used, and the processes of each transfer or copy.²⁶⁶

Hypothesis:

Absence of standardized procedures and lapses in maintaining the chain of custody render forensic evidence inadmissible in Indian courts, resulting in frequent exclusions and acquittals, thereby necessitating uniform national protocols.

Research methodology:

This research paper adopts the doctrinal research method to understand the role of chain of custody as an indispensable procedure for the admissibility of evidence in the courts. This research is based entirely on secondary sources such as statutory enactments, judgments of courts, academic journals, legal commentaries and research articles relating to forensic and evidentiary law.

The research is confined to doctrinal legal analysis and does not involve empirical surveys, interviews, or laboratory-based forensic experimentation. The focus remains on the legal implications of chain of custody rather than the technical scientific processes of forensic examination.

Research gap:

The existing scholarly works examine the importance of chain of custody and substantiate that with existing statutory works and judicial precedents yet the existing works reveal significant research gap.

The existing study addresses a frequent acquittals due to chain of custody lapses but

the studies does not reveal the systematic data on conviction rates or records. This necessitates the need for recent National Crime records Bureau stats.

A clear research gap exists in critically analysing chain of custody as a legal accountability mechanism within the Indian criminal justice system. Existing studies tend to examine forensic procedures, judicial concerns, or digital evidence challenges in isolation. There remains insufficient integrated legal analysis evaluating how statutory law, judicial interpretation, and investigative practice collectively determine the admissibility and probative value of forensic evidence.

This present research seeks to bridge this gap by presenting the chain of custody not just a forensic procedure but as the central legal foundation connecting scientific investigation with evidentiary admissibility, while critically assessing whether the Indian legal framework provides adequate standardized safeguards for maintaining evidentiary integrity.

Research problem:

1. Whether the absence of standardized chain of custody procedures in India undermines the admissibility and evidentiary reliability of forensic evidence in criminal trials.
2. Without uniform procedures and technological safeguards the impact of forensic science is undervalued. There is a need for legal reforms to align procedure with evidentiary reliability. Whether India requires uniform national protocols or statutory guidelines governing chain of custody procedures.
3. Whether Indian courts follow consistent legal standards while assessing breaks or irregularities in the chain of custody during criminal proceedings.
4. Why scientifically valid forensic evidence sometimes fails in court despite laboratory accuracy.
5. How gaps between forensic science procedures and evidentiary law create

²⁶⁶ Forensic and Electronic Evidence 2025: Chain of Custody, DNA, and Admissibility

challenges for prosecutors and defence in criminal trials.

History:

The concept of chain of custody developed alongside the evolution of forensic science and modern criminal investigation. In early systems of criminal justice, reliance was primarily placed on confessions, eyewitness testimony, and circumstantial reasoning rather than scientific evidence. Physical objects recovered from crime scenes were often presented before courts without systematic documentation regarding their origin or handling. As a result, questions concerning authenticity and tampering frequently arose, exposing weaknesses in evidentiary reliability.

The scientific transformation of criminal investigation began in the late nineteenth and early twentieth centuries with the emergence of modern forensic science. One of the earliest contributors to this transformation was Edmond Locard, whose Exchange Principle established that every contact leaves a trace. This principle highlighted the evidentiary value of minute physical traces such as fibres, fingerprints, and biological material. However, it simultaneously revealed a new problem: once evidence could scientifically identify individuals, preserving the integrity of such evidence became essential. Improper handling could destroy or contaminate critical traces, thereby necessitating controlled documentation and custody procedures.

During the early twentieth century, forensic pioneers including Paul L. Kirk emphasized that physical evidence possesses objective value only when its origin and handling remain demonstrably authentic. Law enforcement agencies gradually began maintaining written records identifying officers who collected, stored, transported, and analysed evidence. These records formed the earliest version of what is now known as the chain of custody.

The formal legal recognition of chain of custody emerged prominently in Anglo-American

criminal jurisprudence during the mid-twentieth century. Courts increasingly required prosecutors to establish a continuous link between the evidence produced in court and the material originally seized from the crime scene. The purpose was to eliminate reasonable doubt concerning substitution, alteration, or contamination. Judicial insistence on proof of continuity transformed chain of custody from a mere administrative practice into a legal requirement governing admissibility of evidence.

With the expansion of forensic disciplines such as DNA profiling, toxicology, and ballistic examination in the latter half of the twentieth century, chain of custody procedures became standardized within investigative agencies and forensic laboratories worldwide. Evidence packaging, sealing methods, labeling systems, and custody documentation evolved into formal protocols designed to maintain evidentiary integrity throughout the investigative lifecycle.

In India, the development of chain of custody principles occurred indirectly through evidentiary rules rather than through an independent statutory framework. Courts relied upon provisions governing proof and admissibility under the Indian Evidence Act, 1872 and procedural safeguards relating to seizure, investigation, and production of material objects under the Code of Criminal Procedure, 1973. Judicial practice gradually emphasized that prosecution must demonstrate safe custody and proper sealing of material objects to inspire confidence in forensic findings.

The twenty-first century marked a new phase in the evolution of chain of custody with the emergence of digital and electronic evidence. Unlike physical objects, digital data can be altered, duplicated, or erased without visible traces, creating unprecedented challenges for evidentiary authentication. Consequently, modern evidentiary frameworks, including the reforms introduced through the Bharatiya Sakshya Adhiniyam, 2023, increasingly stress

documentation, certification, and traceability of electronic records.

Thus, the history of chain of custody reflects the gradual realization that forensic science alone cannot guarantee justice. Scientific accuracy must be supported by procedural accountability. Over time, chain of custody has evolved from an investigative formality into a foundational legal safeguard ensuring that evidence presented before courts remains trustworthy, authentic, and legally admissible.

Meaning and concept:

The chain of custody constitutes a fundamental principle within both forensic science and evidentiary law, requiring systematic and precise documentation of the possession, handling, transfer, and ultimate disposition of objects connected to a criminal investigation. It represents a continuous chronological record demonstrating who collected the evidence, who subsequently handled it, and how it was preserved throughout the investigative and judicial process. A properly maintained chain of custody must therefore contain detailed identifying information, including the name or initials of the officer or investigator who first recovered the item, the identities of every individual who later assumed responsibility for it, the exact dates and times of collection and transfer, the relevant case reference number and investigating agency, details concerning the victim or suspect associated with the evidence, and a clear descriptive account of the item itself. Such documentation ensures that the evidentiary history of an object remains transparent and verifiable at every stage.

The importance of maintaining a comprehensive and accurately recorded chain of custody lies in its ability to protect the integrity, authenticity, and reliability of evidence. By providing a documented trail of accountability, the chain of custody guarantees that evidence has been handled in a controlled and secure manner from the moment it is recovered at the crime scene until it is produced before the court. This process serves

two essential purposes. First, it establishes that the material object presented during trial is the same item originally seized during investigation. Second, it demonstrates that the condition of the evidence has remained substantially unchanged and free from contamination, alteration, substitution, or unauthorized interference throughout successive transfers. In this way, the chain of custody operates as a procedural safeguard that prevents the introduction of compromised or tampered material into judicial proceedings.

Judicial determination of criminal liability is fundamentally dependent upon the evidence formally produced and proved before the court. Judges do not rely upon investigative assumptions or external knowledge; rather, findings of guilt or innocence are based exclusively on the evidentiary material legally placed on record. Consequently, any defect in the chain of custody raises legitimate concerns regarding the credibility of the evidence itself. If doubts arise about whether evidence has been altered, mishandled, or improperly preserved, the reliability of the judicial decision-making process is directly threatened. A broken or inadequately documented chain of custody can therefore lead to wrongful convictions, unjust acquittals, or erosion of public confidence in the administration of justice. Maintaining an unbroken chain of custody thus becomes an indispensable responsibility shared by investigators, forensic experts, and prosecuting authorities alike.

Within the Indian legal framework, material objects connected to a case are not treated as a separate category of “real evidence” in a strictly technical sense. Instead, such objects are regarded as relevant facts whose evidentiary value must be established through supporting oral testimony or documentary proof. The admissibility and probative strength of these objects depend upon witnesses who identify, authenticate, and explain their connection to the alleged offence. As a result, the persuasive force of oral and documentary evidence is closely tied to the authenticity of the

physical objects being referred to. If the identity or condition of an object becomes doubtful due to inadequate custody records, the evidentiary foundation supporting witness testimony may also collapse. This interdependence highlights the critical importance of maintaining meticulous records tracing each item from the moment of seizure, through storage and forensic examination, to its final production before the court. A secure and well-documented chain of custody therefore functions as the essential link that connects investigative discovery with judicial proof, ensuring fairness, transparency, and reliability within the criminal justice system.

Elements of chain of custody:

1. Collection of evidence:

The chain of custody begins at the crime scene with the lawful collection of evidence. Investigating officers or forensic experts must identify, secure, and collect material objects using scientifically accepted methods. Proper precautions must be taken to avoid contamination, destruction, or alteration of evidence.

2. Documentation and identification:

Documentation is the most critical component of chain of custody. Every item collected must be clearly identified through written records that accompany the evidence throughout its lifecycle.

3. Packaging and sealing of evidence:

After collection, evidence must be properly packaged and sealed to prevent tampering or contamination. Sealing serves as physical proof that evidence has not been accessed without authorization. Broken seals or improper packaging often become grounds for challenging evidentiary reliability.

4. Preservation and storage:

Evidence must be preserved under suitable environmental conditions to maintain its original state. Improper storage may lead to

degradation or loss of evidentiary characteristics.

5. Transfer and transportation:

Whenever evidence changes hands—whether between police officers, forensic laboratories, or courts the transfer must be formally recorded. Each transfer constitutes a new link in the custody chain.

6. Forensic examination and analysis:

When evidence is submitted for examination the burden of custodial responsibility is placed on the forensic experts. The labs must maintain the records such as receipt of evidence, condition of seals, procedures conducted, and storage before and after analysis, etc.

7. Presentation before the court:

The final stage of chain of custody occurs when evidence is produced during trial. The prosecution must establish continuity by presenting witnesses or records demonstrating that the exhibit placed before the judge is the same item recovered during investigation.

Judicial perspective on chain of custody:

The chain of custody is a critical factor in determining the admissibility of evidence, a principle that has been consistently underscored in various judgments by Indian courts.

In the case of *Nishad V. State of Maharashtra*, the integrity of the chain of custody was compromised due to the lack of clear documentation identifying who collected the deoxyribonucleic acid (DNA) samples from the accused, coupled with an unexplained delay in sending the samples for examination. The Court emphasised that the chain of custody is essential to the credibility of evidence and concluded that the DNA report could not be relied upon due to the broken chain of custody.²⁶⁷

In *Mustak V. State of Gujarat*, The defence pointed out that the bullet, which was removed

²⁶⁷ 2023 SCC OnLine SC 666

by a doctor and handed over to a nurse, had no subsequent record, and the investigating officer (IO) could not recall whether the bullet was collected in a sealed condition. The Court's decision to overlook these discrepancies in the chain of custody suggests a potential ignorance of the possibility of tampering before the bullet was sent for analysis. This approach is fundamentally unsound, as it undermines the integrity of the evidence.²⁶⁸

A similar approach was observed in *Manoj v. State of M.P.*, where the chain of custody of a bullet extracted from the victim was also inadequately proven. The doctor who extracted the bullet did not mention sealing the bullet. However, the police officer collected a sealed bullet from the hospital but there was no record of who sealed the bullet or when it was done. Despite these significant gaps in the chain of custody, the Court still placed substantial reliance on the ballistics report, dismissing the doubts raised about the manner of seizure. This oversight suggests that the Court did not adequately analyse the admissibility of the evidence, thereby potentially accepting inauthentic evidence.

In *Shatrughna baban Meshram V. State of Maharashtra*, at the time of the arrest, no blood was observed on the accused's clothing, and the investigating officer (IO) conceded that nothing suspicious was found on the accused. Furthermore, when the accused was examined by the medical professional, no traces of blood were detected. Despite these inconsistencies, the Court dismissed concerns regarding the potential tampering of evidence, reasoning that the IO's admission did not necessarily lead to the conclusion that no bloodstains existed. The Court noted that the clothing was sent for examination at the earliest opportunity but failed to adequately address the gap in the chain of custody. This oversight raises significant doubts about the authenticity of the

evidence and undermines the reliability of the judicial process in this instance.²⁶⁹

Statutory framework governing chain of custody:

The integrity and reliability of forensic evidence in criminal trial depend upon the proper establishment of the chain of custody. The legal framework governing chain of custody in India is not contained in a single statute but emerges from procedural law, evidence law, judicial precedents, and investigative guidelines.

Indian Evidence Act, 1872:

This act forms the primary legal basis for admissibility of forensic evidence. Some of the relevant provisions for chain of custody are explained herewith.

Section 3 defines evidence includes documentary and material evidence.

Section 61-65 govern proof of documents and authenticity.

Section 45 recognises expert opinion including forensic experts.

Code of Criminal Procedure, 1973:

The Code of Criminal Procedure, 1973 regulates investigation and handling of evidence. Some of the important provisions are herewith.

Section 100 deals with search and seizure procedures.

Section 165 explains police search during investigation.

Section 173 deals submission of final report with material evidence.

Sections 293 and 294 deals about use of expert reports and documentary proof.

Bharatiya Sakshya Adhiniyam, 2023:

India's evidentiary regime has been modernized under the Bharatiya Sakshya Adhiniyam, 2023, which recognizes electronic and digital evidence more explicitly. Maintaining custody records for digital devices, metadata

²⁶⁸ (2020) 7 SCC 237

²⁶⁹ (2021) 1 SCC 596

preservation, and authentication has become increasingly significant.

Need for uniform procedures for chain of custody:

In India, although courts repeatedly emphasise the importance of maintaining an unbroken chain of custody, there exists no comprehensive national statutory framework prescribing uniform procedures applicable across investigative agencies. This absence of standardized protocols has resulted in inconsistent investigative practices, evidentiary disputes, and acquittals.

Indian courts have consistently held that forensic evidence loses evidentiary value when the chain of custody is doubtful. In *Govind v. State of Haryana*, the Supreme Court reaffirmed that even a ballistic or forensic laboratory report cannot establish guilt unless accompanied by an “unassailable chain of custody” linking the accused, the object recovered, and the crime scene.²⁷⁰

The Supreme Court overturned a conviction in the *Dashwanth* case after finding that crucial forensic material was not properly documented at the stage of recovery and the chain of custody remained incomplete, rendering the prosecution case unreliable.

Similarly in the *Nithari killing* case the prime accused name *Surender Koli* was acquitted for lack of evidence in 2025. The Supreme Court after 16 years held this on the basis of procedural lapses and lack of admissible evidence and also noted that the investigation failed to properly secure the crime scene before the excavation began. The co accused *Moninder Singh Pandher* was also acquitted earlier in 2023 due to lack of evidence linking him to the crimes.

Scholarly analysis notes that Indian courts lack a standardized framework for evaluating gaps in custody, creating uncertainty in admissibility determinations. A uniform national protocol

beginning at the crime scene and extending to courtroom presentation has therefore been strongly recommended

The expansion of cybercrime and electronic evidence has intensified the urgency for standardized procedures. Digital evidence can be altered without visible signs, making detailed documentation of access, duplication, storage, and transfer indispensable.

Conclusion:

The evolution of forensic science has fundamentally transformed the administration of criminal justice by shifting investigative reliance from subjective testimony to scientifically grounded evidence. However, as this study has demonstrated, the reliability of forensic science does not rest solely upon laboratory accuracy or technological advancement. The true evidentiary strength of forensic material lies in the procedural integrity governing its handling, preservation, and presentation before courts. The concept of chain of custody therefore emerges not merely as an investigative formality but as the indispensable legal bridge connecting scientific discovery with judicial proof.

The research hypothesis stands substantially validated. The absence of standardized procedures and uniform documentation practices has contributed to evidentiary disputes, weakened prosecutions, and acquittals arising not from innocence but from investigative inadequacies.

Accordingly, the research concludes that India requires a comprehensive and uniform national framework governing chain of custody procedures. Such reform should include standardized documentation formats, mandatory evidence-handling protocols, technological tracking systems, accreditation of forensic laboratories, specialized training for investigating officers, and clear judicial guidelines for evaluating custody lapses. Establishing uniform standards would not only enhance evidentiary reliability but also

²⁷⁰ 2025 INSC 1318

strengthen accountability, transparency, and consistency within criminal adjudication.

Suggestions:

From this research it is evident there is no uniform procedure or policy for chain of custody to be followed by the police officers or the forensic experts. This research also proves that there is significant number of acquittals resulted due to the broken chain of custody.

It is highly recommended that India is need for a uniform standardised procedure for chain of custody to be followed by all respective officials to avoid the broken chain of custody. A centralised National chain of custody protocol should be formulated by the coordination of Ministry of Home affairs, National Forensic Sciences University, Central Forensic Science Laboratory, and State Police Departments. The SOP must standardise the labelling formats, sealing methods, custody documentation, storage conditions etc.

India presently regulates chain of custody indirectly through evidentiary and procedural laws rather than through a comprehensive statute. A separate legislative framework or statutory chapter within the Bharatiya Sakshya Adhinyam, 2023 or Bharatiya Nagarik Suraksha Sanhita, 2023 should be introduced to define chain of custody legally, prescribe mandatory documentation standards, regulate seizure, packaging storage and transfer procedures and establish accountability for evidentiary lapses. Uniform statutory recognition would eliminate interpretational inconsistencies across courts and investigative agencies.

Many custody lapses originate at the crime scene rather than in forensic laboratories. Mandatory training programmes should be introduced for police officers, forensic investigators, prosecutors and judicial officers. Training must emphasize crime scene preservation, contamination prevention, digital evidence handling, and legal consequences of procedural violations.

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