Designation: E2123 – 16

Standard Practice for Transmittal of Evidence in Sexual Assault Investigation[1]

This standard is issued under the fixed designation E2123; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice describes the basic considerations that will help preserve different items or types of sexual assault related evidence for subsequent analysis. This practice is designed to be used in conjunction with other specifications, guides, and practices associated with sexual assault examinations that are listed in Section 2.

1.2 This practice offers a set of instructions for performing one or more specific operations. This standard cannot replace knowledge, skill, or ability acquired through appropriate education, training, and experience and should be used in conjunction with sound professional judgment.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

E1459 Guide for Physical Evidence Labeling and Related Documentation

E1492 Practice for Receiving, Documenting, Storing, and Retrieving Evidence in a Forensic Science Laboratory

E1732 Terminology Relating to Forensic Science

E1843 Guide for Sexual Assault Investigation, Examination, and Evidence Collection

E2057 Specifications for Preparation of Laboratory Analysis Requests in Sexual Assault Investigations

2.2 *Other Standards:*

The Biological Evidence Preservation Handbook: Best Practices for Evidence Handlers Ballou, S. M., et al., 2013

3. Terminology

3.1 *Definitions*—For definitions of terms used in these specifications see Terminology E1732 and the Compilation of ASTM Standard Definitions (1990).

4. Summary of Practice

4.1 Evidence collected from the victim or suspect, other physical evidence from the crime scene, and investigative facts and medical conclusions associated with a sexual assault examination should be treated in a manner that will ensure their suitable preservation for presentation in legal proceedings.

4.2 All individuals associated with the investigation should be prepared to protect the evidence chain of custody and preserve what are often trace amounts of perishable biological materials, and other trace evidence such as hairs, fibers, lubricants, and particulate evidence that may not be visible to the unaided eye.

4.3 These standard specifications are to be used in conjunction with Guide E1843 and Specification E2057.

4.3.1 Additional information can be found in Practice E1492.

5. Significance and Use

5.1 The procedures put forth in this standard are designed to preserve sexual assault evidence items during collection, storage, and transmittal for analysis at an appropriate laboratory.

6. Procedure

6.1 *Evidence Chain of Custody:*

6.1.1 The chain of custody in a sexual assault examination of a victim is unique in that it may be difficult to control in the midst of administering to the needs of an often mobile and traumatized individual.

6.1.2 An “investigator” in this usage may be, but is not limited to, an emergency medical practitioner, social worker, nurse, physician, or law enforcement officer.

6.1.2.1 Each “investigator” should ensure that the chain of custody is continued for the transfer of the evidence to the next “investigator” in the process.

6.1.3 The basic requirements for the labeling and initiating a chain of custody of evidence items are described in Guide E1459.

[1] This practice is under the jurisdiction of ASTM Committee E30 on Forensic Sciences and is the direct responsibility of Subcommittee E30.01 on Criminalistics.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

6.2 *Preservation of Evidence:*

6.2.1 All items of physical evidence collected in the investigation should be treated as though they are, or may contain, perishable biological materials until they can be examined by an appropriate forensic laboratory.

6.2.2 Liquid blood samples should be collected and transported as required by the examining forensic laboratory. Dried stains may be transported at room temperature.

6.2.2.1 In some cases, more than one blood sample may be required from an individual for a combination of serological (including DNA) and toxicological testing. The preservative or anticoagulant required in each sample may be different and the analyzing laboratory's requirements for each sample should be followed.

6.2.3 Blood and urine obtained for toxicological examination, and other items which must remain in liquid form should be sealed in appropriate containers. Glass vials or jars containing liquid body fluids such as blood and urine should never be frozen as glass containers may break. Other items of biological evidence should be air dried at room temperature, packaged and sealed in paper envelopes, paper bags, or paper board containers, or containers that allow evaporation. An outer, sealed plastic bag may be used, if required, for air dried evidence and contained liquid specimens only. Plastic bags should be avoided for the long-term storage of biological evidence.

6.2.4 Containers holding biological samples and stains, including items that are suspected of supporting biological samples and stains, should be labeled with a biohazard label or notation.

6.3 *Packaging of Evidence:*

6.3.1 Each item of clothing, bedding, upholstery, weaponry, bindings, or other physical evidence should be packaged separately whenever practical and possible, unless trace evidence associated with the items could be lost in the process of separation.

6.3.2 Each item of evidence should be photographed in its original (found) location and condition before collection. A package of the resulting photographs can accompany the evidence or be submitted as requested for evaluation of the evidence.

6.3.3 Bedding should be marked to indicate the upper surface, covered with paper, and that surface should be folded over on itself to prevent materials from being transferred to the opposite side from which they were originally deposited.

6.3.4 Individually packaged items, associated with a single individual or one limited location such as a bed, may be boxed together for transmittal and storage.

6.3.5 Items originating from two or more separate locations should never be boxed together. Separate beds in a single room, separate rooms in a single residence, or separate seats in a single automobile are examples of separate locations.

6.3.6 When possible, evidence sampling should be done in the appropriate forensic laboratory rather than in the field or at the scene of an assault. Items too unwieldy to be packaged and stored, or transitory evidence that could be lost in transport should be sampled in the field after scaled photography or diagramming, or both, of the items in their original locations.

6.3.7 After sampling, preservation, and analysis of identified stains, items that are found to contain no additional perishable materials or stains may be stored at room temperature.

6.3.8 All items to be analyzed should be transported to the examining laboratory as soon as possible in either the dried or refrigerated state as described in 6.2. These items should be transmitted with the documentation specified in Specifications E2057.

7. Keywords

7.1 chain of custody; evidence storage; evidence transmittal; preservation of evidence; sexual assault