Standard Methodology in Bloodstain Pattern Analysis

WHAT IS AN AAFS STANDARD FACTSHEET?

The AAFS produces clear, concise, and easy-to-understand factsheets to summarize the contents of technical and professional forensic science standards on the OSAC Registry. They are <u>not</u> intended to provide an interpretation for any portion of a proposed standard.

WHAT IS THE PURPOSE OF THIS PROPOSED STANDARD?

This standard provides the requirements for the systematic approach for bloodstain pattern analysis (BPA) casework. It does not address specific methods.

The methodology provided involves the examination of bloodstains and bloodstain patterns to determine the significance of their presence or absence, what potential forces or mechanisms could result in those bloodstains or bloodstain patterns, and the significance of those determinations in regard to the scope or reason for the examination.

WHY IS THIS PROPOSED STANDARD IMPORTANT? WHAT ARE ITS BENEFITS?

The six chronological steps are standardized to support consistency in the approach to bloodstain pattern casework. Each step provides direction for the development of data-supported interpretations.

The methodology in this standard incorporates a sequential unmasking-expanded approach to providing information that limits the role of contextual bias due to task-irrelevant data in bloodstain pattern decision making.

This OSAC Proposed Standard has been sent to <u>AAFS Academy Standards Board (ASB)</u> for further development and publication. Get involved as a member or by providing public comment.

HOW IS THIS PROPOSED STANDARD USED, AND WHAT ARE THE KEY ELEMENTS?

This standard is to be used each time bloodstain pattern analysis is performed.

The standard defines six chronologically ordered steps to perform BPA:
1) Imaging, sketches, diagrams, and notes are used to document observations of bloodstained items and bloodstained areas to characterize stain and pattern size, shape, distribution, appearance, and location.
2) Areas of blood are grouped by stain size, shape, distribution, appearance, and location. Their utility is determined.
3) Patterns are classified based on observable characteristics.
4) Task-relevant information (e.g., a DNA test result or a pathology report) is then used to refine pattern interpretations.
5) All observed data and interpretations are then used to consider alternative hypotheses as a possible explanation for an event.
6) All interpretations are used to determine if a final opinion can be rendered regarding the request or investigative question.

Documentation, preservation, or collection at the scene or on items of evidence is not covered in this standard.