



AST Recommended Standards of Practice for the Use of Eye Protection During Invasive Surgical Procedures

Introduction

The following Recommended Standards of Practice were researched and authored by the AST Education and Professional Standards Committee and have been (approved by the AST Board of Directors). They are effective April 13, 2008.

AST developed the Recommended Standards of Practice to support health care facilities in the reinforcement of best practices related to the use of eye protection in the perioperative setting. The purpose of the Recommended Standards is to provide an outline that health care workers (HCWs) in the perioperative setting can use to develop and implement policies and procedures for the use of eye protection. The Recommended Standards is presented with the understanding that it is the responsibility of the health care facility to develop, approve, and establish policies and procedures for eye protection according to established health care facility protocols.

Rationale

The following are Recommended Standards of Practice related to eye protection in the perioperative setting. OSHA lists one of the primary reasons for eye injuries and transmission of infectious material occurring is individuals not wearing eye protection.^{7,10} Certified Surgical Technologists (CSTs) and Certified First Assistants (CFAs), as well as the other members of the surgical team, are often sprayed or splashed by potentially infectious material in the course of the workday. Additionally, infectious material can enter from rubbing or touching the eyes with contaminated fingers or objects.⁵ Infectious diseases can be introduced through the conjunctiva (mucous membrane) of the eye, including *Staphylococcus aureus*, adenovirus, herpes simplex, hepatitis viruses, and HIV.⁵ Studies by OSHA, CDC, NIOSH, and ANSI indicate the need for consistent use of protective eyewear by all O.R. personnel when the potential exists for exposure to blood and body fluids. Members of the surgical team should be involved in the process of developing and implementing health care facility policies and procedures for use of eye protection.

Standard I

Eye protection must be worn as part of personal protective equipment as a barrier to infectious material entering the eye as mandated by OSHA during all invasive surgical procedures, including endoscopic procedures, or in any situation where splash injury to the eyes could occur.

1. The OSHA bloodborne pathogens standard requires that personal protective equipment (PPE) is only considered effective and appropriate if it does not permit blood or other potentially infectious material (OPIM) to pass through to and reach the scrub attire, skin, eyes, mouth or other mucous membranes under normal conditions and for the length of time of use.⁹
2. Eye protection must be as comfortable as possible, allow for sufficient peripheral vision, and be adjustable to ensure a secure fit.⁵
3. Prescription eyeglasses and contact lenses are not considered eye protection and therefore, do not provide proper infection control protection.⁵ There are types of eye protection that can be safely worn over eyeglasses and contact lenses can be worn with the recommended eye protection devices.
4. All operating room personal are required to follow Standard Precautions as mandated by the Centers for Disease Control and Protection (CDC) as well as following health care facility policies and procedures for the prevention of the transmission of blood and OPIM, when choosing the correct eye protection.
5. For nondisposable eyewear, it is recommended that each individual be provided his/her own eyewear that is only worn by that person in order to ensure the appropriate fit is maintained and minimize the potential of exposure to the wearer.⁵

Standard II

Eye protection should be removed in an aseptic manner to minimize splashes of blood and body fluids to the mucous membrane, in particular the conjunctiva of the eye.

1. Eye protection should be worn during the entire procedure. "Entire procedure" is defined as when all biohazardous materials have been placed in appropriate bags or containers.⁴
2. Eye protection should only be handled and removed by the portion that secures it to the head, ie ties, elasticized band, since those are more likely to be clean as opposed to the front and sides, which are likely to be contaminated by splashes and sprays of blood and body fluids.
3. Eye protection should be removed and not carried outside of the surgery department.

Standard III

Disposable protective eyewear that is contaminated should be disposed of immediately. Contaminated nondisposable eyewear should be promptly decontaminated.

1. Contaminated disposable eyewear should be disposed of following health care

facility policies and procedures. The contaminated item should be placed in the proper biohazardous bag or container. The eyewear should not be worn during subsequent procedures to prevent contamination to the wearer.

2. Health care facility procedures and manufacturer’s instructions should be followed for the decontamination of nondisposable eye protection devices. The eye protection should be placed in a designated receptacle for subsequent retrieval, cleaning and disinfection.⁵ Decontamination should occur in the designated area where other contaminated supplies, equipment and instruments are reprocessed. The eye protection device should be cleaned and disinfected with the designated health care facility disinfectant that is also recommended by the manufacturer, thoroughly rinsed and allowed to air dry before it is used again.

Standard IV

The proper type of goggles should be selected and worn in the operating room.

1. Goggles should be the indirectly-vented type for infection control purposes (directly-vented goggles may allow splashes and sprays to enter).⁵
2. Goggles must fit snugly from the corners of the eyes across the brow without being uncomfortable to the wearer.¹

Standard V

The proper type of face shield should be selected and worn in the operating room.

1. The face shield should have crown and chin protection as well as wrap around the face to the ears for infection control purposes (NIOSH, 2004).
2. The face shield should fit snugly and the foam brow band contoured to the wearer (Davis, 2001).
3. Face shields do not provide the optimal protection because they open from below and therefore should only be worn in conjunction with use of goggles.^{1,6}

Competency Statements

Competency Statements	Measurable Criteria
<ol style="list-style-type: none"> 1. CSTs and CFAs are knowledgeable of the risks and hazards associated with lack of eye protection during invasive surgical procedures. 2. CSTs and CFAs are knowledgeable of the requirements for protection against exposure to infectious microbes contained in blood and body fluids. 	<ol style="list-style-type: none"> 1. Educational standards as established by the <i>Core Curriculum for Surgical Assisting</i> and the <i>Core Curriculum for Surgical Technology</i>.^{2,3} 2. The subject of transmission of infectious materials and the hazards of blood-borne pathogens are included in the didactic studies as a surgical technology

<p>3. CSTs and CFAs are knowledgeable of the principles of transmission of blood-borne pathogens and have the proper skills in infection control.</p>	<p>and surgical assistant student. Additionally Standard Precautions are studied.</p> <p>3. Surgical technology and surgical assisting students demonstrate knowledge of the application of Standard Precautions including the proper donning of PPE in the lab/mock O.R setting.</p> <p>4. Surgical technology and surgical assisting students demonstrate knowledge of the CDC recommended practices of wearing PPE in the surgical setting during their clinical rotation.</p> <p>5. CSTs and CFAs apply the principles of donning PPE for infection control purposes.</p> <p>6. CSTs and CFAs complete continuing education to remain current in their knowledge of PPE, blood-borne pathogens rules, and preventing the transmission of infectious diseases.</p>
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References

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