OCCUPATIONAL BLOOD AND BODY FLUID EXPOSURES DURING DEVICE REPROCESSING: USING DATA TO CREATE SAFER WORKPLACES

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Data Set

- Network of U.S. Hospitals
- 5-Year Time Period, 2010-2014
- Occupational / Employee Health Exposure Incidents for Blood and Body Fluid Incidents
- Description of Exposure & Personal Protective Equipment (PPE) Use

LOCATION OF BLOOD, BODY FLUID, OR TISSUE SPLASH

Eyes, 66.7%

In No (0) Case Did Employees Indicate They Were Wearing Eye Protection

Nearly 20% (17.1) of employees indicated they had an exposure in more than one of these locations.
Incident Descriptions

• “Cleaning surgical instrument, splash in eye with blood and cleaning solution”
• “Disassembling surgical instrument, blood and tissue in cannula touched non-intact skin”
• “Lifted trash bag, liquid in eye”
• “Cleaning instruments, sprayed in face”
• “Blood caked in spring forceps, splattered in eye and face”
Risk of Eye & Conjunctiva Exposure

- Risks exacerbated by abrasions, swelling, allergies, infection, inflammation, dryness, conjunctivitis, stye, recent surgery, contacts
- If conjunctiva is compromised, bacteria, viruses, fungi can easily penetrate eye, blood vessels, vitreous/aqueous humor
- Infections, illnesses documented from eye exposures:
  - Influenza, HIV, HBV, HCV, Rabies, Ebola, Herpes, Plague, SARS
The Eye

Semi-Transparent Skin Covering: First Line of Defense

Source: https://www.lhup.edu/~dsimanek/scenario/labman3/eye.htm
The Value of Prevention

- Exposures can cause pain, fear, anxiety, and development of infectious disease, illness, infection, or chronic condition
- Exposures can require post-exposure prophylaxis, days away from work, and reassignment
- PPE Use Fulfills OSHA, Joint Commission, and Accreditation/Licensure Requirements both National and State
- Incidents can be OSHA recordable
Face Protection Checklist

- Is face - and especially eyes - adequately protected in all areas where medical devices and patient care items are reprocessed?
- Does protective eyewear fit well enough to both increase compliance and decrease exposures over or under eyewear?
- Is compliance with PPE use at an ideal level?
- Is PPE easily accessible in all areas where it is needed?
- Are incidents or near hits reported so that they can be identified and prevented in the future?
- Do employees have the ability to give management feedback and regularly self-evaluate and improve their own practices?
- Can any process be engineered out or automated?
- Is there a feedback loop to device and equipment manufacturers to consider additional human factors during new device design?

Source: AORN
Preventing Exposure Incidents

• Protocols & Internal Policies Need to be Strong!
• Perform Needs Assessment / Incident Summary Using Data Like EPINet
• Consider Methods to Identify Blood/Tissue Still in Device After Initial Cleaning
• Increase Eyewear Availability / Access
• Increase Use & Compliance
• Network, Ask for Help!
• Variety of Product Types, Designs, Constructions, Materials, Fits