

Sharps Injuries: Inevitable or Preventable

Mary J. Ogg, MSN, RN, CNOR

IT'S
**NOT
OK**

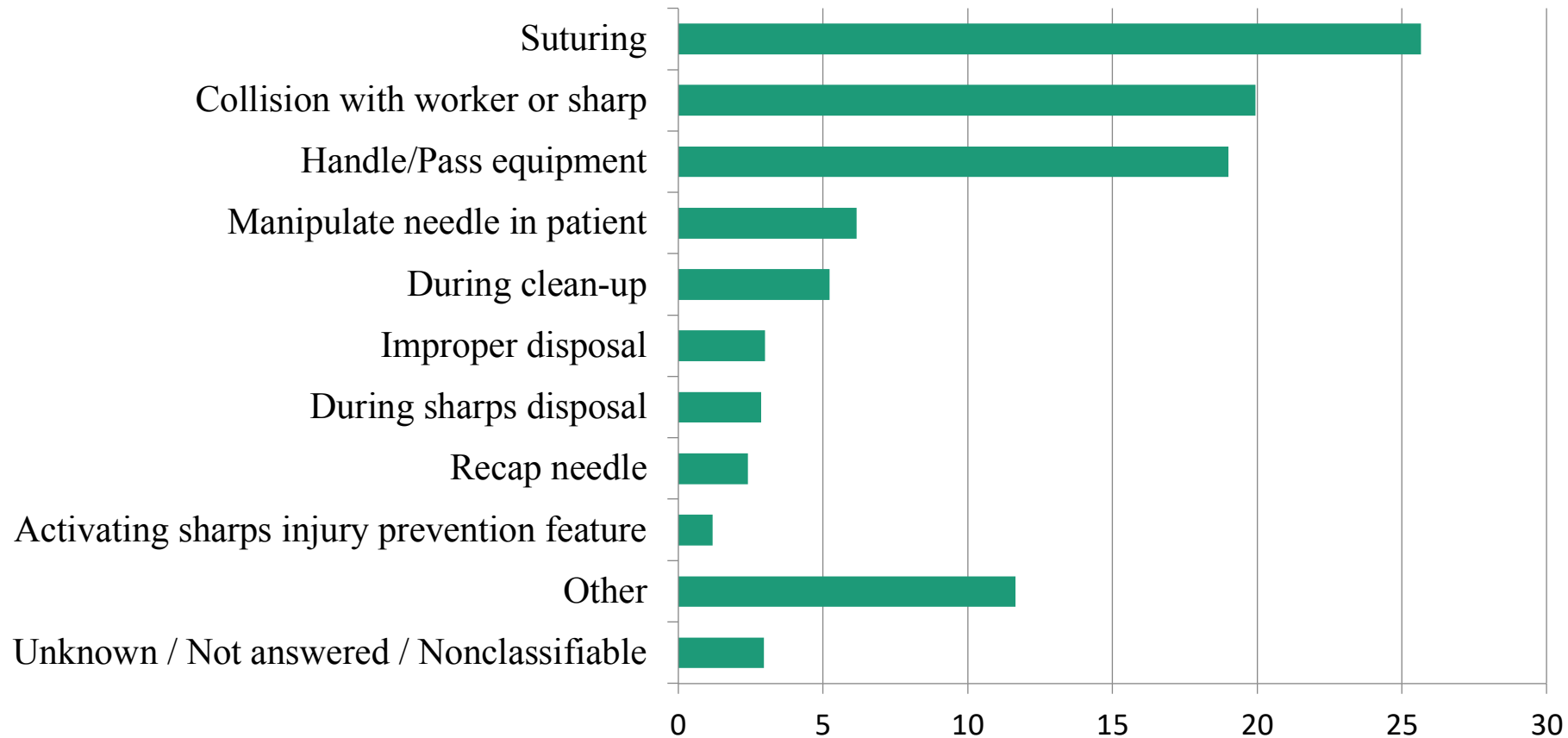
Why is sharps safety important?

- 500,000 health care workers injured each year
- Injuries associated with occupational transmission of HBV, HCV, & HIV
- 132 documented cases of health care provider to patient transmission of HBV, HCV, or HIV



IT'S
**NOT
OK**

Distribution of sharps injuries among Massachusetts hospital workers by how the injury occurred, 2010-2015



IT'S
NOT
OK

OSHA's Bloodborne Pathogen Standard

29CFR 1910.1030



IT'S
**NOT
OK**

Needlestick Safety & Prevention Act of 2000

The Occupational Safety and Health Administration (OSHA) Needlestick Safety and Prevention Act was established on November 6, 2000 and was the work of Safe Needles Save Lives, a campaign launched by the American Nurses Association. The Needlestick Safety and Prevention Act represented a revolutionary change for healthcare workers in the U.S. because it meant the government was now involved in their safety.

IT'S
NOT
OK

The Needlestick Safety and Prevention Act requires employers to:

- Identify, evaluate and implement safer medical devices
- Maintain a sharps injury log
- Involve healthcare workers in deciding which devices are used.
- Implement engineering controls for sharps disposal containers, self-sheathing needles, safer medical devices like sharps with engineered injury protections and needleless systems, and requires that these engineering controls be used to eliminate or lessen employee exposure to bloodborne pathogens
- Train employees in the proper usage of the engineering and work practice controls to help keep them safe

IT'S
NOT
OK

Hierarchy of Controls



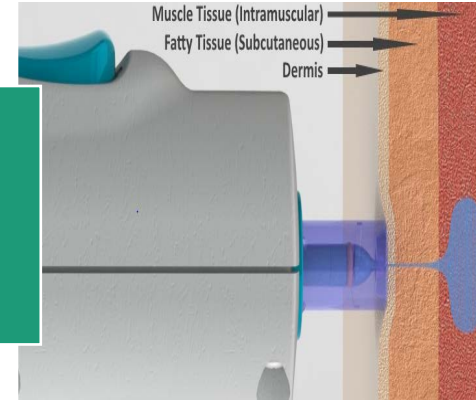
IT'S
**NOT
OK**

Hazard Elimination

Needleless
connectors



Needle-free
injectors



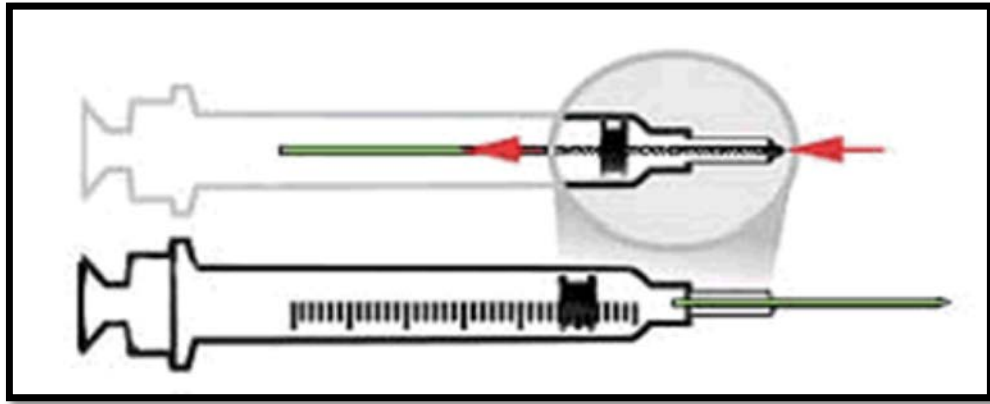
Alternative
cutting
devices



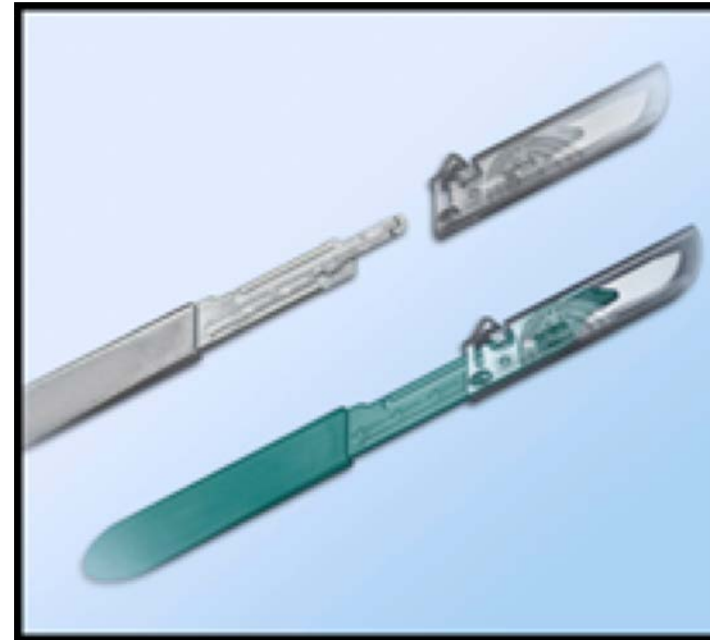
IT'S
NOT
OK

Engineering Controls

Safety needles & syringes

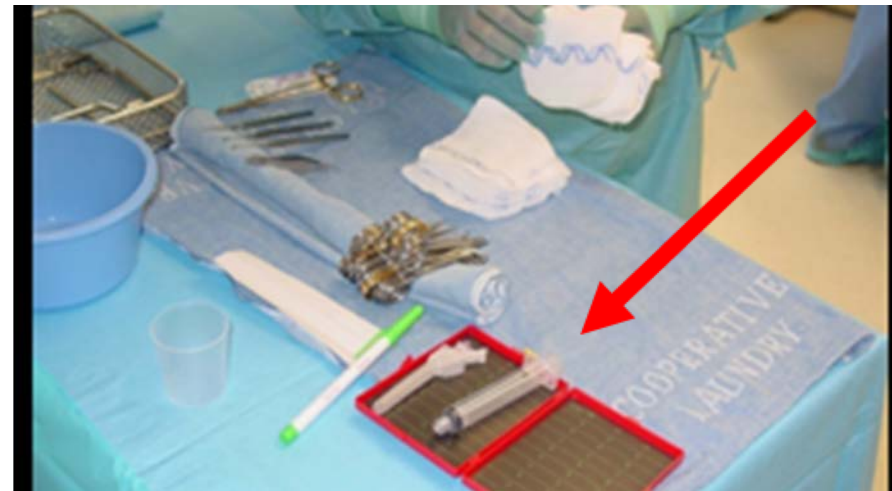


Safety Scalpels



IT'S
**NOT
OK**

Work Practice Controls



IT'S
**NOT
OK**

Taking a stand against Sharps Injuries.

Administrative Controls

Exposure control
plan

Education &
competency



Policies &
procedures

Documentation

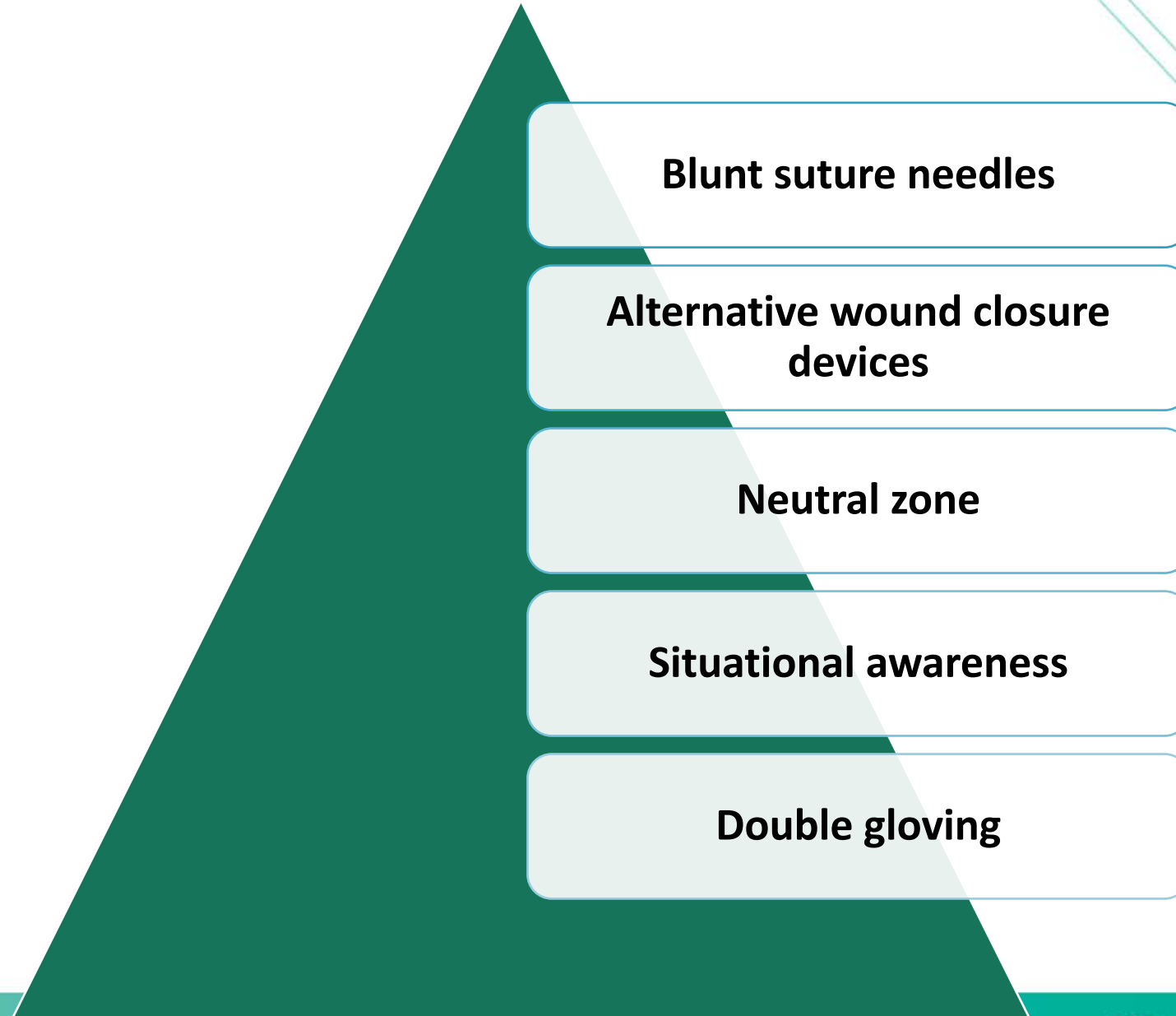
IT'S
NOT
OK

Personal Protective Equipment



IT'S
**NOT
OK**

Strategies to Reduce Risks



IT'S
**NOT
OK**

Safety Features

Simple

Reliable

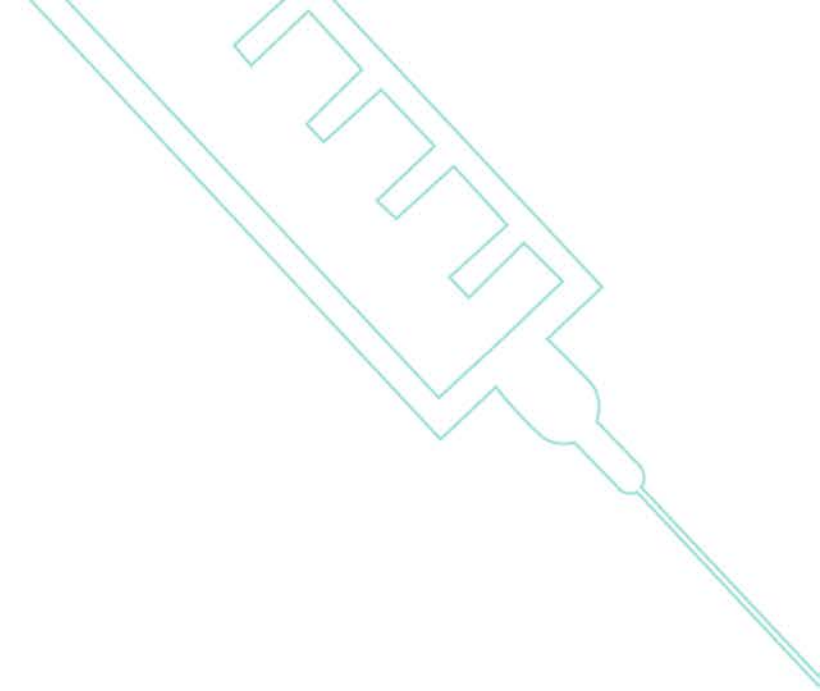
Clear

Easily understood

IT'S
**NOT
OK**

Product Evaluation & Selection

- Frontline workers
- Multidisciplinary team
- Priorities
- Reducing sharps injuries



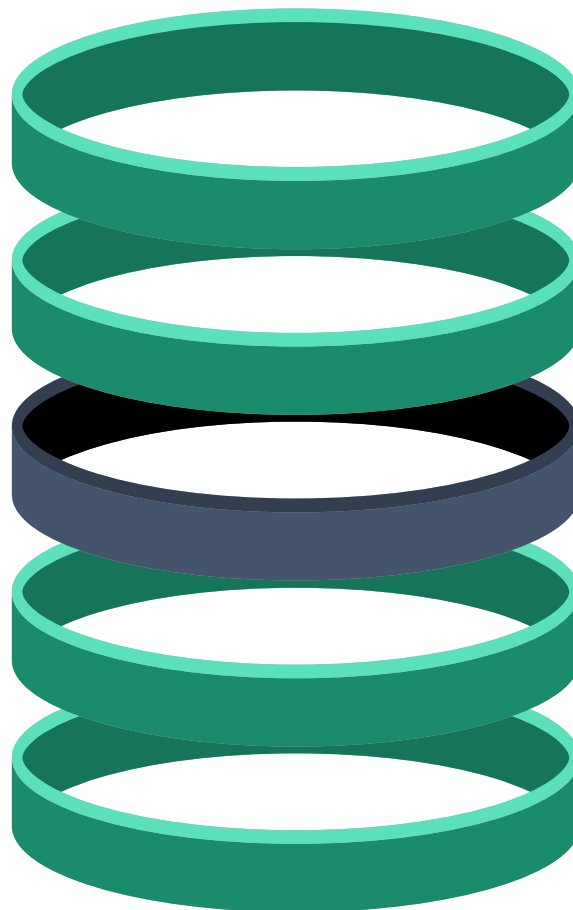
IT'S
**NOT
OK**

Selection Criteria

Patient safety

Worker safety

Efficiency



User acceptance

Overall performance

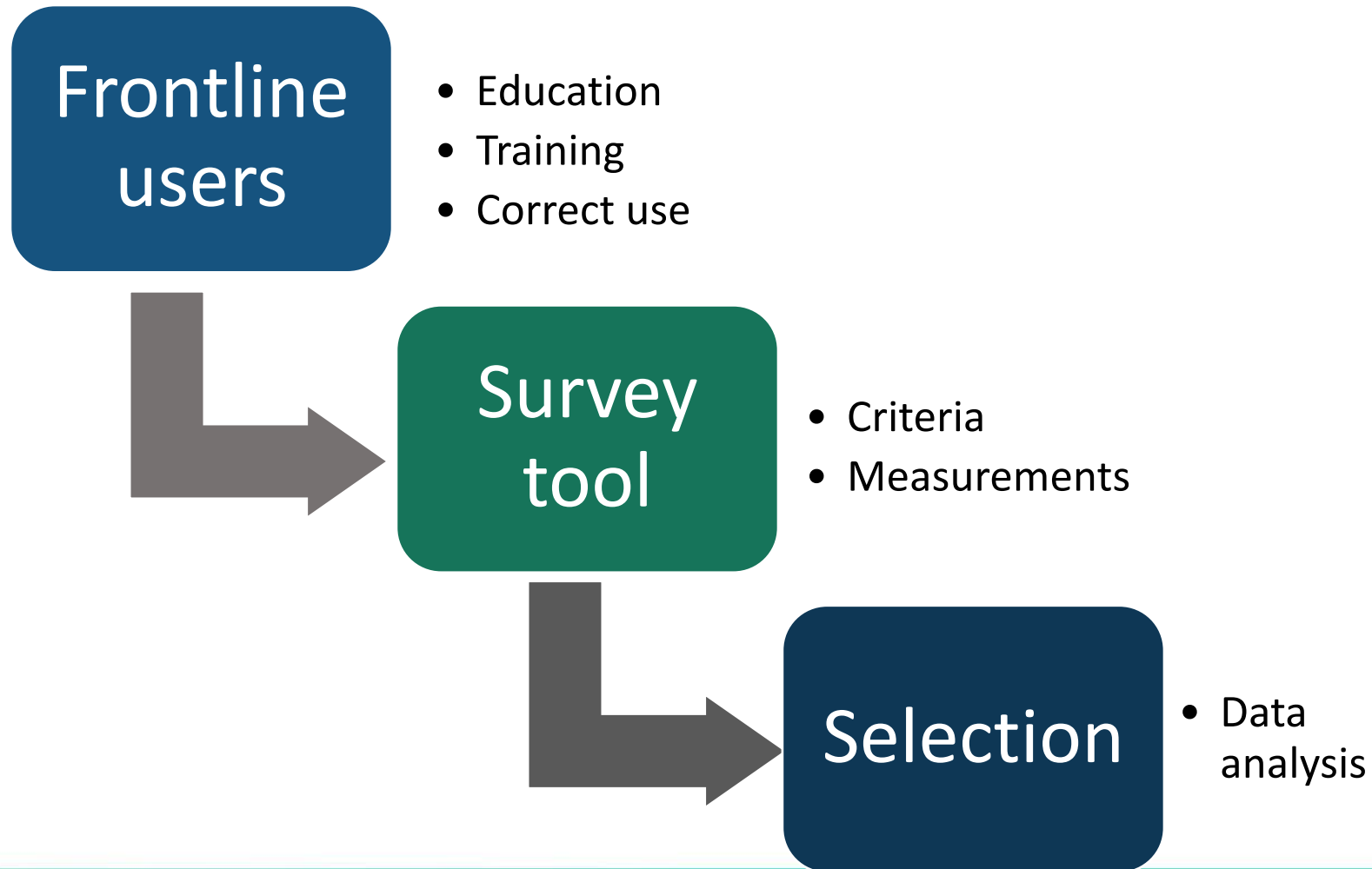
IT'S
**NOT
OK**

Safety Design



IT'S
**NOT
OK**

Product selection



IT'S
NOT
OK

Cost analysis

Cost of the product

Potential cost savings

Education & training costs

Assessment



Acceptance



Correct
usage



Performance



Injury
rates



Usage
rate

IT'S
**NOT
OK**



Efficacy of current devices

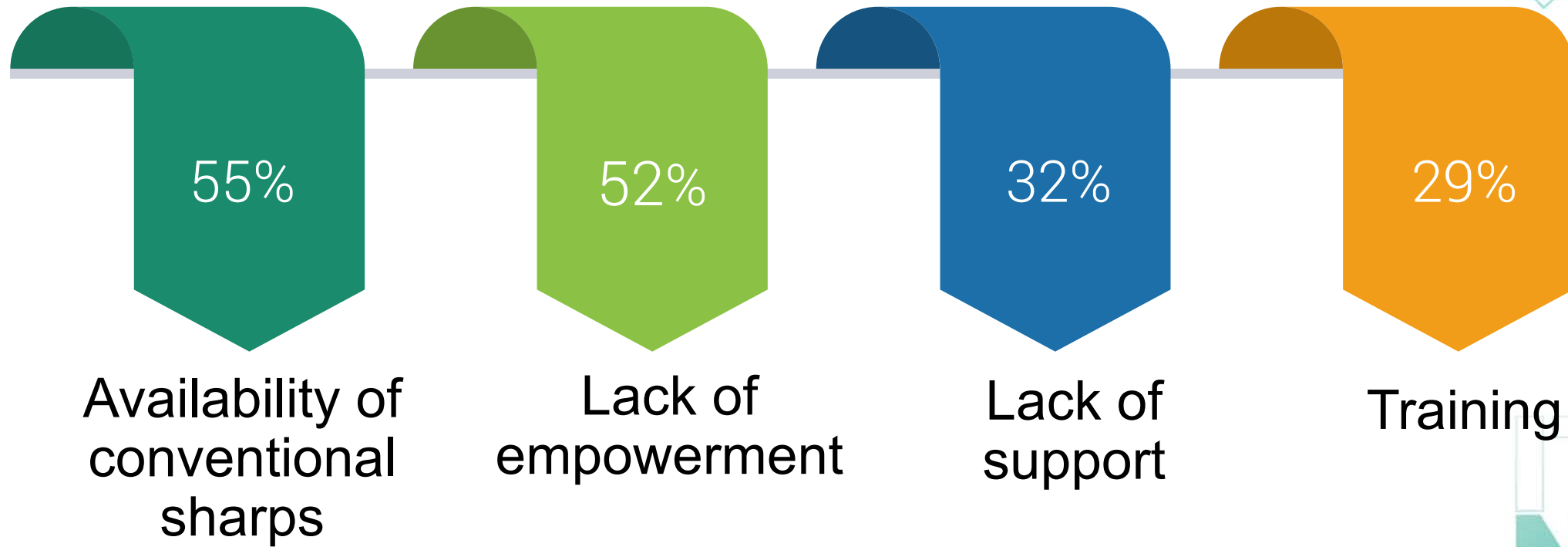
- Reducing injuries
- Preventing injuries

New device evaluation

- Persistent sharps injuries

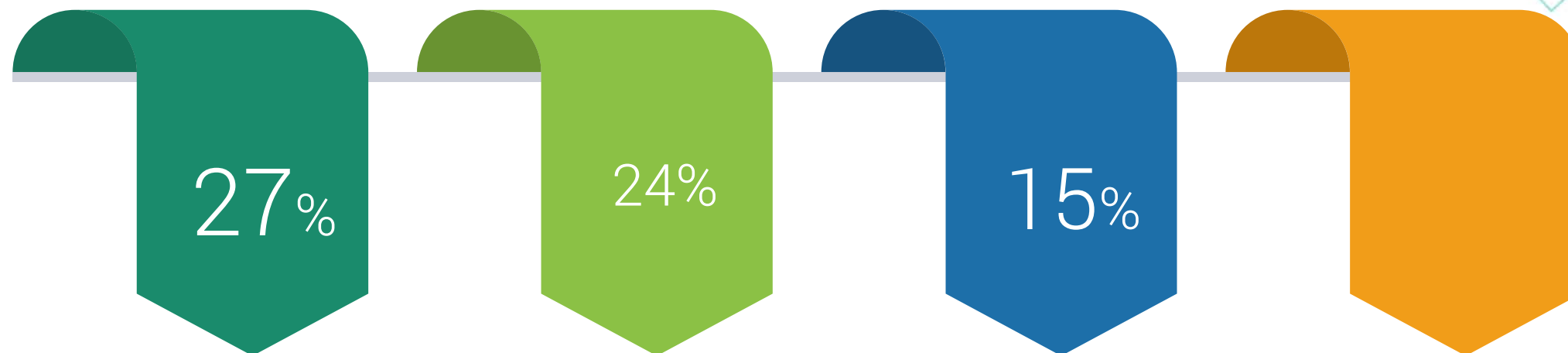
IT'S
**NOT
OK**

Obstacles



IT'S
**NOT
OK**

Obstacles

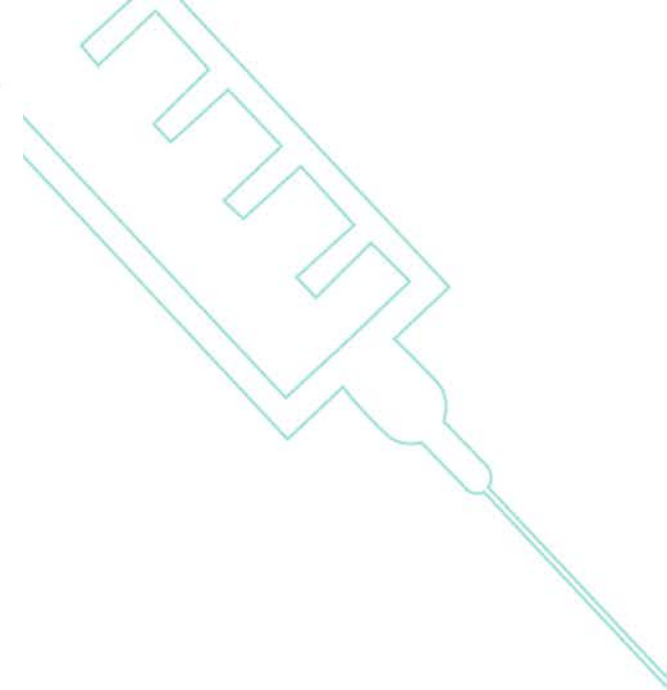


Budget

Lack of
management
support

Lack of safety
culture

IT'S
NOT
OK



IT'S
**NOT
OK**

Taking a stand against Sharps Injuries.

Under-reporting of injuries

Perceived low risk



Lack of time; inconvenient

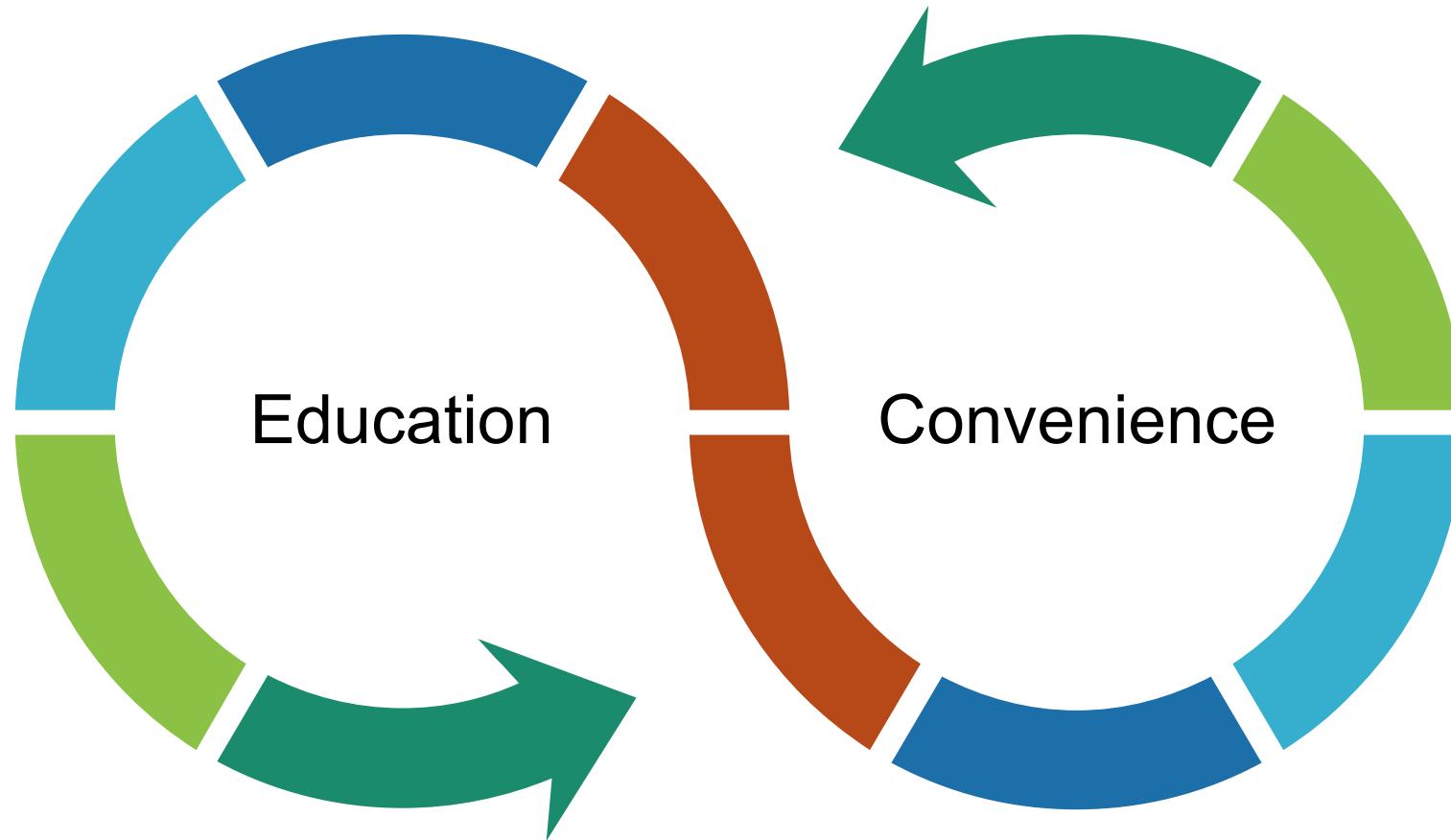


Fear of reprisal



IT'S
**NOT
OK**

Increasing Reporting



IT'S
NOT
OK

Culture of Safety



IT'S
**NOT
OK**

Creating a Culture of Safety

- Patient & worker safety
- Worker participation
- Availability of safety devices, PPE
- Influence of group norms
- Socialization of new hires



IT'S
NOT
OK

Safety Climate

Leads to Increased
Perception of a Safe
Environment

Influences the
Adoption of
Safety Behaviors

Leads to a Safer
Work
Environment

Influences
Co-Workers
Behaviors

IT'S
**NOT
OK**

Resources

OSHA

NIOSH

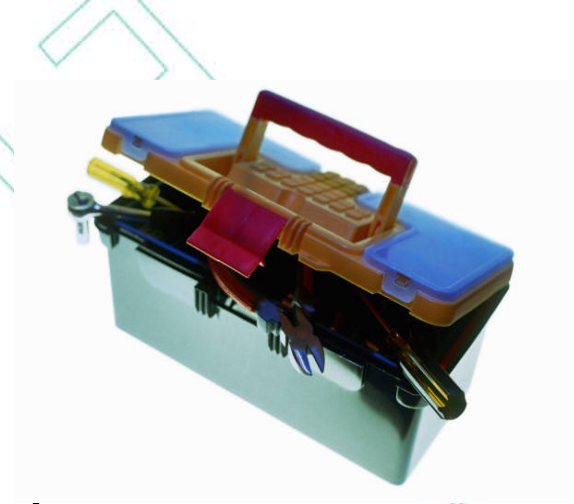
AORN

ANA



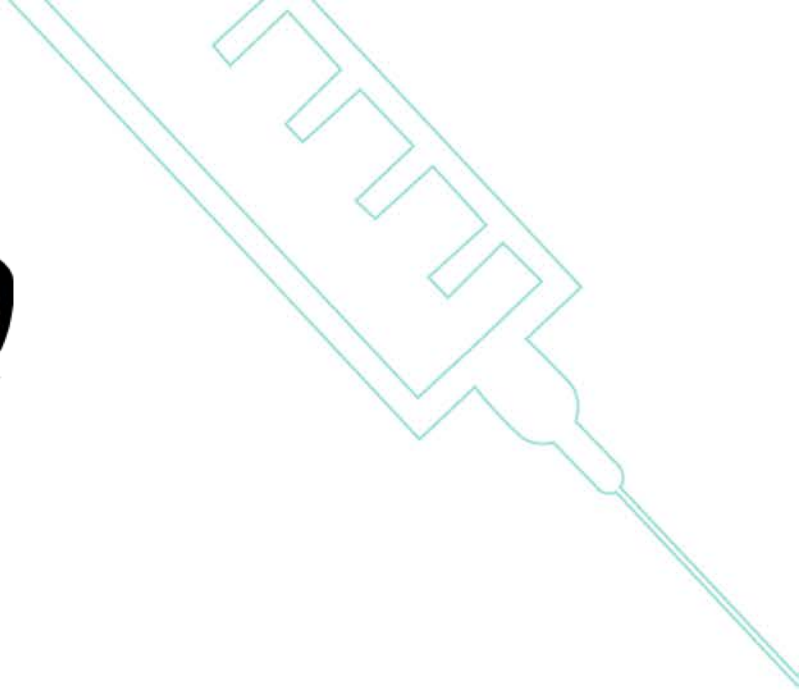
IT'S
NOT
OK

AORN Sharps Safety Tool Kit



- Educational power points
- Implementation plan
- Evaluation of sharps safety devices
- Evidence-based Posters
- Analysis of sharps injuries
- List of online resources
- Sharps safety poster “how to”
- Frequently Asked Questions

IT'S
NOT
OK



IT'S
**NOT
OK**

Taking a stand against Sharps Injuries.

References

1. Aarnio P, Laine T. Glove perforation rate in vascular surgery--a comparison between single and double gloving. *Vasa*. 2001;30(2): 122-124.
2. Bessinger CD Jr. Preventing transmission of human immunodeficiency virus during operations. *Surg Gynecol Obstet*. 1988;167(4): 287-289.
3. Bush C, Schmid K, Rupp ME, et al. Bloodborne pathogen exposures: difference in reporting rates and individual predictors among health care personnel. *AJIC*. 2017; 45: 373-376.
4. Coulthard P, Esposito M, Worthington HV, van der Elst M, van Waes OJ, Darcey J. Tissue adhesives for closure of surgical incisions. *Cochrane Database Syst Rev*. 2010;(5)(5):CD004287
5. Florman S, Burgdorf M, Finigan K, Slakey D, Hewitt R, Nichols RL. Efficacy of double gloving with an intrinsic indicator system. *Surg Infect (Larchmt)*. 2005;6(4): 385-395. doi:10.1089/sur.2005.6.385.
6. Guideline for Sharps Safety. In: *Guidelines for Perioperative Practice*. Denver, CO: AORN, Inc; 2018:415-438.
7. Jagger J, Berguer R, Phillips EK, Parker G, Gomaa AE. Increase in sharps injuries in surgical settings versus nonsurgical settings after passage of national needlestick legislation. *J Am Coll Surg*. 2010;210(4): 496-502. doi:10.1016/j.jamcollsurg.2009.12.018.
8. Laine T, Aarnio P. How often does glove perforation occur in surgery? Comparison between single gloves and a double-gloving system. *Am J Surg*. 2001;181(6): 564-566.
9. Ly J, Mittal A, Windsor J. Systematic review and meta-analysis of cutting diathermy versus scalpel for skin incision. *Br J Surg*. 2012;99(5): 613-620. doi:10.1002/bjs.8708; 10.1002/bjs.8708.
10. Panlilio AL, Orelie JG, Srivastava PU, et al. Estimate of the annual number of percutaneous injuries among hospital-based healthcare workers in the United States, 1997-1998.. *Infection Control & Hospital Epidemiology*. 2004;25(7): 556-562.
11. Parantainen A, Verbeek JH, Lavoie MC, Pahwa M. Blunt versus sharp suture needles for preventing percutaneous exposure incidents in surgical staff. *Cochrane Database Syst Rev*. 2011;11:CD009170.
12. Tanner J, Parkinson H. Double gloving to reduce surgical cross-infection. *Cochrane Database Syst Rev*. 2009;3: CD003087. doi:10.1002/14651858.CD003087.pub2.
13. Weiss ES, Makary MA, Wang T, et al. Prevalence of blood-borne pathogens in an urban, university-based general surgical practice. *Ann Surg*. 2005;241(5): 803-7; discussion 807-9.

IT'S
NOT
OK

Resources

1. ANA Sharps Injury Prevention

<http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Healthy-Work-Environment/SafeNeedles/>

2. AORN Sharps Safety Tool Kit

<https://www.aorn.org/guidelines/clinical-resources/tool-kits/sharps-safety-tool-kit>

3. OSHA Healthcare Wide Hazards Needlestick/Sharps Injuries

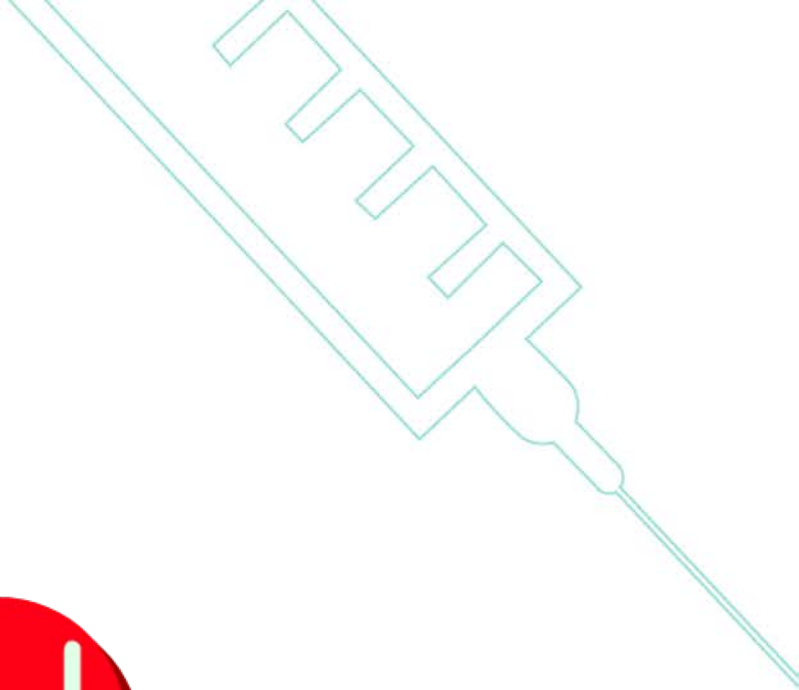
<https://www.osha.gov/SLTC/etools/hospital/hazards/sharps/sharps.html>

4. NIOSH STOP STICKS CAMPAIGN

<https://www.cdc.gov/niosh/stopsticks/sharpsinjuries.html>



IT'S
NOT
OK



IT'S
**NOT
OK**



#IT'S
NOT
OK

TAKE A STAND.
SHARE YOUR EXPERIENCE.

Help us tackle the persistent issue of sharps injuries by sharing your #ITSNOTOK experience on LinkedIn, Instagram & Facebook!