We Have Your Back
A Worker Safety Collaborative
An Initiative of the Florida Hospital Association

WORKER SAFETY WEDNESDAY WEBINAR SERIES:
SHARPS INJURY AND BLOOD EXPOSURE PREVENTION BUNDLE OVERVIEW
THURSDAY, MARCH 23, 2017
WELCOME!
WHYB: Promoting workforce safety as an organizational priority in our hospitals

FOCUS AREAS:
- Safe patient lifting, handling and mobility
- Sharps injury and blood exposure prevention
- Workplace violence
- Finding solutions to reduce work stress, fatigue, and burnout
Special Thank You to Our Sponsors!
WHYB Timeline...

2016
- 100 hospitals pledged to participate
- Virtual focus group webinars
- Worker safety bundle strategies
- Baseline data collection
- 1st Annual WHYB Conference

2017
- Learning and Sharing Webinars
- Focus Area Bundle Strategies
- SME Resources
- Effective Practice Sharing
- Data Analysis
- ROI Calculation Instruction
- Networking
- Ongoing data surveys

September 19-20
- WHYB Conference
- Lake Mary, FL
- PLAN TO ATTEND
The Sharps Injury and Blood Exposure Prevention Bundle

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PRESIDENT / EXECUTIVE DIRECTOR
INTERNATIONAL SAFETY CENTER
HOUSTON, TEXAS
Bundle Strategy: Overview

This bundle is designed to eliminate all preventable needlesticks, sharps injuries, and blood exposures.

It adheres to the fundamentals of the industrial hygiene hierarchy of controls to protect healthcare personnel from exposure to bloodborne and infectious disease.
Hierarchy of Controls

- **Elimination**: Physically remove the hazard
- **Substitution**: Replace the hazard
- **Engineering Controls**: Isolate people from the hazard
- **Administrative Controls**: Change the way people work
- **PPE**: Protect the worker with Personal Protective Equipment
Bundle Strategy: Objective

The hierarchy includes controls for eliminating or substituting out a hazard, using

- Engineering controls including safer medical devices
- Work practice and administrative controls
- Personal protective equipment (PPE)
Sharp Injury and Blood Exposure Prevention Bundle

§ Eliminate sharps whenever and wherever possible.
§ Utilize the hierarchy of controls, including engineering controls (safer medical devices), immediate disposal, and safe work practices to reduce sharps hazards.
§ Eliminate highest risk exposure practices in the operating room; use neutral zone passing of sharp devices and utilize eye protection for entire team.
§ Actively promote compliance with the utilization of safety devices and personal protective equipment.
Eliminate sharps whenever and wherever possible.

- Improve use of skin adhesives where possible
- Improve use of blunt suture needle where possible.
- Explore alternate forms of vaccine delivery; nasal, microneedles.
- Do not access needleless systems with needles.
- Others?
Utilize the hierarchy of controls, including engineering controls (safer medical devices), immediate disposal, and safe work practices to reduce sharps hazards.

- Do not recap.
  - >3% still occur
- Activate Safety Feature.
  - 64% injuries from device without activated safety feature
- Immediate Disposal. Do not leave devices on surfaces or in bedding.
  - >25% to non-user
- Take a moment to let others around know what you are doing.
  - >25% to non-user
- Ditch the Pinch.
  - Select right size needle
Eliminate highest risk exposure practices in the OR; use neutral zone passing of sharps and utilize eye protection for entire team.

- Perioperative site exposures can result in cross-contamination; patient to worker, worker to patient
- OR exposures indicate the highest level of moderate to severe bleeding
- Again, >25% of injuries occur to the non-user of the device
- Though eye protection use is highest in the OR compared to other departments, exposures are high and compliance is still low
  - Choose the right eye protection for fit and comfort
  - High velocity spray results in exposures to entire team
Actively promote compliance with the utilization of safety devices and personal protective equipment.

- Critical to involve frontline non-managerial employees in evaluation of safety devices and PPE
  - Improve knowledge
  - Improve activation, compliance
- Improve access to safety devices and PPE
  - Get creative about how and where to store products so they are immediately accessible
- Measure not just incidents, but details surrounding incident.
  - Was safety device used, was PPE used, if not, why not?
  - Exposures “unanticipated” frequently at the bedside may mean that we need to issue at least eye protection at all times.
Your Summary

Data: OSHA 300 Records

SHARPS INJURIES AND BLOOD/BODY FLUID EXPOSURES
### Sharp Object Injuries

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL Injuries</td>
<td>1,444</td>
<td>737</td>
<td>1,474</td>
</tr>
<tr>
<td>Average/Facility</td>
<td>23</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Range</td>
<td>(1,361)</td>
<td>(0,150)</td>
<td></td>
</tr>
</tbody>
</table>

- Huge variation in injuries reported
- Zero is a challenging non-number. Under-reporting?
- Projection difficult given July new residents, higher?
- Are “averages” informative?
- Seems 2016 will mirror 2015
- What statistic/benchmark will inform progress?
## Mucous Membrane BBF Exposure Incidents

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL Incidents</td>
<td>984</td>
<td>476</td>
<td>952</td>
</tr>
<tr>
<td>Average/Facility</td>
<td>15</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Range</td>
<td>(1, 289)</td>
<td>(0, 155)</td>
<td></td>
</tr>
</tbody>
</table>

- Consider BBF exposures potentially higher risk than SOI given bloodborne and non-bloodborne (MDROs)?
- Measure/survey PPE use?
- “Zero” is a challenging non-number. Non-reporting? Under-reporting?
Stay Tuned for May 3 Webinar to Share National Data Trends in Sharps Injuries
Recap: Comparison Incident Data For Bundle Development

- International Safety Center, Exposure Prevention Information Network (EPINet) Data
  - Needlestick and Sharp Object Injury
    - Use of Medical Devices with Safety Design
  - Blood and Body FluidSplash and Splatter Exposure
    - Use of PPE and Barrier Garments
Since 1992, acquired for 1,500 U.S. Hospitals and 96 countries!
EPINet Report for Needlestick and Sharp Object Injuries

Reporting period: Jan 01, 2014 to Dec 31, 2014
Facility where incident occurred: ALL
Type of facility where occurred: ALL
3. Dept where incident occurred: ALL
4. Home/Employing dept: ALL
5. Job category: ALL
6. Where the injury occurred: ALL

Total rate: 24.7 per 100 ADC
Teaching rate: 27.2 per 100 ADC
Non-teaching rate: 20.4 per 100 ADC
ADC=Average Daily Census

10. For what purpose was the sharp item originally used?

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Unknown/not applicable</td>
<td>21</td>
<td>3.5%</td>
</tr>
<tr>
<td>2 Injection, intramuscular/subcutaneous</td>
<td>191</td>
<td>32.3%</td>
</tr>
<tr>
<td>4 Other injection into IV injection site or port</td>
<td>7</td>
<td>1.2%</td>
</tr>
<tr>
<td>5 To connect IV line</td>
<td>2</td>
<td>0.3%</td>
</tr>
<tr>
<td>6 To start IV or setup heparin lock</td>
<td>25</td>
<td>4.2%</td>
</tr>
<tr>
<td>7 To draw a venous blood sample</td>
<td>55</td>
<td>9.3%</td>
</tr>
<tr>
<td>8 To draw an arterial blood sample</td>
<td>14</td>
<td>2.4%</td>
</tr>
<tr>
<td>9 To obtain a body fluid or tissue sample</td>
<td>6</td>
<td>1.0%</td>
</tr>
<tr>
<td>10 Fingerstick/heel stick</td>
<td>6</td>
<td>1.0%</td>
</tr>
<tr>
<td>11 Suturing</td>
<td>124</td>
<td>20.9%</td>
</tr>
<tr>
<td>12 Cutting</td>
<td>45</td>
<td>7.6%</td>
</tr>
</tbody>
</table>
Summary of EPINet Incident Data

SHARPS INJURIES & SPLASHES/SPLATTERS
2014 EPINet Summary Data

Device Causing Injury

41.2% Safety Device Used
65.8% Safety Feature Not Activated
## Sharp Injuries Year Comparison, EPINet

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Injuries</td>
<td>597</td>
<td>508</td>
<td>559</td>
</tr>
<tr>
<td>Doctor</td>
<td>28.6%</td>
<td>24.8</td>
<td>23.4</td>
</tr>
<tr>
<td>Nurse</td>
<td>36.2</td>
<td>36.2</td>
<td>43.3</td>
</tr>
<tr>
<td>Patient Room</td>
<td>24.6</td>
<td>28.5</td>
<td>34.2</td>
</tr>
<tr>
<td>OR</td>
<td>39.3</td>
<td>36.8</td>
<td>34.6</td>
</tr>
<tr>
<td>Disposable Syringe</td>
<td>35.7</td>
<td>31.7</td>
<td>35.2</td>
</tr>
<tr>
<td>Safety Mechanism? Yes</td>
<td>36.7</td>
<td>41.6</td>
<td>42.1</td>
</tr>
<tr>
<td>Safety Activated? NO</td>
<td>65.7</td>
<td>70.9</td>
<td>64.6</td>
</tr>
</tbody>
</table>

Still Work to Be Done
## EPINet Splash/Splatter Year Comparison

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Incidents</td>
<td>174</td>
<td>141</td>
<td>213</td>
</tr>
<tr>
<td>Doctor</td>
<td>13.8%</td>
<td>14.9%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Nurse</td>
<td>47.7</td>
<td>49.6</td>
<td>54</td>
</tr>
<tr>
<td>Eyes (Conjunctiva)</td>
<td>60.0</td>
<td>64.5</td>
<td>65.7</td>
</tr>
<tr>
<td>Goggles/Faceshield</td>
<td>7.4</td>
<td>8.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Patient Room</td>
<td>33.7</td>
<td>28.1</td>
<td>40.4</td>
</tr>
<tr>
<td>OR</td>
<td>20.0</td>
<td>20.9</td>
<td>16.9</td>
</tr>
<tr>
<td>ED</td>
<td>18.3</td>
<td>14.4</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Increasing Risk for Bedside Nurses
2014 EPINet Data, “Where”

- OR/Recovery: 35%
- Patient Room: 33%
- Outpt: 5%
- OR/Recovery: 35%
- Other: 7%
- Proc Rm: 2%
- Labor/OB: 2%
- Home Care: 3%
- Clin Lab/Veni: 1%
- ED: 6%
- ICU/CCU: 5%
- Outside Room/Hall: 1%
- Other: 7%
9. Was the exposed part?

- Intact skin: 50 (23.1%)
- Non-intact skin: 29 (13.4%)
- Eyes (conjunctiva): 142 (65.7%)
- Nose (mucosa): 8 (3.7%)
- Mouth (mucosa): 17 (7.9%)
- Other exposed parts: 22 (10.2%)

Total records: 216

77.3% Face/Mucotaneous

10. Did the blood or body fluid?

- Touch unprotected skin: 176 (81.5%)
- Touch skin between gap in protective garment: 12 (5.6%)
- Soaked through protective garment: 4 (1.9%)
- Soaked through clothing: 3 (1.4%)

Total records: 216
## Total PPE & Barrier Garment Worn

### 11. Which barrier garments were worn at the time of exposure?

<table>
<thead>
<tr>
<th>Garment</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single pair of gloves</td>
<td>145</td>
<td>67.1%</td>
</tr>
<tr>
<td>Double pair of gloves</td>
<td>20</td>
<td>9.3%</td>
</tr>
<tr>
<td>Goggles</td>
<td>3</td>
<td>1.4%</td>
</tr>
<tr>
<td>Eyeglasses, (not protective)</td>
<td>8</td>
<td>3.7%</td>
</tr>
<tr>
<td>Eyeglasses with sideshields</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Faceshield</td>
<td>3</td>
<td>1.4%</td>
</tr>
<tr>
<td>Surgical mask</td>
<td>24</td>
<td>11.1%</td>
</tr>
<tr>
<td>Surgical gown</td>
<td>32</td>
<td>14.8%</td>
</tr>
<tr>
<td>Plastic apron</td>
<td>1</td>
<td>0.5%</td>
</tr>
<tr>
<td>Labcoat, cloth, (not protective)</td>
<td>4</td>
<td>1.9%</td>
</tr>
<tr>
<td>Labcoat, other</td>
<td>2</td>
<td>0.9%</td>
</tr>
<tr>
<td>Other</td>
<td>36</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

Total records: 216

47% indicated only wearing uniform / scrubs
Blood & Body Fluid Exposures, Eyes, PPE Use 2012-2014

- Total Incidents
- # to Eyes
- # Wearing Eye-Appropriate PPE

EPINet Data all Departments, AOHP Poster 2016
Number of Eye Exposures & Eye Protection Use in the OR Only by Year

- Eye Exposures
- Eye Protection Use
Sharp Injury & Blood Exposure Prevention Bundle Recap
Sharp Injury and Blood Exposure Prevention Bundle

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Feedback and Questions?
Sharps Injury and Blood Exposure Prevention Events

- **May 3** – Current Trends in Sharps Injuries and Needlesticks
- **June 7** – Strategies to Improve PPE Placement, Use and Compliance
- **September 6** – Sharps Injury and Blood Exposure Prevention
- **September 19-20** – WHYB Worker Safety Annual Conference
  - The Westin Lake Mary, Lake Mary, Florida
Eligibility for Nursing CEU requires submission of an evaluation survey for each participant requesting continuing education: [https://www.surveymonkey.com/r/WHYB032317](https://www.surveymonkey.com/r/WHYB032317)

- Share this link with all of your participants if viewing today’s webinar as a group
- Be sure to include your contact information and Florida nursing license number
- FHA will report 1.0 credit hour to CE Broker and a certificate will be sent via e-mail
- We would appreciate your feedback even if you are not applying for CEUs!!
- Web participants can stay logged in as the webinar closes to be redirected to the online survey (the link will also be provided in a follow up email)
THANK YOU!
WHYB Questions and Information – 407-841-6230

whyb@fha.org
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