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

WORKER SAFETY WEDNESDAY WEBINAR SERIES:
CURRENT TRENDS IN SHARPS INJURIES AND NEEDLESTICKS
WEDNESDAY, MAY 3, 2017
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!
Current Trends in Sharps Injuries and Needlesticks

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PRESIDENT / EXECUTIVE DIRECTOR
INTERNATIONAL SAFETY CENTER
HOUSTON, TEXAS
OBJECTIVES

➢ Re-define Parameters for WHYB Sharp Injury & Blood Exposure Prevention Bundle
➢ Describe Current Trends Using EPINet Needlestick and Sharp Object Injury Summary Data
➢ Provide Recommendations to Prevent Highest Frequency and 100% Preventable Exposures
➢ Identify If We Can Use Data to Build Prevention Bridges
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.
EXPOSURE INCIDENT SUMMARY DATA

SHARP OBJECT & NEEDLESTICK INJURIES
~30 U.S. Hospitals & Health Systems

Many Reporting to Aggregate since mid-1990s; Needlestick Safety & Prevention Act / OSHA BPS Champion Hospitals

2012-2014 EPI Net Contributing Hospitals

St. Vincent Health Care (Erie, PA)
St. Joseph Hospital (Omaha, NE)
Abbeville County Memorial Hospital (Abbeville, SC)
AnMed Health Foundation (Anderson, SC)
Beaufort Memorial Hospital (Beaufort, SC)
Cannon Memorial Hospital (Pickens SC)
Conway Medical Center and Kingston Nursing Center and Conway Hospital Community
Fairfield Memorial Hospital (Winnboro, SC)
Greenville Memorial Medical Campus (Greenville, SC)
Greer Memorial Hospital and Practice Groups (formerly Allen Bennett) (Greer, SC)
Greer Memorial Cottages at Busby Creek (formerly Roger Huntington) (Greer, SC)
Hillcrest Memorial Hospital (Simpsonville, SC)
Laurens County Health System (Clinton, SC)
Lexington-Richland Alcohol and Drug Abuse Council (Columbia, SC)
Marshall I. Pickens Hospital (Greenville, SC)
Newberry County Memorial Hospital (Newberry, SC)
North Greenville Campus Long Term Acute Care, ER, and other Outpatient Services (Greenville, SC)
Patewood Hospital and Ambulatory Services (Greenville, SC)
Roger C. Peace Rehabilitation Hospital (Greenville, SC)
Self Regional Healthcare (Greenwood, SC)
Spartanburg Regional Healthcare (Spartanburg, SC)
Spartanburg Regional Healthcare System Village Hospital (Greer, SC)
Spartanburg Hospital for Restorative Care (Spartanburg, SC)
The Regional Medical Center of Orangeburg & Calhoun Counties (Orangeburg, SC)
Tuomey Regional Medical Center and Tuomey Medical Professionals (Sumter, SC)
Union Hospital District and Ellen Sager Nursing Home (Union, SC) and Wallace Thomson Hospital and Carolina Health Associates (Union, SC)
Services (Conway, SC)
EPINet for Microsoft Access

Exposure Prevention Information Network
### Pregunta 3-9

3. Dpto./Servicio donde ocurrió:

4. Dpto./Servicio de origen del accidentado:

5. Cargo del trabajador accidentado:

<table>
<thead>
<tr>
<th>Cargo del trabajador accidentado</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Médico</td>
</tr>
<tr>
<td>2. Médico residente</td>
</tr>
<tr>
<td>3. Interno</td>
</tr>
<tr>
<td>4. Enfermería</td>
</tr>
<tr>
<td>5. Estudiante enfermería</td>
</tr>
<tr>
<td>6. Terapeuta respiratorio</td>
</tr>
<tr>
<td>7. Asistente de quirófano</td>
</tr>
<tr>
<td>8. Otro asistente</td>
</tr>
<tr>
<td>9. Transfusionista</td>
</tr>
<tr>
<td>10. Tecnólogo laboratorio clínico</td>
</tr>
<tr>
<td>11. Otro Tecnólogo (no Laboratorio)</td>
</tr>
<tr>
<td>12. Odontólogo</td>
</tr>
<tr>
<td>13. Higienista dental</td>
</tr>
<tr>
<td>14. Asistente dental</td>
</tr>
<tr>
<td>15. Personal limpieza</td>
</tr>
<tr>
<td>16. Otro, describir</td>
</tr>
<tr>
<td>17. Ambulancia/Paramédico</td>
</tr>
</tbody>
</table>

6. ¿Dónde ocurrió el accidente?

7. ¿Estaba identificado el paciente fuente?

8. ¿Era el usuario original del objeto punzante/cortante?

9. El objeto punzante/cortante estaba:

### Pregunta 12

Fecha reporte del accidente: [Input]

Registrado por: [Input]

### Pregunta 12a-17

Fecha reporte del accidente: [Input]

Registrado por: [Input]

### Pregunta 13-16

Fecha reporte del accidente: [Input]

Registrado por: [Input]

### Pregunta 17

Fecha reporte del accidente: [Input]

Registrado por: [Input]

### Gastos

- De laboratorio (trabajador sanitario): [Input]
- De laboratorio fuente: [Input]
- De tratamiento profiláctico (trabajador sanitario): [Input]
- De tratamiento profiláctico fuente: [Input]
- De atención médica: [Input]
- Otros gastos: [Input]

**Total gastos:** [Input]
<table>
<thead>
<tr>
<th>Year</th>
<th>Summary SHARP OBJECT INJURIEST (SOI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>31.7 Injury Incident Reports / 100 Average Daily Census (ADC)</td>
</tr>
<tr>
<td></td>
<td>38.5 / 100 ADC; Teaching Facilities</td>
</tr>
<tr>
<td></td>
<td>19.9 / 100 ADC; Non-Teaching Facilities</td>
</tr>
<tr>
<td>2014</td>
<td>24.7 Injury Incident Reports / 100 Average Daily Census (ADC)</td>
</tr>
<tr>
<td></td>
<td>27.2 / 100 ADC; Teaching Facilities</td>
</tr>
<tr>
<td></td>
<td>20.4 / 100 ADC; Non-Teaching Facilities</td>
</tr>
</tbody>
</table>
Sharp Object injury & Needlestick Incident Summary Data, N=30 US Health Systems

Sharps Injuries by Professional Group

- Nurse 41%
- Technical 19%
- Phleb/IV 5%
- Surgical Attend 8%
- Physician Attending 17%
- Physician Res/Intern 7%
- Student 1%
- EVS/Housekeep 2%
- Physician 17%
Sharp Object injury & Needlestick Incident Summary Data 2015, N=30 US Health Systems

Device Causing Injury for All

- Disposab Syringe
- Suture
- IV Stylet
- Winged...
- Scal...
- Lancets 1%
- Other Needle
- Pre-Filled...
- All Others

EPINet®
Sharp Object injury & Needlestick Incident Summary Data 2015, N=30 US Health Systems

DEVICE CAUSING INJURY FOR ALL

- Disposab Syringe: 32.8% Employees Indicated Safety Device Used
- Suture: 56.0% Indicated Safety Feature Not Activated

Other categories include:
- Needle
- Pre-Filled...
- Lancets
- Vacuum Tube w Needle
- IV Sty...
LOCATION OF INJURY/EXPOSURE

- Patient Room
- OR/Recovery
- ED
- Clin Lab
- Outpt/Office
- Labor/Deliv
- ICU/CCU
- Service/Utili

Bar chart showing counts for each location.
## Most Frequent Injury by Profession

<table>
<thead>
<tr>
<th>Location</th>
<th>MD</th>
<th>RN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device</td>
<td>Suture</td>
<td>Disposable Syringe</td>
</tr>
<tr>
<td>Location</td>
<td>OR</td>
<td>Patient Room</td>
</tr>
<tr>
<td>Device</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Was the injured worker the original user of the sharp item?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>405</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>136</td>
</tr>
<tr>
<td>3</td>
<td>Unknown</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>N/A</td>
<td>5</td>
</tr>
</tbody>
</table>

Total records: 549

1/4 of all injuries occurring downstream, outside of the control of the user.

Injuries to EVS, waste haulers, laboratorians, and fellow team members.
HIGHEST PREVALENCE BY PROCEDURE TYPE, 2000-2011

Mitchell et al. Journal of Hospital Infection, 2017
SHARP OBJECT INJURY SAFETY COMPARED TO NON-SAFETY, 2000-2011

Mitchell et al. Journal of Hospital Infection, 2017
BUILDING PREVENTION STRATEGIES
PREVENTING NEEDLESTICKS & SHARPS INJURIES

Ditch the Pinch
- Bilateral exposure injuries during subcutaneous injection
- Selecting Correct Size and Gauge Needle
  - Am J Infect Control. 2013

Employee Evaluation & Feedback, Safer Devices
- Improving Safety Device Activation

Eliminating Downstream Injuries
- Safety Device Activation
- Improving Disposal Practices

Eliminating Needle Transfer from Syringe to Blood Tube
12.1 Type of Disposable Needle Used

<table>
<thead>
<tr>
<th>Size</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Insulin</td>
<td>20.0%</td>
</tr>
<tr>
<td>2- Tuberculin</td>
<td>9.4%</td>
</tr>
<tr>
<td>3- 24/25G needle</td>
<td>16.2%</td>
</tr>
<tr>
<td>4- 23G needle</td>
<td>16.6%</td>
</tr>
<tr>
<td>5- 22G needle</td>
<td>6.4%</td>
</tr>
<tr>
<td>6- 21G needle</td>
<td>4.7%</td>
</tr>
<tr>
<td>7- 20G needle</td>
<td>4.7%</td>
</tr>
<tr>
<td>8- Other</td>
<td>22.1%</td>
</tr>
</tbody>
</table>

Total records: 235

Evaluate Needle Usage, "Gauge" Appropriateness of Size Selection
Safety devices are evaluated and selected by non-managerial frontline employees.

- Improve use of safety devices
- Improve activation of safety feature
- Decrease downstream, non-user injuries
- Create culture and climate of safety
EMPLOYEE EVALUATION & SAFETY FEATURE ACTIVATION
Together, the Manufacturer, Vendor, User, Public and Government are the stakeholders. All five play critical roles in ensuring the safety of medical devices.

WHO, 2003

Safety Feature Activation → Safety throughout the life of the device

Provide Feedback from Employees to Manufacturer/Distributor/Purchasing
NON-USER DOWNSTREAM INJURIES
PREVENTING DOWNSTREAM INJURIES: ADAPTING COMMUNITY MODELS
INJURIES FROM BLOOD COLLECTION ONLY

- Disposable Syringe
- Vacuum Tube w Needle
- IV Stylet
- Winged Steel
- Needle on IV
- Blood Gas
- Other
PREVENTING INJURIES FROM BLOOD TRANSFER
USING DATA TO BUILD PREVENTION BRIDGES
<table>
<thead>
<tr>
<th>Step in Procedure</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Before use of item</td>
<td>33</td>
<td>3.2%</td>
</tr>
<tr>
<td>2 During use of item</td>
<td>517</td>
<td>50.2%</td>
</tr>
<tr>
<td>3 Between steps of a multi-step procedure</td>
<td>89</td>
<td>8.6%</td>
</tr>
<tr>
<td>4 Disassembling device or equipment</td>
<td>22</td>
<td>2.1%</td>
</tr>
<tr>
<td>5 In preparation for reuse of reusable instruments</td>
<td>10</td>
<td>1.0%</td>
</tr>
<tr>
<td>6 While recapping a used needle</td>
<td>26</td>
<td>2.5%</td>
</tr>
<tr>
<td>7 Withdrawing a needle from rubber or other resistance</td>
<td>6</td>
<td>0.6%</td>
</tr>
<tr>
<td>8 Other after use, before disposal</td>
<td>132</td>
<td>12.8%</td>
</tr>
<tr>
<td>9 From item left on or near disposal container</td>
<td>2</td>
<td>0.2%</td>
</tr>
<tr>
<td>10 While putting the item into the disposal container</td>
<td>40</td>
<td>3.9%</td>
</tr>
<tr>
<td>11 After disposal, stuck by item protruding from disposal container</td>
<td>11</td>
<td>1.1%</td>
</tr>
<tr>
<td>12 Item pierced side of disposal container</td>
<td>2</td>
<td>0.2%</td>
</tr>
<tr>
<td>13 After disposal, item protruding from trash bag or inapp container</td>
<td>8</td>
<td>0.8%</td>
</tr>
<tr>
<td>14 Other, describe</td>
<td>94</td>
<td>9.1%</td>
</tr>
<tr>
<td>15 Restraining patient</td>
<td>7</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

THE INJURY OCCURRED...
SO TO PREVENT IT, WE MUST...?
Questions?
Sharps Injury and Blood Exposure Prevention Events

- **June 7** – Strategies to Improve PPE Placement, Use and Compliance
- **July 12** – WHYB Education Roundtable
  - FHA Corporate Office, Orlando, Florida
- **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/QH3GH3S

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
An Initiative of the Florida Hospital Association