Personal Protective Equipment: Developing a Train-the-Trainer Program

Angie Vasa BSN, RN, CCRN
Sharon Vanairsdale, MS, APRN, ACNS-BC, NP-C, CEN
Objectives

• Review key concepts of personal protective equipment (PPE).
• Clarify competency: Theory, Practice and Use.
• Discuss strategies for developing PPE courses.
• Discuss ways of maintaining ongoing PPE competency.
What is Personal Protective Equipment?

• Equipment worn to minimize exposure to workplace injuries and illnesses…”

• OSHA mandates training of workplace PPE
  • When PPE is necessary.
  • What type of PPE is necessary.
  • How to properly put it on and take it off.
  • Limitations of the PPE.
  • Proper care, maintenance and disposal of PPE.

(Occupational Safety and Health Administration-OSHA)
Isn’t PPE something HCWs use every day?

• Yes!
• Except:
  • NOT PAPR level
  • NOT consistently
  • NOT correctly
  • NOT with confidence
Considerations When Selecting PPE

- Disease transmission characteristics
- Expert guidance
- Staff safety and comfort
- Supply chain and item availability
- Standardization of PPE for all staff
- Layout of patient care area
Wet and Dry PPE Examples
PPE Multiple Combinations

Facilities may and do differ in the types and brands of PPE used.
PPE Implementation

• Donning and doffing PPE safely requires:
  • Education
  • Training
  • Demonstrated competency
  • Observation by a skilled observer
Who Needs Training?

- Nurses
  - Emergency Department
  - Clinic Staff
  - Intensive Care Nurses
  - L&D Nurses
  - NICU Nurses
  - Pediatric Nurses
- Lab Personnel
- Lab Transport Personnel
- Environment Services

- Physicians
  - Internal Medicine
  - Emergency Medicine
  - Critical Care
  - Infectious Diseases
  - Obstetricians
  - Pediatricians
  - Anesthesiology
- Radiology Staff
- Maintenance

Who has been trained at your facility? Anyone not listed here?
Training and Competency Requirements

• Regional ETC
  – Rostered staff receive quarterly training in infection control, safety, and patient care.
  – Rostered staff receive JIT refresher training within 72 hours when activated.

• State-Designated ETC
  – Rostered staff trained in safely donning and doffing PPE.

• Assessment hospitals
  – ED staff trained at least annually in infection control and safety.
  – ICU staff trained at least annually in infection control and safety.

• Frontline Facilities
Strategies for Training

• Competency based assessment
• Drills/exercises
  • These exercises incorporate skills training in addition to standard donning and doffing practices.
• Train the Trainer programs
  • Consider the need for trained trainers in biocontainment units, emergency departments, clinics and frontline hospitals.
• JIT: Just in Time Training
How Does Your Organization:

1. Assess competency?
2. Maintain team competency?
3. Sustain organizational readiness?
What is Competence?

• “A cluster of related abilities, commitments, knowledge, and skills that enable a person (or an organization) to act effectively in a job or situation.”
  (http://www.businessdictionary.com/definition/competence.html#ixzz4ElfRJJjn)
• “Whatever is required to so something adequately.” (Pollock, 1981)
• The ability to perform a task with desirable outcomes under the varied circumstances of the real world.” (Benner, 1982)
• “The effective application of knowledge and skill in the work setting.” (del Bueno, 1990)
Assessing Skill Domains


Examples

<table>
<thead>
<tr>
<th>Clinical/Technical Skills</th>
<th>Critical Thinking Skills</th>
<th>Interpersonal Skills</th>
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</thead>
<tbody>
<tr>
<td>Cognitive skills</td>
<td>Problem solving</td>
<td>Communication</td>
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<tr>
<td>Knowledge</td>
<td>Priority setting</td>
<td>Collaboration</td>
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<tr>
<td>Psychomotor skills</td>
<td>Ethics</td>
<td>Delegation</td>
</tr>
<tr>
<td>Technical understanding</td>
<td>Clinical reasoning</td>
<td>Directing others</td>
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## Matching Method to Domain

<table>
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<tr>
<th>11 Verification Methods</th>
<th>Competency Domain(s) Measured</th>
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<tbody>
<tr>
<td>Test/Exams</td>
<td>Technical: Knowledge &amp; Cognition</td>
</tr>
<tr>
<td>Return Demonstrations</td>
<td>Technical: Psychomotor Skills</td>
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<td>Evidence of Daily Work</td>
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<tr>
<td>Case Studies</td>
<td>Critical thinking</td>
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<td>Self Assessment</td>
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<td>Discussion/Reflection Groups</td>
<td>Critical thinking; Linked with Mock Event: All 3</td>
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<td>Presentations</td>
<td>Technical: Knowledge &amp; understanding</td>
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<td>Mock Events/Surveys</td>
<td>Technical + Critical thinking + Interpersonal</td>
</tr>
<tr>
<td>QI Monitors</td>
<td>Technical + Critical thinking + Interpersonal</td>
</tr>
</tbody>
</table>
• How do you define team competency?
• What are team competencies?
• How do you measure team competencies?
Team Competencies

• Works collaboratively together with others to achieve group goals and objectives.
  ▪ Collaboration
  ▪ Relationships/Partnerships

• No amount of teamwork can compensate for clinical/technical proficiency.
• The foundation of teamwork builds on technical proficiency and protocol compliance.

http://pda.rnao.ca/content/teamwork-competency-and-defining-behaviours
Outcomes of Team Competencies: Team STEPPS

- **Knowledge**
  - Shared Mental Model

- **Attitudes**
  - Mutual Trust
  - Team Orientation

- **Performance**
  - Adaptability
  - Accuracy
  - Productivity
  - Efficiency
  - Safety
Why Do Errors Occur – Some Obstacles

- Workload fluctuations
- Interruptions
- Fatigue
- Multitasking
- Failure to follow up
- Poor handoffs
- Ineffective communication
- Not following protocol
- Excessive professional courtesy
- Halo effect
- Passenger syndrome
- Hidden agenda
- Complacency
- High-risk phase
- Strength of an idea
- Task (target) fixation

http://www.ahrq.gov/professionals/education/curriculumtools/teamstepps/longtermcare/module1/igltcintro.html#s18
Interactive Questions

What type of training models have been implemented in your facilities?

• Train the Trainer
• Just in Time
• Competency Based Assessment
• Drills and Exercises
Drills and Exercises

• Utilize annual training calendar—Include multifaceted training modalities.

• Progress in exercise complexity eg: table top, functional, full scale.

• Always include donning and doffing PPE.

• Consider inclusion of skill specific activities.
Benefit of Training Trainers

- Train-the-trainer model is less costly than the traditional methods.
- Allows for courses to be tailored to specific issues.
- Can be an effective method for broadly disseminating evidence-based public health principles.
Train the Trainer Model

• Identify who your trainers will be:
  • Clinical Nurse Specialists
  • Educators
  • Infection Prevention
  • Staff Nurses
  • Biosafety

• Determine how you will assess competence.
• Determine how often will you provide refresher training and support.
Training the Trainers

• Create training materials.
  • Include rationales for all steps.
  • Include instructional graphics.
  • Include general principles and unit specific processes.

• Support the Trainers.
  • Follow up training to keep trainers current.
  • Update on any policy changes.
  • Validate trainers competency in educating and performing the task.
While sitting on a chair don the disposable shoe covers.

- Conserve energy by sitting
- Reduce risk of falls
  - Consideration....easy to clean chair that will withstand disinfection

**Don the hair covering/surgical hood**

- If using a standard bouffant cap HCW will apply independently
  - Donning partner should help to ensure all hair is tucked in.
- The donning partner assists if using a surgical hood by tying the tie at the nape of the neck with an easy to untie bow.
  - This makes the doffing process easier.
  - Do NOT tie any ties in knots during this process.

**Don the impermeable gown.**

- The donning partner assists by tying the ties with simple and easy to untie bows.
  - When using standard isolation gowns that are returned from laundry services make sure to untie any knots that are pre-existing in the ties.
Just In Time

• Videos: specific to your protocols.
• Distribution and accessibility of standard operating procedures (SOP)
• Hands-on sessions.
  • Schedule small group learning for staff who qualify.
  • Consider consulting teams, staff returning from leave of absence or staff who express desire.
Interactive Activity

- A patient with a fever and cough presents to your ED. You learn he just returned from the Middle East one week ago. What PPE would you don?

- A patient with alerted mental status presents with vomiting and diarrhea. Her daughter states she recently returned from West Africa after assisting with Ebola survivor care. What PPE would you don?
Contact Bob@33sparks.com with additional Questions or Information Requests
What Resources are Available through NETEC?

- In-person didactic and collaborative training courses.
- In-person skills courses.
- Available resources on the www.netec.org website for facilities and coalitions to use and enhance their own training and education materials.
- Robust Learning Management System, allowing facilities and healthcare workers free access to courses specifically tailored to their needs.
- Exercise templates for coalitions, facilities and frontline healthcare workers to utilize.
Resources

• NETEC: www.netec.org
• Regional ETC: 10 Regional Centers
• CDC: www.cdc.gov
• Local Public Health
• Local Medical Response Service i.e: OMMRS