Infection Control

A.U. Bankaitis, PhD, FAAA
Vice President
Oaktree Products, Inc.
St. Louis, MO
OBJECTIVES

• What is infection control?
• Why should you care?
• What do you need to do?
What is infection control?

‘….conscious management of the clinical environment for purposes of minimizing or eliminating the potential spread of disease’

Bankaitis & Kemp, 2003, 2004
OBJECTIVES

• What is infection control?
• Why should you care?
• What do you need to do?
ADAPTIVE IMMUNE SYSTEM

- Bone Marrow
- Thymus
- Lymph Nodes
- Spleen, tonsils, adenoids, appendix, peyer’s patches

Image from: http://uhaweb.hartford.edu/BUGL/immune.htm#fluids
Lymphocytes

- Maturation process occurs within bone marrow
- Identify antigen
- Triggered to produce antigen-specific antibody proteins
- Antibody destroys antigen

Image from: http://uhaweb.hartford.edu/BUGL/immune.htm#fluids
Lymphocytes

- Maturation process initiated within bone marrow
- Completed in thymus
- Several categories
- Detects antigen
- Destroys antigen
Standard Precautions

- Originally set in 1987 by CDC
- List of recommendations intended to reduce cross-infection
- Protect HCW from exposure to blood-borne pathogens
- Expanded to include all potentially infectious microbes
Why Should PTs Care?

• Contact with bodily fluids
• Multiple contact with many patients & many reusable objects
• Opportunistic infections
WRITTEN INFECTION CONTROL PLAN

REQUIREMENTS

1. Employee Exposure Classification
2. Hepatitis B (HBV) Vaccination Plan
3. Plan for Annual Training & Records
4. Plan for Accidents & Accidental Exposure Follow-up
5. Implementation Protocols
6. Post Exposure Plans & Records
Standard Precautions

- Appropriate personal barriers (gloves, masks, eye protection, gowns) must be worn when performing procedures that may expose to infectious agents.
- Hands must be washed before and after every patient contact and after glove removal.
- “Touch” and “splash” surfaces must be pre-cleaned and disinfected.
- Critical instruments must be sterilized.
- Infectious waste must be disposed of appropriately.
TOUCH SURFACE:
area that comes in potential direct or indirect contact with hands

SPLASH SURFACE:
area that may be hit with blood or other body secretions from potentially contaminated source
TERMINOLOGY

CLEAN
- Remove gross contamination
- Germs not necessarily killed
- Important precursor to disinfecting & sterilizing

DISINFECT
- Process whereby germs killed
- Spectrum of kill depends
- Performed on touch & splash surfaces or on individual patient’s items that are not transferable to others
Critical Instruments

• Instruments introduced directly into bloodstream

• Non-invasive instruments that come in contact with mucous membranes or bodily substances

• Instruments that can potentially penetrate skin from use or misuse
TERMINOLOGY

DISINFECT
• Process whereby germs killed
• Spectrum of kill depends
• Performed on touch & splash surfaces or on individual patient’s items that are not transferable to others

STERILIZE
• Process whereby ALL germs killed
• Specific product requirements
• Performed on all reusable critical instruments that have been cleaned prior to reuse
Dry Needling Using Disposable Filiform Needles

At beginning of procedure:
• Put on an appropriately sized pair of gloves
• Insert needle directly into myofascial trigger point
• Remove gloves & discard in trash
• Immediately commence hand hygiene procedures

To terminate procedure:
• Put on an appropriately sized pair of gloves
• Remove needle & discard in sharps container
• Remove gloves & discard in trash
• Immediately commence hand hygiene procedures
• Latex vs non Latex
• Powder vs Powderless
• Size matters!

PERSONAL BARRIERS
• Liquid
• Medical grade
• Anti-microbial not critical
• No-rinse = alternative
- Spray, towelette, liquid
- Hospital Grade
- Non-alcohol based
• Cold sterilization

• Ingredients
  - Glutaraldehyde solutions (≥2%)
  - Hydrogen Peroxide (≥7.5%)

• Soak Time
  - 10 hour soak
  - 6 hour soak

• Use/Reuse
  - 28 days
  - 21 days
Material Safety Data Sheet (MSDS)

• Document that outlines hazards associated with chemical products
  – Chemical composition
  – Physical & chemical characteristics
  – Acute & chronic health effects
  – Exposure limits
  – Precautionary measures, first aid consideration

• Not necessarily included in packaging

• OSHA requires MSDSs
- Sharps container
- Biohazard bags
- Spill kit
Take home messages

- Infection control is a required element
- Create work practice controls
- Use standard precautions as your guide
- Select product
- Implement
- Rely on resources
Roll-On Adhesive to Keep Hearing Aids in Place

Posted on February 10, 2011 by aubankaitis

Rate This

Occasionally, BTE hearing instruments need a little help staying in place on the side of a patient’s head. Traditional methods of securing BTE hearing instruments firmly in place may involve the use of oval, double back adhesive pads or 3M double stick contour tape that is precut into the shape of a BTE. One alternative and interesting product available through Oaktree Products is an adhesive called IT STAYS. This product is a roll-on body adhesive that may be used to hold any article in place against the skin. For use with BTE hearing instruments, simply roll the adhesive onto the skin behind the ear and press the body of the BTE in place. IT STAYS
A.U. Bankaitis, PhD, FAAA
Oaktree Products

800.347.1960
www.oaktreeproducts.com
au@oaktreeproducts.com
https://twitter.com/aubankaitis