Infection Control…. Why Bother?

Leslie Roste, RN
Introduction

• Leslie Roste, RN
  • Healthcare Background
    • Infection Control
    • Labor& Delivery
    • Emergency Department
  • Education
    • Nursing
    • Microbiology
  • National Director of Education – King Research
Career Objectives

- Textbooks
  - Relevant & Useful
- State Boards
  - Relevant & Useful
- Rules /Laws
  - Consistent
  - Simple
What I Have Learned...

- Todays students aren’t scared...
- “Boring” topics require attention grabbing
- “Because I said so” or “It’s the Law” rarely works
- Making things relational to their lives makes an impact on what they remember
- You want to do the right thing
Time to Retire....

- Nomenclature
- Reproduction
- Locomotion
- Identification....

WHO CARES???
Healthcare and Salons…More Similar than You Think!

<table>
<thead>
<tr>
<th>Health Care</th>
<th>Salon</th>
</tr>
</thead>
<tbody>
<tr>
<td>• High Person to Person Contact Rate</td>
<td>• High Person to Person Contact Rate</td>
</tr>
<tr>
<td>• Unrestricted Public Access</td>
<td>• Unrestricted Public Access (<em>Activity</em>)</td>
</tr>
<tr>
<td>• Required to use Personal Protection when in Patient Contact</td>
<td>• Personal Protective Equipment makes job difficult, if not impossible</td>
</tr>
<tr>
<td>• Full Access to Patient’s Medical History</td>
<td>• No Access to Client’s Medical History</td>
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</table>
Transmission

• Direct
  – Person to Person (cold/STD)

• Airborne –
  – Respiratory Droplet (TB)

• Fecal-Oral
  – Fecal food contamination (Hep A)

• Indirect:
  – Fomite – Wax Pot (HPV/HSV)

• Vector:
  – Animal borne (Lyme, West Nile)
Infection Control

• **Sanitize/Clean**: Remove visible debris

• **Disinfect**: Use of a disinfection solution on a sanitized item – removes remaining microorganisms

• **Sterilize**: The destruction of all microbial life using heat, pressure or chemicals
Sanitation/Clean – Step 1

- Removal of Visible Debris
- Running Under Water
- Wiping Down a Surface
- Using a Surface Cleaner spray
- UV light boxes, Ultrasonic Cleaners

CLEAN ........NOT DISINFECTED!
Disinfection – Step 2

• Sanitize first...Remove all visible debris
  – “Wiping Down”
  – Under running water

• Disinfectant Solution
  – EPA Approved
  – EPA Label on all containers
  – Mixed according to label directions
  – Changed at manufacturers recommended intervals
  – CONTACT TIME
Contact Time

• The amount of “moist time” required to kill bacteria / viruses
  – Be aware of product label…..generally 10 minutes
• Immersion
  – Implements, shears, combs
  – Requires rinsing, but no dry time
• Sprays
• Wipes
Sterilization – Step 3

- Completely destroys all living organisms
- Requires autoclave using heat and pressure to achieve sterilization
- Proper disinfection must be performed prior to using autoclave
- Healthcare application rarely used in cosmetology
Reason #1

It’s The Law
Rules/Laws

• Revenue source that keeps on giving!
• Largest number of revenue generating citations
• Wide divergence in state rules/laws
• Activity:
  – Have students find IC rules a write procedure out for how to properly disinfect items
Common Rules

• Closed containers for clean/dirty
• Clean prior to disinfection
  – What has this changed in the salon?
• Disinfectant changed per manufacturers label
• Disinfectant jar covered at all times
• Dispose of single use items – immediately following service
Rules that should be common...

1. Specific protocols for pedicure bowls
2. Specific protocols for wax pots
3. Specific lists of single use vs. multi use items
4. Allowance for alternate forms of disinfection such as wipes or sprays
Reason #2

The Things That Should Scare You
Bacterial Threats

• Bacterial mutation in superbugs makes most antibiotics ineffective – Antibiotic Crisis

• Emerging Superbugs
  – MRSA (1,000,000 / 100,000)
  – Drug Resistant TB
  – VRE
  – Drug-resistant Streptococcus pneumoniae
MRSA

• **Risks**
  – Impaired Immune System
  – Communal Living Situation
  – Contact Sports
  – Sharing of Towels
  – Frequent or Long Term Antibiotic Use
  – 1/3 of People are Colonized

• **Symptoms**
  – Small Bumps/Boils that can enter the bloodstream
  – Lead to Severe Life Threatening Infections

Photo Credit: Gregory Moran, M.D.
Viruses

- Pathogenic disease-causing agents that are many times smaller than bacteria.
- Enter healthy cells, grow to maturity, and reproduce, often destroying the cell.
- Viruses thrive on hard, dry surfaces
- Examples:
  - HPV
  - Influenza
  - Measles
  - HIV
  - Mumps
  - Hepatitis
  - Herpes
  - Chicken Pox
Influenza

• H1N1 Demonstrated the ease of viral transmission
• Quick to spread - slow to mutate
• Special concerns with new Flu’s
  – Unusual Spread Pattern
    – Affected many young healthy people
  – Common “flu-like” Symptoms
    • Fever, Body Aches, Cough, Headache, Nausea, Fatigue
    • Short Incubation Period
HPV – Human Papilloma Virus

• **Risks**
  – Sexual Partners
  – Age
  – Immune System Impairment
  – Tears in Skin

• **Symptoms**
  – None
  – Warts
  – Plantar Warts
  – Genital Warts

#1 cause of Cervical Cancer
Contagious prior to appearance of warts
Human Papilloma Virus......Here
And Here!
HSV – Herpes Simplex Virus

• **Risks**
  – Sexual Partners
  – Women
  – Immune System Impairment
  – Tears in Skin

• **Symptoms**
  – Most people have no symptoms
  – Recurring
  – Pain, itching, chancre
  – Contagious prior to symptoms

www.barbicide.com
Pathogen Survival Rates

- E.coli – 1.5 hours to 16 months
- VRE – 5 days to 4 months
- Staph (including MRSA) – 7 days to 7 months
- Strep – 1 day to 6.5 months
- Candida Albicans – 1 to 120 days
- HBV – 2 hours to 60 days
- HIV – More than 7 days
- Influenza – 1 to 2 days
- HPV – More than 7 days
Reason #3

A Trip to the Barber
Ringworm
Reason # 4

You Don’t Know…… What You Don’t Know
The High Risk Client

- Has Immune system impaired by medication or disease
- Has Illness that is undiagnosed
- Harbors virus that is not currently active
- Has had surgical or medical intervention
- Has traveled outside of the US
- Has a high risk occupation

How would you know??
The Diabetic Client
The Mastectomy / Lumpectomy Client

Neglected lymphedema that developed after mastectomy
Medications Affecting Immune System

• Glucocorticoids – Suppress inflammatory response – used in transplantation, autoimmune disorders, severe allergies, asthma, swelling of joints (RA)
• Cytostatics – used in auto-immune disorders
• Interferon – Used in Multiple Sclerosis (MS)
• Opioids
Hot Topics - 2013

• Influenza – MERS- CoV (54/14), H7N9 (72/23)
• C. Diff (14,000 deaths)
• BioHazard Waste Management
• MSDS to SDS
  – OSHA – Globally Harmonized System
  – Important Dates
• Deregulation
  – Probeauty.org ("Take Action")
Resources

• Barbicide.com
  • Barbicide Certification
  • Presentations
• Probeauty.org
  • Deregulation
• CDC.gov
  • Business planning guide
  • Outbreak tracking