Chemical Footprint of Pediatrics’ Products

December 19, 2017
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Questions?

• Post your question to the Questions pane in your GoToWebinar Control Panel

• Presentation and recording will be available at www.cleanproduction.org
Dignity Health’s Chemical Footprint
Pediatric Product Assessment

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Tuesday, December 19, 2017
Overview

• Reflection
• Background
• Mission & Values Alignment
Do unto those downstream as you would have those upstream do unto you.

--Wendell Berry
Timeline

- **February 2014**
  - CFP introduced at Dignity Health Green Summit

- **May 2014**
  - Dignity Health joins CFP steering committee

- **December 2014**
  - Lloyd Dean, CEO of Dignity Health, signals support of CFP

- **August 2016**
  - Dignity Health joins Peds Project
“It matters that we work with our vendors to better understand the chemicals that go into their products and ask for safer substitutes where possible.”

Lloyd Dean, President and CEO
December 2014
Safer Chemicals - History of Leadership

- Mercury Free Awards
- PVC DEHP Free IV Bags
- Mercury Free Health Care Partnership
- Flame Retardant Free Furniture
- Minamata Convention
- EPEAT Computers
- Testify before Senate
- Green Cleaning
- Chemical Footprint Project
- Triclosan Elimination


- Mercury Elimination Policy
- Making Medicine Mercury Free Campaign – Initial Signers
- Pigment Free Plastics
- Chemical Footprint Project
- Triclosan Elimination

- Dignity Health
Dignity Health is committed to furthering the healing ministry of Jesus. We dedicate our resources to:

Delivering compassionate, high quality, affordable health services

Serving and advocating for our sisters and brothers who are poor and disenfranchised;

Partnering with others in the Community to improve the quality of life

Core Values
Collaboration    Dignity    Excellence    Justice    Stewardship
Overview

• Why chemical footprinting for Dignity Health

• Report method & findings: *Chemical Footprint of Products Commonly Used in Pediatric Patient Rooms*

• How Dignity Health uses chemical footprinting to inform purchasing
Chemicals of High Concern (CoHCs):
carcinogens; mutagens; repro/developmental toxicants; persistent, bioaccumulative, and toxic (PBTs); endocrine disruptors
Chronic Disease Burden from Chemicals

• 5% of childhood cancer*

• 10% of children’s neurodevelopmental disorders* (e.g., ADHD, autism -- 1 in 6 children diagnosed with neurodevelopmental disorder)

• 30% of childhood asthma**

* Mt. Sinai School of Medicine Center for Children’s Health and the Environment
** European Commission
Chemicals of High Concerns (CoHCs): number in a product and/or weight
Figure ES-2  Estimated Chemical Footprint of IV Bags Made from PVC/DEHP and Polyolefins

PVC

Number of Chemicals of High Concern  Chemicals of High Concern by Weight

PVC = Polyvinyl chloride; DEHP = di(2-ethylhexyl) phthalate
FIGURE ES-2 Estimated Chemical Footprint of IV Bags Made from PVC/DEHP and Polyolefins

<table>
<thead>
<tr>
<th></th>
<th>Number of Chemicals of High Concern</th>
<th>Chemicals of High Concern by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>3</td>
<td>31%</td>
</tr>
<tr>
<td>Polyolefins</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

PVC = Polyvinyl chloride; DEHP = di(2-ethylhexyl) phthalate
Chemicals of High Concerns (CoHCs): number in a product and/or weight
GOJO: How we pioneered our chemical footprint reduction target

Nicole Koharik
Thursday, November 17, 2016 - 12:24am
Walmart Aims To Cut 55 Million Pounds Of Chemicals From Store's Products

10/06/2017 - 9:55am  3 Comments  by Meagan Parrish
Chemical Footprint Project (CFP) Survey Score:
Four Pillars

Chemicals:
Hazards

Products:
Chemical Footprint

Departments, Processes, Buildings, or Organizations: Chemical Footprint

Organization Management:
CFP Survey Score
Responders to the CFP Survey

Key Findings from the 2016 Chemical Footprint Project Survey

Companies Disclosing Their Participation in the 2016 CFP Survey

- adidas AG
- Alima Pure
- Angelica Corporation
- Beautycounter
- Becton Dickinson and Co. (BD)
- Case Medical, Inc.
- Construction Specialties, Inc.
- GOJO Industries, Inc.
- Herman Miller, Inc.
- HP Inc.
- Inpro Corporation
- Johnson & Johnson
- Kimball Hospitality Inc.
- Levi Strauss & Co.
- nora systems, Inc.
- Radio Flyer
- Replenish
- Seagate Technology PLC
- Sealed Air Corporation
- Seventh Generation
- Wal-Mart Stores, Inc.
- WaterWipes
• Demonstrate chemical footprinting in health care

• Engage three health care providers at different levels

• Inform purchasing decisions and supplier engagement
Pediatrics Report: Chemicals of High Concern (CoHCs)

1. California Proposition 65 chemicals
2. Polyvinyl chloride (PVC)
3. Phthalates
4. Antimicrobials and antibacterials
5. Bisphenol A (BPA)
6. Latex
7. Bromine- and chlorine-based compounds
8. Metals: lead, cadmium, mercury, and organotin compounds
9. Non-halogenated flame retardants
10. Perfluorinated chemicals (PFCs)
11. Persistent, Bioaccumulative and Toxic substances (PBTs)
12. EU Restriction of Hazardous Substances (RoHS) in electronics
Pediatric Product Survey: Priority Products

Moderate to high potential for exposure:

- “In” patients: endotracheal tubes, nasogastric tubes, catheters, etc.
- “On” patients: personal care products (lotions, shampoos), beds, chairs, etc.
- “Around” patients: cleaning / disinfecting products
Products in Pediatric Patient Rooms: Suppliers Contacted & Replied

- Contacted
  - 62 suppliers
  - 358 products

- Replied
  - 50 suppliers
  - 253 products
    - Medical supplies (185)
    - Personal care products (50)
    - Furnishings (11)
    - Cleaning & disinfecting products (7)
Executive Summary
Pediatrics Report: Products with no CoHCs

• Most needles & syringes (25 out of 28)
• Baby bottles & nipples (15 products)
• Exam gloves (6 products)
• Lotions, ointments, and lip balm (11 products)
• Most oral care products (6 out of 7)
• Diapers (5 products)
• Most skin wipes (4 out of 5)
Pediatrics Report: Medical Supplies

**Figure ES-2.** Number of Medical Supplies Commonly Used in Pediatric Patient Rooms that Contained and Did Not Contain Chemicals of High Concern (CoHCs)

- IV Products: 32 No CoHCs, 36 Yes CoHCs
- Enteral Products: 10 No CoHCs, 14 Yes CoHCs
- Respiratory Products: 7 No CoHCs, 13 Yes CoHCs

**Figure ES-3.** Chemicals of High Concern (CoHCs) in Medical Supplies Commonly Used in Pediatric Patient Rooms and the Number of Products that Contained Them

- Polyvinyl Chloride (PVC): 63
- Phthalates (DEHP, DIDP, DBP, and not specified): 44
- Other Prop 65 Monomers, Solvents, etc.: 24
- Bisphenol A (BPA): 8
- Latex–Natural Rubber: 7
- Antimicrobials/Antibacterials: 5
- Perfluorinated Chemicals (PFCs): 2
Pediatrics Report: Findings

- Eliminating PVC and associated CoHCs in medical supplies would reduce 75% of the CoHCs in medical supplies.

- Products in contact with skin are likely to contain antibacterials / antimicrobials: id bracelets, IV arm restraints, wash cloths, cribs.

- For every personal care product with a CoHC, there was an equivalent product with no CoHCs: soap, body wash, hand sanitizers, etc.

- Other products with and without CoHCs: enteral feeding tubes, IV arm restraints, and IV catheters.
Recommendations

- Measure chemical footprint
- Identify safer alternatives
- Reduce chemical footprint
- Systemic changes
  - Align to CoHCs
  - Use common reporting template (for example, Health Product Declaration)
  - Certification
Improving Quality for our Smallest Patients

- Protecting children, healthcare workers and the environment is the “right thing to do”
- Healthcare workers- women of child-bearing age
- Chemicals are harmful to growing fetus and children
  - Rapid growth period- cell disruption
  - Reproductive developmental impact
  - Endocrine disruption
  - Neurotoxicity- ADHD and autism
- Chemicals are harmful to the environment
  - Circle of poison- landfill -> water -> consumption
Supply Chain’s “Active” Role

• Raise **awareness** of product chemical composition and **impact** on personal and environmental safety

• **Seek** products with **safer alternatives**
  - Utilize resources- CPA, Healthcare without Harm (noharm.org), Practice Green Health

• **Drive “system” change** supported by comprehensive chemical policy
  - Vinyl Gloves (DINP Plasticizer)
  - Anti-microbial Soaps (Triclosan)

• **Monitor** **facilities respond** to **product conversions** promptly and completely
Collaboration: SSRM and Clean Production Action

• Welcomed opportunity for benchmarking chemicals of concern and identifying where we can make safer choices

• **Process:**
  - Engaged Peds/PICU in 2 facilities
  - Obtained product usage
  - Reviewed supplier notification letters
  - Prompted suppliers to respond to surveys
Prioritizing and Implementing Change

• **Products of highest concern:** In, on & around patients
  - Volume of usage
  - Level of exposure
  - Individual chemical

• **Clinician Feedback**
  - Does alternate product require change in nursing work flow?
  - Does alternate product require nursing education?
Next Steps

• Reach out to suppliers where concerns arise to request safer alternatives

• Provide cross reference where available for personal and medical care products

• Continue to engage with suppliers to request safer alternatives for the pediatric and neonatal populations
Thank You!

Questions?

For the Chemical Footprint in Pediatrics report go to:
www.cleanproduction.org