Reducing Non-Recoverable Waste: Examining Opportunities for Durable Medical Equipment Reuse within UW Medicine

Anne Ordway, PhC

Environmental Stewardship Committee Meeting
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Acknowledgements

Project team: Jennifer Pitonyak, Faculty Investigator
Anne Ordway, Student Investigator
Alan Knue, Staff Investigator
Jennifer Zumsteg, Consultant
Tracy Mroz, Consultant
Kit Johnston, Graduate Assistant

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Problem Statement

• Lack of literature describing clinical processes and behavioral and social aspects of how medical providers use and recycle resources

• Few studies have examined the lifecycle of DME, how unwanted DME is disposed of, and the quantity that becomes waste

• Limited research on costs, benefits, and unintended consequences of DME reuse for patients, health systems, and the environment
Study Objectives

• To understand the connections and, perhaps, tensions between practices and processes for DME prescription and provision and reuse and recycling

• To identify opportunities within UW Medicine for reducing the amount of non-recoverable waste from DME that goes into the landfill
Methods

• Basic qualitative study design

• Acute care and inpatient rehabilitation units

• Semi-structured interviews \( (n = 11) \), focus group \( (n = 7) \), site visit with Bridge Disability Ministries, document review

• Content analysis of interview and focus group transcripts
# Study Participants

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<thead>
<tr>
<th>Micro-level</th>
<th>Macro-level</th>
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<tbody>
<tr>
<td>Occupational Therapist</td>
<td>UW Medicine Compliance</td>
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<tr>
<td>Outpatient Occupational Therapy</td>
<td>HMC Sustainability and Waste Management</td>
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<tr>
<td>Manager</td>
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<td>Rehabilitation Manager</td>
<td>UW Environmental Services</td>
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<td>Social Worker</td>
<td>UW Surplus Store</td>
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<td>Physiatrist</td>
<td>HMC Clinical Engineering</td>
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<td>DME Vendor</td>
<td>Community-based DME and Assistive Technology Programs</td>
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<tr>
<td>Physical Therapist</td>
<td>HMC Infection Control</td>
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<td>Equipment Specialist</td>
<td>Health Sciences Risk Management</td>
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<td>UW Supply Chain Management</td>
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Key Findings

• Systematic process for the reuse, recycling, and disposal of internal DME; no systematic process for patient referral to reuse and recycling resources

• DME reuse programs need to meet local needs

• Diverse opportunities for DME reuse initiatives based on waste hierarchy and hospital-community continuum
Next Steps

• Interview patients on their experiences obtaining and disposing of DME

• Perform a more extensive feasibility study on a hospital-based DME reuse program
Plan for Dissemination

• Final report: Project advisory team
  Study participants
  *Who else?*

• Conference presentations: American Congress of Rehabilitation Medicine 2016, CleanMed 2017

• Journal publications: access barriers to DME
For questions or feedback, contact:

Jennifer Pitonyak
jsp15@uw.edu

Anne Ordway
ordwaa@uw.edu