Clean Up Your Laundry Process
Using a High Reliability Framework

Disclosures

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Objectives

1. Understand the barriers to an ideal sling laundry process for both the laundry and healthcare communities.
2. Understand traditional operations of hospital laundry facilities to discover their typical practices and why sling laundry poses additional challenges.
3. Understand tactics that can be deployed to reduce the barriers of laundry damage, loss and par maintenance.
4. Understand lessons learned by a 2-year process improvement journey to improve sling quality and access by standardizing slings to reduce sling laundry error and standardize and simplify hospital laundry to reduce caregiver error.
Healthcare SPHM Education:
Traditional Hospital Laundry Mindset

- Infection Prevention
- High Heat and Bleach
- Pillowcases – Gowns – Sheets – Curtains
- Streamlined products for all customers
- Main Line Production
- Specialty Linen Production (SLINGS)
- Go for a walk!
- Staffing and hiring limitations
- Joint Commission-Environment of Care
- Accrediting Agencies
  - JCAHO
  - HLAC (Healthcare Laundry Accreditation Council)
  - AAMI/ANSI Standards

Main Line Production
- Tunnel Washers
- Volume Dryers

Specialty Production
- Smaller Washers with more settings
- Smaller Dryers with lower heat settings
HCL Tunnel Washer versus Specialty Washer

Tunnel Washer

Specialty Washer

HCL Tunnel Washer gowns, sheets, pillow cases, towels, etc.

HCL Specialty Washer slings

HCL Large Volume Dryer versus Specialty Dryer

HCL Large Volume Dryers

HCL Specialty Dryer

Infection Control Checklist

HCL is regularly inspected by Infection Control representatives from the facilities it serves. HCL follows all Infection Control Guidelines with detailed checklists, policies and procedures in the following areas:
HCAHPS Scores

Quality of linen product, adequate supply, and quietness of linen carts are all components of HCAHPS scores.

Future Programs and Services

HCL continues to work with its member facilities to identify new services and products that will generate cost savings and enhance service.

- Patient Positioning
  - Pack Room
- Sterilization of OR Products
  - Scrubber/Liner
  - Table Linen and Chef Coats
- Mat Program
- Cubicle Curtain Program
- Pillow Program

HCL Green Initiatives

Environmental Awareness Initiatives

- Implementing eco-friendly practices
- Reducing waste and energy consumption
Educating Laundry Providers

• Importance of Safe Patient Handling and Mobility in healthcare
• How patient lift slings are used
• Learn the variety slings and their common names.
• Learn the barriers experienced with sling laundry processing and its effect on the patient and caregiver safety and quality.
• Understand future growth of SPHM
• Understand how to partner with healthcare facilities to select quality products that lead to success for both laundry and healthcare facilities.
• Laundry providers see Single Patient Use (SPU) as a threat to their business and will want to work with you to enhance this part of their business.
• Teach them inspection – they fold the slings manually and can see them better than any clinician!

Laundry Provider Education: What are these things showing up in my facility???

Reality of Slings…..

• Low Heat and NO Bleach
• Infection prevention AND HOLDS A PATIENT IN THE AIR
• Easy to make an error given current state and focus!!!

Education is Critical – We didn’t do a good job!

• Types of common slings and photos
• How to detect if a sling is damaged
• Pictures on text – workforce often speaks other languages

Laundry Provider Education: WIFM! What is the growth potential for sling laundry?
Laundry Provider Education: What is the growth potential for sling laundry?

Legislation
- California
- Illinois
- Maryland
- Minnesota
- Missouri
- New Jersey
- New York
- Ohio
- Rhode Island
- Texas
- Washington

Regulations
- Connecticut
- Massachusetts
- Nevada
- Vermont

The Sling Market in the United States

- Acute Care
- Skilled Nursing
- Home Care
- Outpatient Ambulatory Centers
- Cancer Centers

U.S. Projected Trends for Safe Patient Handling and Mobility

- A large U.S. vendor stated they have seen a 20% increase in ceiling lift installation in the U.S. annually for the past 5 years.

Revenue to Compensate for Compensation Claim

<table>
<thead>
<tr>
<th>Revenue to Compensate (10% Margin)</th>
<th>Worker’s Compensation Costs</th>
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<tbody>
<tr>
<td>$200,000</td>
<td>$2,000,000.00</td>
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Graph showing number of ceiling lifts over a period of years.

Graph showing revenue to compensate for compensation claim.
Safe Patient Handling Protects our Patients

- Reduces risks of immobility
- Reduces friction and shear to prevent deep tissue injuries and pressure ulcers
- Reduces fall risk
- Reduces patient fear during transfers and movement
- Assists early in the rehabilitation process

Payer Mix Challenge
- Reimbursement is not going up
- We need to cut costs to remain solvent
- Reduce product cost, injury cost
- Patient safety metrics affect reimbursement

Communication has been poor – Seattle Facility said they did launder slings and Denver rep saw 3 bins of slings when he toured.
Slings: The Good!
- Slings protect our patients and caregivers.
- Slings come in disposable and reusable fabrics.
- Reusable slings need to be laundered.
- Reusable slings are better for the environment.
- Our population is much heavier and reusable fabrics are often required for patients of size.
- Reusable slings are often easier to apply and more comfortable for patients.
- Specialty slings for people with amputations or other uncommon needs only come in reusable fabrics.

Slings: The Bad!
- Slings support people in the air and fabrics used at this time cannot handle typical hospital laundry procedures.
- Slings need lower heat and no bleach.
- Guidelines are available for proper chemicals to use – most vendors have similar guidelines.
- There are several types of slings.
- Laundry facilities often cannot tell if they damaged the slings they washed.
- Slings are not standardized.
- Some slings have multiple clips/parts that get lost in laundry.
**Slings: The Ugly!**

- Damaged slings taken out of use cause par issues and affect the ability for caregivers to do their jobs and take care of themselves and their patients.
- Damaged slings can break and can INJURE or KILL a patient.
- Communication and communication about slings with laundry services is often poor leading to an increase in the number of lost, broken, or damaged slings, and frustration for both parties.

**AS HEALTHCARE LAUNDRY PROFESSIONALS YOU ARE CRITICAL TO THE SAFETY OF OUR PATIENTS AND OUR CAREGIVERS!!**

**Inventory Factors**

4:1 vs 12:1

- Vendors suggest a 4:1 purchase of slings to lifts in acute healthcare facilities, yet in reality, laundry services and loss are different.
- Typical laundering produces a 3:1 ratio.
- Communication is often poor, with slings carried through the length of stay.
- Specialties - 12:1 ratio is used (4 x 3 = 12)
- Larger facilities - 8:9:1
- They cannot be wiped clean with light soil.
- Slings are not used with every patient, unlike sheets, pillowcases, and gowns. They are only used on immobile patients.
- Slings have a longer wash life - vendors still warranty life.

**Sling Life**

- Vendors warranty slings up to 3 years and 200 washes.
- We have had slings for over 5 years in great condition.
- Life of Sling Can Vary:
  - Damage
  - Throw away
  - Leave with patients by mistake
  - Weight of Patient and Distance Holding Patient
  - Varies from institution to institution.
Sling Inspection

SCL Health Laundry Failure

- December of 2015
- We thought we educated our laundry provider!
- Mass sling loss (400+ slings put through tunnel washer) in December 2015
- Patient fell 1" from lift to gurney in ambulance bay
- Met with laundry with little resolved at that time
- New hospital brought laundry in-house which was costly and inefficient

Laundry initiated representatives from hospitals for feedback on products being used
Goal to improve outcomes for both healthcare providers and laundry facility
Attempt to standardize common slings throughout several healthcare organizations and move from C.O.G. to rental model
- Reposition
- High Back/Chair
- Limb
- Secondary goals to learn from larger scope of knowledge and reduce cost of slings through scale

The Denver Sling Initiative
February 23, 2017 - Present
- Laundry initiated representatives from hospitals for feedback on products being used
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Project History
- SCL Health and two other Denver-based systems had two rounds of sling trials over the first 6 months and chose the same vendor for all primary sling types.
- Standardized sling evaluation forms were used at all locations.
- Several conference call and live meetings with all hospital systems working together yielded excellent vetting of slings.
- Internal meetings with Supply Chain/EVS/SPHM at system and local levels.

Why?
- Improve sling laundry process and reduce error at HCL by fitting into their standard operations of using the same products for most Front Range hospitals.
- Improved laundry education.
- Leverage size and scale by partnering with other Denver Hospital Systems.
- Other Front Range systems may eventually join.
- Move to "Sling Rental/Replacement" instead of "SCL Owned".
- Re-designed slings with large scale input and trials: "We are better together!"

Rental/Replacement over Customer Owned Goods (COG)
- Move to "Sling Rental" instead of "SCL Owned" with the following benefits:
  - HCL to replace lost or damaged slings
  - Process Improvement: All slings in same laundry as sheets etc.
  - Provide sling usage reports by adding barcoding/RFID technology to all slings
  - Better par level management with increased total slings through standardization
  - Improve sling quality to enhance patient safety for lower cost than we currently spend
  - Ability to redesign sling and label due to large volume purchase
Sling Label and RFID

Final Implementation
- CNO and CFO approvals from all sites and system services
- Implementation Planning
- Sling Tip Sheets
- Promotion
- Sling Swap Days
- Monitoring
- Data collection
- Barcoding/RFID data
- Re-evaluate cost analysis

Assumptions
- Wash life of slings are guaranteed by vendor for 3 years and approximately 200 washes
- HCL wanted us to start with 30 wash life but we believe it will likely be closer to 100. Data after 5 months is showing some slings already washed 21 times!
- Loss or damage will be the only reason we have low numbers, manufacturer has given us new slings when they fail before warranty.
- 30 wash life numbers were a "break even" for our largest hospital with 100% lift coverage who makes every bed with a reposition sling. If they break even, we all do!
Wash Life Calculation
- Calculation of washes per sling type
- This can yield further cost reduction in rental or replacement of slings if average wash life goes beyond 30.

Initial Outcomes
- Seamless sling roll-out at all 3 sites
- 1 new hospital will adopt the same sling and process
- Little to no par issues since change
- Healthcare workers prefer new slings
- BCH and SCL began new process in July/Aug 2018
- One other large system started in December of 2018
- One other large system has an additional hospital coming on board
- Other sites likely coming online
- Improved partnership
  - Laundry
  - Other Front Range Hospital Systems
  - Sling Vendor

Future Opportunities
- Further flat sheet reduction
- Assessing sling wash life to negotiate even lower pricing
- Add in low use slings (small and bariatric)
- Additional sites
- Continue to analyze cost savings, environmental stewardship and use of wipeable slings
- Re-purposed 600 slings to sites outside of Denver to move away from SPU with Savings of $10,000 and $30,000 annually based on current use.
Program Management Assistance with Barcoding and RFID Data

- Average Sling Use per Week by Sling Type – on average how many slings per week have been delivered back to facility
  - Monitor for variation and appropriate use
- Total Delivered to Facility by Sling Type – number of slings delivered that month
  - Monitor for variation and appropriate use
- "At Customer" in 1 week, by month – how many slings remained at facility and have not been washed (if longer than 2 months, consider investigating)
  - Are slings hidden, lost, improperly paired, not properly used
- % of Inventory at Facility

Wash Data Helps Drive Program
Track Sling Usage by Type

- Hospital with 66 lifts that require slings
  - Reposition Slings Per Week = 53
  - Chair Slings Per Week = 10

- Hospital with 143 lifts that require slings
  - Reposition Slings Per Week = 115
  - Chair Slings Per Week = 29

- Hospital with 377 lifts that require slings
  - Reposition Slings Per Week = 476
  - Chair Slings Per Week = 29

30 limb slings over 4 months – need to promote use versus loss
versus pars and location reassessment
Flat Sheet Savings

- 2 of 3 Sites with just over 6% Flat Sheet Reduction
  - Large Site Annual Laundry Savings of $28,000
  - Laundry Assisted with Calculation: (.33 sheet reduction X .95 pounds per sheet = .3135 pounds X 145,000 annual APDs = 45,458 pounds saved X $0.605 per pound)
- Final Site had a slight increase in top sheet use. This site has the fewest lifts. Site will look into use of top sheets, census or other issues leading to increased use.

Cost Outcomes Rental/Replacement versus Single-Patient Use

Is this worth all of the work?

- Buy-In Cost = Cost of 4 Months Single Patient Use (4 mo ROI)
- Ongoing Cost = 83%-92% Reduction
- Rental/Replacement allows for more stable budgeting and pars
- Ongoing savings will allow easier justification for:
  - SPHM Technology
  - Program managers
  - Long Term Ongoing SPHM Program Cost Reduction
  - Environmental Stewardship

YES!!!

80%-90% Cost Reduction with each Sling Use
Using Rental/Replacement Model

Make Laundry Work by Being Better
Healthcare Partners!
References

