

# Setting up an ergonomics program

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# What do we know?

- Patient handling leads to high numbers and rates of injuries to health care workers
- Costs to health care facilities is huge
  - Workers' compensation
  - Indirect costs
  - Health care worker hiring and retention

# What do we know?

- Can't manually lift and transfer patients safely
  - Far exceeds NIOSH lifting equation
  - More obese & more dependent patients
  - Staff shortages
  - "Good body mechanics" can't overcome intrinsic forces required
  - Implications for patient safety

# What do we know?

- Safe lifting programs eliminating manual lifts/transfers work
  - Surrey Memorial: Bruening 1996:
    - No lift policy reduced injuries by 96%
  - Lawrence & Memorial: Fragala
    - Lost time hours dropped 43%
  - Charney: 60 bed Tampa Nursing Home
    - No lift, ceiling lifts, Lost time dropped to 0

# Need more?

- OSHA cited over 50+ studies showing a positive cost benefit for “No” Lift
- Texas Hospital: Fragala
  - Added Lift equipment, WC costs reduced from \$111,159 to \$743
- 7 Nursing Home Study: Garg & Moore
  - Injury rates reduced by 62%
- SF General
  - Lost time back injuries dropped from 16 to 1, Lost days from 216 to 6, Over 6 years WC costs dropped 90%
- Camden, ME nursing home
  - WC premium dropped from \$750,000 to \$154,000
- Kennebunk, ME nursing home
  - WC cost from \$1.5 million to \$770,000

# What we know

- New designs of lifting/transfer equipment are far superior to the past, and getting better
  - Ceiling lifts
  - Hover mats & slip sheets
  - Lifts specialized to lifting/transfer task
  - Improved hospital beds
  - Require less force, more comfortable, more secure

# Program Implementation: Departments & Equipment Costs

	Depts	Staff	Equipment	Equipment Costs
<b>Pilot:</b>	Surg 7 & Transport	<b>60</b>	Sit-to-Stand Lifts, Slide Sheets, Stedy Assist Devices	<b>\$26,650</b>
<b>Phase 2:</b>	Med 4, M/S 5, Onc 6, ICU, Rehab. Services, Float Pool, Action Nurs.	<b>200</b>	Added Hovermatts, (2) Ceiling Lifts (ICU & Med 4), and (1) new Total Lift, as well as basics: Slide Sheets, Sit-to-Stands, Stedy's, Storage Baskets	<b>\$70,001</b>
<b>Phase 3:</b>	CSD, Diag Imag., Rad Onc., Nuc. Med, ED, OR, PACU, Proc.Ctr, UMG-Hollfelder Women's Ctr  Note: Implementation underway	<b>165</b>	(2) Ceiling Lifts (Surg 7 & Rad Onc) as well as basics. Special Note: OR purchased (9) Hovermatts to aid in transfer of joint replacement pts.	<b>\$68,274</b>
<b>TOTAL</b>		<b>425</b>	<i>DAS</i> <i>JDH</i>	<b>\$164,925</b> <b>\$97,070</b> <b>\$67,855</b>

# Additional Program Costs

- Training
- Program coordination time
- Committee time
- Internal ergonomic consultants
- DAS oversight
- Maintenance
- Evaluation
- Super user training/implementation
- Administrative

**Safe Patient Handling - TEAMs  
Intervention - Related Injuries & Costs  
October 2002 through June 2006**

	<b>PRE</b>	<b>POST</b>	<b>CHANGE</b>
<b>Total Injury Rate</b> <i>Rate/Month/100 FTE</i>	0.84	1.04	> 24%
<b>Lost Time Injury Rate</b>	0.56	0.42	< 25%
<b>Annualized Cost</b> <b>(total incurred cost/months*12)</b>	\$241,000	\$167,000	< \$74,000
<b>Cost per Injury</b>	\$ 15,568	\$ 8,487	< 45%
<b>Cost per Lost Time Injury</b>	\$ 23,136	\$ 21,067	< 9%
<b>Cost per Employee</b>	\$ 4,236	\$ 1,015	< 76%

# Comprehensive Ergo Program

- Management Commitment
- Worker involvement
- Tracking/identifying cases (passive & active)
- Job analysis & Solution development
- Create safe patient handling policies
- Training (initial and refresher)
- Funding & Procurement
- Evaluation

# Specific lifting program elements (1)

- ID Advocate/coordinator
- Forming a committee/task force
  - Who should be on it?
  - Implementation teams/local advocates
- Worker involvement
  - Training staff
  - soliciting ideas
  - surveys

# Specific lifting program elements (2)

- Written policies
- Accessing the funding: different pockets
- Purchasing equipment
- Logistics: laundry; visible equipment; moving between departments; factsheets; flow sheets; posting assessments
- Evaluation: tracking usage, injury rates, surveys, suggestions, advocate meetings

# Garg Equipment Formula Ratio

- Based on number of patients needed to be transferred: 2 total lifts per 17-24 patients and 3 total lifts for 33 to 50 patients
- Sit to Stand: 6 sit to stand 42-50 patients
- Re-positioning Equip: 10 devices 42-50 patients
- (Source: Charney)

# Equipment Used at UCHC

- Liko Sabina lift: sit to stand
- Liko Stedy: mobility assist
- Arjo Lift: lift from floor, total dependent
- Slipsheet: lateral transfer, up in bed
  - Have patient assist where possible
  - Get help! Don't do it alone.
  - Slipsheets essential for heavy patients
- Gait Belts: for ambulation where pt is capable
- HoverMat, StackMat
- New Hill-Rom bed features
  - Tilt side to side for lateral transfer
  - Raise back to help to sitting position
  - Lower head with patient assist (feet planted) to move up in bed

# Doing a plan

- What are the major ergonomic hazards for workers in your facility? Write a summary of the hazards and costs that you can use to present to union members and management. You can include both general information and information for your facility.
- Once written, will this summary convince them of the need for change? Do you need additional information (and if so, what)?
- What equipment do you think is needed for your facility? Put down specific equipment and costs. What is the total equipment cost you will need?
- How does this estimate compare to the costs of injuries for your facility?
- What policy changes are needed? How will you get those implemented?
- What time will be needed for training of staff?
- What are likely obstacles to getting the plan implemented? How might you overcome those obstacles? What do you need to succeed? Who do you need to convince?

- What are you going to do when you get back to your workplace?
  - What is your pitch?
  - Questions?
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