MSI PREVENTION BULLETIN 8
Laundry in Health Care Facilities

Processing laundry in intermediate and extended care facilities requires lifting, handling, sorting, loading, unloading, and folding clothing and bedding, as well as handling chemical containers and other items within the laundry. This bulletin provides information on typical musculoskeletal injury (MSI) issues associated with laundry activities and some possible control measures that could be adopted to eliminate or minimize the MSI risk. This information is only a guideline, and the employer must still complete an MSI risk assessment to accurately determine the risks and appropriate control measures applicable to their worksite.

MSI Issue: Receiving and Weighing Laundry	Possible Risk Control Measures

• Workers adopt awkward postures when they handle laundry bags from laundry chutes and receiving containers.
 	
	Engineering controls
	• Laundry and linen bags:
	  – Reduce bag size.
	  – Taper bags to improve unloading as well as reduce size.
	  – Choose a slippery bag material such as nylon instead of cotton.
	  – Add handles to bags.
	  – Use an easy bag closure such as a B-lock.
	• Reduce the reach distance to bags.
	• Cut down the sides of receiving bins so that bags can be removed more easily.
	• Provide reach-and-grab devices that allow bags to be pulled into closer range.
	• Use levelators (self-levelling inserts) to ensure that the height of the receiving surface is between mid-thigh and shoulder level.
	• Reduce the capacity of the laundry carts (see below).

MSI Issue: Receiving and Weighing Laundry *(continued)*	Possible Risk Control Measures
• Workers adopt awkward postures when working in small or cluttered spaces within the receiving area. • Workers hold bags away from the body to keep dirty laundry bags from touching their clothing.	**Administrative controls** • Train workers in the correct body dynamics and lifting techniques for bag handling. • Clear the laundry room of all unnecessary equipment. • Avoid overloading the soiled linen receiving bins. • Set an acceptable weight for a linen bag. • Design sorting tasks so that they can be undertaken in the resident care areas at the time of bagging. **Personal protective equipment (PPE)** • Provide workers with the appropriate personal protective equipment, such as wipe-down aprons, to enable the load to be handled close to the body. • Provide well-fitting protective gloves that reduce the level of force required for gripping.
MSI Issue: Sorting Soiled Linen	**Possible Risk Control Measures**
• Workers stand for prolonged periods on hard surfaces. • Workers use pinch grips to sort soiled laundry into various piles. • Laundry is overloaded into containers, leading to awkward shoulder postures. • Workers repeatedly bend forward and sideways to floor level to sort laundry items. • Workers adopt awkward postures when sorting laundry in small or cluttered workspaces.	**Engineering controls** • Provide sit-stand stools. • Provide anti-fatigue matting and foot rails or foot rests for tasks that require prolonged standing. • Provide a working surface height that is slightly below elbow height — for example, about 18 cm (7 in.) below the worker's elbow. • Limit the amount that can be placed in laundry bags by reducing the size of the bag or by altering the carrying capacity of the cart.

MSI Issue: Sorting Soiled Linen *(continued)*	Possible Risk Control Measures
• Workers lift heavy laundry bags when dumping out soiled linen. 	**Administrative controls** • Clear the laundry room of all unnecessary equipment. • Pre-sort laundry in the resident areas, and colour-code laundry bags accordingly. • Train workers to sort laundry on a sorting table where feasible and to avoid sorting on the floor. • Introduce job rotation and job enlargement, adding variety to the job. • Provide adequate work-recovery cycles within the job since fatigued muscles are at greater risk of injury.
MSI Issue: Loading and Unloading Washing Machines and Dryers	**Possible Risk Control Measures**
• Workers adopt awkward postures when reaching to the bottom of laundry carts. 	**Engineering controls** • Provide self-levelling carts for laundry. • Provide a reach-and-grab device for workers to reach the laundry at the rear of the machines. • Install larger diameter wheels on carts that move heavy loads. • Place washing machines and dryers on raised platforms to reduce the need to bend the lower back. • Place machines at the front of the raised platform to reduce the risk of over-reaching.

MSI Issue: Loading and Unloading Washing Machines and Dryers *(continued)*	Possible Risk Control Measures
• Workers adopt awkward or twisted postures by placing laundry carts directly in front of the washing machine or dryer to load the carts. • Workers over-extend their reach by twisting and bending sideways. • Workers reach into the machine compartment with arms extended to pull laundry out of the machine. • Long strings (such as on restraints) get tangled, increasing the grip and pull force required.	**Administrative controls** • Train workers to place the laundry cart to one side of the washer or dryer opening, not directly in front of it. • Instruct workers to pivot with the feet instead of twisting with the lower back. • Examine the work flow to ensure that double handling of loads is eliminated where practicable. • Inspect cart wheels regularly to ensure that they are in good working order. • Train workers to load and unload laundry alternating between left and right sides. • Place items with long strings into bags to wash and dry, or hang them to dry to eliminate tangled strings.
MSI Issue: Folding Laundry	**Possible Risk Control Measures**
• Workers use repetitive motions of the shoulders and wrists when folding laundry. • Workers fold laundry with their arms away from the body, resulting in prolonged static postures of the shoulder region. • Working heights are too high, resulting in awkward back and shoulder postures.	**Engineering controls** • Provide working surface heights that are slightly below elbow height. For example, 86 cm (34 in.) above mat height was a good height for one worker; it was 18 cm (7 in.) below her elbow. • Where there are workers of varying height, design for taller workers and elevate shorter workers on appropriate work platforms to raise them up to the correct height. • Use mechanical folding devices.

MSI Issue: Folding Laundry *(continued)*	Possible Risk Control Measures

• Workers reach across folding tables that are too wide, resulting in forward bending of the trunk.
 	
• Workers reach above shoulder height to store laundered items on high shelves.
• Workers stand for prolonged periods in the same position.
 	
	• Provide folding tables with a one-sided reach of approximately:
	  – 75 cm (29 in.) for infrequent reaching
	  – 36 cm (14 in.) for a frequent two-handed reach
	• These dimensions can be doubled for tables accessible from both sides.
	• Provide sit-stand stools or chairs for workers for sedentary folding tasks.
	• Provide anti-fatigue matting and foot rails or foot rests for areas where prolonged standing is required.
	
	Administrative controls
	• Spread folding activities over the entire shift or among a number of workers so that no worker is folding laundry for an extended period of time.
	• Introduce job rotation and job enlargement for workers.

MSI Issue: Transporting Laundry	Possible Risk Control Measures
• Workers transport clean laundry on heavy carts that are difficult to move. • Workers reach above shoulder height to store and reach for laundered items. • Workers reach backwards (with the shoulder in extension) while pulling carts along corridors. 	**Engineering controls** • Adjust carts to ensure that they do not exceed shoulder height. This allows carts to be pushed from behind rather than being pulled from one side. • Maintain wheels on the carts in good condition. • Install larger diameter wheels on carts that move heavy loads. • Close in the backs of carts to reduce the precision required to place linen. • Provide waist-high shelves for storing incontinence pads to avoid frequent forward bending. • Provide a low-friction floor or carpets with low-profile surfaces for carts. • Provide powered push-pull devices for carts that move heavy loads. **Administrative controls** • Ensure that carts are not overloaded. • Instruct workers to push carts and not to pull carts with their shoulders extended behind them. • Provide a second worker to help move carts.

MSI Issue: Handling Laundry Chemicals	Possible Risk Control Measures
• Workers lift, hold, and manipulate containers of detergent concentrate for washing machines. Contents are heavy and liable to shift. • Workers handle containers of detergent concentrates in confined environments, resulting in awkward postures of the lower back and shoulder. • Workers hold chemical storage containers at a distance away from the body to keep containers from touching their clothing.	**Engineering controls** • Reduce the weight of the detergent containers. • Place detergent products and other items in locations where they are easily accessible. • Where the above are not practicable, use longer fluid feed hoses so that these items can be placed on mobile carts that can be pulled out into an open space for easier access. • Use automatic dispensers. **Administrative controls** • Provide additional workers to assist in the handling of the laundry chemicals. **Personal protective equipment (PPE)** • Provide protective aprons to reduce the distance the loads are carried from the body. **Note:** PPE may be required for handling chemicals. The material safety data sheet (MSDS) should be available for such substances.

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MSI #8