



Redefining Patient Handling

Hoist Identification Tool (HIT)



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# Introduction

The hoist identification tool (HIT) is designed to assist those people in the health and social care sectors who have the responsibility for undertaking or contributing to generic manual handling risk assessments and ensuring that suitable and sufficient equipment is available to meet assessed needs relating to any particular ward, department, unit or facility. This could include back care advisors, ward/department/directorate managers and owners and managers of nursing and residential facilities. The tool can be used to demonstrate to line managers and budget holders that an adequate assessment process has taken place, and also to support a business case for manual handling equipment provision.

The booklet sets out the basis for this hoist identification tool and gives worked examples of how to use the tool to assist in passive and active overhead hoist needs identification and selection. By following the guidance for generic risk assessment and the protocols in the examples (pages 6 to 12), the assessor can establish the number of each type of hoist that is required in total for the designated area. In existing work areas it is likely that some equipment may already be in place. Assuming that the equipment is in reasonable condition as assessed in compliance with the “The Lifting Operations and Lifting Equipment Regulations, 1998” then the guide can assist in indicating any additional needs over and above the existing provision. The tool can also be used to assist in identifying the number and type of hoists likely to be required in a new or proposed facility.

The tool is aimed at assisting in generic assessment and equipment audit and is not manufacturer specific. It is not intended to be used when undertaking person-specific manual handling risk assessments.

This booklet also contains information about the Oxford range of hoists and slings, and their application, in relation to FIM (functional independence measure) scoring.

# FIM Score Explained

Before using the hoist identification tool, it is important to understand how FIM scoring works. FIM (Functional Independence Measure) is a widely used tool, particularly within the field of rehabilitation and involves the classification of a person's mobility according to 7 levels of function, from independence to total assistance. (Granger CV, Hamilton BB, Linacare JM, Heinemann AW, Wright BD, Performance profiles of the functional independence measure. Am J Phys Med Rehabil 1993; 72:84-9).

<p><b>Independent</b></p> <p>Another person is not required for the activity. (NO HELPER)</p>	<p><b>7. Complete Independence</b> All of the tasks described as making up the activity are typically performed safely, without modification, assistive devices or aids and within a reasonable time.</p> <p><b>6. Modified Independence</b> Activity requires one or more than one of the following: an assistive device, more than reasonable time, or safety (risk) considerations.</p>
<p><b>Dependent</b></p> <p>Another person is required for either supervision or physical assistance in order for the activity to be performed (REQUIRES HELPER).</p>	<p><b>5. Supervision or set-up</b> Person requires no more help than standby, cueing or coaxing without physical contact, or helper sets up needed items or applies orthoses.</p> <p><b>4. Minimal Assistance</b> With physical contact, the person requires no more help than touching and person expends 75% or more of the effort.</p> <p><b>3. Moderate Assistance</b> Person requires more help than touching alone or expends half (50%) or more (up to 75%) of the effort.</p>
<p><b>Complete Dependence</b></p> <p>The person expends less than half (50%) of the effort. Maximal or total assistance is required, or the activity is not performed.</p>	<p><b>2. Maximal Assistance</b> Subject expends less than 50% of the effort, but at least 25%.</p> <p><b>1. Total Assistance</b> Subject expends less than 25% of the effort.</p>

By looking at the broad categories 'dependent' (FIM scores 3, 4 and 5) and 'complete dependence' (FIM scores 1 and 2), the FIM can assist in equipment needs identification (remembering that this tool is not designed for person-specific risk assessment).

# Important Information Before Using the Tool

The range of equipment appropriate to a particular ward, department or care facility should be identified as part of an adequate generic manual handling risk assessment carried out in compliance with the Manual Handling Operations Regulations 1992 (as amended) and any local manual handling policy. The table below indicates the type of equipment that may be appropriate in respect of each broad functional independence category of patient/person in order to ensure that safer handling practice can be facilitated. A person-specific risk assessment must be carried out in respect of those who require any assistance with movement/mobility.

<b>Functional Independence Measure (FIM)</b> (see page 4 for description of levels of function)	<b>Passive Hoist</b> (mobile or overhead)	<b>Active Hoist</b>
<b>Independent</b>  7. Complete independence 6. Modified independence	Unlikely to be required except in retrieval after a fall/collapse	Unlikely to be required
<b>Dependent</b>  5. Supervision or setup 4. Minimal contact assistance 3. Moderate assistance	May be required	Must be available
<b>Complete Dependence</b>  2. Maximal assistance 1. Total assistance	Must be available	Unlikely to be required

# Generic Manual Handling Risk Assessment Guidance

The checklist below and examples on the following pages can be used to identify hoist requirements as part of the generic risk assessment process to ensure that the number and range of hoists are suitable and sufficient for the work area, taking into account any relevant factors including:

**1. Number of patients/people in total**

**2. Functional Independence (see page 5)**

Consider the number of patients within each classification

**3. Weight/BMI of patients**

Care should be taken not to exceed the load limits of the hoist equipment

**4. Number of staff/teams**

Each team should be able to access an appropriate hoist at any time during their period of care

**5. Daily routine**

Are there particular times of day when all patients are moved within a particular time frame e.g. for communal meals?

**6. Possibility of barrier nursing/care**

Is it feasible that one or more patients in a facility or unit may require barrier nursing, thus tying up one hoist?

**7. Design constraints in hoist-use areas**

Are all bed, bathroom and toilet areas accessible by standard footprint hoists?

Please note that staff in ALL areas must have immediate access to at least one suitable mobile passive hoist for use in the event of an emergency such as the retrieval of a fallen person.

At least one passive mobile hoist suitable for a very heavy person should also be accessible within the facility/hospital, and all staff should be aware of the system for accessing the hoist as required. For example in the event of an unplanned admission of a very heavy patient into Accident and Emergency. Such matters should be covered within the organisation's Manual Handling Policy and Arrangements, which should include a sub-section on the management of bariatric persons.

# Passive Hoist Identification

## Example 1

Using example 1 below and the information on pages 4 to 6, the number of passive hoists required for the area being assessed can be calculated.

<b>Step 1</b>	Total number of beds.	<b>18</b>
<b>Step 2</b>	Number of nursing teams at busiest period.	<b>3</b>
<b>Step 3</b>	Divide number of beds by number of teams to calculate your key number.	<b>18/3 = 6</b>
<b>Step 4</b>	Your key number is now 6. Use multiples of your key number (result from Step 3) to complete column 1 in the table below.	
<b>Step 5</b>	Now consider the average number of people in the area being considered who have a FIM score of 1 or 2. For example, about 50% would be 9 people.	<b>9</b>
<b>Step 6</b>	Compare the number arrived at in Step 5 to the ranges of figures in Column 1 below. In this case number 9 falls within range 7-12.	

By following across row 2 we can see that in example 1 the minimum number of passive hoists required in the area would be 2, plus 1 if there is a risk that one hoist will be tied up in a barrier nursing situation, plus an increased capacity hoist if there is a possibility that a person will be very heavy.

	Column 1	Column 2	Column 3	Column 4
Row number	Number of people/ patients with FIM 1 or 2	Minimum number of passive hoists (see table below to consider specific hoist type requirements)	If there is a possibility that patients will require barrier nursing, add one hoist**	If there is a possibility that a person/patient will be very heavy also add one increased capacity hoist***
1	<b>1 - 6*</b>	1 or 2	1	1
2	<b>7 - 12</b>	2	1	1
3	<b>13 - 18</b>	3	1	1

Different types of wards/environments may have very different percentages of people in each category, and mobility may vary. Always consider very carefully the particular issues that may be relevant in the particular area in which the tool is being applied.

\* If this number exceeds 3 then a minimum of 2 hoists is recommended.

\*\* In smaller wards/units it may be more appropriate to share the additional hoist subject to adequate risk assessment.

\*\*\* In smaller wards/units it may be more appropriate to share access to an increased capacity hoist subject to adequate risk assessment.

## Example 1

The particular type(s) of passive hoist required will depend on a number of factors. Assessors should consider their requirements, based on their generic risk assessment, considering the usual factors including:

- Load (likely capability and anthropometrics of patients/people)
- Individual (skill, training, experience)
- Task (type, timing etc)
- Environment (location, space, surface etc)
- Budget (cost of transfer)



## Example 2

<b>Step 1</b>	Total number of beds.	<b>36</b>
<b>Step 2</b>	Number of nursing teams at busiest period.	<b>4</b>
<b>Step 3</b>	Divide number of beds by number of teams to calculate your key number.	<b><math>36/4 = 9</math></b>
<b>Step 4</b>	Use multiples of your key number (9) and complete column 1 below.	
<b>Step 5</b>	Now consider the average number of people in the area being considered who have a FIM score of 1 or 2. For instance, two thirds (66%) would be 24 people.	<b>24</b>
<b>Step 6</b>	Compare the number arrived at in Step 5 to the ranges of figures in each row of column 1. In this example, if you have 24 people that have a FIM score of 1 or 2 then follow row 3 across to read the results.	

	Column 1	Column 2	Column 3	Column 4
Row number	Number of people / patients with FIM 1 or 2	Minimum number of passive hoists (see table below to consider specific hoist type requirements)	If there is a possibility that patients will require barrier nursing, add one hoist**	If there is a possibility that a person/patient will be very heavy also add one increased capacity hoist***
1	1 - 9*	1 or 2	1	1
2	10 - 18	2	1	1
3	19 - 27	3	1	1
4	28 - 36	4	1	1

\* If this number exceeds 3 then a minimum of 2 hoists is recommended.

\*\* In smaller wards/units it may be more appropriate to share the additional hoist subject to adequate risk assessment.

\*\*\* In smaller wards/units it may be more appropriate to share access to an increased capacity hoist subject to adequate risk assessment.

# Template for your own calculation

## Passive hoists

Ward/department/facility

<b>Step 1</b>	Total number of beds.	<input type="text"/>
<b>Step 2</b>	Number of nursing teams at busiest period.	<input type="text"/>
<b>Step 3</b>	Divide number of beds by number of teams to calculate your key number.	<input type="text"/> / <input type="text"/> = <input type="text"/>
<b>Step 4</b>	Use multiples of your key number to complete column 1.	
<b>Step 5</b>	Consider the typical number of people/patients with a FIM score of 1 or 2.	<input type="text"/>
<b>Step 6</b>	Compare the number arrived at in Step 5 to the ranges of numbers you have recorded in column 1 and follow the relevant row across to find the minimum number of hoists required.	

	Column 1	Column 2	Column 3	Column 4
Row number	Number of people / patients with FIM 1 or 2	Minimum number of passive hoists (see table below to consider specific hoist type requirements)	If there is a possibility that patients will require barrier nursing, add one hoist**	If there is a possibility that a person/patient will be very heavy also add one increased capacity hoist***
1	<input type="text"/> *	1 or 2	1	1
2	<input type="text"/>	2	1	1
3	<input type="text"/>	3	1	1
4	<input type="text"/>	4	1	1

\* If this number exceeds 3 then a minimum of 2 hoists is recommended.

\*\* In smaller wards/units it may be more appropriate to share the additional hoist subject to adequate risk assessment.

\*\*\* In smaller wards/units it may be more appropriate to share access to an increased capacity hoist subject to adequate risk assessment.

# Active Hoist Identification

## Example 1

In just the same way as passive hoist requirements can be calculated, using the tool in relation to FIM scores 1 and 2, active hoist requirements can be identified by considering the number of people in the work area with a FIM score in the 'dependent' category of 3, 4 or 5.

<b>Step 1</b>	Total number of beds.	20
<b>Step 2</b>	Number of nursing teams at busiest period.	2
<b>Step 3</b>	Divide number of beds by number of teams to calculate your key number.	$20/2 = 10$
<b>Step 4</b>	Use multiples of your key number (10) and complete column 1 below.	
<b>Step 5</b>	Now consider the average number of people in the area being considered who have a FIM score of 3, 4 or 5. For instance, 25% would be 5 people.	5
<b>Step 6</b>	Compare the number arrived at in Step 5 to the ranges of figures in each row of column 1. In this case, if you have 5 people that have a FIM score of 3, 4 or 5, then follow the relevant row across to read the results.	

	Column 1	Column 2	Column 3	Column 4
Row number	Number of people/ patients with FIM 3, 4 or 5	Minimum number of active hoists (see table below to consider specific hoist type requirements)	If there is a possibility that patients will require barrier nursing, add one hoist**	If there is a possibility that a person/patient will be very heavy also add one increased capacity hoist***
1	1 - 10*	1 or 2	1	1
2	11 - 20	2	1	1

Please note in relation to Column 4 that the maximum safe working load of an active hoist is likely to be considerably less than some mobile and overhead hoists. Please check the manufacturer's safe working load guidelines.

\* If this number exceeds 3 then a minimum of 2 hoists is recommended.

\*\* In smaller wards/units it may be more appropriate to share the additional hoist subject to adequate risk assessment.

\*\*\* In smaller wards/units it may be more appropriate to share access to an increased capacity hoist subject to adequate risk assessment.

# Template for your own calculation

## Active hoists

Ward/department/facility

<b>Step 1</b>	Total number of beds.	<input type="text"/>
<b>Step 2</b>	Number of nursing teams at busiest period.	<input type="text"/>
<b>Step 3</b>	Divide number of beds by number of teams to calculate your key number.	<input type="text"/> / <input type="text"/> = <input type="text"/>
<b>Step 4</b>	Using multiples of your key number, complete column 1 below in the same way as the previous examples.	
<b>Step 5</b>	Consider the typical number of people/patients with a FIM score of 3, 4 or 5.	<input type="text"/>
<b>Step 6</b>	Compare the number arrived at in Step 5 to the ranges of figures in column 1. Follow the relevant row across to read the results.	

	Column 1	Column 2	Column 3	Column 4
Row number	Number of people/patients with FIM 3, 4 or 5	Minimum number of active hoists (see table below to consider specific hoist type requirements)	If there is a possibility that patients will require barrier nursing, add one hoist**	If there is a possibility that a person/patient will be very heavy also add one increased capacity hoist***
1	<input type="text"/> *	1 or 2	1	1
2	<input type="text"/>	2	1	1
3	<input type="text"/>	3	1	1
4	<input type="text"/>	4	1	1

\* If this number exceeds 3 then a minimum of 2 hoists is recommended.

\*\* In smaller wards/units it may be more appropriate to share the additional hoist subject to adequate risk assessment.

\*\*\* In smaller wards/units it may be more appropriate to share access to an increased capacity hoist subject to adequate risk assessment.

# Oxford Patient Lift Range

## Oxford Professional Lifts

The Oxford Professional range of lifts combines outstanding performance with total versatility. Ergonomically designed and high in technical specification, these lifts are suited to both nursing and institutional environments.



## Oxford Classic Lifts

Oxford has one of the broadest ranges of mobile patient lifts on the market. Whether it is for home care, nursing or acute settings, Oxford has a Classic lift to suit your specific requirements.



## Oxford Ceiling Lifts

Oxford's ceiling track systems are the ideal solution in care environments with limited or restricted space. Oxford offers a range of ceiling lift packages including fixed, portable and gantry track systems for permanent, occasional or emergency use.



## Oxford Bathing Lifts

Oxford offers one of the most versatile and trusted bathing systems on the market, providing patients with the freedom to bathe easily and in complete comfort. A variety of pool-side and bath-side options are available to suit most requirements.



## Accessories

Oxford offers a range of complimentary products for use with their patient lifts and slings. This includes a variety of cradle options, weigh scale devices and sling accessories.



## Oxford Slings

The Oxford range of slings has been designed to suit a variety of transfer requirements and they are fully compatible with Oxford's range of lifts. A wide selection of sling styles are available to ensure complete safety and comfort for the patient, whatever the setting.



For more information, visit [www.joerns.co.uk](http://www.joerns.co.uk)



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