



Clinical Indemnity Scheme

Fall from Hoist:
**Events reported to the STARSWeb
National Reporting System from 1st
January 2004 to 30th September 2009.**

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1.0 Background

This report was originally developed in response to a written request (dated 6th May, 2009) from the interim Chairperson, Mr Liam Duffy, Dublin Hospitals Group Risk Management Forum (DHGRMF) on behalf of the standing committee, Minimal Handling Advisory Group.

The information requested was:

- Number of incidents pertaining to hoists with patients involved for 2008, 2007, 2006 2005?
- How many of these occurred across the Dublin Voluntary Hospitals for those years?

This report has been reworked to exclude any specific references to DHGRMF and will be of interest nationally to all enterprises working towards reducing falls and their impacts.

** The STARSWeb data requested internally included 2004 data but no fall from hoist related events were reported for this period.*

2.0 Overview

There were over 226,267 clinical events created on STARSWeb from 1st January, 2004 to 31st December, 2008 inclusive, as of 23rd December, 2008 (Figure 1).

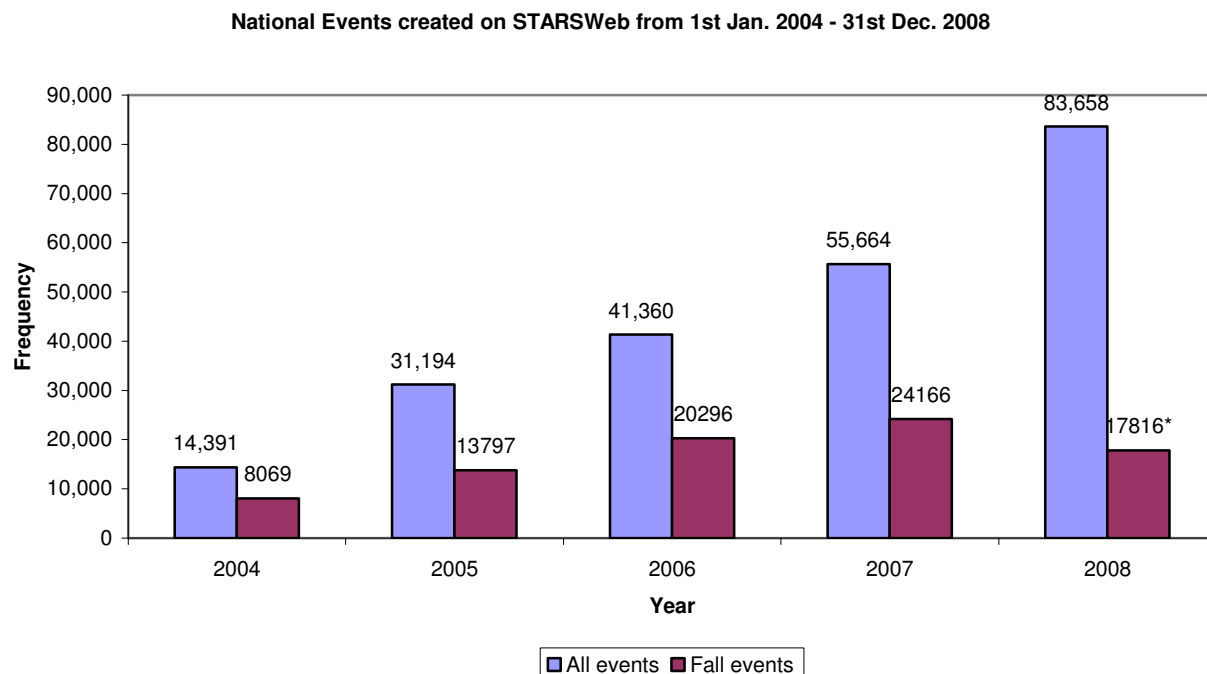


Figure 1. All Events created on STARSWeb from 1st January 2004 –31st December 2008 inclusive, as of 23rd December, 2008.

*N.B. * Falls events created up to and including 30th September, 2008 only.*

Of these events over 37 per cent (n= 84,144) related to falls events. Fall events have been consistently in the top five events reported nationally since the STARSWeb reporting system was launched from November 2003. Falls events as a proportion of the overall total seemed to have stabilised in 2007/2008, even allowing for 2008 data being but three-quarters of a year, but this finding will need monitoring over time to confirm.

It is worth noting that larger hospitals within Dublin Mid-Leinster (DML) were capable of reporting to STARSWeb from May 2005. The majority of acute hospitals (80 per cent) across the country were capable of reporting into the STARSWeb system from March 2006. Some large hospitals within HSE South only had the necessary infrastructure to report from August 2005 and this was finalised for the region as a whole in July 2007. However, HSE Dublin North East (DNE) and HSE West and were among the original pilot sites for STARSWeb, beginning reporting from January 2004 and March 2004 respectively and finalising their reporting capabilities for the region as a whole in August 2004 and March 2006 respectively.

* This document is informed by STARSWeb reported data relating to *fall from hoist* and created on the system from January 1st, 2004 –30th September, 2009.
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Final Draft 13/04/2010

3.0 Data Quality

Pertinent data was extracted from STARSWeb in keeping within internal quality control procedures. The events were screened for duplicates or non-*fall from hoist* events. No duplicates were found. However, from a preliminary analysis of the *further details* field it would seem that three (3) events reported have been incorrectly classified. All three (3) could have been logged under *patient fall while moving under supervision*. These events involved actual/potential falls from plinths while undergoing rehabilitative therapy. However, due to insufficient data this finding is not conclusive. Consequently these events were not excluded from the dataset.

This finding prompts the need for managers of the STARSWeb dataset at local enterprise level to ensure that the quality of the data submitted is accurate, appropriate and timely. In addition any data entered needs to be upgraded to reflect enterprises' risk management interventions to minimise risks and learn lessons to prevent reoccurrences.

4.0 Key findings relating to a fall from hoist reported Nationally

- The **frequency** of all *fall(s) from hoist(s)* events Nationally for the period January 2005 up to and including 30th September 2009 is 84 or less than 1 per cent of all falls events reported. (Figure 2)

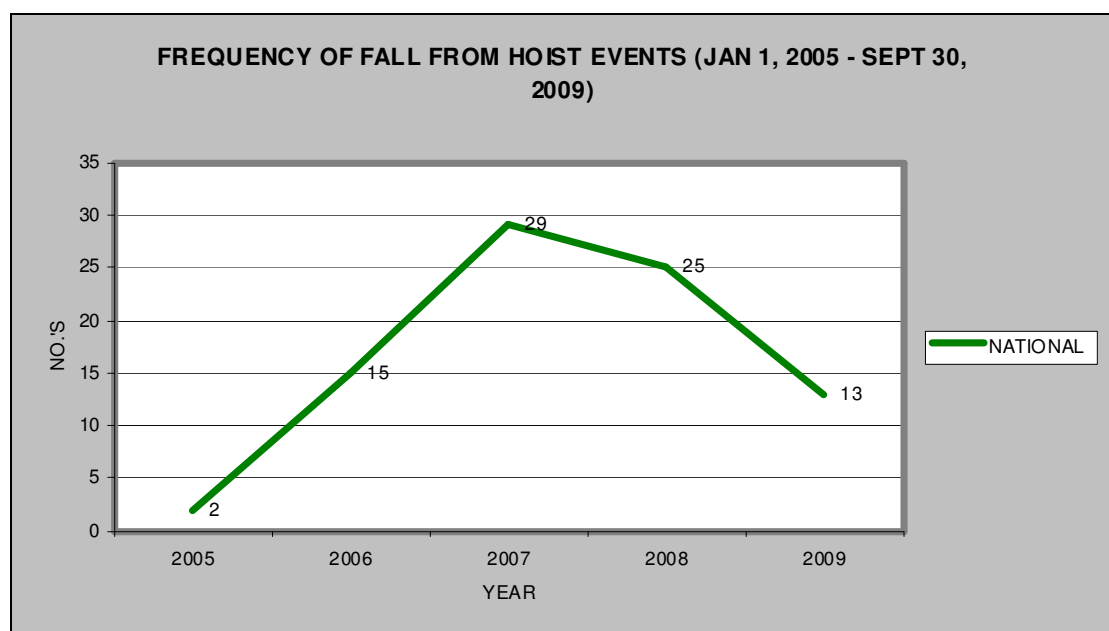


Figure 2. Frequency of Fall from Hoist Events from Jan. 1 2005 –Sept.30 2009.

- During this period there has been one (1) **pre-claim relating to a fall from hoist event** Nationally.
- The top three (3) **sub-speciality** areas where falls are occurring Nationally were:
 - Geriatric Medicine (34 or 40%),
 - Elderly Services (8 or 10%), and
 - General Medicine (8 or 10%)
- **Outcomes for fall from hoist events** are reported in 64% (n= 54) of cases Nationally. (Figure 3).

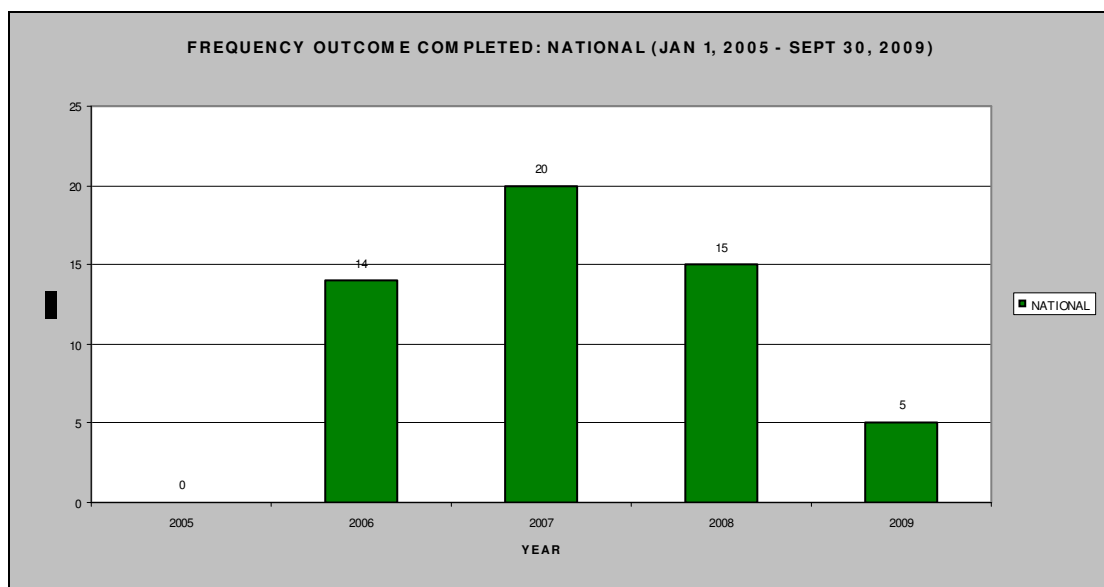


Figure 3. Frequency Outcome Completed Nationally.

- **Risk rating** is used by enterprises to determine the actual or potential impact on service users (unintended or unexpected) and the likelihood of reoccurrence (Figure 4). Since July 2009 this has been aligned with the HSE Risk Rating Matrix.

Impact Score						
Likelihood score		Negligible (1)	Minor (2)	Moderate (3)	Major (4)	Extreme (5)
	Almost Certain (5)	5	10	15	20	25
	Likely (4)	4	8	12	16	20
	Possible (3)	3	6	9	12	15
	Unlikely (2)	2	4	6	8	10
	Rare/Remote (1)	1	2	3	4	5

Low Risk 1 – 5 ■ Moderate Risk 6 - 12 ■ High Risk 15 - 25 ■

Figure 4. STARSWeb Risk Rating Matrix

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- Nationally 50% (n=42) of *fall from hoist* events reported from 2005-2009 have been risk rated. (Figure 5). Nationally 60% (N=25) of these events are logged as causing *no apparent injury/reaction*.

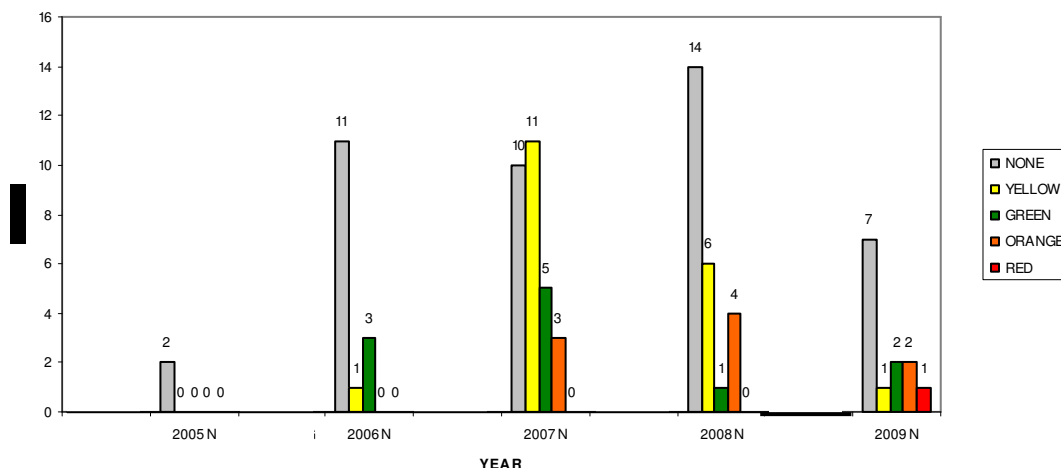


Figure 5. Frequency Risk Rating Completed Nationally.

- When risk rating is correlated with outcome to try and discern the impact of the fall or rather how it was perceived by the organisation one notes the following:
Of the nine (9) incidents rated MODERATE Nationally, 56% (n=5) reported *no apparent injury/reaction* with the others reporting outcomes of *multiple injuries, bruising, laceration* and *graze*. From the limited information available in the *Further Details* field, there was an additional 7 events with such outcomes as *laceration, bruising* and *multiple injuries* that could have been categorised as MODERATE risk.

This suggests that enterprises may have limited awareness of the potential impact of these particular outcomes for service users and the potential for litigation.

- Two incidents had **outcomes that proved fatal** for the service user (one was risk rated HIGH) of which one progressed to pre-claims status but was eventually closed when statute barred. Closed claims are those files that have been closed by the clinical claims managers utilising specific criteria. For example, a file can be closed due to it being statute barred, settled, no claim resulting, discontinued or damages and costs being awarded to the plaintiff. Closed claims are deemed suitable for analysis as the associated files usually

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contain all relevant documentation such as case summaries, legal proceedings, statements of claims, expert reviews and witness statements. The files also provide information relating to the type of adverse event, the resultant adverse effects on patients, and the factors that related to the occurrence of the event.

- **A closed claims analysis** was attempted (limited documentation available) and revealed the following:

The older person (over 70 years) died within five (5) days of a reported *fall from hoist* event. This person suffered a head laceration and mild haematoma as a result of the fall.

From the post mortem report (Coroners Court) the death could not be directly linked to the fall but it was noted that the fractured ribs (this person suffered from extreme osteoporosis) were a contributory factor. While this person had multiple co-morbidities and was being investigated for a possible cerebro-vascular accident at the time of her death (and the immediate after care given to this lady following the fall seemed appropriate) the National Strategy to prevent falls and fractures in Ireland's ageing population (hereafter known as the National Strategy) notes that falls related injuries kill more older people in Ireland than any other age group with approximately 250 older people dying each year as a result of a fall (1).

From the witness statements it was stated that the hoist strap came undone and probably had not been attached properly, thus suggesting issues with staff knowledge/skills/competency. In addition, while there were three (3) persons involved in the procedure for this highly dependent, ill person in the ward area (suggestive of adequate staffing levels), the skill mix comprised a student nurse, a care attendant and a porter. This prompts questions around potential systemic root causes such as safety culture, the availability of protocols and procedures such as falls and/or manual handling policies, the effectiveness of supervision, ongoing training (if available) and communications issues.

However, in the absence of risk management fields being completed on STARSWeb and /or the attachment of a systemic analysis review report to the reported incident/near miss following such as event, it is impossible to fully understand the context, governance structures, systems and processes leading to such poor outcomes for service users and subsequently share these learnings to prevent reoccurrences.

The **Further Details** field of the reporting form allows enterprises to capture additional sentinel information in free text format with respect to falls events. Nationally this field has been completed in 88% (n=74) of *fall from hoist* events reported during the period of this study. (Figure 6).

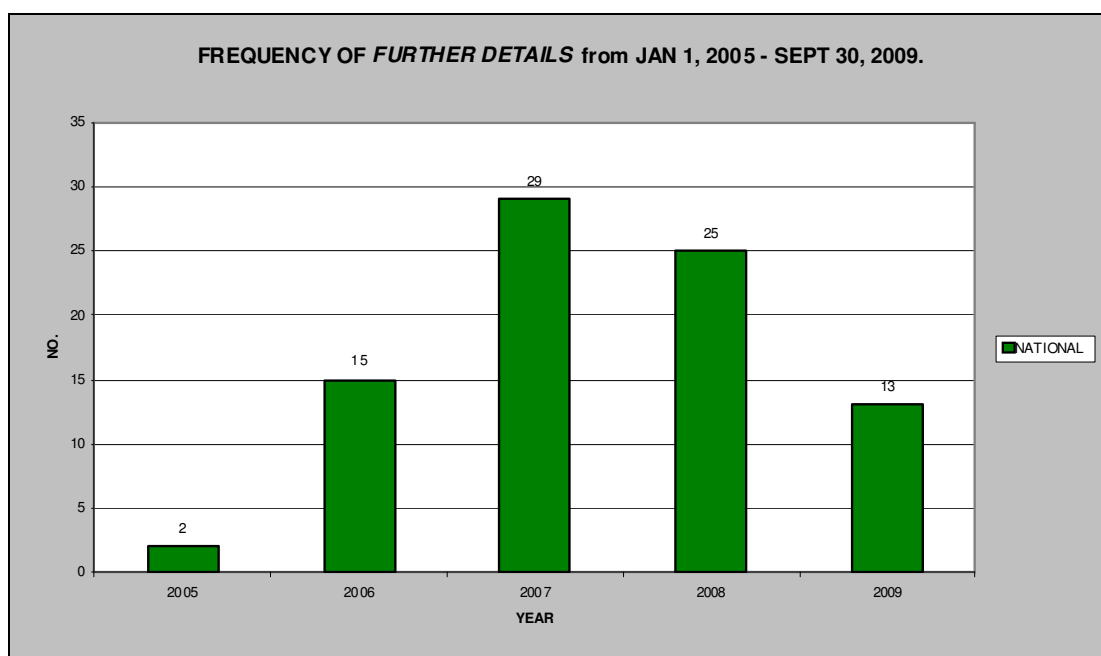


Figure 6. Frequency of Further Details field from Jan.1 2005-Sept. 30 2009.

This field will be examined nationally under the headings:

Task and /or Technology factors, Individual factors, Work Environmental factors and Patient factors as used in systems analysis review/root cause analysis methods (2). Free text (anonymised), but for the most part unedited other than for sense making, will be used to illustrate the findings. Fourteen per cent (n=12) of events contained non-anonymised data.

Service users and staff names need to be anonymised to ensure compliance with data protection legislative requirements.

Task and/ or Technology factors

(The design of the task, the availability and utility of protocols and test results may influence the care process and affect the quality of care).

Sixteen (or 19%) of the service users were involved in toileting activities, to include changing continence pads, when the *fall from hoist* event occurred. The National Strategy cites multiple studies that list urinary incontinence and mobility factors amongst the most common risk factors for falls (1), Section 5(a), 47-52.

At 08:45 hrs, patient slipped from hoist while pad was being changed by two staff nurses.

Thirty seven (or 44 %) incidents related to service users falling out of slings, to include one service user undoing a sling as outlined below.

Resident was sitting on the toilet attached to the standing hoist. Resident undid sling off the hoist & slipped on floor. No obvious injury or bruises. observation checked

Pt. was being toileted using commode and sit stand hoist. Staff report sling was not on pt. when found on floor. Nil injuries.

While transferring pt X from bed to commode with hoist, pt X slipped through hoist. Patient banged right side of head on locker, she was caught by staff before fully falling and lifted into bed. Neuro obs recorded and same within normal limits.

Care Asst. reported that patient slipped from the hammock sling while hoisting him from his chair to his bed. He hit his upper right hip on the bed. No complaints of pain. To be referred to physio. Re: transfers & proper use of sling.

As staff were transferring pt using the hoist from the showerchair to his bed, the shower chair suddenly flipped backwards as one of the hoist straps detached causing pt to fall backwards and hit his head on the floor –sml bruise sustained.

Keeping patient in hoist alone, slowly patient slipped from full hoist with support landing on her buttocks, observations stable. No external injury noted. MIOC informed.

While transferring Pt from shower trolley to chair one of the corners of the sling slipped off & Pt fell out of hoist. Pt not hurt. Put hoist out of use & maintenance informed.

Eight (or 10%) incidents reported suggest that an inadequate mobility risk assessment may have been undertaken. An individualised, multi-factorial, multi-disciplinary risk assessment to identify those individuals at risk of falling coupled with tailored interventions to meet their needs as outlined in the National Strategy is critical in helping reduce morbidity and mortality associated with falls and increase quality of life (1)Section 7, 72-100 .

When transferring pt from chair to bed with Sarita Hoist he was unable to hold onto and was slipping down. He was eased gently to floor & hoisted with GALVO hoist from floor to bed. Seen by Dr Y - NAD.

Patient was walking with under leg hoist sling and arjo sts hoist. Patients legs collapsed + pt was on knees on ground. Got pt in seated position e legs outstretched + used full hoist to get back to bed. Pt was complaining of knee pain while on ground.

Pt X was taken to toilet by sarita hoist. Another patient was there in the toilet. I went to assist patient from toilet and Margaret then stated !! cant stand". Was lowered to the floor with help from attendant

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Patient was aggressive & restless, hoisted onto commode as was unsafe in bed, whilst sitting on commode which was facing the bed with breaks on (to prevent) fall, she managed to throw herself onto floor & sustained bruised knee & right forehead & thumb

While using the standing hoist Bills leg slipped out and hit knee support in front of hoist

difficulty in standing up using stand up hoist

Six (or 7%) incidents involved the service user being injured while the procedure was being carried out. Body parts reported as being injured included the leg, knee, ankle, cheek, forehead and the big toe.

Pt stating she has pain in left ankle after fitting the sling under pt X we hoisted her up and over the bed, put her legs into position by moving her foot around, pt started to complain that we hurt her ankle off the hoist. Dr Z contacted.

Whilst sitting out of bed with hoist R big toe got caught in hoist, small bleeding, toe nails very long. Attempted to contact chiropody, no answer.

Thirteen (or 15%) involved the use of standing and raising hoists. The issues arising suggest inadequate assessment as to the suitability of the service user for this particular hoist and/or poor technique in its usage.

Seven (or 8%) occurred while the service user was using a shower/bath chair.

While patient was being assisted with a shower she slipped from the shower chair to the shower floor. The assistance of two staff were required to lift patient back to the chair. 02/02/07 Patient says was in the bathroom about 9.30am and slid out of chair.

Patient appeared to slip off wet seat of bath hoist when dressing. In sitting position + fell on hands/knees. Environment was cleared, floor to (R) of bath dried to allow for hoist.

Individual factors

(Individual factors include the knowledge, skills and experience of each member of staff, which will obviously affect their clinical practice).

Eleven (or 13%) of the *fall from hoist* events suggests operator faulty technique and/or incorrectly sized/incompatible hoist sling. Such events reported involved falls or near misses arising when the hoist sling straps were not secured appropriately and became detached when manoeuvring with service user loaded.

Two staff members were transferring patient on a transporting sling from her bed to a chair. While using the hoist with the patient suspended in sling the sling collapsed on one side and the patient fell to the floor.

Staff were using hoist to lift patient when sling became detached and consequently patient fell to ground but causing no injury

In addition, ensuring that the hoist remains balanced when manoeuvring the service user into position on a bed, chair, toilet etc. is critical. Hoist tilting/falling over or where the receiving chair/commode becomes unbalanced suggests issues with compatibility of equipment, operator(s) technique, defective equipment and/or loading capacities (including safe working loads for slings)

While t/f pt from bed to chair using full body hoist, hoist caught on the wheel of regency chair & toppled over. Pt banged her head off the floor.

Whilst lowering Pt in chair with hoist same turned sideways & the lever tipped Pt on forehead whilst lowering Pt onto chair. No injury.

Lifting pt out of bed using hoist with medium sling which has label saying up to 200kgs, Staff had to put weight on to hoist to stop it tipping over. Equipment Hoist Liko Golvo 700

Pt being hoisted to wheelchair with assistance of 4 staff member was seated in chair when chair toppled backwards and pt fell to the floor, no injuries Hoist does not reach floor 3 porters/2physios required to position pt for hoist

The latter part of one of these notes '*Hoist does not reach floor3 porters/2 physios required to position pt for hoist*' also indicates the need to ensure that all equipment being used by staff is 'fit for purpose' and can be adequately so as to minimise risks to service users and themselves. Hence the legislative requirement for mandatory, relevant, targeted safer handling training programmes with updates as appropriate.

Work Environmental factors

(All members of the team are influenced by the working environment, both the physical environment, (light, space, noise) and factors which affect staff morale and ability to work effectively).

One (or 1%) person fell over a hoist suggesting that there may be issues with housekeeping and/or appropriate storage facilities for equipment in regular use.

James went to look out window in his ward - tripped on hoist and banged his head off same.

Two (or 2%) *fall from hoist* events reported suggested faulty equipment. The note regarding one such event is ambiguous.

Home visit carried out in client's home to train carer GD. Client was mid-air in hoist while OT fixed her pants underneath. It appeared the client had been lowered almost to the ground and was slipping from sling. See note.

However, the *Action taken/Planned* field stated that the hoist being used appeared to be faulty and was replaced. In the meantime the carers had to lift the service user to the bed increasing their risk of musculoskeletal injury.

Preventative maintenance programmes for hoists that are aligned with procurement and environmental risk management approaches will be important in minimising risks associated with equipment failures.

Patient factors

(The patient's condition will have the most direct influence on practice and outcome. Other patient factors such as personality, language and psychological problems may also be important as they can influence communication with staff.)

Nine (or 11%) incidents involved service users contributing to the *fall from hoist* event. Individualised, multi-factorial, multidisciplinary risk assessments, especially for at risk service users, that are clearly documented, communicated to all concerned and reviewed regularly will be critical in minimising risks to service users and carers.

patient being hoisted from bed to shower chair became aggressive forced both of her arms inside the sling causing a risk of falling out of sling

While being transferred from bed to hoist/chair using hoist patient moved his arm from outside of sling to inside and subsequently almost fell. Fall intercepted by staff.

5.0 Conclusions

While incident reporting is a useful risk identification tool it depends on good quality data being collated and inputted at local level to ensure quality outputs and analysis for shared learning locally, regionally and nationally.

In addition any data entered needs to be upgraded to reflect enterprises' risk management interventions to minimise risks and learn lessons to prevent reoccurrences.

A critical data set for falls must include outcomes, risk rating, further details and the completion of the risk management fields as outlined in STARSWeb .

Attaching systems analysis review reports so as to build understanding of the contributory factors for falls could complement this by relating to enterprises' governance structures, safety cultures, systems and processes.

Fields such as *Outcome* and *Action taken/Planned* will need to be updated to capture any X-ray reports or other investigations and/or risk management interventions undertaken over time to ensure lessons are being learned and implemented to prevent reoccurrences.

There is a need to encourage those completing the *Further details* field to include such key information as

- Type of hoist i.e. ceiling/mobile, standing aid, walking, stretcher, manual or hydraulic, electric and battery operated etc.
- Type of sling i.e. standard, toileting/access, high-back, amputee, bathing, standing etc
- numbers of personnel involved and staff categories i.e. CA X, Std. Nurse Y, CNM Z, Porter W, Dr P
- Activity type i.e. transferring from bed to chair, transferring to commode,
- Other key factors that may have contributed to the fall i.e. strap came undone, patient confused/anxious/aggressive etc.,

It is expected that the strategic approach taken by DHGRMF member organisations in the DHGRMF Guidelines for the Prevention and Management of Falls document (when finally approved, disseminated and implemented) will positively impact any initiatives needed to address issues contributing to *fall from hoist* events.

6.0 References

(1) Health Service Executive, National Council on Ageing and Older People, Department of Health & Children. Strategy to Prevent Falls & Fractures in Ireland's Ageing Population: Report of the National Steering Group on the Prevention of Falls in Older People and the Prevention and Management of Osteoporosis throughout Life. June 2008; ISBN 978-1-906218-12-6, Section 3.6, 35.

(2) Adams, S., Vincent, C. Systems analysis of clinical incidents: the London protocol. 2004; Available at: <http://www.csru.org.uk>. (Accessed October 21st, 2009)

Additional Resources

State Claims Agency (2009) Epidemiological Study of Falls in Ireland based on Incident and Claims Data Created On STARSWeb from 2004-2008.

<http://www.lenus.ie/hse/handle/10147/81015> (Accessed October 21st, 2009)

National Patient Safety Agency (2007) Slips Trips and Falls In Hospital, 3rd Report from the Patient Safety Observatory, UK.

<http://www.nrls.npsa.nhs.uk/resources/?entryid45=59821> (Accessed October 21st, 2009)