Health and Safety Executive		Sector Information Minute	
Public Services		SIM 07/2001/44	
Cancellation Date	18/12/2005	**Open Government Status**	Fully Open
Version No & Date	1: 18/12/2001	**Author Unit/Section**	Health Services Unit

Target Audience:
AFQ Inspectors
SG Inspectors

PATIENT HANDLING IN HEALTH CARE: GOOD PRACTICE

This SIM describes selected examples of good practice in the field of patient handling in NHS trusts.

BACKGROUND

1 Operational inspectors find considerable variation in the extent to which NHS trusts have been successful in designing and implementing arrangements to comply with the Manual Handling Operations Regulations 1992. Patient moving/handling tasks are associated with the greatest proportion of musculoskeletal disorders (MSD) in the health services.

2 However, some trusts, have made considerable improvements in their rates of time lost due to MSD. Some such examples have been brought to the attention of the Sector and are summarised below.

3 These case studies are presented to show the approaches adopted, and the outcomes achieved. The list is by no means exhaustive, and illustrates that there is no single model for best practice. Inspectors are encouraged to send information about other examples of good practice to Services Sector, Health Services Unit.

4 In each of the studies, the commitment from high level management and the drive generated by competent persons within the trust, have been highly influential in the success of the projects.

WIGAN AND LEIGH NHS TRUST

5 Wigan and Leigh NHS Trust employs 5000 staff and has approximately 1170 beds. It is a combined trust having acute and community services including mental health and rehabilitation. In 1993, at the start of this study, the trust employed 4,600 staff with 2100 in nursing and midwifery.

6 In 1993, the trust board commissioned an independent report into the extent and cost

of sickness absence within the trust. The main findings were:

1) sickness absence level of 44 000 hours lost in one year at an estimated cost of £3.9 million;

2) An analysis by the Health and Safety Department showed that, over the same period, hours lost due to industrial injury amounted to 11,635. The major cause was manual handling related injury with 6720 hours lost. Nurses were most commonly affected, with patient handling the most common task involved.

7 The trust drew up an action plan to tackle manual handling issues. Three areas were prioritised;

1) risk assessment: the identification and training of risk assessors and subsequent risk assessment programme;

2) the purchase of appropriate equipment;

3) staff training on manual handling.

8 At the same time, trust policies were reviewed and amended and all manual handling accidents and near misses were investigated.

Training

9 A comprehensive package of training on risk assessment has evolved for staff across the trust, which is cascaded to ward staff. The package included:

1) ward and departmental managers were the first group to be trained in work based risk assessment and staff training, with an emphasis on ergonomic assessment. This included Grade G and F nurses in the hospital. This course was initially 2 days, but has now grown to 3 days;

2) other registered nurses and occupational therapy staff were trained in a second tranche;

3) all staff receive training on new equipment as it is introduced;

4) all community nursing staff who undertake patient assessment attend an initial 3-day risk assessment course. A selected cohort is then used to cascade regular update training and to train other grades who do not undertake individual patient assessment;

5) refresher training - some staff 6 monthly, particularly those who do not regularly use techniques, others annually in line with trust policy;

6) therapists receive specialist risk assessment training. Senior physios are offered the trainers course as well;

7) student nurses have a one day course during their first placement with an update course at 18 months; and

8) induction training for all clinical staff includes 2 hours on manual handling.

10 Training is risk assessment led for all areas across the trust.

Equipment

11 In the first 2 years, a programme of identifying equipment needs, evaluating equipment, purchasing and training was instituted. £100,000 was spent on patient handling aids in that time.

12 Equipment was trialled before purchase, on wards, with structured feedback by proforma from all grades and input from patients.

Outcomes

13 The figures reported are tabulated below. A dramatic fall in hours lost, attributable to patient handling, was seen in the first year and maintained at a fairly stable level for another 2 years.

14 During the year 1996/97 an auditing programme was introduced, which identified deficiencies in the risk management system. These were remedied. Heightened awareness of MSD was also probably an outcome of the auditing and contributed to a significant fall in time lost over the next year.

15 During 1997/98, £50,000 was spent on electric profiling beds for selected locations, which may be a factor in the further reductions.

Costings

16 Injections of money were necessary in the first 2 years to“pump prime” the programme amounting to £80,000 in year one and £50,000 in year 2. This equates to roughly 0.2% of budget. (currently £110 million).

17 Maintenance cost of the programme is about 0.02% of budget.

18 The cost of manual handling injuries has fallen from £800,000 in 1993 to £10,000 in 2001.

Year	Hours lost attributable to patient handling	% difference on previous year	% decrease on baseline
1993/1994	6,720		
1994/1995	1,082	⬇ 84%	84%
1995/1996 [1]	1,375	⬆ 27%	79.5%

1996/1997	1,130	⬇ 18%	83%
1997/1998	440	⬇ 61%	93%
1998/1999	192	⬇ 56%	97%
1999/2000	193	➡ 0%	97%
2000/2001	200	⬆ 3.6%	97%

Note [1]: The increase of hours lost in 1995/96 resulted from one injury to a member of OPD nursing staff. Following this, a complete review of manual handling practice was carried out leading to modified systems and further training within the Out Patients Department at Leigh Infirmary.

NOTTINGHAM CITY HOSPITAL NHS TRUST

19 Nottingham City Hospital is a 1200 bed specialist teaching hospital, employing approximately 5000 staff, with about 50% of these being nursing staff, and provides a wide range of general services.

20 Since 1994, ergonomist Dr Sue Hignett, has been leading a project to incorporate ergonomic principles into the trust strategies for managing the risks from manual handling. The model used is based on: the task; individual capability; load; environment principles; and includes organisational factors with the task at the centre rather than the risk. (See Hignett S 2001 *Embedding ergonomics in hospital culture: top-down and bottom-up strategies* Applied Ergonomics 32, 61-69).

21 The ergonomic strategy comprised both 'top-down' (policy, support) approaches and 'bottom-up' (operational) strategies.

22 The top-down strategy included setting up of a multidisciplinary group called the Injury Prevention Team. This comprised members from the trust board, occupational health, health and safety personnel, the ergonomist, and representatives of Rehab and Surgery. This team acted as a steering group, and provided the necessary high level input to facilitate the implementation of change.

23 The bottom-up initiatives at ward/departmental level centred on risk management, with the individual worker heavily engaged.

24 In 1994, a trust-wide programme of risk assessment training began, involving all levels of management, followed by risk assessments across the trust, with staff participation. Some residual and complex risks were felt to require specific ergonomic projects to tackle them.

The building environment

25 Some ergonomic input has been made into the design of new build and refurbishment work. It has been found to be of value to the user groups and architects.

Furniture and lifting aids

26 Product trials have been used to look at the ergonomic features of a range of products including office furniture, electric beds, mobile patient hoists and wheel chairs. This information is passed to the purchasing department, so that only'approved' products are purchased.

Staff training

27 All new staff attend an induction course, which includes a session on ergonomics, followed up within the first month, with a session covering the basic principles of manual handling, problem solving and back care relevant to their work.

28 Staff are offered short refresher training sessions, every 2-3 years, using targeted problem solving approach based on their ward/department manual handling risk assessments. These sessions may reveal new MSD hazards as staff discuss their problems. These new risks represent part of the bottom-up strategy.

29 The training programme is underpinned with procedures, written by a multidisciplinary team, for both generic tasks, eg use of a wheelchair, and local tasks, eg Stroke Unit.

Communications

30 A mobility and communication system (MACS) card is used to record information about patient special mobility needs, including any aids necessary. This card travels with the patient during their stay in hospital and, where possible, is owned by the patient. The system has been successful in ensuring that mobility aids are provided whilst patients attend different departments for diagnostic tests or treatment.

Outcomes

31 In the 5 years since the implementation of the strategy, reports of manual handling incidents and days lost from MSD show a consistent downward trend and are tabulated below. Although there was a small rise in reported manual handling related injuries in 1998/9, the time lost through MSD fell.

32 Completed risk assessments rose from 33% to 76% over the period of the study.

Year	MH incidents	% decrease on baseline	MSD-related time lost (days)	Annual savings (1 day =£321)	% decrease on baseline
1993/94	244				
1994/95	243	1%			
1995/96	221	9%	15,096		
1996/97	203	17%	12,716	£763,980 (2380 days)	16%
1997/98	153	37%	11,452	£1,169,724 (3,644 days)	24%

1998/99	162	34%	9,610	£1,761,006 (5486 days)	36%

Total savings for 3 years = £3,694,710

Costings

33 A simple calculation of cost of injury based on the Wigan and Leigh model gives savings of £3.69 million over the 3-year period. This figure is based on the mid salary point for a Grade E nurse and only includes the cost of a replacement nurse from bank, the business interruption costs and investigation/administrative costs. It does not include costs associated with civil actions or costs involved if either a new nurse or an agency nurse is recruited. The true costs, and savings, will be significantly higher.

KINGS HEALTHCARE NHS TRUST

34 Kings Healthcare trust is a 950 bed specialist teaching hospital employing 4300 staff. In August 1998 the trust entered into a Total Bed Management contract for the provision and maintenance of certain equipment and services.

35 The trust leased 410 electric profiling and 104 dynamic mattress systems to replace existing stock. The contract specifies the maintenance of beds, which are bar coded and inspected annually, and faulty beds are replaced within 6 hours (usually 1-2 hours). Support from a technician and a clinical adviser is available to the trust.

36 The beds can accommodate patients up to 40 stones body weight, which avoids the need for procurement of specialist beds.

37 Additionally, the contractor manages the hoist slings and slide sheets. All slings are numbered and dated to allow 3 year replacement. Slings and slide sheets are laundered, inspected and repacked by the contractor.

Outcomes

38 Manual handling of patients is reduced. Patient handling related injuries fell from 10 to 2 in the first year of introduction.

39 Staff training for patient moving/handling has been simplified, as many moves are no longer necessary.

40 A survey carried out after 12 months, showed high levels of approval by staff, with improved management of patient handling needs. A patient survey also revealed positive responses with appreciation of the ability to make adjustments themselves, and be more independent.

41 The incidence of pressure sores, related to the choice of mattress, fell from 5% in 1997 to 2.4% by September 1999.

Costings

42 The trust estimates that the savings on its existing bed management systems were £160,000 in the first year and are running at £100,000 per annum thereafter.

43 Savings from reductions in reported MSD and the prevention of pressure sores have not been costed. There are also less tangible advantages such as staff morale, and improved patient care.

Date first issued: 18 December 2001

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