Large but unseen: bariatric patients and manual handling

Manual handling of bariatric patients is an important consideration for primary care and acute hospital trusts, especially in view of current legislation and the increasing levels of adult and childhood obesity. In this article, Ken Cookson, Manual Handling Manager/Advisor, discusses some of the issues that need to be addressed, including safe handling, providing appropriate equipment and ensuring dignified care.

INTRODUCTION

The levels of adult and childhood obesity are predicted to rise considerably by 2010, if current trends and prevalence remain unchanged[1]. This will result in significant financial costs to the health service and an increase in co-morbid conditions and even premature death.

It is likely that the numbers of bariatric people (i.e. morbidly obese patients with a body mass index (BMI) of ≥40 or ≥35 with co-morbid conditions) with medical and surgical problems (Figure 1) will also increase and this will have a considerable impact on primary and acute hospital trusts. These extremely heavy patients will pose a number of medical and nursing challenges (Figure 2). There are also other issues relating to safe handling and dignified care, that are equally important, but often overlooked. Inadequate systems of work or limitations regarding provision of appropriate equipment may be factors. **This article highlights some of the specific problems that should be considered by healthcare professionals involved in manual handling tasks, in order to comply with the statutory, moral and ethical obligations of providing care for the larger patient.**

Morbidly obese patients may face unintentional discrimination if the relevant items of equipment appropriate for their size are not available.

STATUTORY REQUIREMENTS

The Health and Safety at Work etc Act 1974[2] imposes a specific duty for the employer to provide a safe working environment. The amended Manual Handling Operations Regulations 1992[3] came into force in January 1993 and require the employer to assess hazardous manual handling tasks, including inanimate and human loads, and reduce the risks to the lowest level reasonably practicable. Assessment of a 'human load' can be a complex procedure[4]. Failure to carry out and document this correctly may result in injury to the patient and/or carer as well as subsequent litigation.

Manual handling incidents reported to the Health and Safety Executive (HSE) are common and account for 33% of all reported injuries[5]. Within healthcare, this figure rises to 50% of all reported injuries and 60% of these cases involve a patient handling activity[6]. Within the NHS, 40% of all sickness absence is attributed to muscular skeletal disorders that result from manual handling accidents[7]. Manual handling tasks can therefore pose significant risks to the healthcare employee[8].

Figure 1 | A morbidly obese person (250kg) at home.

QUALITY ASSURANCE FRAMEWORK

An added incentive for acute hospital trusts to address the risks from manual handling activities is the new Risk Management Standards (formerly the Clinical Negligence Scheme for Trusts (CNST)), which make specific reference to manual handling risk assessments and training requirements[9]. The revised standards (April 2006), applicable only to acute and specialist hospital trusts at this time, are being piloted. Trusts must demonstrate that appropriate systems are in place and effective in order to achieve the relevant levels (one, two or three) and subsequent reduction in premiums. Several factors attract a reduction in premiums – demonstrating compliance with the appropriate levels is just one. The decrease in premiums can be significant: 10% for level one and 30% for level three. In real terms this is beneficial, especially when acute trust premiums may be in excess of £1 million.

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Figure 2 | Routine nursing tasks involving bariatric patients carry potential for biomechanical hazards

Box 1: Types of special equipment that may be needed for bariatric patients admitted to hospital

- Trolleys
- Chairs
- Transfer chairs
- Clothing/gowns
- Slings
- Operating table
- Slide sheets
- CT/MRI/X-ray scanners
- Dynamic mattress products
- Beds
- Wheelchairs
- Walking frames
- Hoists
- Commode
- Weighing scales
- Repositioning sheet
- Concealment trolley

ISSUES RELATING TO BARIATRIC PATIENTS

Discrimination

Research indicates that some professional staff can have implicit bias against obese people[10]. This may cause distress for those who may already have low self esteem and, in addition, this group of patients may face unintentional discrimination if the relevant items of equipment appropriate for their size are not available. NHS trusts must comply with the statutory and quality assurance standards to provide quality care within a safe environment. Almost all adult patients of normal stature will exceed HSE weight guidelines and there may be a significant risk of injury if the adult has mobility problems.

Admissions

In percentage terms, admissions involving bariatric patients will be small but demands for resources may be high. If safe systems of work are to be established, then proactive risk assessments must be performed to cover all possible eventualities. However, all too often the risk management issues are discussed only after an admission or a critical incident has occurred.

Manual handling tasks involving bariatric patients can carry an additional risk of equipment failure if the safe working load is exceeded. The resources to accurately weigh patients must therefore be the starting point for all manual handling procedures involving bariatric patients.

The use of hoists to lift patients is potentially hazardous and fatalities have occurred with subsequent prosecutions instigated by the HSE. The risk is increased when using a hoist to lift large patients, which places a significant responsibility on the carer. Both mobile and gantry hoist systems can be used for lifting bariatric patients. Mobile hoists are likely to be used when the patient is first admitted and prior to the availability of the gantry system. They need to be ergonomically designed, light and manoeuvrable but robust enough to lift patients who often weigh in excess of 200kg (Figure 3). The carer must be confident and competent when using the hoist as any apprehension will soon be detected by the patient and could compromise the lifting procedure.

Not all bariatric patients present with mobility and manual handling problems and most will lead relatively normal lifestyles[11]. Many large patients will attend for planned weight loss surgery and have a completely uneventful hospital stay. These patients are likely to be morbidly obese people who are usually mobile, but can only cover a limited walking distance.

Experience over the last few years has shown that the majority of manual handling problems occur when bariatric patients who have medical conditions are admitted as an emergency. These patients can be extremely unwell on admission with associated co-morbidities – weight bearing and mobility may already be compromised and the length of stay can be weeks rather than days.

The ability to carry out appropriate investigations may also be limited if the patient's weight exceeds the safe working load of the X-ray/fluoroscopy table, or their body width is greater than the magnetic resonance imaging (MRI) or computerised tomography (CT) tube aperture. When this type of equipment is being replaced, it is essential to consider the ergonomic aspects, weight and aperture limits in addition to the technical specifications.

Advances in the provision of all items of bariatric equipment have improved in recent years but there are still gaps and limitations in some areas of the market. High load capacity beds with a safe working load in excess of 350kg are available. However, there are restrictions for those at risk of pressure damage – dynamic mattresses used for pressure relief may have maximum weight capacities much lower than the bed frame limit or even the weight of the patient. While not exhaustive, Box 1 highlights items of special equipment that may be needed for bariatric patients during their hospital stay.

Figure 3 I A light and manoeuvrable hoist with multi-functional high load capacity can be used to lift bariatric patients. This person weighed 216 kg.

Collaborative approach

Media articles often highlight extreme cases where walls or window frames have had to be removed in order to assist someone who needed to leave home for medical treatment. There is no dignity in being extricated on a canvas sheet by fire service personnel during an emergency or planned hospital admission. This is compounded by the fact that NHS ambulance trusts do not have a standardised vehicle type to transport bariatric patients – existing vehicles need to be adapted and modified. In addition, the levels of equipment provision and systems of work will vary within different NHS trusts and social services. This clearly calls for a collaborative approach to ensure that a seamless, ergonomic, whole systems approach to care is provided[12].

CONCLUSION

The employer has a statutory responsibility to provide a safe working environment for healthcare professionals and their patients. This cannot be achieved without careful planning and risk assessment. It is not acceptable to have a lower level of care or equipment provision based on body weight or mass. Morbidly obese patients should be given suitable equipment to enable them to continue their activities of daily living. The environment must be appropriate and safe for the patient and the carer. High load capacity equipment is only one factor – these patients must also be seen and their needs addressed in a dignified and considered manner.

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PRACTICE POINTS

- Bariatric patients pose a number of medical and nursing challenges. Safe handling and dignified care are important considerations.
- There can be implicit bias by healthcare professionals against obese people and unintentional discrimination if equipment appropriate for their size is not available.
- Equipment can fail if the safe working load is exceeded.
- The ability to carry out appropriate investigations may be limited if the equipment is inappropriate for the patient's size.
- Legislation requires employers to provide a safe working environment. Failure to do this can result in injury and/or litigation.
- When replacing equipment, such as scanners, the ergonomic aspects, weight and aperture limits should be considered in addition to technical specifications.
- A collaborative approach is necessary to provide a seamless, ergonomic, whole systems approach to care for bariatric patients.