Complex admission and discharge situations – bariatric patients

The management of extremely heavy patients has in the last 10 years become a core topic at the majority of national and international conferences relating to manual handling

Abstract

The Health & Safety Executive has more recently commissioned and published research (HSE 2007) aimed at exploring risk assessment and bariatric care pathways with some emphasis on the admission and hospital care of such patients.

One area that is equally problematic is the discharge of morbidly obese patients. These patients may have been admitted as an emergency and extricated from their home by a variety of different methods. However, the planned discharge home is not automatically a reverse process, especially if the patient is unable to walk through the doorway and/or the necessary equipment dimensions are too wide to access the property.

This article presents three different case studies for comparison, and describes one admission and two discharges from hospital.

Case 1 – Planned admission

Mr A • Age 57 • Weight 247kg

Mr A was a morbidly obese patient with many previous admissions into hospital due to respiratory and endocrine problems. He was an intelligent and articulate individual whose weight had fluctuated over the years between 197kg to 267kg.

The pattern of admission and discharge was usually predictable as Mr A succumbed to respiratory problems at home leading to reduced independence and mobility. He would recuperate in hospital and regain mobility prior to discharge. The emergency services, including fire and ambulance had on previous occasions experienced difficulty getting Mr A out of the house. This would generally involve a manual handling activity to lift and then carry him out of the house on a lifting sheet to then be placed on to a trolley.

In respect of the relevant admission, Mr A had developed pressure ulcers resulting from his large pendulous abdomen that was pressing against his inner thighs. A narrow chair was thought to have been a contributing factor **(Figure 1)**.

Figure 1 Inadequate chair width – potential for atypical pressure ulcers

The classic pressure ulcer is likely to develop over a bony prominence but it is not unusual to see this type of atypical pressure ulcer in morbidly obese patients (*Gallagher–Camden 2006*).

Mr A's wife had insisted that the admission should be dignified and she was opposed to him being carried from the house on a canvas sheet. The Trust was approached for advice and assistance, and as I was known to the family I went to the property **(Figure 2)** taking two essential items of equipment.

Figure 2 Access limitations

The equipment consisted of a Huntleigh Lifeguard trolley (safe working load 248kg) and a Liko Viking XL hoist (safe working load 300kg). It was not known if these would fit through the doorways but an attempt would be made to facilitate a more dignified and potentially safer admission.

Access via the front door of the house was possible because an internal door frame had been widened, which enabled access of the trolley into the patient's living room. With some assistance the patient could stand long enough to allow the sling to be put in place, he was then hoisted onto the trolley. The maximum safe working load of the trolley was not exceeded but width was restricted due to the patient's body mass (**Figure 3**).

Figure 3 Width limitation due to body mass

This admission required multi-agency collaboration and a pooling of resources to bring about a safe and dignified extrication from the property. This was to be the patient's last admission into hospital and sadly he died as plans were being put into place for admission into a nursing home. The family then had to deal with the fact that the local crematorium had limitations regarding the size of deceased persons it could accept.

Case 2 – Planned discharge

Ms B • Age 48 • Weight 191kg

As stated above, while the discharge from hospital is normally uneventful, in some cases there is need for careful planning, especially for those with ongoing medical problems. Bariatric patients with additional co-morbid conditions often fall into this category; these are not necessarily patients who have undergone weight loss surgery but more commonly they are medical patients with respiratory and endocrine problems.

An increasingly common problem relates to the ability of the patient to access the property after a stay in hospital. If they have lost their ability to mobilise through the doorway then this could trigger a range of complex situations requiring a multi-agency approach.

Whilst the emergency services will make every effort to remove the patient safely and quickly from the property in the event of a 999 call, they may not be prepared to take the same level of risk in respect of a planned discharge home – and on occasions the requirement for alternative accommodation must be considered.

Key components of any successful discharge plan must be communication, collaboration and co-ordination with the patient, and with family involvement (*Carroll 2007*) .

The problem

The report from the occupational therapist indicated that Ms B could stand and walk a few steps on a level surface using a walking frame. There was, however, a stepped access at both the front and rear entrances to the property. The front entrance was preferred as the door frame was wider at 174cm. Alterations to the property were not an option in this case as Ms B was a tenant with a private landlord.

Potential barriers

- Patient's level of mobility
- Maintaining safety and dignity
- Body dimensions – hip width
- Access and egress to the property – private landlord
- Back yard gate width – environmental factors
- Front door width
- Emergency re-admission probability
- Evacuation in the event of a fire

The multi-agency team

- Manual handling advisor – acute trust
- Occupational therapy specialist – acute trust
- Physiotherapist – acute trust
- Social worker
- Discharge planning manager – acute trust
- Safety practitioner – ambulance trust
- Operations staff – fire and rescue service
- Disabled persons manager – fire and rescue service
- Independent mobility access specialist
- Family.

Risk assessment

The risk assessment concluded that it was not acceptable to carry the patient physically into the house. Environmental factors restricted the use of a powered stair climber. Wheelchair access was impossible as the patient required a wheelchair with a seat width of 176cm, the overall wheelchair width would therefore be 194cm and exceed the available door dimensions. Since alterations could be made to the property the only available method was for the patient to access the property by independent means, either climbing the steps or using a ramped access.

The ramped access was deemed the safest method and most likely to succeed. A long metal ramp with an adequate safe working load was fabricated to reduce the incline and in the event this worked well **(Figure 4 to 6)**.

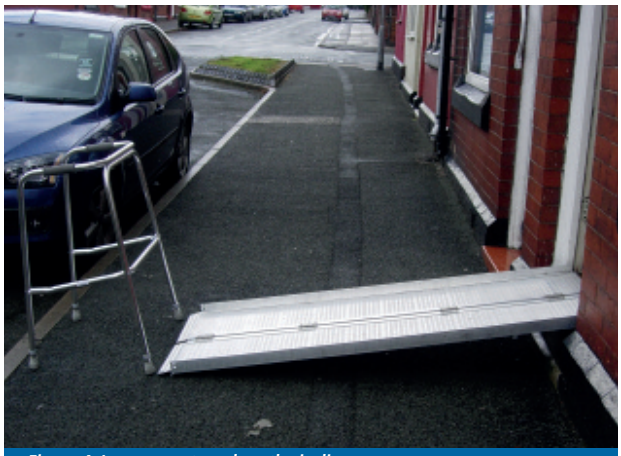

Figure 4 Long ramp to reduce the incline

Figure 5 Appropriate size wheelchair would have been too wide

Figure 6 Note body:door dimension

Case 3 – Planned discharge

Mrs C • Age 65 • Weight 140kg • BMI 60

This case illustrates how lack of detailed planning, communication and risk assessment in the first instance can lead to the discharge being aborted and subsequent return to the hospital. The revised plan with detailed shared risk assessments from all agencies resulted in a totally different outcome.

Background information

The patient had been hospitalised for almost four months, having initially been admitted with respiratory problems. She was small in height and weighed 140kg with a BMI of 60, in addition to obesity related co-morbid conditions she was also being treated for breast cancer.

On admission, she was able to stand with assistance and this mobility had allowed the ambulance service to assist her out of the house with relative ease. Over the following months her level of mobility deteriorated and she became immobile.

Her property was a typical two up two down terraced "town house" rented from a housing association. Wheelchair access via the front door was impossible due to the number of steps, there was a ramped access to the rear door but getting there was precarious due to restricted access along a side and rear alley to reach the back yard.

Failed discharge

The first attempt at discharge had failed due to a lack of insight into the access limitations to the property. The transportation chair provided was wider than the gateway leading to the side alley, the patient was returned to hospital and readmitted.

Essential collaboration

A number of significant learning points came from this scenario, particularly the need for:

- Inter-agency collaboration
- Shared risk assessments
- Communication
- Multi-disciplinary meetings
- A trial run with equipment before the actual discharge day
- The confidence to say no if the risks are too high.

Revised discharge plan

The patient was unable to weight bear or stand to gain access through the doorway into her house. The only remaining option available to gain access was to use a wheelchair. The wheelchair would need to be narrow enough to fit in the doorway and strong enough to take her weight. This was problematic because a wheelchair suitable for her hip dimensions would be too wide to gain access through the door.

The multi-agency team made up of internal and external service providers met at the property. All door widths were measured and access and egress was attempted using different wheelchair and transportation chairs.

The following plan was agreed:

Mrs C would travel home by ambulance but would be seated in a Barton transportation chair. This was perfectly adequate for her weight and hip width, and was also far safer in the ambulance with less risk of tipping. The chair would be used to transport Mrs C along both alleyways and into the back yard area.

At this stage it was agreed that Mrs C would be hoisted from the transportation chair and into a narrower wheelchair. The wheelchair had sufficient weight capacity but was a little too narrow for her hips. This was a calculated risk as she would be in the wheelchair for only two or three minutes to access the ramp and then through the doorways.

Dignity and privacy issues regarding a hoisting procedure in the open air were discussed. It was deemed acceptable by all parties.

Trial run

The risk assessment was written and agreed by all parties including the patient and her family.

A trial run was arranged taking all the relevant equipment including wheelchairs and hoist. The small wheelchair was tried out and it was possible to fit into the house and pass through the doorways to reach the room where Mrs C would reside. The large transportation chair was pushed along the side and then rear alleyway. There was some difficulty making a 90° turn.

The path surface was made up of paving slabs, some of which were broken, uneven and also sloped towards a concrete water gulley. There was some apprehension at this stage so it was decided to try the run with a person in the transportation chair. The person weighed 115kg, 25kg less than the patient, and had perfect sitting balance with no disabilities.

This turned out to be a very worthwhile exercise because we discovered how extremely difficult it would be to manoeuvre the chair safely over the uneven slabs. The chair was constantly veering from the straight line and down the slope into the concrete water gulley.

At this stage, despite the wishes of the family, it was concluded that there was an unacceptable level of risk in attempting to transport the patient from the ambulance to the rear of the house in that the patient could fall from the chair, or the chair could overturn.

Outcome

There were limited options; the patient was fit for discharge but environmental factors precluded this via normal means. Re-housing was feasible with high priority but this would take weeks not days. A nursing home was available in the interim but was declined by the patient as she regarded this as a terminal solution.

A further meeting was arranged with all parties including a solicitor friend acting as an advocate for the family. The patient and family had been given a copy of the risk assessment and reluctantly accepted the decision. The family expressed their wishes to take responsibility for the discharge procedure and requested use of the equipment, and following legal consultation this was agreed, providing they signed an indemnity after the potential risks were explained.

The family took onboard the risks and managed to take the patient home. The patient has since been re-housed on two occasions for reasons specifically related to the morbid obesity.

Conclusion

There is an increasing number of morbidly obese patients admissions. From experience, it is clear that the majority of these admissions are due to medical problems and not necessarily bariatric patients having weight loss surgery.

A significant number are admitted to thoracic medicine speciality, they have associated co-morbid conditions and it is not uncommon to be hospitalised for several weeks.

The emergency services will take additional risks to remove

patients from their home following a 999 call. Taking the same risks cannot be justified in a planned discharge home.

Discharge planning should start soon after admission and if likely to be complex then all agencies should be involved in order to prevent costly bed blocking. It should not be assumed that returning the patient home will be a reverse process of the admission. A combined environmental home survey is essential looking at available space, dimensions and access constraints.

Those responsible must record all the facts, write a detailed risk assessment, be prepared to share the findings and recommendations and anticipate that it is likely to come under scrutiny.

The inability of a bariatric patient to walk through the door to their house should be regarded as a trigger to initiate a detailed risk assessment process. The acute trust, ambulance and fire service must communicate and discuss responsibilities for equipment provision. Expertise and knowledge can be pooled, but the responsibility for any equipment purchases should be well defined.

It is a very emotive topic having to tell a patient that the journey home may expose them and staff to unacceptable levels of risk.

Making recommendations for alternative accommodation can have life changing impact on the patient but unfortunately this is becoming more common as the prevalence of obesity in the UK continues to spiral.

References

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