Safety Action Notice

Reference: SAN2204 **Issued:** 31 March 2022 **Review Date:** 31 March 2023

Safe use of wheelchairs and occupant weighing scales: risk of serious injury in the event of backward tipping

Summary

A wheelchair occupant sustained a head injury following a rearward tip when using a modified wheelchair on a wheelchair weighing scale without the assistance of an attendant. A review of the event has identified national learning points.

Action

- Put systems in place to ensure patients undergoing amputation of a lower limb are routinely referred to their wheelchair centre for assessment even if they already have a wheelchair.
- Display signage on the correct use of scales for staff & patients to easily access and read
- The risk assessment for using wheelchair weighing scales should include consideration of the location of the scales and platform orientation to restrict unsupervised access and to discourage reversing on or off the scales. Independent access should only be given to people with advanced wheelchair skills. All other users should be supervised by a member of staff who is familiar with the risk assessment.

Background

A physiotherapist reported an incident involving a patient who was using their own wheelchair on wheelchair weighing scales in a hospital ward. The weighing scale was mounted with the aid of a ramp. The wheelchair tipped backward causing a head injury to the occupant. Investigation concluded that the incident happened due to a number of contributing factors.

1. Wheelchair instability

   The patient's above-knee amputation changed the centre of gravity and made the wheelchair less stable when manoeuvring backwards. However, it was found that the above-knee amputation had not been reported to the wheelchair service. This was likely due to a lack of awareness of the need for a reassessment among therapists working on hospital wards who could be expected to deal with new amputees. The review concluded that therapists should receive education on the effect that an amputation can have on a wheelchair's centre-of-gravity. Therapists should also be able to refer patients to the wheelchair service following amputation to give the service an opportunity to review stability.

   On subsequent admission, a further opportunity was missed to carry out a reassessment of wheelchair safety and stability. These assessments are not routinely carried out when wheelchair users are admitted to hospital. They require specialist knowledge and are therefore considered unsuitable for ward staff. However, this incident suggests that such an assessment should be carried out when a patient is admitted and that a specialist referral should be made on or prior to admission.

2. Wheelchair modification

   On investigation it was found that anti-tip levers had been removed from the wheelchair. Had they been in place, it is possible that this incident would not have happened. The wheelchair was otherwise in standard configuration and in good condition. The review team was unable to establish who removed the anti-tip bars but experience indicates it is not uncommon for them to be removed by either the patient or their carer. Whilst anti-tip levers are a helpful accessory to help reduce tipping incidents they cannot be relied upon as the only means of ensuring the wheelchair is stable.

3. Wheelchair operation

   Reversing down the weigh scale ramp will result in the wheelchair being inclined which will reduce rearward stability. This will be further reduced if the user tries to bring the wheelchair to a stop. This type of manoeuvre carries risk and so wheelchair users without advanced wheelchair skills should not be given unsupervised access to wheelchair weighing scales.

Equipment details

Manual wheelchairs (attendant / occupant propelled)

Enquiries

Enquiries and adverse incident reports should be addressed to:

Incident Reporting & Investigation Centre (IRIC)
NHS National Services Scotland
Tel: 0131 275 7575 Email: nss.iric@nhs.scot

IRIC remit: general information about adverse incidents, safety alerts and IRIC's role can be found in CEL 43 (2009), *Safety of Health, Social Care, Estates and Facilities Equipment: NHS Board and Local Authority Responsibilities,* issued 30 October 2009.

Report an incident: Information on how to report an adverse incident

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