Sarah Jewkes

Transportation:

I have been a qualified Occupational Therapist since 2005 working within the NHS. I recently joined the Warrington Wheelchair Service as a Band 6 therapist for Bridgewater Community NHS Trust. Attending the PMG Conference 2019 has enabled me to develop my knowledge and skills on best practice for effective assessment and wheelchair provision, which I intend to implement within my wheelchair service.

I attended session, B2: Best Practice Guidelines for Transportation (BPG1) – Revision 2019 – lead by Bob Appleyard & Paul Dryer. Bob is a technical safety advisor/crash test engineer. Bob discussed the PMG best practice guidelines for wheelchair-seated passenger transport. This was first published in 2013 and was updated in 2018 after a 5 year review period.

This document helps to identify important gaps of information that is not always provided by manufacturers. Various safety scenarios were discussed and photographic evidence of collisions involving wheelchair accessible vehicles were reviewed. One example shown where advice wasn’t followed in terms of use of the tie down points, demonstrated the possible devastating outcome when not used.

The review process of the document itself was discussed and involved creating a review panel and gathering feedback and comments on the document. The role of the review panel was to analyse these comments gathered from differing expertise and areas of the industry. A table of comments was then comprised which is a standardised format by ISO (International Organization for Standardisation) and BSI (British Standards Institute) which included a column for proposed correction.

Crash test standards for wheelchairs is under review and a proposed amendment is that a symbol would be attached to the wheelchair that indicates it has been crash tested. This was a suggestion from the comments and an example of how they are utilised. It was suggested that the symbol indicates that preferably the wheelchair would be forward facing during transportation, as suggested in the guidelines.

It was soon apparent in the comments that the document is accessed by a broad base of readers such as transport providers and procurement personal which influenced the document. It was evident that readers found it difficult to navigate across the 42 paged documents to find the relevant information that they require. Originally the document was 4 sections and it is now 7 sections. Hyperlinks have also been integrated into the documents, hopefully leading to quick access to relevant sections for the reader.

The complexity of crash tests include testing variables such as degrees of tilt and recline and other external forces such as road vibrations and risk management were discussed. The importance of minimising risk was also highlighted, such as minimising the tilt of a passenger as much as possible. Head supports from a transport perspective have their own crash testing and it has to be understood that the head support is only capable of offering a certain degree of protection. The optimum position of the headrest was shown as highlighted in the guidelines. Which in turn makes it difficult to provide advice, apart from suggesting that users sit in an upright position where possible.

Up until now guidelines have concentrated on occupants from 22 kg upwards, but the issues of paediatrics and bariatric occupants were addressed, and how to secure the occupants in the vehicle effectively was discussed.

Smaller occupants: The current standard is under revision and there will be a requirement of 5 point harness system- for12-23kg occupants next year.

Bariatric occupants: Crash testing bariatric equipment has its own challenges. The test platform during crash testing had to be extended to accommodate the wheelchairs in the test centre, and the 95th percentile required a different crash testing facility. It is suggested for the bariatric occupants restraint system is discussed with the manufacturer directly to explore suitability.

Effective occupant restraint: There are images in the BPG1 document to demonstrate effective use of occupant restraints. The effectiveness of integrated belts and benefits of positioning to avoid abdominal intrusion was discussed.

Wheelchair securement guidelines also include a discussion of wheelchair weight limit, and the amount of tie down requirements and docking systems are also explored within the document.

There is an updated section on risk management and transport and it is now separate from ‘medical devices’. This section discusses interagency working such as wheelchair prescribers and transport providers working together. A transport hazard checklist is included and is a useful tool.

There is also the introduction of the transport Passport which collates information about that particular wheelchair. There are various different types of the passport presently and some electronic versions are under construction e.g. use of bar codes.

There are case study examples within the risk management section of the best practice guidelines.

The document is only going to be available for download only and there will be a revision a process in place soon.

I found attending the PMG Conference 2019 to be a highly educational experience and an excellent networking opportunity. I would like to take this opportunity to thank PMG for providing me with a bursary to attend and look forward to implementing all the knowledge gained within the Warrington Wheelchair Service and in further service development.