QUEENSLAND INJURY SURVEILLANCE UNIT

INJURY BULLETIN

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Nursery Products

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Summary

- 463 nursery product related injury presentations were recorded by QISU in 1998-1999
- 40% of the injuries were to babies 6-11 months old
- Injuries to babies 6-11 months old most commonly involved baby walkers
- Injuries to babies less than 6 months most commonly involved change tables
- Almost 40% of the presentations were head injuries
- 80% of all nursery product injuries resulted from falls
- Nursery product-related injuries can be the result of poor product design, inappropriate use and/or product positioning.
- In Queensland from 1995 to 1998 there were 13 nursery product related child deaths

Introduction

Injuries associated with nursery products such as prams, strollers, baby walkers, cots, highchairs, change tables and bouncers are a major cause of Emergency Department (ED) presentation for injury in young children. Most of these injuries are the result of falls. For children aged less than one year 11% of all ED injury presentations and 30% of all fall presentations are associated with nursery furniture.

As the result of more stringent standards for nursery products and increased awareness of their dangers a decline has been observed in the number of injuries in recent years. However these products continue to be associated with childhood injuries.

Other Australian studies have examined in detail, injuries associated with nursery products[1]. This report examines all injury presentations associated with nursery products during 1998 and 1999 for children aged less than five years presenting to QISU participating EDs*. The products included were prams, strollers, cots, bassinettes, change tables, baby walkers, high chairs, play pens, bouncers and jumpers.

* QISU data is based on emergency department presentations to the following hospitals: Mater Children's Hospital, Mater Adult Hospital, Mater Private Emergency Care Centre, Queen Elizabeth II Jubilee Hospital, Redland Hospital, Logan Hospital, Royal Children's Hospital, Mt Isa Hospital, Mackay Base Hospital , Proserpine Hospital, Sarina Hospital, Clermont Hospital, Dysart Hospital and Moranbah Hospital

Results

During 1998 and 1999 there were 463 presentations of children aged less than five years to participating EDs associated with nursery products. No significant regional differences were found.

Age

Three quarters of nursery product injuries involved children aged less than two years with almost 40% being aged between six months and one year. The nursery product most frequently associated with injury was either a pram or stroller (27%) followed by baby walkers (15%) and cots (14%). However while prams or strollers featured at all ages some products were more dominant at particular ages. For children aged six to eleven months baby walkers were associated with nearly twice as many injuries as the next most frequently involved product, while for infants aged less than six months change tables were the product most commonly involved. (Figure 1).

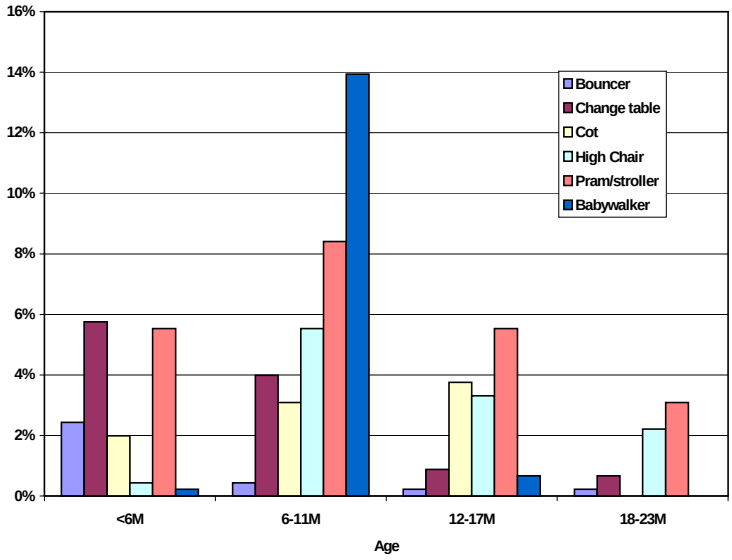

Figure 1 QISU Emergency Department presentations, nursery product injuries by age and product 1998-1999

Nature of Injury

Almost forty percent of the children involved sustained a head injury, a pattern which was repeated across all products except bouncers (Figure 2). The next most frequent injury sustained was superficial injury (19%) followed by open wound (12%) and fracture (10%).

Falls

As mentioned earlier most (80%) injuries were the result of a fall. Only 12% of the injuries resulted from falls of over one metre, these mostly involving change tables and high chairs. Falls involving stairs (9%) were almost exclusively confined to baby walkers being associated with 56% of the baby walker injuries. The remaining falls were either described as being of less than one metre or other type of fall. (Figure 3).

Many of the falls associated with bouncers were the result of the bouncer being placed on a bench or table and bouncing off. Those associated with jumpers were often the result of the jumper becoming detached from its anchor point.

Pram and stroller related injuries, which comprised nearly 30% of all nursery product injuries, mainly involved an unrestrained child falling out or the pram or stroller toppling, often due to being overloaded with shopping bags.

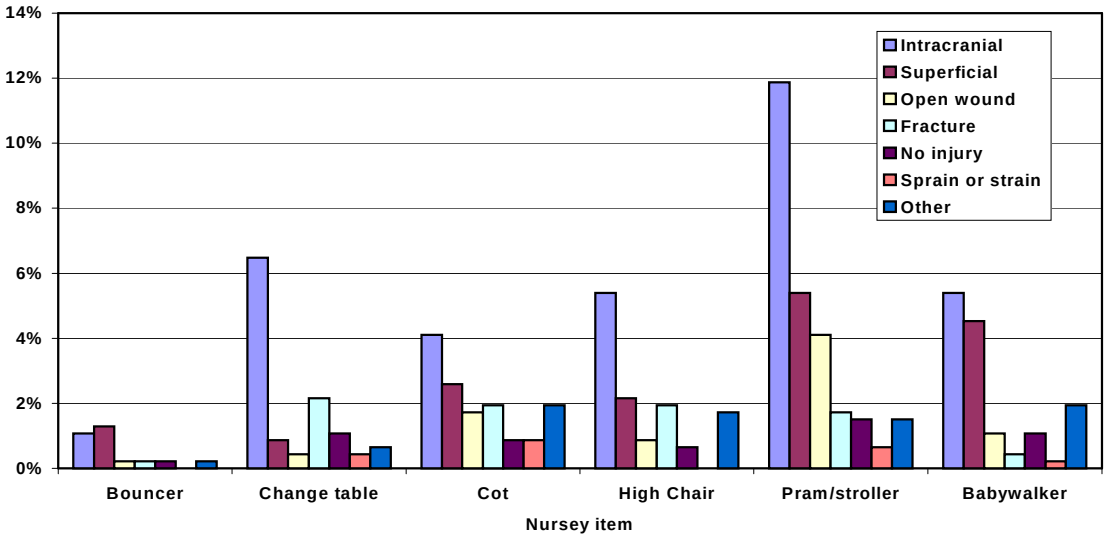

Figure 2 QISU Emergency Department presentations, nursery product injuries by nature of injury and product type , 1998-1999

While almost all the injuries associated with cots and strollers involved falls these products have been associated with a number of deaths. In Queensland between 1995 and 1998 there were three deaths directly associated with cots, another three associated with portable cots, two with strollers and another two deaths involving strangulation from blind cords while in a cot[2]. There were also a number of deaths from asphyxiation as a result of bedding (3).

Discussion

It has been shown that nursery product related injuries and deaths either result from inappropriate use or poor design. However systems for identifying injury patterns are necessary. Currently in Queensland in the absence of a centralised State Coronial information system there is no systematic way to monitor deaths.

Elsewhere, portable cots have been implicated in deaths and injuries to young children and particular products have been the subject of safety warnings and product recalls. However with the three deaths associated with portable cots reported here it was not possible to ascertain to what extent the cots involved contributed to the deaths.

These deaths highlight the need for parents and caregivers to ensure that the products they use conform to the appropriate Australian Standard and they follow the most recent advice regarding sleeping arrangements for infants[3].

The number of injuries associated with baby walkers, particularly for infants aged less than 12 months is alarming considering that these products have been recognised for many years as being the single most dangerous piece of nursery equipment[4]. A study conducted by NISU found that baby walkers had a relative frequency of injury of more than 10 times compared with other common nursery products when adjusted for ownership and use[5].

There have been many calls in Australia for these products to be banned or at the least regulated[6,7,8]. Currently NSW is the only Australian State to have legislated to regulate baby walkers and they are currently considering implementing more stringent requirements. Elsewhere, governments have enacted safety standards which have reduced baby walker injuries. In Canada voluntary standards for the minimum dimensions of walkers were introduced in 1989 which resulted in no new baby walkers being sold in Canada and a decline in injuries[9].

More recently the US Consumer Product Safety Commission introduced standards for walkers in 1998 specifically intended to help prevent falls down stairs either through stopping the walker on a top step or being wider than 90cm[10]. There are currently discussions on whether to adopt the US standard in this country. The American Academy of Pediatrics Committee on Injury and Poison Prevention issued a statement in 1995 recommending a ban of baby walkers due to the risk of injury and because there is no benefit for the infant from their use[11].

Even if baby walkers are banned or standards introduced the lifespan of existing walkers is such that it would be many years before any benefit would be observed, thus any changes must incorporate measures to educate parents of the dangers and reduce the number of walkers in circulation.

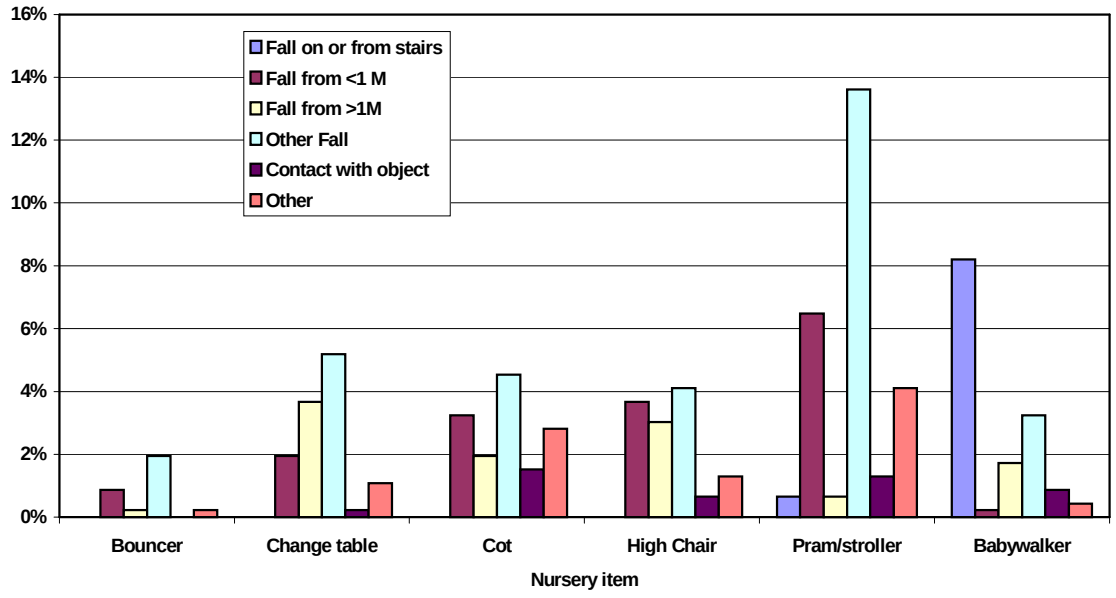

Figure 3 QISU Emergency Department presentations, nursery product injuries by mechanism of injury and product type , 1998-1999

Prevention

- Children under the age of 2 years and especially the age group from 6 to 12 months are at risk.
- Injuries can happen because of basic design flaws, equipment failure, or the way in which the product is used.
- Most cot related injuries are due to children climbing and falling out of cots. Entrapment injuries can also occur when a child's head, limbs or hands get caught between bars or panels. There have been injuries involving portable cots where the cot has collapsed, trapping the baby.
- The sale and use of **babywalkers** is strongly discouraged.

COTS

- Check the cot complies with the Australian Standard (AS 2172)
- Spaces between bars should be 50 – 85 mm apart
- The mattress should fit snugly with no gaps
- At present there is no mandatory Australian Standard for **portable cots**, however check the portable cot complies with the voluntary Australian Standard
- Ensure the sides of portable cots are securely clicked into place
- Ensure the cot is positioned safely away from curtain or blind cords and heaters
- No pillows, comforters or other soft products.
- Move children to a single bed once they start climbing out of their cot

CHANGE TABLES

Change table injuries usually involve the baby rolling or wriggling and falling from the change table.

- Never leave a baby unattended on a change table
- Keep everything needed to change the baby close at hand but out of reach of the baby
- Consider a towel or change mat on the floor or in the middle of a double bed as an alternative

PRAMS/STROLLERS

Injuries involving prams and strollers commonly involve falls, with the child standing up or falling out, or a pram or stroller tipping over.

- Choose a pram or stroller that complies with the Australian/ New Zealand Standard (AS/NZS 2008)
- Look for strong components and a stable design
- Choose one fitted with a 5 point restraint harness
- Always use the harness
- Make sure the child's arms are kept inside the frame
- Do not allow the child to stand up or lean out of a pram or stroller
- Avoid overloading and hanging shopping bags over the handles as this creates a tip over hazard

HIGH CHAIRS

- Consider a model with adjustable height and use the lowest setting
- Select a stable design and check it cannot accidentally collapse during use
- Choose a high chair fitted with a 5 point harness
- Use the harness every time
- Never leave children unattended
- Ensure the high chair is at least 500 mm away from windows, stoves, appliance cords, curtains or blind cords
- Do not allow a child to stand up or climb in a high chair

BOUNCERS

Bouncers should be used only on the floor on a flat surface.

1 Watson W, Ozanne-Smith J, Lough J Consumer Product Related Injuries to Children MUARC Report #168 2000
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5 National Injury Surveillance Unit. Baby walkers: an attempt to assess injury risk compared with some other nursery products. 2000 http://www.nisu.flinders.edu.au/pubs/shrtreps/babywalk.html
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8 Truss,W (Hon.). Minister Warns Against Baby Walkers. Statement by Minister for Customs and Consumer Affairs, 1998. URL: http//www.isr.gov.au/media/1998/August/1998_12.html.
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QISU Web site

www.qisu.qld.gov.au

QISU Data

QISU collects and analyses data from emergency department injury presentations on behalf of Queensland Health. Participating hospitals (acknowledged on page 1) represent three distinct regions of Queensland. QISU publications and data are available on request for research, prevention and education activities.

QISU Injury Bulletin

Injury Bulletin comment or feedback is welcomed and can be directed to:
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