

resolving prior to physician visit, and physician availability. Facilitators of appropriate behaviour: Team personnel explaining to the parents the importance of physician visits at time of injury and a team protocol that enforces physician-based management.

Conclusions Concussion awareness is improving but there are still gaps in hockey parents' and players' understanding of management. Understanding beliefs, barriers and facilitators of proper concussion management behaviour may assist with reducing the consequences that can arise due to mismanagement.

Drowning and Water Safety

Parallel Tue 1.6

265 POOL FENCING BYLAWS AND DROWNING RATES AMONG CHILDREN

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Background The majority of fatal drownings in Canada occur in natural bodies of water; however private backyard pools are consistently the most common setting where children under 5 years of age drown. A number of studies conducted primarily in Australia and the United States have provided evidence that pool fencing reduces the risk of drowning among children. No long term analysis of pool fencing and municipal bylaws as a factor affecting the risk of childhood drowning in Canada has been published.

Methods Using a multi-level ecologic study design, the drowning death rate in Ontario municipalities with isolation fence and gate legislation was compared to that in municipalities with less or no legislation. Individual level descriptive analysis was conducted using data collected from files at the Ontario Provincial Coroner's office for all children under the age of 5 who suffered drowning deaths in private backyard pools over a fifteen year period. Drowning death rates were calculated per 100 000 population. Denominators for rates were yearly estimates of population under the age of 5 for each municipality. Poisson regression methods were used to estimate relative risks and 95% confidence intervals. Additionally, univariate analysis was conducted and descriptive statistics were reported to summarise the characteristics of childhood backyard pool drownings.

Results During the study period, 54 children under the age of 5 drowned in a private backyard pool in Ontario. The highest death rate was found among 2 year olds (0.9 per 100 000) and the male to female ratio was 3.5:1. The majority of children (61%) drowned after accessing an unobstructed pool directly from the residence. (Results of Poisson regression to be updated).

Conclusions The results of the study demonstrate the need for isolation fencing bylaws that do not allow direct access from the building, and do not allow fences to be "grandfathered" under existing legislation.

266 SWIMMING ABILITY AND DROWNING PREVENTION – DO THEY HAVE SOMETHING IN COMMON? A NORDIC CASE STUDY

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Background In 1996 the Nordic Countries defined the term swimming ability. A person can be said to be able to swim when he, after being immersed in water, can swim continuously for 200 metres, of which at least 50 m on backstroke. Since then the countries have been collecting data concerning swimming ability statistics. Drownings are one of the leading causes of death worldwide (WHO 2015). The first poster concerning the topic was presented in the World Conference on Drowning Prevention in Potsdam in 2013. The updated data will be presented in 2016 aiming to find correlation between swimming ability and drowning rates (1996–2016) within the Nordic Countries.

Methods Each country has been collecting their own data. There is variation in data collecting methods. Data has been collected in different years (2011–2013) depending on country-specific policies. A table has been created to clarify the findings.

Results The highest rates in swimming ability came from Iceland, 95% of the children and 96% of the adults can swim and the lowest rates came from Norway, 50%, no data available for adults. (Sweden 92%, no data for adults; Denmark 79/66%; Finland 72/68%). The highest drowning rates came from Finland, 2.3/100,000 and the lowest from Iceland 0.62 (Denmark 1.3, Norway 1.03, Sweden 0.84). There are some indications of a correlation between swimming ability and low drowning rates.

Conclusions The swimming ability of a nation seems to play an important role for drowning prevention but there are other important factors (e.g. alcohol abuse, cultural differences, falling through the ice) not related to swimming ability. However, these other factors related to drownings do not decrease the importance of swimming ability, vice versa. The co-operation within the Nordic Countries is special and needs to be emphasised more. While the rest of the world is having difficulties in defining swimming ability and self-rescue skills, a closer look at the Nordic numbers is recommended.

267 TWENTY YEARS OF PFD NON-WEARING AND WEARING AMONG CHILD AND YOUTH BOATING IMMERSION VICTIMS IN CANADA

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Background Boating is the most frequent activity for water-related immersion deaths in Canada. Central in immersion/drowning is non-wearing of personal flotation devices (PFDs). Although most boating victims are adult males, wearing and compliance with regulations was assessed for children 0–14-years-old and youth 15–19 victims of immersion deaths. Indigenous were compared with other ethnicities.

Methods Annual Red Cross collection of 1991–2010 Canadian coroner data by structured questionnaire. Analysis included activity, purpose, personal, equipment, environment factors.