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## Mobility aid-related accidents in children

● During the period 1991-2008, more than 63 000 children were examined in US emergency rooms following an accident related to a mobility aid: 40% of the children were less than 10 years old; 60% of the accidents occurred at home; and 4.4% of the children were hospitalised.

● Wheelchairs were the devices most often involved (67%), followed by crutches and walkers.

● Most accidents involving children under 10 years old were linked to a walker or wheelchair, and mainly resulted in head injuries. Most of the accidents in older children involved crutches and caused lower-limb sprains.

● In practice, the correct use of mobility aids should be explained to parents and children, and information given about the circumstances most likely to lead to accidents. Children using these devices should be supervised if necessary.

Crutches, canes, walkers and wheelchairs can be a source of accidents in children (1).

In 2010, an American team conducted a review of emergency room records over an 18-year period to determine the type and frequency of accidents linked to mobility aids in children and adolescents (<19 years) with temporary or permanent disabilities following surgery or trauma (2).

**Most accidents linked to wheelchairs.** During the period 1991-2008, the team identified more than 63 000 cases. The annual number of cases increased between 1991 and 2008, from 2591 to 3192. About 40% of the children were aged under 10 years, 60% of accidents occurred at home, and 4.4% of children were hospitalised.

Most accidents involved wheelchairs (67%), followed by crutches (25%) and walkers (8%). The underlying mechanisms in most cases were tips or falls. Half of the injuries were skin lesions (haematomas, contusions, abrasions), 17% fractures, 16% joint damage, and 9% head trauma.

**Stairs, ramps and wet surfaces.** Environmental factors played a role in one-third of cases, particularly stairs or railings, kerbs, curves, vehicles (especially those equipped with wheelchair lifts), wet or icy surfaces, angles and obstacles.

Accidents involving children aged under 10 years were mainly linked to walkers or wheelchairs, and the body region most frequently affected was the head, including cranial trauma.

**Misuse of crutches.** Children aged over 10 years were more likely to be victims of accidents linked to crutches, and their most frequent injuries were lower-limb sprains.

In 7.5% of cases the accident was linked to use of the mobility aid in an unintended manner (playing around by the

patient or a friend), especially in children under 10 using crutches.

**In practice: prevent falls.** Mobility aids for children can be a source of accidents, which differ according to the patient's age and the type of mobility aid. These devices must be adapted to the patient and regularly maintained. The functioning of the device must be explained to children and their parents. Instruction by a physiotherapist, for example, may be beneficial, and circumstances likely to contribute to a risk of accidents should be pointed out. The family home or vehicle should be adapted if necessary, and some children may need to be supervised when using a mobility aid.

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### Selected references from Prescrire's literature search.

1- Prescrire Rédaction "Accidents de fauteuils roulants" *Rev Prescrire* 1993; 13 (135): 676.

2- Barnard AM et al. "Pediatric mobility aid-related injuries treated in US emergency departments from 1991 to 2008" *Pediatrics* 2010; 125 (6): 1200-1207.



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## Varenicline: aggression and homicidal ideation

● **Varenicline**, a drug used for smoking cessation, carries a risk of neuropsychological adverse effects, including depression and suicide.

● **Analysis of a series of detailed reports of aggression and homicidal ideation attributed to varenicline** showed that most patients had no psychiatric history. These symptoms were often preceded by sleep disorders. Suicide and suicidal ideation were associated with signs of aggression in nearly one-third of cases. Aggressive symptoms recurred in patients who restarted varenicline.

● **In practice, it is better to avoid using varenicline for smoking cessation and to use nicotine replacement instead when drug therapy is considered necessary.**

**V**arenicline, a partial agonist of acetylcholine receptors, is used for smoking cessation. When it was first introduced to the market, its known

harm-benefit balance was no better than that of *nicotine*. More information continues to emerge on its adverse effects, especially neuropsychological disorders, including depression and suicide (1).

A team has analysed a case series of aggressive behaviour, including homicidal ideation, mainly extracted from the US pharmacovigilance database (2).

**Detailed reports of acts of aggression.** The authors collected 85 reports of acts of aggression in patients taking varenicline; 78 cases came from the Food and Drug Administration (FDA) database, 3 were described in case reports, and 4 occurred during clinical trials (2).

Twenty-six of these 85 cases were well documented and could be analysed in detail. There were 10 cases of assault and 16 cases of aggressive ideation, in 20 women and 6 men, aged about 40 years on average. In these 26 cases, the thoughts or acts of violence were inexplicable and unprovoked.

The acts of aggression or aggressive ideation occurred after 3 and 42 days of varenicline use (average 15 days). Four