

## Complementary and alternative medicine in paediatrics: Looking at the safety profile

The parents of a five-year-old boy with asthma and atopic dermatitis started him on echinacea to prevent upper respiratory tract infections. Because his skin condition worsened, the child was taken to his paediatrician who enquired about any new products in the home (eg, new soaps, creams, etc) and about the use of medications, over-the-counter products and other therapies. On disclosure of echinacea use, the parents were informed about the potential risk factors associated with the use of this natural health product (NHP).

Paediatric use of NHPs and other kinds of complementary and alternative medicine (CAM) is common. In 2004, it was found that 49% of the population (n=1804), sampled from a large Canadian tertiary care paediatric emergency room, used CAM (1). Adverse events (AEs) may be associated with paediatric CAM, but are understudied and under-reported. In rare instances, serious AEs can occur with CAM use. Of more than 120 paediatric CAM utilization studies identified, only 23 describe safety data.

### LEARNING POINTS

- The US National Center for Complementary and Alternative Medicine defines CAM as a “group of diverse medical and health care systems, practices and products that are not presently considered to be part of conventional medicine” (2).
- There is evidence that 17% to 33% of the general paediatric population uses CAM, and that children with serious or chronic illnesses have even higher utilization rates.
- Echinacea has been used for centuries to treat a variety of conditions. It is now used primarily for the prevention and treatment of upper respiratory tract infections. Although echinacea has a favourable safety profile overall, it has been associated with exacerbation of rash in children with atopic dermatitis.
- In 2006, it was found that 42 of 584 paediatricians who participated in a Canadian Paediatric Surveillance Program (CPSP) one-time survey reported seeing one or more patients who had experienced a CAM-related AE. Paediatricians reported that they only routinely inquired about CAM use 38% of the time, and that families spontaneously disclosed CAM use 22% of the time.
- Families should discuss CAM use with their physicians, and child health care providers should inquire about CAM use as part of their routine medical history. Open discussion promotes both patient safety and family-centred care (3).
- Given the popular use of NHPs and other CAM therapies, their safety needs to be more thoroughly investigated. Active surveillance of serious AEs associated with paediatric CAM is a planned addition to the CPSP in late 2008. This study will gather national epidemiological data in the paediatric population on direct AEs, as well as indirect AEs associated with delays in diagnosis and treatment secondary to CAM use.
- For more information
  - Pediatric Complementary and Alternative Medicine Network <[www.pedcam.ca](http://www.pedcam.ca)>
  - Stollery Children’s Hospital (Edmonton, Alberta) <[www.care.ualberta.ca](http://www.care.ualberta.ca)>
  - The National Center for Complementary and Alternative Medicine <[www.nccam.nih.gov](http://www.nccam.nih.gov)>
  - American Academy of Pediatrics <[www.aap.org/sections/chim/default.cfm](http://www.aap.org/sections/chim/default.cfm)>
  - Health Canada <[www.hc-sc.gc.ca/dhp-mps/index\\_e.html](http://www.hc-sc.gc.ca/dhp-mps/index_e.html)>

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### REFERENCES

1. Goldman RD, Rogovik AL, Lai D, Vohra S. Potential interactions of drug-natural health products and natural health products-natural health products among children. *J Pediatr* 2008;152:521-6.
2. The National Center for Complementary and Alternative Medicine. <<http://nccam.nih.gov/health/whatisacam>> (Version current at June 27, 2008).
3. Vohra S, Clifford T. Children and natural health products: What a clinician should know. *Paediatr Child Health* 2005;10:227-32.

*The Canadian Paediatric Surveillance Program (CPSP) is a joint project of the Canadian Paediatric Society and the Public Health Agency of Canada, which undertakes the surveillance of rare diseases and conditions in children and youth. For more information, visit our Web site at <[www.cps.ca/cpsp](http://www.cps.ca/cpsp)>.*