

## International adoption evaluation challenges and survey results

One week after arriving from Asia, parents bring their newly adopted 11-month-old daughter to you for a routine assessment. Her immunization record indicates that she received diphtheria-pertussis-tetanus-polio-myelitis, measles, hepatitis B and bacille Calmette-Guérin (BCG) vaccines. Blood tests performed in Asia at six months of age showed the following results: hepatitis B surface (HBs) antigen negative, HBs antibody positive, HIV ELISA negative and Venereal Disease Research Laboratory negative. Physical examination is normal except for a BCG scar. Her immunization record, positive HBs antibody result and otherwise normal blood results reassure you. Four months later, you learn that another child in the travel group is being treated for tuberculosis (TB). You perform

a purified protein derivative of tuberculin, which is positive at 14 mm. The infectious disease specialist recommends a chest x-ray and nine months of isoniazid. Six months later, the father is diagnosed with acute hepatitis B. You test the child and find the following results: HBs antigen positive, HBs antibody negative and hepatitis B core antibody positive indicating active hepatitis B, and was the likely source of the father's infection.

In September 2005, a one-time survey was sent to 2500 CPSP participants to determine their experience and knowledge about screening for infectious diseases in children adopted internationally. Within the past two years, 60% of the 672 respondents had cared for such children.

### LEARNING POINTS

- The CPSP survey showed the following results:
  - Respondents confirmed 30 cases of hepatitis B, four cases of hepatitis C, four cases of syphilis, three cases of HIV and 111 cases of TB over the previous two years.
  - Knowledge about screening methods varied significantly, with important gaps, especially for hepatitis B and TB.
  - Screening frequency was suboptimal at 67% and 79% for syphilis and hepatitis B, respectively.
  - Most would consider repeating vaccinations given in the birth country, but many had incomplete knowledge about which serological tests could be used to determine immunity.
- Children adopted internationally are at risk of chronic infections and, in most cases, have no symptoms or signs.
- All children adopted internationally should be tested for syphilis, TB, HIV, and hepatitis B and C on arrival into Canada, regardless of serology results or immunization records in their birth country. In general,
  - # repeat testing should be considered for TB, HIV and hepatitis B;
  - # positive HBs antibody or hepatitis C virus antibody in children younger than 18 months may indicate transient maternal antibody, and needs further testing; and
- # BCG vaccine is not a contraindication to TB skin testing, which should be interpreted as if no BCG was given (1).
- Depending on the birth country, children have not received all immunizations offered in Canada, and 20% to 40% of them lack immunity on serological testing to diseases against which they were reportedly immunized.
- Immunization can be repeated, or serological testing can be performed to determine immunity for hepatitis B, measles, mumps, rubella, diphtheria, tetanus and varicella. The *Canadian Immunization Guide, 6th edition* (2) provides advice on immunization of children with inadequate records.
- All immediate family members and caregivers should be updated on their immunizations and receive hepatitis B vaccine before the child arrives in Canada.
- In addition, children adopted internationally should have screening tests for infectious and noninfectious conditions, and be monitored for nutrition, growth and development, attachment and behavioural concerns.

### REFERENCES

1. Canadian Paediatric Society. Children and Youth New to Canada: A Health Care Guide. Ottawa: Canadian Paediatric Society, 1999.
2. Health Canada. Canadian Immunization Guide, 6th edn. Ottawa: Health Canada, 2002:41. <<http://www.phac-aspc.gc.ca/publicat/cig-gci/index.html>> (Version current at July 5, 2006).

The Canadian Paediatric Surveillance Program (CPSP) is a project of the Canadian Paediatric Society that undertakes the surveillance of rare diseases and conditions in children. For more information, visit our Web site at <[www.cps.ca/cpsp](http://www.cps.ca/cpsp)> or <[www.cps.ca/pcsp](http://www.cps.ca/pcsp)>.