Travelling with children

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Travelling with children can be both rewarding and exhausting. Helping parents to plan ahead can make all the difference between an enjoyable or a spoiled trip.

Children generally adapt well to the change involved in travel, but they still must have their specific needs met. They don't have experience in dealing with new and often less safe situations, so one of the most important pieces of advice a general practitioner can give a patient intending to travel with a child is to ensure the child is never left alone.

In general, children are more prone to illness, but they can recover amazingly quickly. Examples of common problems include respiratory, gastrointestinal and skin infectious, trauma, sunburn and insect bites. Two infectious diseases deserving special mention are diarrhoea and malaria.

Diarrhoea

Children, particularly babies, are very susceptible to dehydration from fluid loss. Advise parents that prevention depends on careful attention to hygiene such as washing or wiping hands, choice of food, and use of bottled or boiled water if necessary. An oral rehydration solution (such as Gastrolyte, Pedialyte or Repalyte New Formulation) is the preferred treatment. Alternatives are: additional water; juices or lemonade diluted as one part to four parts water; or one level teaspoon of table sugar in 120 mL water.

The recommended daily fluid intake for babies up to 2 months old is 600 mL, for those aged 3 to 6 months it is 1000 to 1400 mL, and for children over 6 months old it is 1400 to 2400 mL.

More fluid will be necessary for more severe disease. Indicators of significant dehydration are dry nappies due to poor urine output. Breast feeding and formula feeding should continue; however, dairy food should be excluded from the diet until there has been a normal bowel motion. Frequent small sips of fluid should be attempted if there has been vomiting.

Foods that may be eaten include simple starchy foods such as cooked rice, vegetables, toast or plain biscuits with a little jam or honey (no butter or margarine), soups, mashed potatoes or stewed apple.

The following drugs should be avoided in children because of side effects: prochlorperazine (Stemetil, Stemzine), metoclopramide (Maxolon, Pramin), diphenoxylate (Lofenoxal, Lomotil) and loperamide (Gastro-Stop, Imodium). Alternatives are the older antihistamines, such as pheniramine (Avil, Fenamine) or promethazine (Phenergan). Ginger tablets have been used by many with good effect.

Parents should seek help for an unwell baby or child especially if there is no improvement after a day. Danger signs requiring immediate medical attention include very high fever (more than 39.0°C), bleeding, dehydration and inappropriate drowsiness.

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Advice for travelling with children

- Rule '1' – children need to be accompanied at all times by a family member or trusted friend.
- Vaccinations – make sure these are up to date in line with current Australian and international recommendations.
- Food and fluid requirements – always carry something with you, especially fluids (bottled, boiled or treated) in warm areas.
- Clothing – keep changes appropriate to the climate (e.g. sun and cold protection).
- Insect protection – use preparations with up to 30% DEET for skin, and permethrin-impregnated external clothing and nets. Appropriate malaria tablets may be necessary (discuss this with your doctor).
- Medical kit – include sunscreen, dressings, a thermometer, paracetamol, an oral rehydration solution, and an antihistamine for allergy, travel sickness and sleep. Mercury thermometers are the most accurate, but electronic and plastic forehead thermometers are almost as good, easier to use and less likely to break during travel.
- Entertainment – don't forget to take books, games and toys to amuse your child (particularly on long plane, train or car trips).

What to do if the child has a high temperature or febrile convulsions

- If the temperature is more than 38.5°C, paracetamol (Panadol, Tylenol, Dymadon, Tempra) is the preferred treatment in doses as shown on the bottle or packet. Paracetamol is available as syrup, chewable or nonchewable tablets, and suppositories. This will lower temperature as well as help the child to feel better.
- Undress the child to a nappy only and sponge or bathe with lukewarm water. A fan may be used unless the child becomes distressed.
- Rest, fluids and treatment of the cause of the fever are also important.
- Please check with your doctor if you are at all uncertain about how best to care for your child.

In-flight prevention of earache and damage to the ear (for adults too!)

- Ensure that a doctor has examined the eardrums within a week of the departure date. Blocked eustachian tubes are a contraindication to air travel.
- Give an antihistamine about one hour before actual take-off.
- Get the child to suck on a breast, bottle or lolly while the plane is ascending and especially when descending because this is when ear damage is most likely.
- Methods of opening up the eustachian tubes include: swallowing; gently blowing out against a blocked nose and closed mouth; sucking on menthol or eucalyptus lollies; or sniffing small amounts of eucalyptus oil, a vapour rub or tiger balm in a handkerchief.
- 'EarPlanes' (special earplugs) have been helpful for many travellers.

Malaria

Malaria is potentially fatal, especially *Plasmodium falciparum* malaria in children as they have a higher risk of contracting cerebral infection. Any fever in a child who has been to a malarious area should be suspected as malaria until proven otherwise.

The best protection for children is to avoid travel to malarious countries or areas. If travel cannot be avoided, risk reduction to all insect-borne disease rests on avoiding being bitten.

Some of the drugs for malaria prophylaxis are not indicated in younger children.

- Chloroquine (Chlorquin) tablets are safe in children. The dosage is 5 mg/kg per week.
- Proguanil (Paludrine) is safe in children. The dosage is two 100-mg tablets daily, commencing two days before and for four weeks after exposure to a malarious area. It is taken in conjunction with weekly chloroquine. In children younger than 14 years, the dosage is 3.5 mg/kg daily.
- Mefloquine (Lariam) is not approved for use in children in Australia under 45 kg or less than 14 years of age, although WHO recommends its use in children over 15 kg and this is followed by most travel clinics.
- Doxycycline is contraindicated in children less than 8 years old, to avoid tooth and bone effects.

Vaccinations

The current Australian NHMRC recommendations should be checked and followed as a matter of routine even for less exotic destinations. All too often travellers are told they 'don't need anything' for destinations such as the USA. Varicella vaccine should also be considered.

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Other vaccines are discussed in the following paragraphs. There are several contraindications to some of these vaccines being administered at the same time, so for the less common ones the appropriate vaccination plan should be carefully discussed well before the travel date. This particularly applies to the live vaccines such as yellow fever, oral typhoid and BCG.

Hepatitis A vaccine (Havrix Junior, Vaqta Paediatric/Adolescent) is recommended for all children over 2 years of age travelling to areas of risk. It is often best given as a combination preparation with hepatitis B vaccine (Twinrix Junior) if the child has not been vaccinated with hepatitis B previously and time permits.

Typhoid vaccine is available as an injectable Vi vaccine (Typherix, Typhim Vi) suitable for use over 2 years of age. It will soon be available as a useful combination with hepatitis A vaccine. The oral vaccine (Typh-Vax) is often used; however, it is approved only for ages 6 years and older. A full four-dose regimen is recommended for children, to give maximal protection.

Yellow fever vaccine (Stamaril) is approved from the age of 6 months for travellers at risk or for legal reasons.

Cholera vaccine is now available as an oral form (Orochol) for protection against O1 *Vibrio cholerae*. Although not officially legally required for any country, it is indicated for travellers over the age of 2 years who will spend prolonged time in high risk areas.

Because of the higher risk of cerebral tuberculosis, BCG vaccination is recommended for all children who will spend prolonged time in risk areas or who will be staying with known contacts. Mantoux testing is mandatory unless the child is 6 months or younger and has had no possible contact with a TB carrier.

Rabies is an underestimated risk, especially if the children are unable or unwilling to let you know they have been bitten. Pre-exposure vaccination is recommended for those staying for a prolonged time in an endemic area.

Meningococcal meningitis vaccine (Mencevax ACWY, Menomune) is variably effective against the different serogroups depending on the child's age. A second dose may need to be given if the child is under 18 months of age or for some special country requirements (such as Saudi Arabia for pilgrims performing the hajj).

Similarly, Japanese encephalitis is an uncommon but nasty infection. Vaccination (JE-Vax) is recommended for prolonged visits to endemic areas throughout Asia. MT

Reference

1. National Health and Medical Research Council. The Australian immunisation handbook. 7th ed. Canberra: NHMRC, 2000.

2. Cohen J. The traveller's pocket medical guide and international certificate of vaccination. 3rd ed. Melbourne: The Travel Clinic, 2000.

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