



Comparative Healthcare: Child Health



India

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Review

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Abstract

Unlike India Australia boasts many community services for children from families with complex health problems. Practitioners from India report that their private health system is among the best in the world and that the training, experience and quality of Indian doctors attract private patients from across the globe. On the other hand for many Indians their local health system is not well resourced as is illustrated in the response to these case scenarios. The coverage of organized immunisation program can be limited in some areas; therefore infectious disease is a far greater problem than it is in Australia. In India liberal controls over the sale of many drugs has resulted in widespread abuse of antibiotics and NSAIDs. The lack of electricity in rural areas precludes the storage of insulin and sterile injecting equipment which undermines the quality of diabetic care. On the other hand most Australians benefit from greater government expenditure on health. The welfare system is much more equipped to support parents from underprivileged areas. Many schools will accept children with intellectual or physical challenges into mainstream classes and can sometimes be financially supported to have a teacher's assistant for the child. Two groups of Australians need extra support: migrants who may not speak English or know how to access statutory services and Aboriginal people for whom language, lack of social supports or remoteness from health care underscores inequity.

Background



India

India is one of the most diverse countries in the world where the extremes of poverty and wealth co-exist. The excellent educational system (for those who can afford it) and the prevalence of pathology mean that doctors can have a first class education and experience a volume of patients not often seen in other countries. The private health system boasts some of the most up to date equipment and well-trained medical specialists in the world with patients coming to India from Europe and Arab countries for cheaper treatment. On the other hand, the government health system is not well resourced and particularly in the poorer northern states, inaccessible to many of the country's millions of rural poor. A government mass immunization programme aims to prevent diseases such as Diphtheria, Pertussis, Tetanus, Tuberculosis, Polio, Measles and Hepatitis B. Although the coverage of this programme is extremely good in southern states like Kerala and Tamilnadu, it is still a problem in the northern states, especially in the rural areas where vaccine-preventable diseases such as measles and neonatal tetanus may still cause deaths. The health care system India in India is divided into primary secondary and tertiary care level in the government sector. Community health centres and district hospitals function at the secondary level and medical colleges are the tertiary centres. Although in theory a person needs to be referred from the lower centre to a higher centre, most often it is not possible to strictly enforce this dictum. People may turn up directly to a secondary or tertiary level institution in case of need. Private hospitals also cater to a large population. There has been a shift in trend over last decade for patients to visit a private hospital rather than a government hospital. The poor and needy still depend on the government hospitals for affordable healthcare. Insurance coverage is not widespread and is a considerable problem. Another unfortunate development is the fact that almost any drug could be obtained over the counter and this has led to widespread antibiotic and NSAID abuse. The internet has also been a factor in educating Indians on health related issues. Social welfare is not as established as it might be in this populous country.



Australia

Australia has one of the best health systems in the world, despite the problems associated with the shortage of doctors in rural areas. The Medicare system has enabled all Australians to access essentially free health care and subsidized medications. Various schemes have been introduced over the years to streamline referral and make allied health specialties more readily available and affordable to children. All major cities have dedicated children's hospitals with emergency and specialist cover. There is a hand-held record system for pregnant mothers that continues as the child's personal health record in the post-natal period with different coloured sheets so that parents will know which immunizations or health checks are due and local health care professionals can see the child's development at a glance. Aboriginal child health remains well under the standards achieved for non-Aboriginal Australians.

A 4 year old boy presents for the third time this year with serous otitis media(glue ear) and moderate deafness. His growth and development are satisfactory and he is otherwise well. His parents are concerned that he is struggling to hear and his behaviour is challenging. What is your approach to this case?



Antibiotic treatment with oral antibiotics is probably the first line treatment. If the child was from a poor family it is unlikely that the family could afford specialist treatment and he would most likely only receive antibiotics. If the child is seen at a hospital clinic we would refer to an ENT surgeon, and after evaluation and management the child may be sent back to the paediatrician. Further management includes audio logical evaluation, speech therapy and counselling to prevent further exposure to dust smoke fumes, powder, perfumes etc.



The ear would be swabbed for microbiological tests and audiometry would be organised. Usually the child would be referred to an ENT surgeon. If there is a hearing loss, various options are available apart from any surgical interventions, such as speech therapy, special help at school so that the child does not fall behind etc. In Aboriginal children with glue ear, ciprofloxacin ear drops are used as hearing loss in Aboriginal children from this cause is common and there are serious consequences for their education if this is not addressed.

A 6 year old girl has been missing time off school with a persistent nocturnal cough and wheezing. A neighbour has told the parents the girl could have 'asthma'. His parents are concerned that their child may be labeled 'asthmatic' and have tried various remedies offered by friends and family. The child has widespread rhonchi, looks pale and tired. How would you manage this case in your practice?



The history is strongly suggestive of asthma. Initially we would take a chest x ray and conduct the tuberculin test. The peak expiratory flow measurement would also be taken. The formula used to calculate expected PEFr is (height (cm)-100)*5+100. Clinically we would look for evidence of emphysema & wheeze. Then we would explain the advantage of MDI (Metred dose Inhaler) WITH SPACER, to the parents. Most paediatricians favour the use of low dose budesonide+β₂ agonist as and when required. Follow up visit every month is advised. The importance of avoiding the allergens and drugs like ibuprofen, mefanamic acid & nimuselide would also be emphasised.



In the history we would be looking for an allergic/atopic tendency or family history and also any triggers. Pulse oximetry is usually available in most GP surgeries, as are nebulisers. Some surgeries also have asthma education nurses who teach puffer/spacer technique. Spirometry before and after bronchodilators or offering bronchodilators (usually salbutamol with a spacer) and then auscultating for any improvement in air entry would confirm the diagnosis. Usually spirometry is more effective after the age of 6. Depending on the severity of the presentation either relievers only (salbutamol with spacer) or reliever and preventer (usually non-steroid preparations such as SCG or montelukast) will be prescribed. An asthma action plan should be prepared with family members, for the school and home which outlines what the dangerous symptoms are and how to increase the medications accordingly as the severity worsens. The family should be counselled to present to a doctor or hospital if there is no improvement or they are concerned. There should be a follow up visit soon after this to reassess the child. If the diagnosis is not clear cut, or the presentation is moderately severe then the child would be referred to a paediatrician. Known triggers should be avoided. There are also many educational leaflets available for families. Generally poor puffer technique and not recognizing the symptoms of asthma are responsible for most serious presentations.



A 10 year old boy has been diagnosed with insulin dependent diabetes. His parents are struggling to manage his insulin regimen and the boy has been admitted to hospital at least once with ketoacidosis. What support is available to help this family in your practice?



In India such cases are not uncommon. Unfortunately we have very few social support groups to follow up such patients. However medical care is offered free of charge to the poor and at a subsidized rate to the remaining patients, in government hospitals. Other problems are the unavailability of electricity and clean supplies of needles in rural areas so that storage of insulin and sterile injection practices are difficult.



In Australia there are National and state level bodies and support groups that provide information and support to families. There is a high level of awareness about diabetes and schools are willing to assist in the health care of children if doctors provide detailed information sheets on symptoms to look for and procedures to follow. Many GP clinics have nursing staff who are experienced in diabetes and Aboriginal health centres often have diabetes educators although in both cases their experience is primarily with adult-onset diabetes. If the child has been admitted to hospital then the hospital will also have staff who can assist the family with various supports so that they firstly understand how to manage his diabetes and also can assist with any financial or other problems standing in the way of the management of the illness.

A 5 year old girl had down's syndrome. She is moderately deaf and has severe eczema. She has one healthy younger sister. Her parents are getting divorced. Her mother works as a domestic help. The child will be living with her mother. What support is available to support a single parent in these circumstances?



In India as the government health system is sadly under resourced, those who can afford it could access private paediatricians and pay for a full-time worker to be with the child. If the mother is from a 'poor section' of society, she would be dependent on her own extended family to help her financially. Many non-government organizations and some religious organizations and individuals provide education for intellectually challenged children. The number of organizations is small compared with the huge numbers of children. Social stigmatization would be one of the biggest problems facing both the mother (for being divorced) and child (for her appearance or for her deafness). On top of that, gender inequalities mean that both mother and child may be vulnerable to exploitation.

The mother would need to find sympathetic non-government organizations to assist her.



Once again, Australia has many support and educational groups available for families who have children with health problems from eczema to Down's syndrome. The welfare system can provide financial support to the child's mother. Hearing aids are available, many schools will accept children with intellectual or physical challenges into mainstream classes and can sometimes be financially supported to have a teacher's assistant for the child. Social workers, occupational therapists, speech therapists etc can all be accessed through hospitals or General Practitioners. Two groups of Australians need extra support: migrants who may not understand English well or know how to access supports and Aboriginal people for whom language, lack of social supports or remoteness from health care is a problem.

A 7 year old boy is diagnosed as having a peanut allergy following an anaphylactic reaction. His parents have heard that he needs to carry an adrenalin injection in case of another reaction. How would you support this family in your practice?



In India it is extremely unusual to encounter peanut allergy or other food allergies in children. In such a situation the primary treatment would be to advise the child and parent to avoid the offending foods. We would also recommend carrying adrenaline, H2 Receptor antagonist & Hydroxyzine. On a more general note and to the best of our knowledge anaphylactic reactions are rare except for cases of penicillin allergy which is the treatment of choice in what in India is a relatively common illness, Rheumatic fever. Other situations resulting in severe anaphylaxis are even more unusual, the most likely candidate is allergy to polyvalent antsnake serum. Both situations warrant admission and management as inpatients.



The family will need to be educated about its use, the expiry date and the symptoms to look for. It is important to find out who the child spends time with (e.g. school, other relatives) and ensure that each person is aware of the symptoms and how to administer the injection. The family also need to know about the foods that may contain traces of peanuts. An information sheet should be given to the family. The child may be able to get a medic alert bracelet that states that he has the allergy and what to do. Some children have been brought into hospital after eating processed foods or food in restaurants that contained traces of nuts. Once again, if English is not the first language spoken at home, this information should be explained clearly.