

Refusal of parents to vaccinate: dereliction of duty or legitimate personal choice?

Despite the risks to unvaccinated children, compulsory vaccination is not the answer

IN A PLURALISTIC SOCIETY, there are many views on what constitutes acceptable child-rearing. In Australia and other Western societies, parental discretion is limited primarily by legislation against abuse or neglect. In treatment decisions, the legal starting point is that the united view of both parents is correct in identifying the child's welfare. A court will usually only override the parents' decision if the judge is convinced the child's life is endangered, such as when a child needs transfusion.² Administration of a vaccine is never immediately life-saving in this sense, except in the case of post-exposure rabies vaccine,³ but vaccination satisfies ethical criteria for preventive interventions in children: it is effective, minimally invasive, and associated with significant societal benefits.³ Indeed, the highly favourable benefit-to-risk ratio of childhood vaccination is so well documented that healthcare professionals are understandably frustrated when faced with what seems to be an irrational decision by parents to refuse vaccination. This is especially so when this decision has resulted in failure to prevent a life-threatening illness, as in the tetanus case presented by Goldwater et al (*page 175*).⁴ This case raises issues for both the clinician and society. How do healthcare professionals understand and best respond to a conscious decision not to vaccinate? In a highly immunised population, what is the balance of risks and benefits to individual children and their contacts from refusal to vaccinate? Should a case such as this propel us towards compulsory vaccination?

In Australia, vaccination is not compulsory, but various incentives and reminders aim to promote it. First, payment of the maternity allowance at 18 months and the childcare benefit requires up-to-date vaccination according to the Australian Childhood Immunisation Register (ACIR),⁵ unless a medical practitioner has notified the ACIR of a contraindication or serologically confirmed immunity, or has discussed conscientious objection with a parent. Second, at school entry, documentation of full vaccination is required in most Australian jurisdictions, with children who do not have such documentation or serological proof of

immunity to specific diseases, such as measles, able to be excluded from school attendance if suspected cases occur. Although the United States is often quoted as having laws for mandatory vaccination, the practical effect of these laws is also limited to exclusion of unvaccinated children from school during outbreaks, although preschool attendance for such children can be barred altogether.⁶ Italy is one of a few countries where there is compulsory vaccination, but only for diphtheria, tetanus, polio and hepatitis B. However, this has not been enforced for many years.⁷ To find examples of truly compulsory vaccination, it is necessary to go back to the 19th century. In England, the Vaccination Act of 1853 made smallpox vaccination compulsory for all infants in the first three months of life, on pain of fine or imprisonment. Its enactment spawned riots in several towns and an active anti-vaccination movement. In 1898, a new Vaccination Act removed these penalties and introduced the concept of "conscientious objector" into English law.⁸

In present-day Australia, most parents whose children are not fully vaccinated are not conscientious objectors, but rather face practical barriers such as recurrent minor illness, work commitments, large family size or social disadvantage.^{9,10} Parents who are strongly opposed to vaccination comprise a much smaller group. Of a large sample of 1779 Melbourne children in childcare in 1997, only 13 (0.7%) had not received any vaccines.¹⁰ This is similar to the proportion of all children Australia-wide registered with Medicare for whom there is a registered conscientious objection.⁵ In general, such parents tend to be well educated, older, female and of Anglo-Saxon background.^{11,12} Qualitative data suggest that conscientious objectors fear possible but unknown, especially long term, adverse effects of vaccines, believe that lifestyle measures to improve general immunity are viable alternatives to protection from vaccines, and often mistrust the motives of healthcare providers.^{9,12} This limits the ability of healthcare professionals to present pertinent counterarguments. Indeed, there is some evidence that parents philosophically opposed to

vaccination may have their objections reinforced by factual information about risks and benefits, because these facts do not accord with their beliefs about health and illness.¹³ In contrast, parents who are merely doubtful about vaccination are much more likely to be amenable to presentation of relevant factual information.⁹ Healthcare professionals communicating with such doubtful parents need to have their facts well prepared and be sure that they have ascertained the parents' specific concerns, particularly whether these arise from personal or family experience. This is all potentially achievable within a realistic timeframe for a standard consultation, using readily available material specific to Australia.¹⁴

In the current Australian environment of high immunisation rates, does refusal of vaccination pose risks to either the individual or the community? In the case of tetanus, the risk is limited to the individual, as the disease is not transmissible. The risk to the individual is highlighted by the US experience, where, with very high immunisation rates, 15 reported cases of childhood tetanus occurred between 1992 and 2000.¹⁵ Children unvaccinated because of their parents' beliefs accounted for 9/11 cases in school-aged children,¹⁵ although objecting families represent only 0.6% of families with children attending school in the US.¹⁶ For other transmissible vaccine-preventable diseases, such as measles, pertussis and poliomyelitis, the risk goes beyond the individual. In Colorado, schools with a higher percentage of objectors were more likely to have a pertussis outbreak, and at least 11% of vaccinated children in measles outbreaks acquired measles from contact with an unvaccinated child of objecting parents. In addition, there was a 22-fold (measles) and sixfold (pertussis) increased risk for the individual unvaccinated child.¹⁶ Similarly, in Germany, almost all cases of Hib meningitis occur in unvaccinated children of objecting parents.¹⁷ In closed communities of vaccination objectors, such as certain religious groups, very high levels of morbidity from diseases not present in the general community can occur, such as in polio outbreaks in the Netherlands.¹⁸ Although there are few such communities in Australia, there is a tendency for conscientious objectors to cluster in certain geographic areas, so the risk of transmission is amplified. Measles cases in Australia now arise exclusively from imported strains and the unvaccinated children of conscientious objectors have recently been highlighted as at risk.¹⁹

Parents should be made aware that a decision not to vaccinate, made on their children's behalf, exposes their child to significant risks, even in 2003. Persuasion, at both the clinical level¹⁴ and the societal level,⁵ is appropriate, but truly compulsory vaccination is not an option, either in Australia or in other comparable countries.^{6,7}

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