Campaign of Terror

London.—Good news is no news, only bad news, as journalists will tell you. The miniepidemic in the middle of 1982 could not have come at a more opportune moment. Thus, in the comparative lull of the usual tales of murder and destruction, the predicted rise in whooping cough notifications was almost welcome news. Epidemics have occurred regularly every four years since notification of the disease became statutory, and 1982 was an epidemic year. In fact, annual notifications in England and Wales have been comfortably under 20,000 in the last ten years, except in epidemic years, when the numbers have generally trebled. Deaths had long dwindled to less than a hundred by the middle of the 1950s and, in recent years, have not exceeded a dozen at the most. Pertussis vaccination was introduced nationally around 1958, and notifications undoubtedly declined thereafter, but nobody has ever explained why the mortality came tumbling down years earlier, or why the quadrennial quivers continued. There is a distinct impression that the disease has become milder, to which must be added a certain scepticism about the effectiveness of the British vaccine and not a few reservations about its safety. The net result was a fall in its acceptance to 30% by 1978.

This, then, was the scene in the middle of 1982 when the notifications began to climb. Our Department of Health, prompted by its vaccine-oriented medical advisory committee, suddenly erupted into uncharacteristic hyperactivity. A stream of statements, bulletins, and memoranda poured forth through television, radio, post, and press. Hardly a day passed without the latest whooping cough returns appearing somewhere. "Pertussis Peaks Again," "Epidemic Claims Another Victim," or "Killer Disease Strikes Again" (all the way from the first to the 12th) were typical headlines. A recorded message phone-in service encouraging parents to have their children vaccinated was set up. Terrified parents were greeted with a hair-raising series of paroxysms from a child close to expiry followed by a diatribe on the imminent dangers of death, brain damage, and lasting lung disease. The message ended, in the tradition of such commercials, with the urgently voiced hysteria-toned exhortation: "If your child has not been vaccinated, do not delay. There is an epidemic. Get your child vaccinated now!" More coughing. The campaign of terror was on.

The recommended age for administering pertussis vaccine was raised to 2, then 3, and finally, 6 years. As usual, paediatricians were the last to hear about it. Panic-stricken parents of 5-year-old children were telephoning me to be told one thing, only to be told something different by the media from a leapfrogging Health Department. Polite enquiry whether primary pertussis vaccination of older children was soundly based on field trials, and scientifically respectable, extracted the convoluted reply that there were no such trials, but that there was no reason to think that it would not be equally beneficial. Much publicity was given to the vaccinations, like sacrificial lambs, of the Health Minister's own infant daughter and, with even less justification, bonny Prince William. Of all the infants in the land, the latter's supremely sheltered care would render a chance encounter with a *Bordetella pertussis* about as remote as catching green monkey disease.

At the height of the scaremongering, I was getting two or three letters or telephone calls a day, mostly from parents whose infants were too young to vaccinate, in whom pertussis vaccination had been medically contraindicated, and from parents whose children were of school age. The awesome words "whooping cough is a killer" were on everybody's lips. All believed their children to be in imminent danger of death or brain damage. All thought that whooping cough was an infectious disease that only young children caught, and vaccination would confer protection for life. It had not occurred to them that, like flu, it could be had repeatedly, that adults had it too, and that immunity rarely exceeded two or three years. In fact, there was little evidence of an epidemic in London, and admissions for whooping cough to my wards remained something of a rarity. I can honestly say I have never knowingly seen brain damage caused by this disease—in contrast with a few cases of vaccine damage—and have encountered only two deaths, both preventable, in 25 years. Pertussis today is an eminently treatable condition. A course of erythromycin or sulfamethoxazole-trimethoprim will curb the growth and spread of the organism and, when necessary, a short course of steroids will stop severe coughing spells. Harrowing tales of prolonged hospitalisation and demise make me wonder what kind of treatment might have been used, or not used. Most of my patients, even infants aged only a few weeks, are home inside two weeks, and few are admitted anyway. Why all the fuss about a dozen possibly mismanaged whooping cough deaths, when we have an annual toll of 1,500 cot deaths, 2,000 child deaths from accidents, and 2,500 avoidable perinatal deaths?

It is an interesting question, and it is difficult to believe that political factors do not enter into it. Most of the arguments center around vaccination. Once the medical advisory committee had committed the Department of Health to nationwide vaccination, it could not readily go back, despite the embarrassingly high attack rates in children given the British vaccine in the Medical Research Council trials in the 1950s, and the disturbing reports of encephalopathy, sometimes followed by severe and permanent handicap. The current vaccine is probably safer and more effective than those used

earlier. Promoting it costs next to nothing since the Child Health Centres, their physicians, and health visitors already exist, unlike the massive investment needed for research into cot deaths, accident prevention, and neonatal intensive care. In the eyes of the Health Department, what hath no need of gold glitters. The currently quoted risk of a severe reaction is one in 100,000 for eligible infants who have had all three doses of triple antigen. Just what it is for an older child completing a course of pertussis vaccine on its own is not known, but will no doubt tax the ingenuity of the statistically inclined in their multitudinous mathematical manipulations of convulsions and comas that could have occurred for other reasons. Nevertheless, children remain inconsiderately two to five times more likely to have an acute neurologic illness after whooping cough vaccination than at any other time. A Vaccine Damage Payments Act became law in 1979; since then, approximately 600 youngsters have received substantial compensation for severe handicap after pertussis vaccination—an average of 25 a year since vaccination began. What this means in real terms is anybody's guess, but the sullied reputation of the first British vaccines will take a long time to fade.

Meanwhile, we gaze West where pertussis-antigen vaccines are given routinely with apparent safety and without argument, and we gaze East where in some places pertussis vaccination has been abandoned, and notifications are no higher than anywhere else. It is all very well for us professional Januses, but is it right to drag the public into the fray?

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Letter From the Editor

Dr Barrie's observations entitled "Campaign of Terror" reflect one viewpoint of the pertussis controversy in England. His remarks may be misconstrued in the United States if they stand alone.

England has experienced two major epidemics in the last five years; the first occurred from 1977 to 1979, and more than 100,000 cases were reported, and the second occurred in 1982, with 65,785 cases with 14 deaths. Heated debate has occurred in England concerning pertussis and pertussis vaccine. The salient points made by the pro and con debaters include the following:

1. Pertussis vaccine is ineffective or marginally effective (the con group).

2. Pertussis vaccine is effective but is not being administered to enough children (the pro group).

3. Pertussis vaccine is dangerous and causes brain damage in a large number of children (the con group).

4. Pertussis vaccine only causes brain damage rarely—once per 300,000 injections (by extrapolation once in 100,000 children) and does so less often than does the disease (the pro group).

5. There is no true increase in pertussis—only reported increase, and some of these cases are not pertussis (the con group).

6. Notification criteria did not change, and the reported incidence is a true reflection of disease frequency. What is more, positive culture frequency parallels the increase in reported cases (the pro group).

Readers of *Lancet* and the *British Medical Journal* have watched this intellectual jousting for the past six years. Vaccination levels declined in 1977, because of the public pronouncements of the con group, most notably those of Gordon Stewart. From 1967 to 1974, 76% to 81% of children 2 years of age or younger had received full immunization; in 1978, the level dropped to 30% as a direct consequence of the adverse publicity of potential side effects. This low level was coincident with the rise in reported cases in the 1977 to 1979 period. In 1981, only partial recovery was noted, with a 45% full-immunization level.

It is my view that, far from a "Campaign of Terror," the current effort of public health authorities in England should be termed a "Campaign of Common Sense." Dr Barrie is not an antivaccinationist but does decry the use of fear as a device for health education. Others have been less benign and do criticize the use of pertussis vaccine. The facts concerning pertussis and pertussis vaccine speak for themselves. Apart from facts already cited, one should consider the following:

1. Pertussis is a severe disease (Dr Barrie's observation notwithstanding). In the 1977 to 1979 epidemic, 4% of patients in 21 health regions of England and Wales were hospitalized; 40% of these were younger than 6 months of age. Fully 1% of hospitalized infants required intensive care. Among hospitalized infants, 12% had pneumonia, and 5% had convulsions. The English literature abounds with similar data. It is true that the disease is not as lethal as it once was; the 14 deaths in 1982 compare with 2,383 in 1941. In correspondence with me, Dr Barrie points this out. Others have emphasized that the case fatality rate is only a fraction of that in the prevaccine era. But 14 deaths is *not* comforting to me, nor to those families in which they occurred. The con group also cannot conceivably estimate that 14 deaths would result from immunization.

2. Pertussis vaccine is effective, not only in the United States, but in England and Wales. Pertussis vaccine efficacy as judged by clinical disease in vaccines and nonvaccines is 80%; if only bacteriologic criteria are used, the efficacy is 93%—in the United Kingdom!

Opponents of vaccine, such as Gordon Stewart and John Wilson in England and Robert Mendelsohn in the United States, tend to overemphasize the side effects of pertussis vaccine and minimize those secondary to the disease. They do so by ignoring facts, such as those outlined previously. In addition, they will include as adverse reactions *all* neurologic conditions that occur in temporal association with administration of diphtheria and tetanus toxoids and pertussis (DTP) vaccine combined. One such condition, infantile myoclonic seizures, has its onset in exactly the same time frame as that for receipt of DTP vaccine. Several studies have shown that infantile myoclonic seizures occur whether this vaccine is administered. Ignoring this fact leads the con group to include erroneously this disorder as a consequence of pertussis vaccine encephalopathy.

I believe the United States should maintain its current immunization goals and practice, including DTP vaccine administration to every child without a contraindication at 2, 4, 6, and 18 months, and a booster dose before school entry (usually between 4 and 7 years of age). Furthermore, we should continue to search for a vaccine as effective as our current one, but one with a reduced capacity to cause local and systemic side effects.

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