

MMR and the age of unreason

IN the catalogue of modern medicine, it is hard to come up with anything in which the benefits are so enormous and the risks so small, as immunisation programmes. Whether immunisation, improving social standards or changes in virulence can claim most of the credit for the reduction in mortality from tuberculosis and measles is uncertain, but few would dispute the role of immunisation in the worldwide eradication of smallpox, the ending of paralytic poliomyelitis, the effective disappearance of diphtheria and tetanus and, more recently, the fall in morbidity and mortality owing to haemophilus meningitis. However, the extensive and effective programmes carry risks. First, the folk memory of diseases and their severity fades quickly. All of us share in this: there are now generations of doctors and nurses, as well as parents, who have never seen children with measles. Second, it is easy to become complacent about the balance of risks and benefits.

The continuing saga of the measles, mumps and rubella (MMR) vaccine will be familiar to most *BJGP* readers. Papers published in the *Lancet* suggested a causal link between MMR immunisation and both inflammatory bowel disease and autism.^{1,2} A number of studies have since examined this claim and failed to find any evidence to support the original findings.³⁻⁶ A review of the evidence set out chronologically, which was recently published in the *Archives of Disease in Childhood*, concluded that 'There is no good scientific evidence to support a link between MMR vaccine and autism or inflammatory bowel disease.'⁷ The United Kingdom's Department of Health (DoH) examined the evidence, reached the same conclusion on risks, and stated that offering three separate vaccines would increase the risk of children catching the diseases.⁸ Meanwhile, vaccination rates nationally have fallen. The latest data for England shows 87% coverage for 2000/2001.⁹ This is below the target rate of 95% felt necessary to provide the level of herd immunity to eliminate infection, but it also conceals regional variations, with London having the lowest rate of 79%.⁹ Concerned parents continue to ask about the risks that the medical profession and the government might be hiding from them, and one doctor who has been supplying the vaccines separately in a non-National Health Service (NHS) clinic has been reported to the General Medical Council. In its public utterances, the DoH's spokespersons betray a degree of exasperation with the public's refusal to accept both the evidence and the vaccination being offered.

An article published in this month's *BJGP* provides some insight into one side of this story.¹⁰ A focus group study of parents — some of whom had accepted and some of whom had decided against immunisation for their children — reveals a mixture of careful decision making in the face of conflicting information, some influence of modern folk knowledge, and scepticism of the Government's position. Some of these parents recognised that payments to general practitioners based on achieving immunisation targets represent a major conflict of interest that could compromise their ability to provide impartial information and advice to

their patients. Behind the results reported by the authors, the data reveal the culture so familiar to anyone working in primary care in the UK: a healthy scepticism for any expert opinion, stronger after the BSE debacle and fuelled by alarmist reporting on medical risks, such as the third-generation combined contraceptives. However, when this is combined with a desire to be treated as an equal when making decisions, and a view that, when there is uncertainty, many members of the public would sooner not interfere by taking unnecessary medicines, it can become a flight from reason.

The story raises numerous issues of fundamental importance to any country's medical system. Starting at the most basic level, it is an example on a grand scale of the ethical conflicts all doctors face every day. In its laudable desire to do good, the Government maintains its original line that the MMR programme represents the best method of preventing diseases that carry appreciable morbidity and mortality. It implicitly concludes that the only harm will come from not taking its advice. Unfortunately, what is required in order not to harm is not always the same as that for doing good. The report confirms anecdotal evidence that there is a substantial minority of people who would like to make the decision separately for the three diseases and who, if faced with the choice between none and three vaccines, will opt for none. If the immunisation rates were to fall dangerously low then the Department would have to bear some of the blame for the resulting harm.

Beyond this is patients' autonomy. Some parents have clearly signalled their willingness to have their children immunised with one, two, or even all three vaccines, provided they can be given separately. The DoH's position of simply repeating the evidence and its previous advice fails to respect patients' autonomy, or acknowledge that we all, as both patients and professionals, make important decisions that are only partly based on the best evidence. The DoH, as one arm of government, should try to be consistent about this. It cannot encourage choice in some areas of public policy and discourage it in others. At the same time, we should sympathise that the Department is in a difficult position: any retreat from its current stance would prompt knowing remarks along the lines of: 'There — we always knew they weren't telling us the truth.'

For doctors giving advice the position is slightly different. As things stand, and again based on the best evidence, our patients can only accept or refuse the triple MMR. Since the evidence is unequivocal about the considerable benefits and negligible risks, then we have to advise them to accept the MMR vaccine. The DoH's uncompromising stance may risk alienating the public, but in the circumstances any other advice risks doing harm. Azeem Majeed has argued persuasively that if a parent refuses the MMR vaccine then any advice we give to take the vaccines separately is minimising the harm.¹¹ However, there is a fine line between giving reluctant advice to minimise harm, and colluding with decisions taken in good faith but unsupported by the evidence. We too have to be consistent in communicating evidence. We cannot appeal to patients' reason when, for instance, we

try to persuade them to give up smoking, and ignore it when it comes to MMR. We may respect, or even admire, them for rejecting the advice but we can do so without compromising our own position.

The mass media also have a responsibility in the way that they filter and report medical research to the public. *Bandolier* commented that 'There are lessons to be learned, certainly by news reporters, certainly by editors of learned journals and their peer reviewers, and probably by providers of healthcare.'¹² There has been a suspicion among doctors that mass circulation newspapers are much more eager to report alarming scare stories than dull, reassuring ones. Support for this view comes from a study examining the frequency with which papers from the *Lancet* and the *BMJ* were reported in *The Sun* and *The Times* newspapers, showing that randomised trials and systematic reviews were less likely to be reported than observational studies, and that both newspapers over-reported on women's health and sexual and reproductive health.¹³

While Evans and colleagues are only reporting a small qualitative study, the findings on parents' response to target payments is worrying. It is generally agreed that target payments for the primary immunisation programme have been effective in helping to improve the coverage in the overall population. Such a system can work when there is a clear consensus both about the objective and how it is to be achieved. However, once the consensus breaks down target payments may also turn out to have negative effects, and these could extend beyond the limited area of MMR immunisation. The DoH may wish to consider whether preserving patients' trust in their doctors has a value that far outweighs the benefit of high MMR immunisation rates.¹⁴

Finally, does the DoH need to revise both its conclusions and the process by which it reaches them? The website where its advice can be found is admirably clear, well set out, and easy to navigate.⁸ However, it is striking how many times it uses the word 'expert', as if the use of this mantra will quash any disagreement. The DoH appears not to have noticed that experts are no longer instantly deferred to by the medical profession, let alone the public. The medical profession is struggling to involve patients much more in the decisions concerning their own health and exploring the best ways of achieving this. Lay representation is now familiar on many medical bodies, following the pioneering example of the RCGP many years ago. The DoH may need to recognise that people make decisions for legitimate reasons

other than pure science, and that it should include the lay voice, particularly the dissenting voice, when it produces advice in controversial areas.

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Ensuring patient safety

IT is an unpleasant truth that consulting a doctor inevitably carries risks.¹ Some risks are unavoidable. A proportion of people prescribed a non-steroidal anti-inflammatory drug, however carefully, will have dyspepsia or become anaemic; some people will die during open-heart surgery, whatever the excellence of the unit. The likelihood of benefit must outweigh the risk of harm and the patient should make an informed choice.

Many risks are, however, avoidable.^{2,3} The increasing recognition of the role of systems failure has highlighted one approach to reducing the harm that patients experience. The document *An Organisation with a Memory*⁴ included the example of erroneous intrathecal injection of cytotoxic drugs as one example of systems failure — the presentation of the intravenous and intrathecal preparations were virtually indistinguishable. The occurrence of yet another case this year

shows the need for action on a systems level.^{5,6}

In general practice we too have systems that we need to consider. Every practice, for example, might review its policies on ensuring that all drug allergies are recorded in the computer and that alerts are attended to; on ceasing to prescribe warfarin to people who do not attend for INR testing; the handling of needles and other sharps; the taking of messages to ensure that they are all acted on; and the handling of controlled drugs. Since the vast majority of errors come from conscientious doctors acting mistakenly, systems should be designed to minimise such mistakes.⁷

A small, but very high profile, proportion of patient harm comes from criminal doctors. The Shipman inquiry is likely to change the primary care landscape dramatically as lessons from a criminal case of mass murder are transferred into the field of patient safety.⁸ Some lessons will be appropriate; many will not.

The last category of harm comes from underperforming doctors. All doctors underperform in some areas of their clinical practice. We have a professional responsibility to recognise our areas of weakness and address them.⁹ This may be either through withdrawal — many GPs have elected to stop intrapartum care because they have become de-skilled — or through continuing professional development.

However, there is still a culture in which degrees of underperformance are accepted as inevitable — something unthinkable in, for example, the airline industry. One outcome of the step increase in accountability that we are now experiencing will be the challenging of that culture of complacency. Doctors will only openly discuss their shortcomings if there is a no-blame culture and no comeback; they will only address the shortcomings of systems and individuals they work with if they can trust that 'whistle-blowers' are protected and that improvement will result.

A small group of doctors are seriously underperforming and are definitely placing patients at risk. Some errors are those of omission — failure to undertake primary, secondary or tertiary prevention, for example. Some are of commission — poor diagnostic acumen, use of investigations, prescribing, referral, or undertaking of procedures. The margin of error in primary care is fairly wide. Activities recognised as poor performance are usually several standard deviations from the mean.

The most common cause of complaint by patients concerns communication failures,¹⁰ but this may be because patients are in a good position to assess communication. However, good communication skills and empathy can mask clinical incompetence and there are assumptions that poor clinical performers are high referrers to compensate for their weaknesses. Shortfalls in performance may be caused by health-related issues (of which alcohol and drug misuse are the most common) and are supplemented by unacceptable conduct (fraud, exploitation, etc).

The extent of serious underperformance is unknown. However, inside this month's issue of the *BJGP*, Bahrami and Evans offer us insight.¹¹ Over a two-year period, 99 GPs were referred to the UK Postgraduate Deans for remedial support and 18 were referred by the Deaneries to the General Medical Council. If the referral in all these cases was justified, it still represents less than 0.2% of GPs per year.

However, if we assume that each of these GPs has a registered list of 2000 patients, then this two-year group has potentially put 200 000 people in Britain at risk.

An essential requirement in gaining the public's confidence in their doctors is to demonstrate that we take patient safety seriously and we are working to minimise their risk. The greatest task, quantitatively, is to improve systems that can protect good doctors from occasional errors and to develop continuing professional development to encourage reflection on and improvement in skills. The new National Patient Safety Authority will hopefully assist in promoting a systems approach within a no-blame culture.¹² Clinical governance and appraisal will be mechanisms to support continuing professional development.

However, the most immediate task, qualitatively, is to detect serious underperformance and address it, while protecting the public. Detailed assessment by the National Clinical Assessment Authority and educational remediation should ensure that only a small number of GPs travel down the revalidation route to the General Medical Council.¹³

If we are to protect our patients from avoidable harm and maximise patient safety then we must move from reacting to preventing, and in doing so avoid any damage to the internal motivation for quality — the essence of professional behaviour — that is our most powerful driver for quality. We must ensure that every GP is fit to practise, is improving their care year on year, and is supported by systems that make simple error near impossible. If we cannot deliver on that aspiration then we may forfeit our professional status and the remaining confidence that the public has in us.

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