

Should influenza immunisation be mandatory for healthcare workers?

Charles M Helms professor Charles-helms@uiowa.edu

Philip M Polgreen assistant professor, University of Iowa Carver College of Medicine, Department of Internal Medicine, Infectious Diseases Division, 200 Hawkins Drive, Iowa City, IA 52242, United States

YES Influenza is an important cause of morbidity and mortality worldwide. Health care associated influenza occurs in acute and long term healthcare facilities, affecting both patients and staff and disrupting delivery of care.¹⁻² There is evidence that vaccinating long term care healthcare workers reduces mortality among long term care patients and that vaccinating hospital workers decreases the rate of nosocomial influenza in hospitalised patients.³⁻⁶ Moreover, an economic evaluation of immunisation of healthcare workers in the UK found that it is cost saving.⁷ In addition, further studies show that healthcare worker vaccination reduces absenteeism.⁸⁻¹⁰

Based on available evidence, public health authorities have strongly recommended vaccination of healthcare workers to protect patients and healthcare workers in healthcare settings.¹¹ Despite these recommendations, overall rates of influenza immunisation among healthcare workers worldwide are disappointingly low, 40% or less.^{1-7 11-12}

Such rates suggest that patients and healthcare workers are at increased risk of health care associated influenza. This situation poses a serious, recurring threat to the safety of patients and to the delivery of health services during influenza outbreaks. Recently, recommendations and standards for immunising healthcare workers against influenza have been re-examined, re-emphasised, and strengthened. For example, public health and health industry advisory bodies in the US, including the Centers for Disease Control and Prevention, the National Quality Forum, and the Joint Commission on Accreditation of Health-Care Organizations have all sent a clear message that influenza immunisation is important and that rates need to be increased.¹³⁻¹⁵

This consensus should encourage and facilitate innovative efforts to improve the performance of healthcare facilities and

workers. Hopefully, use of evidence based interventions to increase immunisation rates—such as offering free vaccine, staff education, sending reminders, and improving access for staff at the job site^{11 13 16}—will be increased. Thus far, implementation of these evidence based interventions has been encouraged, but not required.

Voluntary action is insufficient

The Infectious Diseases Society of America and others recently suggested that voluntary approaches to immunisation have failed and that mandatory influenza immunisation programmes for healthcare workers are needed.^{17 18} The effective use of mandatory approaches to increase immunisation rates is not without precedent. Examples include the US requirements for children to be immunised before starting school and vaccination of healthcare workers against hepatitis B.

Some countries already have mandatory influenza immunisation programmes for healthcare workers. The province of Ontario, Canada, introduced regulations in 2004 requiring annual influenza immunisation for workers in long term care.¹⁹ At least four US states have policies requiring influenza immunisation of workers in nursing homes, hospitals, or both unless the workers have medical, religious, or philosophical reasons for exemption.²⁰

Recently, interest has focused on mandatory programmes coupling a requirement for influenza immunisation and use of a form to document a healthcare worker's decision to decline immunisation. Thus far, it seems as if simply requiring healthcare workers to sign a statement is not enough. For example, a recent study examining the effectiveness of refusal statements (without mandatory immunisation) in 22 US hospitals found only modest increases in vaccination rates.²¹ In contrast, Virginia Mason Medical Center in Washington state made immunisation of

healthcare workers compulsory and accepted refusals only from staff with legitimate medical or religious reasons. The vaccination rate in this hospital increased to 98%.²² These two reports suggest that mandatory immunisation may be critical to reach the highest immunisation rates.

Approaches based on voluntary compliance with recommendations for influenza immunisation of healthcare workers have failed in the long term. The addition of mandatory approaches to improve patient safety in this situation is both reasonable and overdue.

Benefits outweigh harm

Critics of mandating vaccination base their opposition on the ethical principles of liberty, autonomy, choice, and self determination. Although these are important considerations, we believe that the risk of harm to a patient from influenza in the healthcare setting is far greater than the risk of harm to healthcare workers from immunisation. Moreover, in this era when healthcare institutions and healthcare professions publicly acknowledge their responsibility for patient safety, we think that arguments for autonomy of healthcare workers will not be persuasive, especially to patients who every year are harmed by preventable influenza in the healthcare setting. When considering the safety of patients, we believe the greatest societal good would be derived from mandatory influenza immunisation of healthcare workers.

This article is based on a paper presented at the 11th national immunisation conference, Public Health Association Australia in Gold Coast, Australia on 17 September 2008.

Competing interests: CMH received a travel grant from Aventis Pasteur. PMP has been a member of the emerging trends in seasonal influenza advisory panel of Roche Laboratories

Cite this as: *BMJ* 2008;337:a2142



Charles Helms and **Philip Polgreen** believe that mandatory immunisation is necessary to achieve good uptake, but **David Isaacs** and **Julie Leask** argue that it infringes autonomy and could backfire

David Isaacs professor of paediatric infectious diseases, Department of Infectious Diseases, Children's Hospital at Westmead, Westmead, NSW, 2145, Australia and University of Sydney, NSW, Australia david@chw.edu.au

Julie Leask research fellow, University of Sydney, NSW, Australia and National Centre for Immunisation Research and Surveillance, Children's Hospital at Westmead

NO Healthcare workers should be immunised against influenza, for their own protection and to protect their patients against influenza. The issue is whether it is ethical and good practice to make immunisation mandatory.

John Stuart Mill, the British philosopher, wrote: "The only purpose for which power can be rightfully exercised over any member of a civilised community, against his will, is to prevent harm to others."¹ This statement—the principle of autonomy, or a person's right to choose—invalidates any argument that we should force healthcare workers to be immunised for their own sake.²

The state sometimes exerts benign paternalism to coerce personal choice. Examples are the mandatory use of seat belts, where the infringement of autonomy is justified by the effect on public health, and where the intervention poses little or no harm to the individual and has been proved to save lives. But it is not clear that this applies to immunisation of healthcare workers. For mandatory immunisation to be acceptable it would have to be effective, not harmful, feasible, and have no alternative.

There is good evidence that patients are vulnerable to nosocomial influenza. Immunising healthcare workers who care for institutionalised elderly people protects the elderly against influenza^{3 4} and may even prevent deaths,⁴ although the benefit is greatest in elderly people who have not been immunised.³ But there is virtually no published evidence that immunising healthcare workers protects other patient groups. Immunising carers ought

to protect immunocompromised patients who, like elderly people, have an impaired immune response. A literature search, however, found only one observational study in which nosocomial influenza was reduced on a bone marrow transplant unit after a campaign to improve infection control measures and staff immunisation rates.⁵ The relative contribution of immunisation could not be elucidated.⁵

Potential for harm

Some argue that the severity of influenza in high risk patients, high rates of influenza in healthcare workers, and poor compliance with voluntary programmes are sufficient grounds to make annual immunisation mandatory.⁶

Mandatory immunisation might be justified if it was benign. Although the physical harms from influenza vaccine are generally minor, there are potential psychosocial harms. Mandatory immunisation infringes civil liberty and autonomy. Society recognises the right of people to bodily integrity.⁷ Vaccines are invasive so there is greater infringement of liberty than from other public health mandates which infringe autonomy, such as seatbelts. In addition, if those who do not comply face dismissal, this infringes a person's freedom to work and ensure financial security.

Mandatory immunisation may alienate many staff and damage morale. Mandatory immunisation devalues staff by treating them as objects, not people. Furthermore, the message that healthcare workers have to be compelled to be immunised will galvanise and provide ammunition to opponents of immunisation. It risks polarising healthcare workers and producing a backlash with opposite consequences to those intended.

The term mandatory implies sanctions for non-compliance. Poland and colleagues argued for religious and medical exemptions with the option of an informed refusal.⁸ It could be argued, however, that immunisation is not truly mandatory if you can opt out.

In 2004, the Virginia Mason Medical Center introduced mandatory influenza immunisation for healthcare workers. The initial penalty for non-compliance was dismissal, but the nurses' union made a successful legal challenge. The hospital agreed to religious or medical

exemptions, but unimmunised staff had to wear masks during the influenza season.⁹ Immunisation rates rose from 56% to 96%, showing that the policy is feasible. Nevertheless, over 600 nurses protested, and the harm to morale was incalculable.¹⁰

In 2007, New South Wales Department of Health introduced mandatory immunisation against various infectious diseases (not yet including influenza) for healthcare workers in a wide range of patient care areas.¹¹ There are no exemptions, and those who do not comply are offered redeployment. The feasibility and acceptability of this policy is untested.

Immunisation of healthcare workers has some parallels with childhood immunisation. Compulsory childhood immunisation is not justifiable if high levels of immunisation can be achieved without compulsion.¹² Many countries achieve childhood immunisation rates above 95% without mandates,¹² illustrating that well resourced immunisation programmes can succeed. Immunisation is more valued by a public persuaded of its benefits, not coerced.

The majority of healthcare workers recognise that influenza immunisation is safe and effective.⁸ Can we persuade them to be immunised? Over 75% of nurses were immunised in a programme in British Columbia recently, and convenience was critical for uptake.¹³

We advocate administrative commitment to foster a culture of immunisation in healthcare facilities and stress the need to immunise patients at high risk from influenza. We advocate programmes, using incentives, publicity, ready availability, and feedback to educate healthcare workers about the personal benefit and the benefits to their patients.^{14 15}

Mandatory immunisation would be justifiable only if comprehensive measures to win hearts and minds and to make immunisation part of the organisation's culture were unsuccessful. Even then, mandatory immunisation is justified only for workers caring for elderly and immunocompromised patients. Mandatory influenza immunisation of all healthcare workers is an excessive infringement on autonomy relative to its potential benefits.

Competing interests: None declared.

Cite this as: *BMJ* 2008;337:a2140

All references are in the version on bmj.com



KEITH FRITH/PHOTOLIA