By challenging patients’ health beliefs and misconceptions, nurses can increase uptake of the flu vaccine for the 2012-13 season

Overcoming barriers to influenza vaccination

**In this article...**
- The external and internal barriers to vaccination
- The health belief model and how it affects decision making
- How to challenge negative attitudes towards vaccination

**Author** Jane Carole Warner

Author Jane Carole Warner is practice nurse, Creech St Michael Medical Centre, Somerset, associate lecturer, University of Plymouth and academic tutor for the foundations in general practice nursing programme.


Healthcare professionals face an ongoing challenge in overcoming barriers to influenza vaccination. This article explores the external and internal influences related to the uptake of flu vaccination with regard to both healthcare workers and their patients. The article discusses the ways in which nurses can help patients eligible for free flu vaccinations to make informed choices.

Influenza (“flu”) is a highly infectious, acute viral infection that can affect people of all ages (Department of Health, 2012).

The infection typically presents as a sudden onset of prostration, fever, myalgia, headache, chills, fatigue and cough, but can cause additional distressing symptoms such as photophobia, anorexia, nausea and vomiting. It generally resolves in 1-2 weeks.

**Why immunise?**

Epidemics can cause widespread disruption to public life and organisations. In certain groups, such as the very young and older people, flu may contribute to more serious morbidity and mortality. Complications include bronchitis and bacterial pneumonia (Chan and Wong, 2007).

Pregnant women, those who are immunocompromised, and other at-risk groups may experience complications and are therefore eligible for a free flu vaccination. Figures released by the chief medical officer show that a significant number of patients do not avail themselves of protection against influenza (Table 1). Furthermore, in 2011-12, only 14% of pregnant women received the vaccination.

Patients regularly give reasons why they believe they should not have a flu vaccination; Table 2 summarises the most common. Although this is mostly anecdotal evidence, it does offer some insight into the challenges faced by nursing staff.

There are a number of possible factors influencing why eligible individuals do not receive protection against influenza. These can be divided into two categories: external factors (organisational barriers to uptake) and internal factors (arising from the patients themselves).

**5 key points**

1. Despite top-down immunisation campaigns, many patients and health professionals still do not have the flu vaccination.
2. To increase uptake, nurses should explore and challenge patients’ health beliefs.
3. Nurses can use interpersonal and consultation skills to assist patients to make informed decisions.
4. Barriers to uptake can be organisational or relate to patients themselves.
5. Nurses need to remain supportive and non-judgmental where patients decline vaccination despite clinical advice.

**TABLE 1. FLU VACCINATION UPTAKE IN ELIGIBLE GROUPS IN ENGLAND**

<table>
<thead>
<tr>
<th>2010-11</th>
<th>2011-12 (provisional figures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 million (55%) aged ≥65 years</td>
<td>&gt;6.7 million (74%)</td>
</tr>
<tr>
<td>1.8 million (32%) aged &lt;65 years and in an at-risk group</td>
<td>&gt;2.7 million (51.6%)</td>
</tr>
</tbody>
</table>

Source: Department of Health (2012)

Older people are entitled to free flu vaccinations.
**TABLE 2. WHY PATIENTS DECLINE FLU VACCINATION**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Comments/application to practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’m allergic to eggs ... I hate the taste of them, plus they would probably mess up my cholesterol.</td>
<td>Egg allergy is a contraindication for receiving the majority of flu vaccines, as it is propagated in fertilised hens’ eggs. Always check with the patient before administration. Follow patient-specific directions (PSDs) or patient group directions (PGDs) where they are in place. Elicit clarification: is this a true egg allergy or a dislike of eggs? Challenge respectfully: if patients are concerned about their cholesterol levels, they may not appreciate that the potential health risks of contracting flu may be of greater significance to health than a disordered lipid profile.</td>
</tr>
<tr>
<td>I had one of those a few years back, and it gave me the flu. I won’t be making that mistake again.</td>
<td>A poll for the Department of Health by the chief medical officer (Davies, 2011) showed that 58% of people wrongly believe that the vaccination actually gives people flu. Flu vaccine is not a live vaccine. It cannot give you flu. Any vaccine can have some transient side-effects. Offer patients a data sheet and discuss this. Ensure time is allocated for this discussion (not during a busy flu clinic).</td>
</tr>
<tr>
<td>Can you really trust what the government tells us to do?</td>
<td>Explore the patients’ opinions and offer unbiased evidence to help them make an informed decision.</td>
</tr>
<tr>
<td>I’m on my own, and don’t ever mingle in crowds. So I won’t catch it.</td>
<td>Flu remains highly contagious, so patients need to weigh up susceptibility against the consequences of living alone and possibly without support while acutely unwell and during convalescence.</td>
</tr>
<tr>
<td>I went down with flu last year. I felt terrible, and I went through an entire box of tissues in the office.</td>
<td>Patients often equate flu with having a febrile cold. Explore this person’s experience. Explain that a person with flu is not well enough to leave their bed, let alone struggle in to work. The “£50 note” anecdote may be useful. If this money is at the foot of the bed, someone with a febrile cold will pick it up, whereas someone with flu would probably feel so unwell that the note would stay unclaimed.</td>
</tr>
<tr>
<td>My doctor told me that, because I had the Asian flu in the 1950s, I would never catch flu again.</td>
<td>Explain about viral capacity for both antigenic drift and antigenic shift, which may potentially leave these patients unprotected if they do not receive the vaccine.</td>
</tr>
<tr>
<td>I don’t like needles.</td>
<td>A skilled practitioner will make the procedure relatively comfortable. Delivery devices are well designed. From 2014, it is probable that a live attenuated intranasal vaccine will be offered to children between 2-17 years. Hospital admission associated with complications from flu will almost certainly involve cannulation.</td>
</tr>
</tbody>
</table>

**Organisational barriers**

This is the scenario in which patients are acknowledged to be “at risk” – for example, older people in closed communities such as nursing or residential homes – but do not receive an annual vaccination. Deaths can and do result.

Questions need to be addressed, such as: who will vaccinate? Are there up-to-date patient-specific directions (PSDs) or patient group directions (PGDs) in place? Are clinicians who offer this service up to date with anaphylaxis training?

Top-down information campaigns every autumn appear to influence vaccination uptake; it has been suggested (Smyth, 2012) that more than 100 people may have died unnecessarily in 2011 partly because public awareness campaigns were cancelled.

While hospital staff and general practice nurses are encouraged to receive protection, they can find it difficult to attend a dedicated clinic in the workplace at the times allocated, for example if they work night shifts. Access to rural occupational health departments can involve prohibitively long and expensive journeys. Another problem is the occasional delay in manufacture and supply of the vaccine, leading to cancellation or last-minute rescheduling of clinics (Hartley, 2005). On a more positive note, social media can be used to reach out to health workers to increase uptake.

In addition, there has been a traditional unwritten rule that nurses should receive their flu vaccination in their place of work, making choice of venue impossible. Nursing staff may not wish to have a vaccination administered by a colleague. Those who choose to be immunised where they are registered as patients may find this difficult; they may be denied the injection because of administrative difficulties (“you’re not on our list”), together with a lack of clarity regarding claiming reimbursement. O’Reilly et al (2005) undertook a cross-sectional survey of 203 nurses working in elderly care, and found that one main reason why 63% of nurses surveyed did not take up the offer of a flu vaccination related to the delivery of the immunisation programme itself and difficulty in accessing such a service.

The theory of planned behaviour (Ajzen and Fishbein, 1980) looks at behaviours that are influenced by others, together
with an individual’s intention to perform certain behaviours. With regard to attitudes, we need to be at the forefront of explaining the positive rather than negative evaluations about being protected against flu. We should ensure we respect individuals’ perception of control in decision making.

**Barriers arising from patients**

A number of theories and models offer explanations and predictions around whether people will seek or accept health interventions. Application of these theories may help health professionals to develop strategies to help patients in making informed decisions. However, we must remember that vaccination against seasonal flu is not compulsory, and we must respect patient autonomy.

Understanding risk can be difficult; according to Reluga et al (2006), people tend to underestimate health risks. Being optimistic about risk levels in general may be part of the human psyche: “I probably won’t catch flu, so why have the jab?”

The Health Belief Model (HBM) was pioneered by Rosenstock (1966) and further refined by Becker and Maiman (1975). It offers a way to explore why individuals may decide to accept vaccination and, conversely, why they decline. In response to a specific health threat, such as contracting flu, the HBM looks at an individual’s perceptions related to the following:

- **Perceived benefits of vaccination.** These include the prevention of flu, and possibly less severe symptoms, less time off work if ill, a lower chance of passing on the illness to others and prevention of hospital admission. A Canadian study (Chen et al, 2007) supports the contention that groups with major long-term conditions, women, older people and those who have needed or are likely to require hospital admission are more likely to decide to receive an annual vaccination.

- **Perceived barriers to and costs of vaccination.** These include dislike of injections, worry about side-effects, transport difficulties including parking, comfort while waiting within the surgery, time constraints and concern that it is somehow “unnatural” to “mess” with the immune system.

- **Perceived susceptibility.** Public fears arising from avian flu and later swine flu do not necessarily increase uptake of seasonal flu vaccination.

- **Perceived seriousness of flu.** Common sense would dictate that the more potentially serious a vaccine-preventable illness is perceived to be, the more people would be inclined to accept vaccination. However, a US study (Maurer et al, 2010) related to seasonal and swine flu risks in adults revealed that, although swine flu was believed to be more serious, uptake of vaccination was lower as it was perceived by the public to be less safe than that for annual seasonal flu.

- **Health motivation.** Does everyone prioritise good health? A study of nurses (Shahrabani et al, 2009) revealed that uptake was higher for nurses whose knowledge of the illness, susceptibility to it and health motivation were greater than in those deciding not to have the vaccine.

- **Cues to action.** Individual awareness of risk being “close to home”, together with media coverage, can increase vaccination uptake. Frontline clinicians involved in the A(H1N1) swine flu outbreak of 2009-10 will recall being almost swamped by the need to address public fears, triage effectively, vaccinate and offer antiviral medication. However, recent research by Mytton et al (2012) paints a disquieting picture: throughout England in 2010-11, there was a greater burden of flu-related hospitalisation, severe illness and death than in the previous year. The researchers asked why this happened, postulating a diminished interest by the public about flu, coupled with a misconception of its mildness in contrast to the preceding year.

- **Self-efficacy.** Prospective recipients of vaccination may already feel empowered to take steps to arrange vaccination. Conversely, health professionals need to be aware that some people exhibit “learned helplessness” and will require our time and support, perhaps by broaching the benefits of vaccination months before the flu season starts.

**Health locus of control (HLOC).** Derived from social learning theory, this may be regarded as the degree to which individuals believe their health is controlled by internal or external factors (Wallston and Wallston, 1980). When applied to uptake of flu vaccine, the influence of HLOC is not clear cut. People who strongly believe they are fated to be at risk from flu will often accept vaccination from health professionals, who may be viewed as “powerful others”. People with an internal HLOC often decide to seek flu vaccination because they feel that maintaining good health is strongly influenced by their own actions – even if they are in a low-risk group.

**Conclusion**

At its worst, influenza can lead to serious complications and death. With regard to implications for practice for the forthcoming flu vaccination season, it is clear that both external and internal barriers need to be overcome if uptake is to continue to rise within the population. Nurses need to use their knowledge and consultation skills to understand relevant aspects of health psychology and to apply them in a therapeutic manner. Health professionals must elicit their patients’ ideas, concerns and expectations about this immunisation, and be prepared to mount a respectful challenge, not only for at-risk patients but also with our colleagues if they decline vaccination.

**References**


Smyth C (2012) Flu strategy “cost 100 lives”. The Times; 17 April, 10.