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S2: Seasonal vaccination of health care workers

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The rate of vaccination among health care workers (HCWs) is low across the globe. Though many countries recognize the need to get their HCW staff inoculated, the sobering fact remains that uptake in general remains low. Even for Europe – with some of the world's most pervasive health care systems – the HCW vaccination rate is less than 25 percent!

There are both practical and moral arguments for reversing this situation, though the ethical aspects of policy options such as compulsory HCW vaccination can be very controversial and difficult to balance, particularly when set against possible restrictions on a health worker's freedom of movement or choice of workplace. Finding new approaches to produce better HCW vaccination results was the heart of discussions during ESWI's afternoon session on 15 September entitled, "Seasonal vaccination of health care workers."

As noted by the session's moderator, Dr. Ted van Essen of the Julius Centre for Health Sciences and Primary Care at the University of Utrecht in the Netherlands, attitudes among health care workers "are blocking progress towards higher vaccination rates. Their indifference towards the benefits of vaccination is a threat to public health. Better implementation programs are needed to increase their vaccination rates."

In his view, voluntary vaccination of HCWs has produced dimly sub-optimal results, suggesting that more discussion is needed today on the issue of mandatory influenza vaccination of HCWs as an ethically acceptable means to increase vaccination rates. "The main justification stems from the professional duty not to harm one's patients when one knows there is a significant risk of harm," he said. Institutions caring for frail or elderly persons have the responsibility – at a minimum – to implement voluntary programmes to vaccinate HCWs' against influenza and to shift to a mandatory programme "when uptake is insufficient," he said.

Van Essen presented some arresting statistics to his audience to illustrate the problem, pointing to a poll of Dutch general practitioners in 2007, for example, which revealed that only 36 percent of the GPs were vaccinated against influenza. For those GPs who had themselves vaccinated, an overwhelming majority – 74 percent – did so because they understood that vaccination reduced the risk of influenza. Another big motivation for the GPs was their realisation that it decreased the risk of transmission to their patients.

That is the good news. The bad news is that among those GPs who did not seek a vaccination, more than half considered that they did not belong to an at-risk group. More alarming, nearly 30 percent felt they were protected against influenza by exposure to

their own patients, while 16 percent doubted the effectiveness of vaccination.

Unfortunately, such attitudes are not uncommon in Europe. The HCW vaccination rate for Europe as a whole is only 25 percent, but this varies enormously from one country to the next. Less than a fifth (18 percent) of HCWs are vaccinated in Ireland, for example, while just over half (52 percent) are protected in Switzerland.

Yet the solutions for raising the overall rate are not obvious, either. Noting that vaccination uptake among UK healthcare workers is only 13 percent, Dr. Rachel Jordan said "there is now debate about the best method of improving [seasonal vaccination] uptake."

HCW Vaccination: Simple But Not Obvious

"There's a lot of confusion around the term 'mandatory vaccination.' It conjures up an image of doctors chasing HCWs with a needle in hand."

JJM van Delden, Utrecht University's
Julius Center for Health Sciences

"The message to Germany's HCWs, must be evidence-based. And it must be convincing, which means no mandatory immunisation."

Dietmar Walter,
Germany's Robert Koch-Institut

"Protecting those who protect others against health hazards should be an obvious rule of thumb. Just as adult airline passengers are instructed when the cabin pressure falls to put on their automatic drop-down oxygen mask first – before fitting any to children or the elderly – the same logic applies to health care workers dealing with influenza. The rule should be: inoculate yourself first to better serve your patients and reduce their risk of exposure."

Just plain common sense

Needles on wheels: easier vaccination for HCWs

Jordan, who works at the University of Birmingham, quickly reviewed the most common reasons why healthcare workers in the UK do not get vaccinated: fear of side effects or that vaccination causes flu; a dislike of injections; lack of awareness of the vaccine's availability; ignorant about its usefulness; lack of time or a failure to remember to get vaccinated; and, finally, a perceived low risk of contracting influenza.

Reviewing contemporary research into the effectiveness and cost-benefits of vaccinating healthcare workers, she summarised the results of several international studies that focused on the direct benefits and avoided costs – in economic and health terms – of low versus high vaccination rates among healthcare workers. Some of the studies looked at the effectiveness of various promotional methods to increase uptake among HCWs. One UK study (Carmen 2000), for example, compared the outcomes of health institutes with an HCW vaccination programme versus those without one. The former group saved some 12 pounds sterling for each person vaccinated, she noted, adding that “this was driven by the cost of averted absenteeism.”

Aside from a vaccination campaign’s educational dimension, the effort itself has to be structured around convention for the HCW, argued Jordan.

“I would suggest that promotional education campaigns by themselves have little effect. A better approach is to combine promotion with education *and* local vaccination such as ‘needles on wheels,’ as the Australians call it. You increase the effectiveness of your uptake [among HCWs] if you make the vaccine more convenient,” she told her audience.

Australian research in 2002 (Cooper study) of the vaccination uptake effect of needles-on-wheels accessibility among HCW showed dramatic results. Combining promotional efforts with the cart boosted vaccination among the country’s HCWs from 8 percent to 49 percent. “I think that the mobile cart idea, combined with other methods, is promising,” said Jordan.

HCW vaccination: the front-line against infection

Yet poor vaccination uptake among HCWs is not just a matter of worker attitude, resistance or fear. It also flows from other problems such as budgetary constraints at national or local level, insufficient stocks of vaccines, under-funded campaigns to raise awareness, lack of worker access to the vaccines or difficulty in distributing vaccines due to poor infrastructure – the last two factors being particularly problematic in developing countries.

Globally, the low vaccination uptake among HCWs is not helped either by sharp policy differences between countries. Even across the EU vaccination policy falls to each member state to define for vaccine production subsidies, stockpiling, risk-assessment policy and priorities for vaccination, including HCWs.

Some EU countries are moving ahead with new efforts to increase the rate of HCW vaccination and reduce the risk of infection. Germany’s Standing Committee on Vaccination (STIKO), for example, now recommends immunisation for all HCWs, as well as its over-60 population and persons with special health risks – even if vaccination remains voluntary in Germany.

“We have the same problem with vaccination in Germany as elsewhere: HCWs don’t respond, though our doctors do somewhat better,” panelist Dietmar Walter of Germany’s Robert Koch-Institut, told the session. His organisation has sent education material to HCWs at all hospitals and nursing homes across the country in the last year with the recommend that persons 60 years old and older, as well as all HCWs be vaccinated.

“How are we doing? Well, regarding HCWs we are not doing very well: traditionally it’s in the 20–30 percent range, and more recently it stands at around 23 percent,” he said.

According to Walter, the German government is changing its campaign tactics in hopes of prompting higher HCW vaccination rates. After launching a 2002–2004 campaign based on mass mailing to HCWs at hospitals, he said post-evaluation of the campaign revealed “a slight increase of vaccination to 23 percent in hospitals but it was but not significant. HCWs didn’t respond, though the

response of doctors was better, increasing their vaccination rate from 21 to 30 percent.”

A new government-supported campaign was redefined and launched in 2006, targeting practicing physicians for the 2006–2007 season, and adding hospital staff thereafter. By querying their target market, Walter’s team decided that the new campaign’s message had to be: strong (“evidence should guide us”), convincing (no mandatory immunisation), educative, understandable (tailored messages) and emotional (based on personal concern for health and risk to the patient).

As a result he said there has been an increase in influenza season vaccine coverage of HCWs employed in hospitals, where their vaccination rate rose from 17.5 percent in the 2007 season to 22.2 percent in 2008. For 2008–2009, Walter said a multifaceted approach will be pursued, based on no-cost vaccinations, extensive educational efforts via publicity, increased availability of immunisation and, finally, involvement of HCW leadership in the campaign.

Compulsory HCW vaccination: the ethical case

Session speaker JJM van Delden of Utrecht University’s Julius Center took vaccination policy a step further, arguing in favour of compelling HCWs to get vaccinated if they pose a risk of infection to high-risk groups.

Referring to a recent study of long-term care facilities that his department carried out with the University of London and Keele University of the UK, Germany’s University of Tübingen and others, he said there was an ethical basis for mandatory vaccination against influenza for HCWs working in long-term care facilities.

“Infection rates can reach 40 percent in these facilities, where 10 percent of those admitted are already infected. It has been sufficiently shown that vaccination of HCWs improves the health of those at high risk in these places,” said Van Delden. “It is important to realise that in order to be effective, vaccine uptake among HCWs does not need to be 100 percent. Even a vaccination rate of 40-to-50 percent may have a significant on the health of residents.”

Ontario’s approach to the problem

Canada’s province of Ontario enforces compulsory HCW vaccination. But how did it get there? It wasn’t easy, according to officials.

“We’ve chased this goal for 15-to-20 years in Ontario’s HCW population. We began with rolling carts, then offered free vaccines and other incentive,” a Canadian health official to the ESWI session. “Most of our districts have an individual sit-down with hard-core resisters [to vaccination]. Nursing homes are required to put a vaccination protocol in place, which must include a strong surveillance program and annual reporting of an institution’s entire staff so that rates can be tracked and to exclude the unvaccinated HCW worker who is not willing to get vaccinated.”

According to the Canadian delegate, the country’s HCWs “took this to heart. Rates rose to 90 percent in hospitals, though rate across Ontario as a whole run only 60-70 percent. We’re still not happy with results, because outbreaks still continue: now we need to work on family members and health volunteers. But more and more provinces across Canada have adopted this approach. There was a constitutional challenge but the government backed down on it, and many provinces are publicly publishing vaccination rates among their HCWs. We’re overcoming traditional reluctance that this data should be confidential.”

For Van Delden, the boards of health care institutions “have a moral obligation to reduce avoidable risks for persons within the institute.” This implies they should implement voluntary vaccina-

165 tion campaigns and, if this fails to produce a vaccine uptake of more
166 than 50 percent, then they should determine if it is defensible to
167 introduce mandatory vaccination.

168 Acknowledging arguments against mandatory vaccination for
169 its constraints on personal autonomy and freedom of choice, Van
170 Delden countered that “prevention of harm to others is also con-
171 sidered a legitimate cause” for those constraints on autonomy.

172 “There’s a lot of confusion around the term ‘mandatory vacci-
173 nation.’ It conjures up an image of doctors chasing HCWs with a
174 needle in hand,” he said. “A better word might be ‘conditional,’
175 meaning that those HCWs who refuse to take it, should be invited
176 to leave work. That said, temporarily limiting access [for an HCW]
177 to an institution is difficult to implement and, to a large extent,
178 ineffective.”

179 Van Delden concluded his address to the ESWI session by reit-
180 erating that long-term care institutions have a moral responsibility
181 to implement voluntary programmes for their HCWs, but that if a
182 voluntary vaccination programme remains below a certain uptake
183 level, then a mandatory programme is justified.

184 “Personnel must consent to vaccination when they want to work
185 at – or to continue to work at – the institution. The main justi-
186 fication for this is that the HCW has an ethical duty *not to harm*
187 *the patient*. This argument justifies some limitation of autonomy
188 for those involved in the care of the frail and elderly,” he told his
189 listeners.

190 As the session drew to a close with questions and comments
from delegates, it was clear from the lively debate between pan-

191 elists and audience that the idea of compulsory HCW vaccination
192 remains controversial for many influenza policy officials.

193 One US delegate agreed with Van Delden that compulsion was
194 sometimes necessary. “Our vaccination uptake rate on hepatitis
195 B, for example, was abysmal until it was made obligatory for our
196 workers. The only problem with [seasonal vaccination] flu virus is
197 that you have to do it over and over again,” said the US delegate.

198 By contrast, Walter said that for his institute’s message to be
199 strong among Germany HCWs, “it must be evidence-based. *And* it
200 must be convincing, which means no mandatory immunisation.”

201 Van Essen asked him: “Would exclusion of personnel work in
202 Europe?”

203 Probably not, was Walter’s response. “At least not in Germany:
204 the culture is not there [to accept such a practice,” he said.

205 Van Essen then asked for a hand-count of session delegates in
206 general to indicate their view on whether it was morally accept-
207 able to make HCW vaccination conditional on the right to continue
208 working. The result? About only half of session’s 250 delegates in
209 the room agreed it would be the right policy to enforce.

210 “It’s clear this is a very new issue in Europe. The sentiment in this
211 working session shows there’s still a lot of work to do to change atti-
212 tudes here,” observed Van Essen, adding that the concept “is new for
213 Europe and sits uneasily with a lot of European health authorities.”

214 He drew the session to a close, noting that “a better term might
215 be ‘conditional vaccination,’ meaning that HCWs who refuse to get
216 vaccinated should be invited to vacate their position temporarily
217 or transfer to another position.” ENDIT

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