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EDITORIAL

Workplace COVID-19 vaccination, challenges and opportunities

As mass vaccination campaigns against coronavirus disease 2019 (COVID-19) start worldwide [1], the implementation of workplace vaccination programs could provide an effective strategy to increase community vaccine uptake [2].

In specific contexts, the vaccination campaign may be counted among the duties of the employers. Indeed, the EU Directive 2000/54/EC on the protection of workers from risks related to exposure to biological agents at work states that if any work activity is likely to involve a risk of exposure to biological agents (e.g. severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]), the employer must assess the risk and implement all necessary protection measures [3]. This includes providing immunization free of charge [3]. It could be considered as part of the hierarchy of control measures for COVID-19 with immunization as protection against infection at work being the last line of defence. Pathway and receptor control measures have been implemented in the workplace. No single intervention is sufficient at preventing spread, so vaccination should be combined with other measures, such as working remotely (elimination of hazard), workplace adjustments (re-designing workplace configuration to enable social distancing), adjusting work processes (staggered shifts and changing of works hours) and providing personal protective equipment (PPE).

Vaccination campaigns in non-healthcare settings could represent a challenge for employers, resulting in additional costs [4]. However, occupational physicians (OPs) can provide valuable support for employers' workplace vaccination campaigns. Vaccinations can be provided in existing occupational health clinics or in mobile clinics brought to the workplace [2]. OPs can work with employers to identify suitable facilities for vaccination clinics. Stringent social distancing needs to be maintained throughout the vaccination process.

OPs can network with local health authorities and prepare vaccination protocols and instructions. Storing and handling COVID-19 vaccine correctly is critical: vaccine cold chain breaches must be identified and managed consistently, efficiently and effectively [5]. Single doses must be prepared by trained personnel in dedicated workstations which are clean and free from any objects unnecessary for the preparation and administration of the vaccine. OPs should oversee all stages of vaccine preparation and administration of prepared vaccines in dedicated area, where they can be assisted by occupational health nurses and by other healthcare professionals. Occupational health nurses generally provide a variety of vaccines at the workplace, so their knowledge and experience is critical.

A specific strategy should also be implemented to avoid wasting leftover doses, optimizing the alignment with number of workers booked in with doses available in multidose vials. The process of disposing of used syringes and clinical waste materials should be supervised. Post-vaccination observation should take place in a designated area, where workers receiving the vaccine can be monitored for at least 15 min [6]. The observation period should be extended to 30 min in individuals with anaphylaxis to other vaccines, medicines, foods, chemicals and environmental exposures. OPs should be prepared for managing potential anaphylaxis after vaccination, having specific anaphylaxis and immediate life support protocols that guarantee that medications are always available and accessible during an emergency [7]. Similarly, absolute contraindications to vaccination should be elicited, such as allergic reaction to any vaccine ingredient, history of immediate allergic reaction of any severity to polyethylene glycols or polysorbates and a severe allergic reaction to the first dose. Finally, vaccinators should schedule the second dose of vaccine where deemed necessary by vaccination protocols.

They could prioritize workers more susceptible to SARS-CoV-2 infection with specific health conditions, such as chronic diseases (e.g. diabetes) and immunodeficiency [8]. Pregnancy should also be considered. In the hierarchy of control measures, the primary duty of an employer is to eliminate exposure to SARS-CoV-2; COVID-19 vaccines should be considered for pregnant women when their risk of exposure to the virus is high and cannot be avoided [9]. This recommendation refers to specific occupational contexts, such as healthcare settings [10]. Vaccinators should be clear about the updated guidelines on vaccination in pregnant women. The Royal College of Obstetricians and Gynaecologists state that 'as COVID-19 has more serious complications in later pregnancy, some women may choose to delay their vaccine until after the first 12 weeks (which are most important for the baby's development) and plan to have the first dose at any time from 13 weeks onwards' [9].

OPs could propose a more appropriate type of vaccine or precautions for specific vulnerabilities of the workers, tailoring the vaccine to the workers' medical history, age and exposure level. They may refer workers who have a history of anaphylaxis to have their vaccination in hospital clinic with full resuscitation facilities.

OPs often know employees of the company where they work and have a professional relationship with them. The acknowledgment of OPs as an adviser in a company can help employers build confidence in COVID-19 vaccines among workers. The most common reasons for hesitancy are concerns about side-effects and the long-term effects on health and lack of trust in vaccines, particularly among certain ethnic minority groups [11]. Employees who are vaccine hesitant may benefit from discussing risks and benefits with the OPs. Information campaigns held by occupational health before starting the vaccination program could increase workers uptake of COVID-19 vaccination. OPs can provide employees with consistent, accessible and factual safety data, addressing misinformation or vaccine resistance theories spread through social media. Good doctor–patient communication has been demonstrated to impact attitudes and decisions toward health issues, including vaccination [12]. When patients have a positive relationship with their doctor or health advisor, they are more likely to see vaccines positively because their physicians view vaccination positively [12]. Communication on vaccine efficacy and safety should be open and honest, non-stigmatizing with frequent updates. Early data show that the vaccines may prevent transmission of COVID-19 [13], so employees should understand that community protection and individual protection are dependent on all the population being immune/vaccinated.

Educational campaigns can be used to reinforce knowledge of the preventive measures against the infection. Even if employees have received the COVID-19 vaccine, they will need to continue preventive measures such as avoiding the three C's: (i) closed spaces with poor ventilation, (ii) crowded places with many people nearby and (iii) close contact settings such as close-range conversations, washing hands and cleaning high-touch surfaces frequently [2]. OPs could support employers in communicating with the unions who should be engaged with when considering vaccination in the workplace.

OPs protect the worker's health data in occupational vaccination programmes. Article 9(h) of the General Data Protection Regulation (EU) 2016/679 indicates that personal data can be processed for the purposes of preventive or occupational medicine and for the assessment of the working capacity of the employee. Enrolment of workers in the campaign should be carried out in compliance with the principles of privacy and protection of sensitive personal data in each country. Employers cannot mandate that workers get the COVID-19 vaccine regardless of their medical history or religious beliefs, even though this principle is recently under discussion in some countries — especially for employers in high-risk sectors (e.g. healthcare).

Political views about making COVID-19 vaccination mandatory at the workplace vary across countries. In the European Union, several member states—such as France, Poland, Latvia and Bulgaria—have introduced policies of mandatory vaccination for certain diseases (e.g. measles), but none have applied this to COVID-19 vaccination. Italy was the first European country to make COVID vaccination mandatory for all healthcare workers, after discovering outbreaks inside hospitals related to medical staff who had declined the vaccine [14]. In the UK, there are no compulsory vaccines and the government has stated that it has no intention of changing the law in this area despite COVID-19. Indeed, a policy of mandatory vaccination could infringe some rights of employees, as expressed by the European Convention on Human Rights, such as right to liberty and security (article 5), right to respect for private and family life (article 8), freedom of thought, conscience and religion (article 9) and prohibition of discrimination (article 14).

Employers are free to encourage employees to be vaccinated and their duties in complying with reasonable measures to ensure a safe working environment. OPs will know the vaccination status of the worker for fitness or their suitability for a specific task. In high-risk exposure settings, if a worker cannot be vaccinated for health reasons, OPs should suggest adjustments or extra control measures to the employers such as continued working from home if possible, social distancing within the workplace and use of high specification PPE. Moreover, employer should consider changing the employee's work responsibilities or role if this could eliminate exposure by enabling them to work remotely or in a safer working environment.

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