Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Introduction: The advent of the Covid-19 pandemic has increased the longstanding need for adequate protection of health workers from respiratory infectious agents such as tuberculosis. This is more evident in resource poor countries where the inconsistencies in the recommendations of guidelines between different countries and different organizations may result in greater stress and uncertainty for health about the efficacy of available respiratory protection. Similarly, the unequal access to appropriate PPE exacerbates the uncertainties.

Materials and Methods: Various national and international guidelines for respiratory protection will be reviewed. The appropriate use of engineering, administrative and personal protective controls for airborne and droplet spread of different infectious agents will be reviewed. The need for a risk-based approach and adequate scientific information to help inform recommendations will be assessed. More equal access to appropriate PPE will be discussed.

Results and Conclusions: Health workers face an enormous risk of acquiring preventable respiratory diseases. This potentially impacts both their physical and mental health. Greater collaboration and a quest for greater equity should facilitate greater consistency with regards to the effective implementation of protective recommendations and guidelines.

Sp21-2
Protections against Blood Borne Pathogens

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Introduction: There are 16 billion injections worldwide annually. There is an increased burden of Hepatitis B, Hepatitis C and HIV through exposures to blood borne pathogens (BBPs). The main causes of blood borne pathogen exposures are the reuse of injection equipment, accidental needle-stick injuries (NSIs) in health care providers (about 3 million annually), overuse of injections and unsafe sharps waste disposal. The institutional and individual causes leading to BBP exposures will be discussed. Remediations including the standard protections, the use of safety injections, decreasing the number of injections and waste management programs (following WHO and ILO guidelines) will be discussed.

Materials and Methods: Data from WHO on BBP exposures/infections in health workers and WHO and ILO guidelines will be presented.

Conclusions: There is a huge global burden of BBP infections from occupational exposures in health workers which can be greatly decreased if appropriate workplace education and conditions were instituted.

Sp21-3
Long-term vaccine immunity against Hepatitis B virus in Health workers: issues and proposed solutions

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Introduction: A major risk to health workers is exposure to infectious agents, including Hepatitis B virus (HBV). For prevention of HBV, vaccination is the key. HBV vaccines have been commercially available since 1982, and many HWs may have received their primary HBV vaccine series 20-25 years ago. With the introduction of universal vaccination, large cohorts of youngsters vaccinated against HBV at birth or adolescence are currently entering healthcare training, not knowing their immunity status to HBV. Two main questions appear on the horizon. First, how long does the immune memory last? Second, is a booster dose necessary and if yes for which groups?

Materials and Methods: Current national and international guidelines for HBV vaccination as well as the relevant literature on long-term immunity will be reviewed. The role of pre-vaccination testing of student HWs as well as the role and significance of an anamnestic response will be discussed. Strategies to detect HWs with persistent HBV infection will be discussed.

Results and Conclusions: Duration of effective long-term protection against acute disease and development of HBsAg carriage will be discussed. Current recommendations state that a booster is not needed in healthy, fully vaccinated, immunocompetent adults, but, as HWs have a high risk of HB exposure, special recommendations may be necessary. Additional long-term follow up studies are needed to explore life-long protection conferred by HBV vaccine, moreover, the need for a booster after a number of years should also be evaluated.

Sp21-4
Consensus and Controversies: Managing Vaccine Preventable Respiratory Diseases for Healthcare Personnel in the Era of COVID-19

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Introduction: In many countries, illness and deaths from vaccine-preventable infections are now more common in adults than children. Healthcare personnel (HCP) comprise an adult population at particular risk of occupational exposure and nosocomial transmission if they are not immunized to an array of respiratory pathogens. There is broad consensus nationally and internationally on which vaccines are appropriate for HCP, but substantial controversy on how to provide them and whether to mandate them. In addition, there are ongoing inequities in burden of illnesses, vaccine access, and vaccine mandate impacts between groups of HCP. COVID-19 has hugely exacerbated all these concerns.

Materials and Methods: Current recommendations for immunizing HCP will be reviewed including national and WHO guidelines, and evidence for their impact on worker and patient safety. Interventions to optimize vaccine safety and effectiveness for HCP will be reviewed. Experience and ethical controversies related to vaccine mandates will be discussed with particular attention to COVID-19 vaccines.

Results and Conclusions: There is a huge global burden of community-acquired and occupational infections from vaccine-preventable infections among HCP. This requires on-going efforts to provide equitable, ethical and effective remediation. Workplace vaccine programs and vaccine mandates are crucial interventions to control current and future epidemics.

Special Session 22 Responsible Care and Corporate Citizenship

Chair: Murray Coombs and Steffen Hitzeroth

Session introduction

The Chemical Industry’s support for Sustainability - a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity will be enhanced if we build onto the successes of the Responsible Care and Corporate...