



ORIGINAL RESEARCH PAPER

Oral Medicine

IMMUNISING DENTIST - NEED OF THE HOUR

KEY WORDS: CDC's Advisory Committee on Immunization Practices, dentist immunization, vaccination in health care workers.

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ABSTRACT

A planned chart of Vaccination is followed for a child since birth to adulthood with the intention to combat the possible diseases which one can encounter in lifetime. Do such prophylaxis are followed by dentist? Vaccine is a preparation of killed micro-organisms, living attenuated organisms, or living fully virulent organisms that is administered to produce or artificially increase immunity to a particular disease. Very little concern is shown to the diseases that one can encounter by virtue of their occupation. Protocol for immunization is mandatory in abroad but little attention is paid to such practice in Indian Scenario where dentist are exposed to various life threatening illnesses.

Introduction:

Highest achievement of the 20th century of public health department was the development of immunization to prevent communicable diseases. Vaccination (or immunization) is defined as "the act of artificially inducing immunity against a disease." When discussing strategies for infection control, clinical staff including dental staff must always refer to the universal chain of infection. Any method or strategy to break or block a step in the chain of infection will help prevent or reduce the risk of disease transmission. Vaccinations administered with the prescribed dose and series of injections will usually elicit a host immunological response that renders the host unsusceptible to disease.¹ As epidemiological data demonstrate, dental workers are exposed during their activity to a biological risk that may result in serious damages for their health. Vaccination practice is one of the main instruments for prevention of infectious diseases, and thus an important measure for protection of dental personnel.² In spite of being such a sensitive issue most of the times the issue of immunization of dentist is not raised and discussed enough.

Need for dentist to get vaccinated:

It stands ascertained, since quite a long time, that the hands of health professionals are the major breeding field for the infectious agents. Health-care workers including dentists are at highest risk for occupational exposures such as per-coetaneous injuries, contact of mucous membrane, and contact with blood or other body fluids that are infectious and may acquire infections through blood, aerosols, and saliva. Hence, their appropriate training and prevention is a paramount step. Specific precautions and well-designed equipment have been identified and recommended so as to prevent transmission or acquiring of occupational infections in hospitals/clinics and other health-care centres. Immunization has been documented as an imperative step of primary prevention infections.³

Guidelines for immunization:

The CDC's Advisory Committee on Immunization Practices (ACIP) is a group of medical and public health professionals that develops recommendations on how to use vaccines to control diseases in the United States.¹ The 2017 ACIP Adult Immunization Schedule (Table 1) lists the recommended immunizations for all health care personnel: influenza, Td/Tdap (for tetanus, diphtheria and pertussis), MMR (for measles, mumps and rubella), VAR (for varicella), HZV (for zoster), HPV/male and female (for human papillomavirus), and HepB (for hepatitis B).² Note that the other vaccinations listed in Table 1 are specific for adults (age 19 and older) with additional medical conditions or other indications, and these vaccinations are for pneumonia, hepatitis A, Haemophilus influenzae type b infection and meningococcal disease.⁴

Table 1: The 2017 ACIP Adult Immunization Schedule listing the recommended immunizations for all health care personnel.⁴

Vaccine	Pregnancy	Immuno-compromised (excluding HIV infection)	HIV infection/CD4+ count (<200 />=200)	Asplenia, persistent complement deficiencies	Kidney failure, end-stage renal disease, on hemodialysis	Heart or lung disease, chronic alcoholism	Chronic liver disease	Diabetes	Health care personnel	Men who have sex with men
Influenza										
Td/Tdap	1 dose Tdap (each pregnancy)									
MMR	contraindicated									
VAR	contraindicated									
HZV	contraindicated									
HPV-Female										
HPV-Male										
PCV13										
PPSV23										
HepA										
HepB										
MenACWY or MPSV4										
MenB										
Hib										

Vaccine-preventable infectious diseases (VPIDs):

Dentists deal with the patients in their day-to-day life, and these patients may be carriers or sufferers of vaccine-preventable infectious diseases (VPIDs). The dentists, while treating the patients and relieving them from pain, might pose a danger to their own health by acquiring VPIDs from the patients. It is not only true for dentists, but the patients also are at highest risks, if the dentist is a carrier of such infections. Hence, it is essential for all health-care workers including the dental professionals to get vaccinated against such infections, apart from taking all other recommended precautions of infection control measures. Vaccination can lead to the healthy work environment for both the dentists and the patients and for the society as a whole.³

Reasons for being and not being vaccinated:

A reason for the dentists to get vaccinated is prevention from onset of disease or its complications. Those individuals who did not get vaccinated reported that vaccines were not safe to use and disease was not harmful to them.⁵ It is obvious that misconceptions do exist among the dental professionals regarding the safety and importance of vaccinations against VPIDs.

Recommendations:

1. All the workplaces should make the vaccinations mandatory so as to ensure maximum vaccination coverage
2. Various educative programs and vaccination campaigns should be carried out by the concerned authorities for all health-care workers, especially the medical and dental ones

3. The educative programs should include the topics of the beneficence and safety of vaccinations.

Conclusion:

An obvious need of the hour is immunization in dentist, as the disease burden is increasing a shared responsibility exists on the dentist to tackle the situation which can render the dentists prone to lethal diseases due to their occupation. Studies should be carried in every institution and awareness programmes should be conducted to increase the knowledge of dentist regarding the recommendations for immunizations.

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