

Adult Immunisation

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INTRODUCTION

Prevention of disease rather than its treatment is the most cost-effective option for protecting and promoting health of the people. The same can be achieved through immunisation. Child Immunisation is a well-recognised and implemented strategy utilised for Vaccine preventable diseases [1]. Though we are prioritising and focusing our resources on making child Immunisation a complete success story, at the same time are ignoring equally important area of adult immunisation. It continues to remain least prioritised and most ignored. In developing countries, communicable diseases contribute to a large burden of morbidity, mortality and disability [2]. At the same time Urbanisation, increased life expectancy, Globalisation, local and foreign travels have again increased the need for Adult Vaccination. Therefore focusing on the neglected domain of Adult Immunisation is the need of hour after taking consideration of vaccine safety, efficacy and cost issues (Table 1).

Major obstacles in adult immunisation

1. Preventable diseases are significant health problems.
2. Lack of awareness about adult immunisation. There is a general perception that vaccination is related to childhood only.
3. Doubts about efficacy and safety of vaccines for adults.
4. Difficulty to convince and access healthy Poor perception of not only general population but of Health Care Providers as well that adult Vaccine adults for vaccination.

Strategies to promote adult immunisation

1. Enhancing and improving sensitisation and awareness regarding need for and benefits of Adult Immunisation.
2. Capacity building and chalking out strategies to deliver vaccines to adults. Exploring opportunities for ensuring vaccination of adults.
3. Political will for sparing a portion of budget on the adult vaccination.

4. Exploring various health financing mechanisms to kick start a sustainable Adult Immunisation.

Though there are Paediatric guidelines given by IAP and the National Immunisation Programs, there is variation from region to region in guidelines for Adult Immunisation. The major guidelines are:

1. The Advisory committee on Immunisation Practices (ACIP) guidelines from centres for Disease control and prevention.
2. WHO guidelines.
3. Association of Physicians of India---Expert Panel guidelines.

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Table 1. Table indications, dosage schedule, type and contraindications of different vaccines recommended for adult immunisation [1,3].

Vaccine	Indication	Schedule	Type of Vaccine	CI
Hepatitis B	Recommended in all unvaccinated adults	20 µg (1 mL) IM at 0, 1 and 6 months. Routine boosters not recommended	Recombinant Hepatitis B Vaccine	CI only if known yeast hypersensitivity
DPT/DT/Tdap/Td	All Adults who did not have any previous immunisation	Single dose of 0.5 ml IM Tdap is recommended for all adults up to 65 years of age. Booster dose of Td once every 10 years till 65 years of age.	Available vaccines are acellular pertussis (ap), tetanus toxoid (TT), reduced diphtheria with Tetanus Toxoid combination (td) and combination of acellular pertussis, reduced Diphtheria and Tetanus Toxoid (Tdap)	H/O anaphylaxis and or any acute neurological disease.
MMR	Recommended for Health care workers in outbreaks, recent exposure, women of child bearing age	2 doses of 0.5 ml SC 1 month apart	Given as live attenuated vaccine	H/o Hypersensitivity to gelatin or neomycin. Pregnancy. Severe Immunodeficiency and fever
HPV	Females: 13-26 years Males: 13-21 years	0.5 ml IM at 0, 1 and 6 months	Quadrivalent Vaccine (HPV types 6, 11, 16, 18) and Bivalent (HPV types 16, 18)	CI in pregnancy and if hypersensitivity to yeast

<i>Haemophilus influenzae</i> type b	High risk Adults-Patients with asplenia. HIV, Immunocompromised and Transplant recipients	Single 0.5 ml IM	Hib Conjugate Vaccine	
Influenza Vaccine	Adults>50 years, diabetes, COPD, CKD, Health Care Personnel, Immunosuppressed	S.D of 0.5 ml IM	Trivalent inactivated virus vaccine	H/O GB syndrome after previous vaccination, hypersensitivity to eggs, formaldehyde and gentamycin
Hepatitis A	High risk only - Food handlers, CKD, Patients with other Hepatitis Viruses	2 doses IM 6-18 months apart	Inactivated vaccine	
Pneumococcal Vaccine	All adults >65 years (I). Immunocompromised Adults, CSF leak, Asplenia (II), smokers, suffering from chronic diseases of liver, heart or lungs, diabetes (III)	For (I) S.D of PCV13 followed by S.D of PPSV23 after 1 year. For (II) PCV13 followed by S.D of PPSV23 after 8 weeks, For III PPSV23 S.D	Polysaccharide Vaccine (PPSV23) and Conjugate Vaccine (PPSV13) bound to diphtheria toxoid. Both given I/M or SC 0.5 ml	
Meningococcal Vaccine	Health Care and laboratory workers, contacts, jail inmates. Immunocompromised persons and asplenic persons, outbreaks, travellers to epidemic areas and crowded areas like Hajj pilgrims	0.5 ml, SC, SD	Polysaccharide and Conjugate	H/O allergy to latex
Zoster Vaccine	>60 year old, Chronic Illnesses	S.D SC 0.65 ml	LAV (Oka Strain)	CI in Pregnancy, severe Immunodeficiency, <60 years

Varicella Vaccine	All adults without prior varicella infection, Post exposure prophylaxis within 3-5 days of exposure to varicella rash	2 doses SC (0.5 ml) 4-8 weeks apart	LAV (Oka strain)	CI in Pregnancy, severe Immunodeficiency, H/O allergy to gelatine or neomycin
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CONCLUSION

Adult Immunisation is a need of hour and a very cost-effective intervention. The same can be understood by simply comparing the costs involved in Hepatitis B vaccination and costs in treatment of Hepatitis B infection. A sound government policy is emphasised for implementation of Adult Immunisation Program which will help in reducing communicable disease burden and improve the health and productivity of this most economically significant population group.

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