



Indian Medical Association
College of General Practitioners

GPCON 2024

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GPCON2024 Guwahati (Assam)



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BOOKS:

1. PEDIATRIC DRUG DOSES FOR MO
2. TO MAKE CHILD HEALTHY

DR. SHYAMKUMAR LAISHRAM



ADULT VACCINATION

DR. SHYAMKUMAR LAISHRAM



WHY ADULTS SHOULD BE VACCINATED

- Vaccines for elderly are as important as children, if not more so
- Protection from a few childhood vaccines gets weaker at time
- With age, immune system can become naturally weak leading to inability to prevent many infections and severe complications
- By receiving vaccines for adults, not only boosting immunity and maintaining good defence, herd immunity is also increased
- Childhood vaccines may not cover all the infections to which adults may be vulnerable

WHY ADULTS SHOULD BE VACCINATED

- To protect against diseases that adults are more vulnerable to because of their age or a medical condition
- To boost the effectiveness of vaccines received during childhood
- To lower the risk of complications for those with chronic diseases
- To benefit from newer vaccines that were not available a few decades ago
- To protect against some infections during travel and from work related risks

ADULT VACCINES

- No mandatory vaccines for adults
 - Some vaccines are recommended based on age and other factors
 - The following vaccines are recommended for adults
1. Tdap or Td
 2. Influenza
 3. Pneumococcal
 4. Shingles
 5. Hepatitis B
 6. HPV
 7. MMR

Td And Tdap

- Once, if they didn't get as a teenager
- After that every 10 years
- Pregnancy:

Td after 12 weeks gestation and Tdap after at least 4 weeks.

In subsequent pregnancy, if the 2nd baby is to be born 3 years after previous delivery the same schedule is to be applied, if to be born within 3 years one Tdap booster is sufficient.

Tdap vaccine once at least ideally between 27 and 36 weeks

INFLUENZA (FLU)

- Flu, if left untreated, can lead to complications like pneumonia which can be life threatening in high risk groups
- Receiving annual flu shot can help reduce the risk of catching flu by 40-60%
- Even if caught with flu, symptoms are milder and less likely to hospitalize
- Yearly pre monsoon
- In immunocompromised adults, if unvaccinated leads to increased severity of illness and even death in COVID-19

PNEUMOCOCCUS

- All adults 65 or older should get pneumococcal vaccine
- Streptococcal pneumonia bacteria causes pneumonia, meningitis and septicemia
- Adults younger than 65 can also get shot if they have long term conditions (heart diseases, cirrhosis, alcoholism, diabetes, asthma, sickle cell diseases, cochlear implant, CSF leak or diseases that lower immunity)
- PCV 13 or 14 – PPV23 sequence is better. PCV 13 or PCV14 followed by PPV23 after 8 weeks, then PPV23 to be given 5 yearly for 3 doses

SHINGLES (NON-LIVE, RECOMBINANT SUB UNIT)

- All adults over 50 and with immunocompromised 19 years or older should get one shot and second shot after 8 weeks but may be extended up to 24 months.
- In unvaccinated adults though they had suffered once in childhood are not immune to chickenpox, may catch infection and in woman if caught during pregnancy may cause complication to the pregnancy and unborn fetus and newborn
- Reactivation after varicella-zoster virus leading to shingles (herpes zoster)

HEPATITIS B VACCINE

- All unvaccinated adults between 19 - 64 should get a course of vaccine 0 -1 – 6 months course
- Important in adults who are sexually active, diabetes, HIV,, STDs, CKD, IDU, HCWs, travellers to HBV infected region
- HBV infection have risk of chronic liver disease, cirrhosis or hepatic cancer
- In adults undergoing hemodialysis: 20 mcg(1 ml) in each deltoid muscle 0, 1, 2 and 6 months doses.

HPV VACCINE

- All adults under 27 should get HPV vaccine
- Some adults between 27 and 45 may also benefit from the vaccine
- HPV₄ serotypes 6, 11, 16, 18 : 96-100% protection against cervical cancer, genital lesion (genital warts, VIN, VaIN, vulvar ca, vaginal ca)
- HPV₉ serotypes 6, 11, 16, 18 plus 31, 33, 45, 52, 58:
82.4 – 98.3% protection as of by HPV 4 plus AIN, condyloma acuminata and non acuminata

MMR

- All adults born in 1957 or before should get at least one dose of MMR and by a booster 4-8 weeks later
- Unvaccinated adults are not immune to these 3 viral infections though they had suffered from during childhood
- Unvaccinated adults may have outbreaks and can even lead to serious complications such as encephalitis, infertility and pneumonia

COVID-19

A vaccine recently developed in the last 3 years to provide immunity against SARS-CoV-2 virus which causes COVID-19, a highly infectious respiratory illness specially older people causing short and long term morbidity and mortality

OTHER VACCINES IN HIGH RISK INDIVIDUAL

- Typhoid conjugate vaccine: 1 dose
- Hepatitis A vaccine
- Meningococcal
- Rabies
- Hib
- Yellow fever for traveller in some specific countries

VACCINATIONS IN SPECIAL CONDITIONS (RECEIVING RX FOR ACUTE LEUKEMIA, LYMPHOMA, SOLID CANCERS)

- Influenza (Flu) vaccine inactivated, annually at least 2 wks prior to chemotherapy. If rituximab given, wait for 6 mo
- Pneumococcus vaccine: give at 4-6 wks (minimum 2) wks pre-chemo. If pre-chemo is not possible, at least 3 mo after completion of chemo
- PCV₁₃-PPV₂₃: 1 dose PCV₁₃ followed by 1 dose of PPV₂₃ at least 8 wks later. Booster doses of PPV₂₃ vaccine 5 years after last PPV₂₃, up to a maxm of 3 doses of PPV₂₃ in a lifetime

VACCINATIONS IN SPECIAL CONDITIONS

Vaccinations for adults with HIV infection

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|-----------------|-------------|------------------|
| 1. HAV | 2. HBV | 3. Hib |
| 4. MMR | 5. HPV | 6. Meningococcal |
| 7. Pneumococcal | 8. Tdap, Td | 9. Varicella |

REFERENCES

- *Association of physicians of India-Expert panel guidelines*
- *Advisory Committee on Immunization Practices (ACIP) guidelines from Centers for Disease Control and Prevention*
- *WHO guidelines*
- *MoHFW*
- *Canadian Immunization Guide*
- *Immunize.org*
- *Malayasian Society of Infectious Diseases and Chemotherapy*

THANK YOU

