VACCINATION FOR WOMEN (ADOLESCENCE TO SENESCENCE)

Dr.T.K.SHAANTHY GUNASINGH M.D., D.G.O., FICOG PROFESSOR AND HEAD OF THE DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY PROGRAMME DIRECTOR CENTRE OF EXCELLENCE FOR TUBAL MICROSURGERY AND STERILISATION GOVERNMENT KILPAUK MEDICAL COLLEGE AND HOSPITAL

Immunization is one of the most beneficial and cost effective disease prevention measures. FOGSI believes that girls and women of all ages be offered vaccination to protect them from various infections.

Why do adolescent girls need to be immunized?

After the successful implementation of the immunization programme, there has been a decline in the incidence of vaccine preventable diseases. Adolescence is an important step towards reproduction. Adolescent immunization helps in prevention of maternal and neonatal infections. It also reduces maternal mortality due to sepsis

<u>**Td vaccine</u>**- Td vaccine has now become available, should this vaccine be preferred over TT?</u>

At 10 and 16 years of age instead of TT, Td is preferable..

Td is preferred in place of TT in pregnancy and adults

Pertussis vaccination in adults and adolescents

Tdap vaccine is recommended instead of Td by many authorities to prevent pertussis in adolescent. One dose of Tdap vaccine is administered to pregnant woman during pregnancy at 27-36 weeks regardless of interval since prior Td or Tdap vaccination. However cost is a major constraint.

Rubella Vaccination

The aim is to prevent congenital rubella syndrome. If MMR is not administered earlier, rubella vaccination is given at 13 years of age. Women should avoid becoming pregnant until one month after receiving the vaccine.

Hepatitis B vaccine

For previously unvaccinated adults and adolescents Hepatitis B vaccination is given at 0, 1 and 6 months.

Hepatitis A vaccine

Administered post exposure to contacts within 10 days, two doses at 6 months interval. If combined Hepatitis A and B vaccine(Twinrix) is used, administer 3 doses at 0,1 and 6 months(CDC guideline 2013)

HPV Vaccine

Human Papilloma virus is the causative agent for cervical cancer. Testing for HPV is not recommended before vaccination. Sexually active women and women with previous abnormal cytology can receive the HPV vaccine. Cervical screening must continue .Use of vaccine in pregnancy is not recommended ,although no teratogenic effect has been reported. Immunosuppression is not a contraindication for vaccination. There are two vaccines- quadrivalent and bivalent.The schedule for quadrivalent HPV vaccine is 0, 2 and 6 months. The schedule of bivalent vaccine is 0, 1 and 6 months. Age of initiation is 10-12 years. Catch up vaccination is permitted upto 26 years. Quadrivalent vaccine can be given upto 45 years.

Influenza Vaccination

Who should receive?

- Children aged 6 months to 19 years of age.
- Pregnant women
- 50 years of age or older
- Two types of vaccines are available- Inactivated vaccine and Live attenuated influenza vaccine(LAIV)
- Inactivated vaccine is recommended for the above groups for annual vaccination.

Pneumococcal vaccine

Not recommended for routine use. Recommended in anatomical and functional asplenia, sickle cell anemia, nephrotic syndrome and immunosuppression.

Meningococcal vaccine

MCV-4 vaccine at 11-12 years with a booster at 16 years. If first dose is given at 16 years or older, no booster dose is required.

Rabies Vaccine

Pregnancy is not a contraindication.

Japanese Encephalitis Vaccine

Indicated only in endemic areas. No controlled studies have assessed the safety, immunogenicity or efficacy in pregnant women.

Yellow Fever Vaccine

Indicated only in endemic areas. Single dose protects against disease for 10 years or more. If the risk of exposure outweighs the vaccination risk, a pregnant women should be vaccinated.

Varicella Vaccine

A natural varicella virus infection confers lifelong immunity. All adults without evidence of immunity to varicella should receive 2 doses of single antigen varicella vaccine or a second dose if they have received only 1 dose. 2 doses upto 12-13 years and 2 doses after 13 years of age (if not given earlier). Administered post exposure within 72 hours. Since it is a live vaccine, it should not be given in pregnancy.

Zoster Vaccine

Single dose for adults aged 60 years or older regardless of prior episode of herpes zoster- ACIP recommendation and CDC guidelines 2015.

Immunisation schedule in USA

Figure 1. Recommended immunization schedule for persons aged 0 through 18 years - United States, 2015.

(FOR THOSE WHO FALL BEHIND OR START LATE, SEE THE CATCH-UP SCHEDULE (FIGURE 2)).

These recommendations must be read with the footnotes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars in Figure 1. To determine minimum intervals between doses, see the catch-up schedule (Figure 2). School entry and adolescent vaccine age groups are shaded.

Vaccine	Birth	1 mo	2 mos	4 mos	6 mas	9 mos	12 mos	15 mas	18 mos	19–23 mas	2-3 yrs	4-6 yrs	7-10 yrs	11-12 yrs	13-15 yrs	16–18 yrs
Hepatitis B ^r (HepB)	1 ⁴ dose	← _2 rd	dase —>		•											
Rotavirus ² (RV) RV1 (2-dose series); RV5 (3-dose series)			1ºdose	2 rd dose	See footnote 2											
Diphtheria, tetanus, & acellular pertussis ⁷ (DTaP: «7 yrs)			1ºdose	2 ⁴⁴ dose	3ª dase			← 4*	dose — >			5* dose				
Tetanus, diphtheria, & acellular pertussis [#] (Tdap: ≥7 yrs)														(Tdap)		
Haemophilus influenzae type b ⁱ (Hlb)			1 ⁴ dose	2 rd dose	Sea footnate 5		 3rd or 4 See for 	e dose, otnote 5								
Pneumococcal conjugate/ (PCV13)			14 dose	2 ^{-si} dose	3ª dose		←	dose 🔶								
Pneumococcal polysaccharide ⁶ (PPSV23)																
Inactivated poliovirus ⁷ (IPV: «18 yrs)			1 ⁴ dose	Z ^{ul} dose			— 3 ^{rri} dose —					4 th dose				
Influenza ^{II} (IN; LAIV) 2 doses for some: See footnote 8					Annual vaccination (IV only) 1 or 2 doses						Annual vaccination (LAN or IV) 1 or 2 doses 1 dose only					
Measles, mumps, rubella ^s (MMR)					See foo	tnote 9	<mark>∢ 1*dose></mark>				2=dose					
Varicella ¹⁰ (VAR)							← 140	iose 🔸				2 ^{wi} dose				
Hepatitis A ¹⁷ (HepA)							≺ 2	dose series, !	iee footnote 1	1>						
Human papillomavirus ¹² (HPV2: females only; HPV4: males and females)														(3-dose series)		
Meningococcal ¹ 2 (Hib-ManCY ≥ 6 weeks; MenACWY-D ≥9 mos; MenACWY-CRM ≥ 2 mos}						See foo	tnote 13							1ºdose		Baceber
Range of recommended ages for all children		Ranga for cat	of recomm ich-up Immu	ended ages inization			recommend igh-rtsk grou			Range o which c	f recommen stch-up is en sigh-risk gro	ded ages du couraged ar ups	ring 1d for		t routinely ommended	

This schedule includes recommendations in effect as of January 1, 2015. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Vaccination providers should consult the relevant Advisory Committee on Immunization Practices (ACIP) statement for detailed recommendations, available online at http://www.cdc.gov/vaccines/hcp/acip-recs/index.html. Clinically significant adverse events that follow vaccination should be reported to the Vaccine Adverse Event Reporting System (VAERS) online (http://www.vaers.hhs.gov) or by telephone (800-822-7967). Suspected cases of vaccine-preventable diseases should be reported to the state or local health department. Additional information, including precautions and contraindications for vaccination, is available from CDC online (http://www.cdc.gov/vaccines/recs/vac-admin/contraindications.htm) or by telephone (800-CDC-INFO [800-232-4636]).

This schedule is approved by the Advisory Committee on Immunization Practices (http://www.cdc.gov/vaccines/acip), the American Academy of Pediatrics (http://www.aap.org), and the American Academy of Family Physicians (http://www.aafp.org), and the American College of Obstetricians and Gynecologists (http://www.acg.org).

NOTE: The above recommendations must be read along with the footnotes of this schedule.

FIGURE 2. Catch-up immunization schedule for persons aged 4 months through 18 years who start late or who are more than 1 month behind --United States, 2015.

The figure below provides catch-up schedules and minimum Intervals between doises for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the childra age. Always use this table in conjunction with Figure 1 and the footnotes that follow.