What are the basics of vaccines and vaccination?

Gavi CSO Project

Factsheet 20

June 1, 2015

Researchers work hard to develop vaccines that prevent serious illnesses. Across the different aspects of the health system, professionals work hard to make sure people are vaccinated before they are exposed to these serious illnesses. This factsheet provides a brief overview of what those vaccines are, who should get them, and when they should be administered.

What vaccines are available?

The World Health Organization (WHO) lists the following illnesses as vaccine-preventable or potentially preventable:

- Cholera
- Dengue
- Diphtheria
- Hepatitis A
- Hepatitis B
- Hepatitis E
- Haemophilus influenzae type b (Hib)
- HIV
- HPV
- Influenza
- Japanese encephalitis
- Malaria
- Measles
- Meningococcal meningitis
- Mumps
- Pertussis
- Pneumococcal disease
- Poliomyelitis
- Rabies
- Rotavirus
- Rubella
- Tetanus
- Tick-borne encephalitis
- Tuberculosis
- Typhoid
- Varicella
- Yellow Fever

How do you know who gets what vaccine, and when they should get it?

The WHO issues vaccine position papers that present their best evidence on each vaccine. These papers are regularly updated. The WHO also hosts a "Vaccine Selection Center" online tool that allows you to sort through vaccine recommendations by vaccine, region, and country.

What is the vaccine schedule?

The vaccine schedule is an easy-to-use table that shows you the preferred order and timing of vaccine administration. The links below provide more detailed information, but briefly the schedule for children is provided on page 2.

For more information

- ❑ WHO Immunization Schedule Selection Centre
- ❑ WHO Recommended Routine Vaccinations
- ❑ WHO Recommended Routine Vaccinations for Children
- ❑ WHO Recommendations for Delayed or Interrupted Routine Vaccination

VACCINE		AGE AT FIRST DOSE	DOSES	Interval between doses			BOOSTER
				1ST to 2nd	2nd to 3rd	3rd to 4th	
BCG		As soon as possible after birth	1				
Hepatitis B	**Option 1**	As soon as possible after birth (<24 hours)	3	4 weeks (minimum) with DTP1	4 weeks (minimum) with DTP3		
	Option 2	As soon as possible after birth (<24 hours)	4	4 weeks (minimum) with DTP1	4 weeks (minimum) with DTP2	4 weeks (minimum) with DTP3	
Polio	**OPV + IPV**	6 weeks	4 (IPV given with OPV from 14 weeks)	4 weeks (minimum) with DTP2	4 weeks (minimum) with DTP3		
	IPV/OPV sequential	8 weeks (IPV 1st)	1-2 IPV 2 OPV	4-8 weeks	4-8 weeks	4-8 weeks	
	IPV	8 weeks	3	4-8 weeks	4-8 weeks		
DTP		6 weeks (minimum)	3	4 weeks (minimum) – 8 weeks	4 weeks (minimum) – 8 weeks		1-6 years of age
HIB	**Option 1**	6 weeks (minimum) 59 weeks (maximum)	3	4 weeks (minimum) with DTP2	4 weeks (minimum) with DTP3		
	Option 2		2-3	8 weeks (minimum) if only 2 doses 4 weeks (minimum) if 3 doses	4 weeks (minimum) if 3 doses		At least 6 months after last dose
Pneumococcal	**Option 1**	6 weeks (minimum)	3	4 weeks (minimum)	4 weeks		
	Option 2	6 weeks (minimum)	2	8 weeks (minimum)			9-15 months
Rotavirus	**Rotarix**	6 weeks (minimum) with DTP1	2	4 weeks (minimum) with DTP2			
	Rota Teq	6 weeks (minimum) with DTP1	3	4 weeks (minimum) – 10 weeks with DTP2	4 weeks (minimum) with DTP3		
Measles		9 or 12 months (6 months minimum)	2	4 weeks (minimum)			
Rubella		9 or 12 months with measles vaccine	1				
HPV		As soon as possible from 9 years of age (females only)	2	6 months (minimum 5 months)			