Hepatitis – B Control Programme in Turkey

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Chronic Hepatitis-B Virus Infection Geographic Distribution (WHO Data)

HBsAg Porter Prevalance
- ≥8% - High
- 2-7% - Intermediate
- <2% - Low

Turkey is in intermediate endemicity
Hepatitis-B Virus Infection in Turkey

- In 21 different studies, worked between the years 1985-2000 at various regions, had indicated that the 60% of the hospitalized acute viral hepatitis cases had been Hepatitis B cases in average.
- At children age groups %22.4
HBsAg Seropositivity in some risk groups in Turkey

- The soldiers donating blood %7.4
- The ones donating at blood centers %5.1
- Health Centers %0.7-1.3
- The civils donating blood %5.2
- In normal population %6.8
- Health staff %4.8
HBsAg Seropositivity in some risk groups in Turkey

- Hemodialysis patients %10.1
- Sex workers (women) %9.6
- Barbers and Coiffeurs %12.26
The number of Hepatitis-B cases, 1990-2009*, Turkey

*2009 January-September
Hepatitis - B Morbidity and Mortality Rates

*2009 January – September includes
The distribution of the Hepatitis - B cases to the years and age groups, 1997-2005, Turkey
The distribution of the Hepatitis - B cases to the years and age groups, 2006 -2009*, Turkey
The incidence of the Hepatitis B, under 5 years old children and under 15 years old population to the years, 1990-2008, in Turkey (1/100.000)

The start of the vaccination

- <5 years
- <15 years
The distribution of the vaccination status to the age groups, 2005-2008
The regulations about the Hepatitis-B vaccination

- Regulation dated 04.06.1998 and numbered 6856
- Regulation dated 21.06.2000 and numbered 8942

(0-11 months old infants without any charge and administering vaccine free to all risk groups)
Hepatitis - B Immunization Policies

- Newborns and 0-11 months old infants
- Risk groups
- Adolescent vaccination (Class 8 group)
  - During the 2006-2008 education years, the ones who were not vaccinated by Hepatitis-B vaccine, took their shots.
Hepatitis - B Immunization Policies

- Adolescent vaccination (for Class 8) were approved by the immunization advisor board decision dated 13.08.2004 starting from the 2005-2006 education year.

So all the adolescents’ vaccination up to 16 Years old has been completed at the end of 2007-2008 education year.
The defined risk groups by the regulation 6856 dated 04.06.1998:

- The health staff in contact with the Patients and contaminants of the patients
- Medical students, the students of the dentistry faculty and health professional high schools,
- The hemodialysis patients,
- The ones in necessity to use blood and blood products frequently,
- IV drug users,
- The households in contact with the exposed one,
The defined risk groups by the regulation 6856 dated 04.06.1998:

- Multiple partners, sex workers
- Men doing sex with men, Homosexuals,
- The ones who have a chronic liver illness except Hepatitis B,
- Prisoners and juvenile halls (juvenile prisoners),
- Travellers to Hepatitis B endemic areas,
- Coiffeurs and hairdressers, manicurers
(The Risk Groups)
Prior to Secondary:

- Taking care in Mentally Retard Clinics,
- Orphanages,
- Firemen,
- Soldiers and military platoon, garrison
- Policemen,
- The ones administering first aid in accidents
(Risk groups continued:)

The ones who are relevant because of being in high risk groups, are administered vaccine free by the medicals in all health centers, except those risk groups stated above.
## CHILDHOOD IMMUNIZATION CALENDER 2009

<table>
<thead>
<tr>
<th>2009 Schedule Vaccines</th>
<th>at birth</th>
<th>1 month</th>
<th>2 months</th>
<th>4 months</th>
<th>6 months</th>
<th>12 months</th>
<th>18–24 months</th>
<th>6 years</th>
<th>13 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBV</td>
<td>I</td>
<td>II</td>
<td></td>
<td></td>
<td>III</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BCG</td>
<td></td>
<td>I</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DaPT-IPV-Hib</td>
<td>I</td>
<td>II</td>
<td>III</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>PCV-7</td>
<td>I</td>
<td>II</td>
<td>III</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>MMR</td>
<td></td>
<td></td>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>OPV</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<td>Td</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
## The budget for vaccination

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>22,000,000 TL</td>
</tr>
<tr>
<td>2005</td>
<td>49,994,000 TL</td>
</tr>
<tr>
<td>2006</td>
<td>113,500,000 TL</td>
</tr>
<tr>
<td>2007</td>
<td>156,000,000 TL</td>
</tr>
<tr>
<td>2008</td>
<td>161,000,000 TL</td>
</tr>
</tbody>
</table>
The cost of the Hepatitis – B vaccine

- Pediatric Hepatitis-B cost of the unit dose vaccine is 1,2 $ at the last procurement in 2009. (approximate cost 1,8 TL),
- The cost of an infant administering by the 3 doses of Hepatitis-B vaccine is approximately cost 5,4 TL.,
- And approximate cost of an adult vaccination by Hepatitis-B in risk groups is 11,0 TL.

<table>
<thead>
<tr>
<th></th>
<th>Pediatric dose</th>
<th>Adult dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Health</td>
<td>1,2$</td>
<td>2,4$</td>
</tr>
<tr>
<td>Commercial vaccines</td>
<td>9 – 15$</td>
<td>15–30$</td>
</tr>
</tbody>
</table>
0-11 old infants 2002-2009 vaccine coverage

- BCG
- DPT-3
- HBV-3
- Measles/MMR
- TT-2+/Td2+

Year:
- 2002
- 2007
- 2008
- 2009*
HBV-3 COVERAGE
0-11 months old infants, 2002-2008

% Coverage
<50%
50-79%
80-89%
>90%

2002

2008
Also, at the end of the 2007-2008 education year the single dose of rubella vaccination of the class 8 have been completed.

From now on, the students attending at the first class of the primary school (cohort) would have been immunized by MMR vaccine.
The Guidelines for ADULT IMMUNIZATION

- The schedule and implementations about the vaccination may be subject to change or differ according to age groups. On the presented guidelines, the adult immunization schedule is taken into consideration in three different age groups with the help of the international definitions and it has been made up suitable to our conditions of our country.

- Adolescent vaccination schedule has not been worked out.

- The guidelines are in preparation. Under Construction.
<table>
<thead>
<tr>
<th>Vaccine</th>
<th>18-49 Age</th>
<th>50-64 Age</th>
<th>64≥ age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanous, Diphtheria (Td)</td>
<td><strong>The booster doses in every ten years</strong></td>
<td>1 or 2 doses of vaccine</td>
<td></td>
</tr>
<tr>
<td>Measles (M) / Measles, Mumps, Rubella (MMR)</td>
<td>1 or 2 doses of vaccine</td>
<td>1 or 2 doses of vaccine</td>
<td></td>
</tr>
<tr>
<td>Hepatit B</td>
<td>3 doses of vaccine (0, 1, 6. month)</td>
<td>3 doses of vaccine (0, 1, 6. month)</td>
<td></td>
</tr>
<tr>
<td>İnfluenza</td>
<td>1 dose in every year</td>
<td>1 dose in a year</td>
<td></td>
</tr>
<tr>
<td>Pnömococcous (polisakkarid)</td>
<td>1-2 doses of vaccine</td>
<td>1-2 doses of vaccine</td>
<td>1 dose of vaccine</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>2 doses of vaccine (0, 6-18. months)</td>
<td>2 doses of vaccine (0, 6-18. months)</td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td>2 doses vaccine (0, 1 or 2. months)</td>
<td>2 doses vaccine (0, 1 or 2. months)</td>
<td></td>
</tr>
<tr>
<td>Meningococcous</td>
<td>1 or more doses of vaccine</td>
<td>1 or more doses of vaccine</td>
<td></td>
</tr>
</tbody>
</table>

Includes the individuals who don’t have any contraindications

Includes the individuals who have a risk factor and any contraindications

**Table 1: Adult Vaccination Schedule**
Footnotes:

- (1) The schedule is for the individuals who have taken the primary immunization shots of Tetanus vaccine.
- (2) During the gestational period, it is Contraindicated.
- (3) If one or more doses of measles vaccine have been administered before, one dose of measles vaccine is enough. If one dose of MMR vaccine has been administered, then second dose of MMR vaccine would be sufficient. If it is known or documented that two doses of MMR has been administered, then it is not necessary to give an extra shot.
- (4) To the risk groups with five years intervals (The difference among the risk groups has to be known)
- (5) Protective period is 2 years.
Thank you for your attention

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