National immunization program in Latvia

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Content

• Legislation
• Immunization schedule
• Immunization of risk groups
• Hepatitis B immunization policy
• Impact of hepatitis B vaccination
General Provisions for Vaccination

- Cabinet determines:
  - Mandatory vaccinations for general public
    - State budget covers the cost of mandatory vaccinations
  - Mandatory vaccinations for persons with occupational hazards
    - Cost is covered by the employer
  - Additional mandatory vaccinations in case of epidemic
  - All expenditures relating to non-mandatory vaccinations are covered by individuals
    - Cabinet can determine relief for certain groups
Conditions for Vaccination

- Only registered vaccines can be used

- Staff involved in storage, transportation and usage of vaccines are responsible for related safety issues

- Cabinet determines safety requirements

- Medical staff which performs vaccination should be certified

- Vaccinations should be recorded
Complications Caused by Vaccination

• Notification is mandatory for healthcare providers according to Cabinet Regulations

• Centre for Disease Prevention and Control investigates reported cases

• Health Inspectorate evaluates procedures performed by healthcare staff
Vaccine supply chain network

- **Centre for Disease Prevention and Control of Latvia**: Forecasting, ordering, monitoring, surveillance
- **National Health Service**: Tendering, payment
- **Private service (Wholesalers)**: Distribution

Cabinet Regulation “Vaccination regulations” 6
General mandatory vaccinations

- Childhood vaccination schedule
- Td immunization of adults
- Post-exposure rabies vaccination
- Hepatitis B in haemodialysis patients
- Tick-borne encephalitis for orphans and children in highly endemic areas
Progress of Immunization programme

New combined vaccines in 2010:
- DTaP-IPV-Hib-HB (4 doses)
- DTaP-IPV (7 years)
- Td-IPV (14 years)
Immunization coverage
First year of life
Immunization coverage
Second year of life

Vakcinācijas tāmenis, %

DTP un IPV (4.pote)

MPR (1.pote)

Vējīgas
Immunization coverage
7 years

Vakcinācijas līmenis, %

DT un IPV (5.pote)

MPR (2.pote)

Garals kiepus (5.pote)
Immunization coverage
14 years

- DT un IPV (6.pote)
  14 g.v.pusaudžiem
- CPV (1.pote) meitenėm 12 g.v.

Vakcinacijų žmGINs%,

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<thead>
<tr>
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<td>86,5</td>
<td></td>
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### Impact of immunization programme

<table>
<thead>
<tr>
<th>Disease</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td>Acute hepatitis B</td>
<td>82</td>
<td>87</td>
<td>70</td>
</tr>
<tr>
<td>incl. children</td>
<td>1</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Diphtheria</td>
<td>8</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>incl. children</td>
<td>3</td>
<td>7</td>
<td>2</td>
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<tr>
<td>Pertussis</td>
<td>264</td>
<td>202</td>
<td>81</td>
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<tr>
<td>Measles</td>
<td>3</td>
<td>0</td>
<td>36</td>
</tr>
<tr>
<td>Rubella</td>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Mumps</td>
<td>41</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Varicella</td>
<td>3896</td>
<td>2856</td>
<td>2611</td>
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</table>
Impact of the second aT booster on pertussis morbidity in target age groups
Impact of immunization on varicella morbidity

Number of cases

Vaccination coverage, %

Vaccination started in 2008
### Proportion of written refusals against vaccination

<table>
<thead>
<tr>
<th>Vaccines</th>
<th>%</th>
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<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>BCG</td>
<td>1,0</td>
</tr>
<tr>
<td>DTP/IPv 3</td>
<td>1,7</td>
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<tr>
<td>Hep B 3</td>
<td>2,0</td>
</tr>
<tr>
<td>PCV 2</td>
<td>0,8</td>
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<tr>
<td>MMR 1</td>
<td>1,6</td>
</tr>
<tr>
<td>Varicella</td>
<td>4,8</td>
</tr>
<tr>
<td>DTP/IPv 4</td>
<td>1,5</td>
</tr>
<tr>
<td>HPV 3</td>
<td>-</td>
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Hepatitis B vaccination in children (1)

- From 1997 universal immunization of new-borns
- Three shots schedule:
  - 0-12 hours
  - 1 months
  - 6-8 months
- HBsAg screening of pregnant women
  - HBsAg(+) – four Hep B vaccine shots, no i/g
- From 2006 catch-up immunization of adolescents (14 years)
Hepatitis B vaccination in children (2)

**Until 2010**

0-12 hours (HepB1)
1 months (HepB2)
3 months (DTaP-IPV-Hib1)
4,5 months (DTaP-IPV-Hib2)
6 months (DTaP-IPV-Hib3)
6-8 mēneši (HepB3)

**From 2010**

DTaP-IPV-Hib-HepB (3 shots):
2 months
4 months
6 months AND

New-born vaccination for children born to HBsAg(+) mothers or with unknown HBsAg status
Reasons for introduction of hexavalent vaccine

• HBsAg(+) is about 0.7% among pregnant women [2005]
• Effective screening programme
• Other considerations
  • 3 shots vs 6 shots
    • Less visits/burden to healthcare
    • Less missed opportunities
    • Less risks related to immunization procedures
    • Less medical wastes
    • Less expenditures (payments for immunization procedures)
Cases of acute hepatitis B in children under 18 years, 1986 - 2014

New-borne vaccination programme

Catch-up vaccination programme
Mandatory Vaccination of Persons Employed in Specific Occupations

- Hepatitis B*
  - Healthcare workers and auxiliary staff
    - List of specialities
  - Medical students
  - Workers of manicure, pedicure, tattooing and prising services

- Tick-borne encephalitis

- Rabies

- Yellow fever

* At least once a month come into direct or indirect contact with patients or human biological materials

Cabinet Regulation “Vaccination regulations”
Mandatory Vaccination of Persons Employed in Specific Occupations

- Employers are responsible for:

  • Risk evaluation of each employee according to functional duties and conditions of work
  • Payment / reimbursement of vaccination
  • Supervision of vaccinations and storing of the lists of the staff under the risk and immunization records (40 years in case of the risk of Hep B)

Cabinet Regulation “Vaccination regulations”
Slimību profilakses un kontroles centrs