Pediatric history and physical examination

Dr. György Fekete
Different attitudes of visits

- Sick visit: acute disease
- Routine, preventive care

- In case of acute, emergency disease: start with history of present symptoms!
Good history taking adapts itself to the actual situation
Privacy, confidence

- Hospital is committed to respecting and protecting the rights of patients and families. The privacy of the child's health information is very important and it is important to make every effort to ensure that it is kept confidential.
History

- Personal data
- Presentation symptom
- Main complain
- History of present disease
- Therapies, medicines
- Allergic diseases
- Vaccination history
- Neonatal history
- Pregnancy history of mother
- Family history
- Previous diseases / surgical operations
- Developmental history
- Social/environmental history
Personal data

• Name_________________________________
• Birth date_________________________________
• Address___________________________________
• Mother’s name______________________________
• Father’s name_______________________________
• Child’s pediatrician__________________________
Presentation symptom
Main complain

• Presentation symptoms: cause of referral at doctor’s office (vomiting, cough, seizure, etc.)
  It is not a diagnosis!
• Initial complain
• Duration
• Progress
• Referral to doctor/hospital
• Doctor’s action
• Medication, effect of medication
History of present disease

• General condition of patient before this illness
• Trauma, accident just before?
• Vaccination? Immunization status? Note: check in the „health-booklet” of the child!
• Fever?
• Medicines, previous administration?
• Contacts with ill individuals?
• Travels?
Medications

- Any chronic disease which needs to be treated continuously?
- Dosage?
- Previous side effects?
- Allergy?
- Compliance?
Allergy history

• Food allergy?
• Drug allergy?
• Inhalant allergy?
• Other?
Neonatal history

• Authentic source of information: medical report of hospital where the child was born
• Full term pregnancy?
• Premature birth at ____________ weeks
• Where was the child born?
• Type of delivery
• Birth weight
• Birth length
• Head circumference
• Chest circumference
• Apgar score
<table>
<thead>
<tr>
<th>SIGN</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>1 min</th>
<th>5 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Rate</td>
<td>Absent</td>
<td>Less Than 100</td>
<td>Over 100</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Absent</td>
<td>Slow, Irregular</td>
<td>Good Cry</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Effort</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muscle Tone</td>
<td>Limp</td>
<td>Some Flexion</td>
<td>Active Motion</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Reflex</td>
<td>No Response</td>
<td>Grimace</td>
<td>Cry</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Irritability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Pale</td>
<td>Body Pink, Extr. Blue</td>
<td>All Pink</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL SCORE</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>
Neonatal history

• Neonatal jaundice?
• Any congenital malformation?
• Any complication after delivery?
• Neonatal screening for inborn errors of metabolism – done in the hospital?
Pregnancy history with this child

• Did the mother take hormones during pregnancy?
• Did the mother take any drugs during pregnancy?
• Did the mother smoke during pregnancy?
• Did the mother drink any alcoholic beverages during pregnancy?
• Has the child’s mother had any miscarriages, still births, or abortions?
Past illnesses

- Infectious diseases
- Asthma
- Congenital heart disease
- Respiratory tract infections
- Urinary infections
- Neurologic disorders
- Others
Child’s development

• List age of child when the following milestones were reached:
  • Sat alone at_________months
  • Walked at_________months
  • Words at_________months
  • Sentences at_________months
Child’s development

- Breast fed
- Bottle fed
- Details of feeding
- Feeding problems
- Weight, height gain
Child’s development

• First teeth at_________months
• Bladder trained at_________months
• Bowel trained at_________months
• Does the child have any handicap?
• Is there a bed-wetting problem?
School performance

• Scholastic performance: academic, behavior
• Has child ever been in a special education class?
• Has the child had a learning problem?
• If yes, what type of learning problem?
Hospitalisations and operations

• Appendectomy
• Tonsils and adenoids
• Ear tubes
• Others
Family history

• History has to include first – degree relatives
• Similar disease(s)?
• Related disease(s)?
• Infant death/ miscarriages?
• Congenital malformations?
• Genetic diseases?
• Any sisters, brothers?
Social/ environmental history

• Marital status of parents: Married / single
• Has there been a separation, divorce or death?
• What has been the attitude of the child to this situation?
• Type of house/ appartement
• Any pet animal?
• With whom does the patient live? (List all household members and their relationship to patient.)
Physical examination

• Initial: hand washing, introduction
• Vitals, anthropometric measurements, plotted on the chart
• Examine the child on a position that suits the child
• Infant: remove all clothing
• Adolescents: due respect to privacy and sensitivities
## Respiration

### Normal Variations
- 30 to 60 respirations per min
- Average - 40 respirations per min

## Heart Rate (Apical)

### Normal Variations
- 100 to 160 beats per min
- 100 while sleeping
- 160 while crying

## Temperature

### Rectal
- 90.0°F to 99.5°F
- (35.6°C to 37.5°C)

### Axillary
- 97.6°F to 98.6°F
- (36.5°C to 37.0°C)

## Blood Pressure (At Birth)

### Average
- 75/42

### Systolic
- 60 to 80 mm Hg

### Diastolic
- 40 to 50 mm Hg
Newborn

• Apgar score
• Insertion of tube thru nose - immediate diagnosis: esophageal atresia
• Note: life- threatening to feed the newborn with esophageal atresia!
• Dubowitz scoring
• „Physiologic“ weighth loss: maximum 10% of birth- weighth
Newborn

- Observe: breathing, body proportions, movements
- Head: sutures, anterior fontanel, major and minor abnormalities of skull and face
- Microcephaly+ smooth philtrum: important sign of fetal alcohol syndrome
- Anterior (great) fontanel closes till the age of 18 months
- Eyes (red reflex, strabismus)
- Ears, nose
- Skin (turgor, color, dermatologic signs)
- Gluteal erythema, mostly caused by *Candida albicans*
- Lymph nodes
- Musculo-skeletal system, joints (hips: dyslocation?)
Newborn

• Heart (pulse rate: 90-175/min)
• Lungs (breath rate: 40-60/min)
• Abdomen (liver is palpable)
• Genital organs (boys: undescended testes)
• Anus and rectum
• Neurology (reflexes: Moro, step, etc.)
• Step reflex is physiologic up to the age of 4 months
• Mouth (tongue, throat, bucca)
# Pediatric Vital Signs – Normal Ranges

<table>
<thead>
<tr>
<th></th>
<th>Infant</th>
<th>Toddler</th>
<th>School-Age</th>
<th>Adolescent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heart Rate</strong></td>
<td>80-150</td>
<td>70-110</td>
<td>60-110</td>
<td>60-100</td>
</tr>
<tr>
<td><strong>Respiratory Rate</strong></td>
<td>24-38</td>
<td>22-30</td>
<td>14-22</td>
<td>12-22</td>
</tr>
<tr>
<td><strong>Systolic blood pressure</strong></td>
<td>65-100</td>
<td>90-105</td>
<td>90-120</td>
<td>110-125</td>
</tr>
<tr>
<td><strong>Diastolic blood pressure</strong></td>
<td>45 - 65</td>
<td>55-70</td>
<td>60-75</td>
<td>65-85</td>
</tr>
</tbody>
</table>