
Early Rehabilitation for Children with Developmental Disorders

Aivars Vetra

BAR-7,

Tallin,2010

Guidelines for Early Rehabilitation for Children with Developmental Disorders

- The workout of these Guidelines are financed by The European Economic Area Financial Mechanism and Norwegian Financial Mechanism in the frames of the Project” National Multifunctional Centre for Children with Special Needs in Vaivari”.
- The Guidelines worked out by the Working Team is a master copy and is developed meeting the Laws and Regulations of Health Care in Latvia as well considering the Guidelines worked out previously , literature and clinical experience.

Guidelines for Early Rehabilitation for Children with Developmental Disorders

■ Members of the team:

Maris Taube

Iveta Alaine, Dace Bertule, Lolita Cibule, Andra
Greitane, Lilija Harju, Liga Kozlovskā, Gundars Rusovs, Inga
Rutmane, Laura Sermolina, Valda Stānevica, Jurgis Strautmanis,
Maruta Tiltina, Dace Tropa, Aivars Vetra, Aleksandrs Zakis,
Ieva Zilgalve

Guidelines for Early Rehabilitation for Children with Developmental Disorders

- The early diagnose of child's developmental and functional disorders is very important. The early started treatment and rehabilitation could greatly improve the prognosis.
- Unfortunately in Latvia it is not rare that clearly discerned or discreet functioning disorders are not recognized or they are revealed too late.
- To prevent this situation : a team of specialists from different domains have worked out these Guidelines putting an accent on the Standard features of child's development as well attracting specialists ' attention to the possible pathologies that can be noticed.

Guidelines for Early Rehabilitation of Children with Developmental Disorders

- The working out of the Guidelines can be considered as a good practice co-operation example among the Baltic specialists in the field of rehabilitation.
- The idea of working out the plans for early rehabilitation of children and offering the Guidelines to the parents whose children are on a risk group of having disability has been initiated by the Lithuanian colleagues who have practised this approach already for years.
- Considering the situation in Latvia the authours of the Guidelines have paid much attention to the involving in the project colleagues from other related specialties and professions.

Guidelines for Early Rehabilitation for Children with Developmental Disorders

- PRM doctors
- Pediatricians
- Pediatric surgeons
- Child neurologists
- Child psychiatrists
- Family physicians
- Physical therapists
- Occupational therapists
- Speech therapists
- Prosthetic/ orthotic
- Social workers
- Clinical psychologists

Guidelines for Early Rehabilitation for Children with Developmental Disorders

- To make these Guidelines proposal suitable for practical application the authors based their work on the present practice, used the now existing and applied child's evaluation scale depending on the regular child's health examinations from 1 till 3 years of age calendar.
- However the working team suggests to improve the existing practice and start gradual using of the standardized evaluation instruments and International Classification of Functioning (ICF) as it is applied in a number of other countries of the world.

Guidelines for Early Rehabilitation for Children with Developmental Disorders

- The team of the Guidelines' authors consider it to be very important to give a short description about the functions of different medical professionals who could be involved in the treatment and rehabilitation process and thus prevent the functioning impairment limitations and decrease the possible consequences.
- The Guidelines could be like a **manual for family physicians and other medical specialists** for working out the tactics of the activities to be performed and to provide more information for the child's relatives or contact persons and **manual for family members** for better understanding child's situation.

Goal of the Guidelines

- To improve the early recognition of functioning disorders in children till the age of 3 years and prevent or decrease the consequences caused by the impairment and functioning limitations

Tasks of the Guidelines

- Help the child's parents and other relatives to spot the functioning and developmental disorders and timely inform about them the family physician;
- Help the Family physicians to follow normal development of a child or early evaluation functioning and developmental disorders (impairment);

Tasks of the Guidelines

- Enable to select paediatric patients with functioning limitation's for rehabilitation services and provide child's parents and relatives, family physicians and other specialists with the information from the rehabilitation professionals who could be involved in the prevention of the impairments and functioning disorders;
- Provide information for Family physicians and other specialists about different children functioning evaluation and rehabilitation process assessment methods.

The users of the Guidelines

- Child's parents and other relatives,
- Family physicians, pediatricians and other pediatric specialists,
- PRM doctors and other rehabilitation specialists,
- Students and trainees

Structure of Guidelines

1. Evaluation of child's development in family:

- Evaluation of Child's development in the family and marking of the observations in the **Child's Development Card** according to the time Schedule mentioned in the card and stating the diversities from the development considered to be „ typical for a Child in Latvia”;
- in cases of uncertainty and doubt the parents should consult the family physician (**attachment Nr.1.**)

Structure of Guidelines

2. Evaluation of Child's development by the GP or pediatrician

2.1. During the regular health check up or on the initiative of the family, considering the information in the **Family Physician's Evaluation Record**, the child should be sent to the consultation to other pediatric specialist with the aim to specify diagnosis (**attachment Nr.2.**)

Structure of Guidelines

2.2. When stating the existing functioning restrictions, possible functioning restrictions including (attachment Nr.3) meeting the level of competency, the individual rehabilitation plan is started and the patient is sent to receive the rehabilitation services to the PRM Doctors.

Structure of Guidelines

3. Evaluation of Child's development by the Rehabilitation Physician and the Working out of the Individual Rehabilitation Plan:

-Considering the Family Physician or Specialist's conclusion a detailed functioning evaluation – monoprofessional or by a multiprofessional team is carried out, the specification of functioning disorders is determined and the prognosis of the child's development is stated and the individual rehabilitation plan is coordinated with parents.

Attachment Nr.1.

Child's evaluation card in family

- Essential functional disorders which should be paid attention to by parents and other relatives as well that should be informed about to the family physician.
- **Child's evaluation age** – 1 month, 2 months, 3 months, 4 months, 5 months, 6 months, 8/9 months, 12 months (1 year), 18 months, 24 months (2 years), 36 months (3 years)
- ***Domains / X / Comment***

Child's age – 1 month

	X	Comment
Motorics – limp arms, legs or child's muscles are very tense Tremor, cramps, leg, arm sizes differ in both sides		
Vision – does not react on light		
Speech and hearing – does not react to sounds		
Social skills – very sensitive to touches, light, sounds		
Emotional skills – whinning, can not calm down, does not smile, indifferent to feeding		
Independence skills – sucks unwillingly, guzzles, during the feeding chokes		
Cognition – does not recognize the carers voice, touches		

Attachment Nr.2.

Family Physician's Evaluation Record

Child's Age 1 month

Evaluation of Development

- Family physician's examination at home – once in three days if the child is born in the hospital , or 1 time in 6 days if the child is born out of the hospital , or once in the third week after birth.
- Midwife, nurse or family physician assistant's examination at home once in three days after birth, if the child is born in the hospital or once in the 6 first days if the child is born out side the hospital, further once in 10 days.
- On 3rd to 4th day hearing check up with otoacoustic emission method.
- 3rd to 5th day blood test for testing the level of phenyl nine and hyrotrophin. Till the 28th day a repeated test should be done if the first test has been carried out before the 3rd day.

Vaccination according to the vaccination calendar.

Child's Age 1 month

Criteria Characterizing the Development

- Gradual adaptation in the surrounding environment
- Slight differentiation of nervous system, retardation processes prevail
- Insufficient development of organs and systems, weak self- protection

Child's Age 1 month

- Psychosocial and Motor Development:
 - movements – in supine and prone position can bend hands and legs to maximum , turns the head. For a short period can lift a head , primitive reflexis typical for neonate are present;
 - fine motorics – palms in fists;
 - vision – observes the face, follows the toy in 45° angle;
 - speech and hearing – active suckling, energetic crying at dislike; reaction to a loud/ strong sound with a motor reflex (face, widened pupils, fan-shaped fingers);

Child's Age 1 month

- social skills – calms down when taken in hands;
- emotional skills – unconscious smile, smiles at mother or contact person

Child's Age 1 month

Essential Possible Health Impairments

- Consequences caused by disorders in Antenatal period, delivery trauma, asphyxia.
- Infections.
- Inguinal hernia.
- Genetic pathologies

Child's Age 1 month

Functional Disorders

Motorics:

- no typical neonate flexion poses, remarkably high muscular tonus;
- diminished muscular tonus (" frog's pose");
- hyperbolic or hardly present neonate reflexis;
- remarkable posture asymmetry;
- remarkable asymmetry of reflexis;
- no alternating leg movements;
- can not turn head in prone position and release respiratory muscles;

Child's Age 1 month

- frequent, persistent tremor, typical startle reaction, clonus;
- cramps (especially dangerous toxic spasms in series repeatedly and typical myoclonus seizure or quick, short contractions of separate muscular groups as well cramps in combination with psychomotoric development delay or regress;
- restricted abduction in hip joints;
- atypical position of foot towards the shin axis;
- anomalies in the form and length of extremities, differences in the number and correlation of fingers;
- differences in the form and symmetry of the spinal column.

Child's Age 1 month

Vision:

- no reaction to the light, does not fix the sight, that could notify about the cognitive disorders, nystagmus, squint

Speech and hearing:

- slow or no reaction to a loud/ heavy noise could point to cognitive disorders, no active suckling

Child's Age 1 month

Social Skills:

- very sensitive to irritations (touches, sounds, light).

Emotional Skills:

- at dislikes does not cry, no emotional response reactions, does not smile, too sensitive to irritations, sleeps too much, whinning, can not calm down, indifferent to feeding, different external stimulus, objects, light, sounds, contacts (feeding, diapering, taking in hands).

Child's Age 1 month

Cognition:

- does not recognize the voice of the carer, hand touch, does not fix the sight to the person's face who has leaned over, can not concentrate even for a very short period of time , slow or no reaction to light and sound).

Attachment Nr.3.

Functioning domains, where in case of a statement of restriction , the consultation of rehabilitologist is a must (period birth-3 years)

International classification of functioning, disability and health :

Children & Youth Version ICF-CY

Attachment Nr.3.

- The goal of this section is:
 - to achieve a duly selection of “ risk group” children for receiving rehabilitation services - for working out the individual rehabilitation plans;
 - to achieve child’s further functioning independence;
 - to insure the access to general education;
 - to insure the integration of children into society.

Monitoring

- Rehabilitation plans are stored in the State Children Disease Register (conceptually worked out) and once a year its realization process will be monitored

Guidelines in general

- **Provide parents with the possibility to take their choice according to the Legislation in Latvia:**
 - follow the individual rehabilitation plan (the problem could be insufficient facilities and resources for rehabilitation)
 - “take your own way”.

Guidelines in general

- *The aim of this presentation is to initiate the audience of the Baltic multiprofessional rehabilitation specialists into the Guidelines for early rehabilitation of children
- * invite you to co-operate in developing these Guidelines and putting them into practice.