Annex 11

A summary of interventions for children referred to the nutrition clinic of the MOH

For further details please refer the following guidelines of the Family Health Bureau of the Ministry of Health

- General circular letter no. 02-18/2008 - Protocol on Managing Nutritional Problems among Under Five Children in the Community
- Guidelines on Infant and Young Child Feeding
- Management of severe acute undernutrition – Manual forHealth Workers in Sri Lanka

	Zone of growth according to the CHDR	**Intervention**
1	Children with growth faltering who are in the green zone of the weight for age graph (+2SD to -1SD) And Children with growth faltering who are in the light green zone (-1 SD to -2 SD)	Take a detailed history and perform clinical examination to see whether any illness or disease condition causes the faltering of growth. If there is an underlying illness which can be treated at MOH level, give necessary treatment. If suspected to be having a condition which cannot be treated at MOH level (urinary tract infections, congenital abnormalities, metabolic disorders etc.) refer to the specialist for investigations/ treatment/advice. **If no underlying medical condition is suspected,** **Get the 24 hour dietary recall and assess the diet quantitatively and qualitatively.** - Identify the immediate cause/s. if there are several causes identify a cause that should be addressed as a priority and can be modified. - Intervene as required. - Follow up about the mother/caregivers carrying out instructions correctly. Monthly weighing is a must. - If the weight gain is satisfactory (and interventions carried out for all identified causes) the child can be referred back to the field. Close monitoring is essential after discharge from the nutrition clinic. - Appropriate stimulation to enhance psycho social development is also essential during these interventions. - If the progress is not satisfactory after a 3 consecutive weight measurements or a shorter time interval depending on the problem, the child should be referred to a paediatrician.

		If the child is having a medical condition - Get the illness history (including any special dietary advice given by specialists to suit the medical condition) and the feeding practices during illness and recovery. - If feeding practices during illness/recovery needs to be improved do necessary interventions. - Appropriate stimulation to enhance psycho social development - Follow up after a reasonable time interval - Re assess the growth status after recovery and then manage as for a child who is not ill (as mentioned above).
2	Children who are in the orange/red zones of the weight for age graph (below -2SD)	A) For children who are in these zones due to growth faltering, the MOH should intervene from the very first instance of identification of such children. These children should be assessed for weight for length/height and if falls below -3SD in the weight for length/height graph, they should be referred immediately to the paediatrician for therapeutic feeding. - Even when the weight for length/height is above -3SD level, if suspected of having a condition which needs specialist interventions (urinary tract infections, congenital abnormalities, metabolic disorders etc.) refer to the specialist for investigations/ treatment/advice. Children who are not in need of specialist interventions/ therapeutic feeding can be managed as specified in section 1, but if no satisfactory weight gain is seen at **<u>one month</u>** should be referred immediately to the paediatrician. B) For children who are growing in the orange or red zones from the birth itself (preterm infants and infants born with IUGR)* must be regularly assessed by a paediatrician. Further, the MOH on the first instance such a child is seen, should take a detailed history and perform a thorough examination to assess their status of health and growth (*for pre term infants according to the corrected age*) and identify factors affecting their growth including medical conditions. - For an otherwise healthy IUGR child an effort should be made to take the growth curve gradually upwards to the zone immediately above. If this fails ensure that the child maintains a growth in the upper part of the same zone, parallel to the standard growth curve. - A preterm infant without IUGR will show a rapid catch up growth during the initial months and after

		reaching his/her full growth potential will grow parallel to the standard growth curves in the newly acquired zone. Such a child can be considered as a normal child after this. - If a child growing in the orange/red zone develops growth faltering that child should be immediately referred to the MOH. These children then should be managed as specified under section A. When these children are discharged back to the field ensure; - Continuous follow up - Age appropriate immunization - Vitamin A meagadose at recommended ages - Appropriate stimulation to enhance psycho social development - Regular monitoring of weight and length/height * For low birth weight babies (pre term infants and IUGR infants), special attention should be given to promote breastfeeding and to give iron and vitamin C supplements from 2 months onwards as recommended by the paediatrician (at the paediatric clinic where the child is followed up).
3	Children growing in the purple zone of the weight for age graph (> +2SD) And Children whose growth curve is rising steeply in the green zone (crossing standard growth curves within a short period of time)	• Assess the weight for length/height and look at the direction of this curve to ascertain whether the child is having a risk of being overweight. • A baby who is being exclusively breastfed needs no special interventions for being overweight during this period, but the MOH should examine the child for the presence of other pathologies (e.g. hypothyroidism, other hormonal problems etc.) and refer accordingly. For children after 6 months of age; • A detailed history and examination should be performed to exclude any underlying pathology other than nutritional obesity. • If an underlying pathology is suspected refer to a paediatrician for advice/ investigation or treatment. • If no underlying pathology is suspected, a detailed dietary history and an activity recall should be taken. • Identify the immediate cause/s. if there are several causes identify a cause that should be addressed as a priority and can be modified. • Intervene as required. • Follow up about the mother/caregivers carrying out instructions correctly. Monthly weighing is a must.

		• Follow up the child at the clinic for twomonths. If the weight for age has continued to increase rapidly inspite of interventions, refer to a paediatrician immediately. • If weight for age increases is parallel to the reference curves, weight for length/height should be checked. If it continues to be above+2 SDor the weight for length/height curve is still high or rising further, the child should be referred to the paediatrician. Note –it is not recommended to reduce the weight of an overweight child. The rate of weight gain should be slowed down instead, while maintaining the rate of increase in length/height.
5	Children whose length/height for age curve deviating from the reference curves (slow gain in length/height or no gain at all)	• Take a detailed history and perform a clinical examination to exclude an underlying pathology • If a pathological cause is suspected (e.g. congenital/chronic disease, recurrent infections etc.) refer the child to a paediatrician. • If no underlying pathology is suspected, a detailed dietary historyincluding a 24 hour dietary recall should be taken to identify nutritional causes. • Identify the immediate cause/s. if there are several causes identify a cause that should be addressed as a priority and can be modified. • Intervene as required. • Follow up about the mother/caregivers carrying out instructions correctly. Measuring length/height at regular intervals is a must (once in two months for children under 2 years of age and once in 3 months for older children). • If the gain in length/height remains unsatisfactory, the child should be referred to a paediatrician. Note ; A stunted child needs a diet balanced in all the nutrtients, especially consisting of foods that provide protein, calcium, zinc, phosphorous etc. that are needed for the gain in length/height. If a stunted child is given a diet high in energy, the child will be at risk of becoming overweight.
6	Children whose length/height for age curve is in the orange/red zones (below -2 SD)	• Need referral to a paediatrician for the initial assessment.
7	Children whose length/height for age curve is rising steeply	• Need referral to a paediatrician for the initial assessment.

8	Children whose weight for length/height is below -2SD	• Moderate wasting / Moderate acute malnutrition (MAM) – orange zone in the weight for length/height chart (between -2SD and -3SD)→ while interventions are being carried out as specified in section 1, should be entered into a supplementary food programme (e.g. thriposha) • Severe wasting / Severe Acute Malnutrition (SAM) – red zone in the weight for length/height chart (below -3SD) →refer to the paediatrician immediately for therapeutic feeding.
9	Children whose weight for length/height is above + 1SD	• Risk of being overweight (between +1 SD and +2 SD) • Overweight (above + 2 SD) For both categories intervene as specified in section 3.
10	**Field management of children whose growth is as expected** • Inform parents that the child is growing well • Praise them for their effort • Inform them about the next date to come for weighing • Take a 24 hour dietary recall and assess the quality and quantity of food and the feeding practices. • If the diet and the feeding practices need changes in the immediate future (till the date of next weighing) give them the relevant information; i.e. number of meals, the amount of food per main meal, the type and consistency of food etc.	

Relevant information for some of the specific nutritional problems

Poor quality food	
Consistency of food not thick enough for age	On completion of 6 months start giving food thick enough to stay in the spoon and increase the thickness gradually; i.e. from well mashed food → fine particles → coarse particles → finger food → by the age of one year the consistency of food should be as sme as the adult food.
Not adding oil to prepare food	Use a source of oil such as thick coconut milk, gingelly oil, ghee etc. when cooking the food or add 1-2 teaspoons of scrapd coconut, butter or margarine to cooked food.
Diet low in variety	The following components should be included in the daily diet. - An energy rich staple - Animal origin food with haem iron - Pulses/ legumes/ nuts or seeds - Eggs - Dark green leaves or orange/ yellow vegetable/fruit - Source of oil (oil, thick coconut milk, butter/margarin/cheese) - Breastmilk or a milk product
Giving inappropriate food frequently	- Sweets, sweetened drinks, sugar/jageery etc. while being low in other nutritients delay a child from getting hungry and therefore should not be

<table>
<tr><td></td><td>given often.
- Giving milk and dairy foods above the recommended daily intake will hinder the child from getting a balanced diet.
- A diet extra rich in oil or oily food will reduce the amount of food the child eats and therefore reduces the amount of nutritients received by the child.
- Processed food poor in nutritients; i.e. savoury mixture, bites etc.
- Drinks and juices – nutrient density is low.</td></tr>
<tr><td colspan="2">Amount per main meal is inadequate</td></tr>
<tr><td>Giving the child too many snacks poor in nutrients making the child not hungry at meal times
Offering food when the child is not hungry
Offering only a small quantity of food due to ignorance or lack of food
Force feeding thus making the child dislike the meal
Child left to eat on its own and not assited by adults during meal times</td><td>- Look for the reason behind the inadequate quantity. The reasons can vary.
- Correct these causes to increase the amount of food eaten per each mainmeal as follows;
o 6+-8 months: on completion of 6 months start with 1-2 tea spoons of food at a time and increase this amount gradually till a little more than ½ a tea cup (200 ml) of food by the age of 8 months
o 9-11 months: around ¾ of a 200 ml tea cup
o 12-23 months: a little more than a full 200 ml tea cup</td></tr>
<tr><td colspan="2">Number of meals received is inadequate</td></tr>
<tr><td></td><td>Space out the meals so that an appropriate number of meals are given.
- Around 7-8 months of age 2-3 main meals a day with
1-2 nutritious snacks as required by the child’s status of growth (one snack between two main meals)
- Around 9-24 months 3 main meals a day with
1-2 nutritious snacks as required by the child’s status of growth (one snack between two main meals)</td></tr>
<tr><td colspan="2">Inappropriate feeding practices</td></tr>
<tr><td></td><td>- Feed small children
- Let older children eat by them selves while the adult assists
- Identify hunger and satiety cues
- Feed slowly and patiently</td></tr>
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	- Let older children take their meals at family meal times along with other members of the family - Keep regular meal times (do not make the meal too long so that the child starts disliking the meal; preferably not more tha ½ hour). Spacing between meals is also important; preferably 2- 2 ½ hours between two meals – this may vary from child to child. - Have a regular place for the child to have its meals - Avoid force feeding - Keep the child's attention to the meal while feeding. Do not distract its attention by showing the television/ animals or birds, walking while feeding or letting the baby play while feeding. - Lovingly encourage the child to eat. - Talk to the child during the meal. Keep eye to eye contact. - Use different ways to encourage the child to eat; o Talk with the child about the different types of food, different tastes, colour of food, number of mouthfuls etc. o Add variety to meals by changing the type of food, tastes and consistency etc. - Praise the child while eating.
Unhygienic practices in preparation of food, feeding the child and storage of food	
	When preparing food, feeding the child and during storage of food; - Wash hands properly - Uses safe water and safe food - Use clean utensils - Store food safely - Avoid using bottles or teats
Wrong feeding practices during illness and recovery	
During illness	- Encourage the child to eat with a lot of patience - Give frequent feeds with a small amount at a time - Give nutritious food the child likes to have - Give a variety of nutrient dense food - Add oil/ thick coconut milk/margarin/butter as usual - Continue breastfeeding and breastfeed more often
During recovery	- Breastfeed more often - Give an extra meal - Give an extra amount of food per meal - Give extra nutritious food - Feed with extra tender loving care and patience

Issue of thriposha should be according to the departmental instructions given

Children aged 6 months to 5 years who are

- Underweight (who fall below – 2 SD in the weight for age graph)*
- Has long standing growth faltering (growth faltering in 3 consecutive measurements)
- Hospitalized children who belong to above two categories

* Thriposha should be given to children who are below – 2 SD curve in the weight for age graph, and those who are in the -2 SD to - 3 SD zone in the weight for length/height graph. The children who fall below – 3 SD curve in the weight for length/height graph should be referred to a paediatrician for therapeutic feeding.