

Primary Health Care Initiatives (PHCI) Project
Contract No. 278-C-00-99-00059-00
Abt. Associates Inc.

GROWTH MONITORING

LEARNING OBJECTIVES:

- Demonstrate the proper method of growth monitoring (weight, height, head circumference)
- Interpretation of growth chart
- Teach the parents about warning signs of normal growth and development

TEACHING STRATEGIES:

- Use lectures and informal presentation for didactic material
- Use small group practice to practice weighing and measuring a baby and filling in a growth chart
- Use role play to practice interpretation of growth charts
- Identify mistakes on growth charts

MATERIALS AND EQUIPMENT NEEDED:

- Model baby dolls
- Scales, length/height board, and tape measure for head circumference
- Different growth charts and enlarged versions or transparencies of charts
- Audiovisual aids such as charts, transparencies
- White board or flip chart and markers

LEARNING POINTS:

- Significance of normal growth in early life on:
 - Child survival
 - Adult health
 - Brain development
 - Productivity in later life
- Effect of early identification of abnormal growth pattern
 - May indicate problem such as:
 - Feeding problem
 - Misinformation of parents
 - Poor weaning practices and selection of foods
 - Social problem (disorganized house, divorce, single parent)
 - Hydrocephalus or microcephalus (head circumference)
 - Food allergies
 - Malabsorption or endocrine problem
 - Chronic infection
 - Heart disease
 - Other chronic conditions

- Early identification of cause of abnormal growth pattern gives opportunity for early intervention and restoration of normal growth pattern. Common simple interventions include:
 - Feeding problem – counsel mother in correct breast feeding technique or use of bottle
 - Misinformation of parents – counsel regarding attitudes toward feeding and caring for child
 - Poor weaning practices or choice of foods – counsel parents regarding adequate, appropriate foods for weaning
 - Social problems – involve resources such as community leaders, social worker, other family members
 - Food allergies, malabsorption, abnormal head growth, other problems – refer to specialist for proper evaluation and management
- Use of the suitable equipment
 - Scale must be properly balanced and calibrated
 - Height/Length board must not be worn, and slide smoothly
 - Tape measure must not be stretched
- How to weigh and measure the child accurately
 - Weight
 - Length
 - Head circumference
- Enter the data accurately on the growth chart
 - Connect all points with a line to show growth curve
- How to interpret the growth line
 - Persistent deviation from standard growth line is cause for concern and investigation
 - Primary concern is flattening of growth curve for weight or length
 - Primary concern for head circumference is growth that is too rapid or too slow for age
 - If cause cannot be identified or managed in health center, child should be referred to specialist

CLINICAL PROTOCOL:

- Monitoring of growth should coincide with the scheduled time of immunization and screening, using MOH schedule
- Initial intervention with abnormal growth pattern
 - Children of 0-4 months with no weight increase for 1-2 months
 - Perform complete history and examination to identify possible clinical problem
 - Breastfeed on demand at least 3-5 times more than usual
 - Breastfeeding mother to drink extra fluids
 - Improve mother's nutrition intake
 - Followup and measure child every 2-4 weeks to confirm improvement and continue to counsel mother
 - Children of 4-8 months with no weight increase for 1-2 months
 - Perform complete history and examination to identify possible clinical problem
 - Give the child one medium-size dish of porridge three times a day

- o Followup and measure child every 2-4 weeks to confirm improvement and continue to counsel mother
- Older children with no weight increase for 1-2 months
 - o Perform complete history and examination to identify possible clinical problem
 - o Give more frequent small weaning food added to breastfeeding
 - o At 1 year give the child adult food
 - o Restore the child's appetite by changing the kind of food
 - o Change the way the food is offered
 - o Followup and measure child every 2-4 weeks to confirm improvement and continue to counsel mother

PREVENTION ISSUES AND HEALTH EDUCATION MESSAGES

- Routine growth monitoring should be done on all young children in health center catchment area
- Well babies less than 6 months old need no other milk or food apart from breast milk
- Locally made weaning food is appropriate and inexpensive
- Feed children often - small children have small stomachs
- Sick children should continue to eat through the illness - give extra food when they recover

CRITICAL ELEMENTS FOR REFERRAL

- Severe malnutrition
- Presence of severe dehydration
- Abnormal head circumference curve
- When more laboratory tests are indicated
- When infection, malabsorption, or other clinical abnormality are suspected
- Difficult social circumstances

CASE STUDY

Muna is a 6 month old girl who visited the health center for immunization. Her body weight is 4 kg which is below the 5th centile for her age. Upon questioning her about her feeding history the following information was obtained: The mother has been breastfeeding her 5 times daily. At the last clinic visit, the doctor advised the mother to give her 3 feeds of infant formula added to the breastfeeding. One week later Muna developed an episode of diarrhea, and the doctor advised the mother to dilute the milk formula to decrease the diarrhea. The mother continued to give her the diluted formula because they cannot afford the extra cost of the milk formula.

Topics for discussion regarding case study:

1. What was the initial feeding problem identified in this patient?
2. Was the advice given by the doctor useful?
3. What should we counsel the parents during diarrhea episodes?
4. What is an appropriate plan of management at this point?

CRITICAL ELEMENTS OF COMPETENCE FOR EVALUATION

- Correct weighing, recording and interpretation of weight
- Understanding risk factors for growth failure
- Appropriate parental education regarding healthy nutrition