

SOP

Assessment of Mid-Upper Arm Circumference (MUAC) for Nutritional Screening in Children Aged between 6 months-5 years old

Department of Public Health

Faculty of Medicine

UWUSL

Standard Operating Procedure (SOP) on Assessment of Mid-Upper Arm Circumference (MUAC) for Nutritional Screening in Children Aged between 6 months-5 years old

(1) Title

Assessment of Mid-Upper Arm Circumference (MUAC) for Nutritional Screening in Children Aged between 6 months –5 years old

(2) Issued by

Department of Public Health, Faculty of Medicine, Uva Wellassa University of Sri Lanka

(3) Purpose

To establish a standardized procedure for measuring Mid-Upper Arm Circumference (MUAC) accurately and consistently for the early identification of acute malnutrition in children.

(4) Scope

This SOP applies to:

- (4.1)** Medical students during clinical and community health training
- (4.2)** Nursing and midwifery trainees
- (4.3)** Public Health Inspectors and Public Health Midwives
- (4.4)** Healthcare staff in hospitals, child welfare clinics, and community settings

(5) Responsibilities

(5.1) Medical Students

- (5.1.1)** Perform MUAC measurements according to standard guidelines
- (5.1.2)** Identify children at risk of malnutrition
- (5.1.3)** Record findings accurately
- (5.1.4)** Communicate findings to supervisors

- Non-permanent fine tipped marker



(8) Procedure

(8.1) Preparation of the child

(8.1.1) Explain step by step procedure to the caregiver



(8.1.2) Ask the caregiver to gently remove any clothing covering and expose the child's left arm.

(8.1.3) Position the child comfortably on the caregiver's lap



(8.1.4) Bend the child's left arm at approximately 90 degrees (right angle)



(8.2) Identifying the Midpoint of the Upper Arm

(8.2.1) Locate the tip of the shoulder (acromion process).

- End of the bone with the most lateral bony protuberance of the back of the shoulder (acromion process)
- Mark the point with a marker on the arm.



(8.2.2) Locate the tip of the elbow (olecranon process)

- Locate the pointed, most prominent tip of the elbow (olecranon process)
- Mark the point with a marker on the arm.

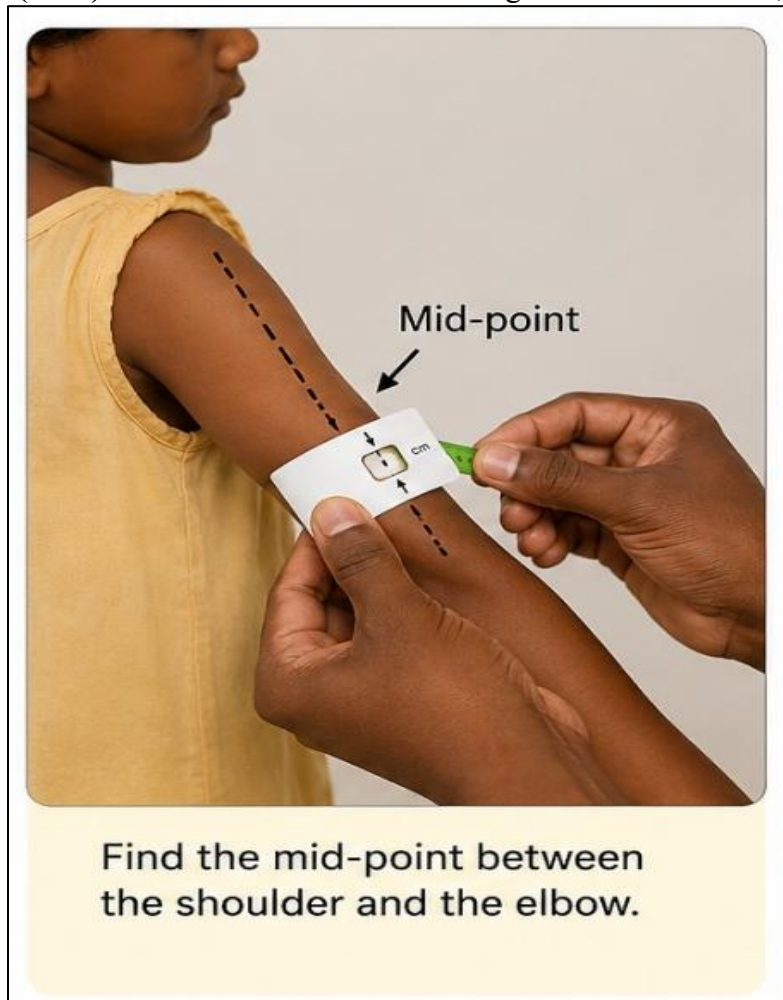


- (8.2.3) Place the MUAC tape at zero, which is indicated by two arrows, on the tip of the shoulder (first mark) and extend the tape straight down to the tip of the elbow (second mark).
- (8.2.4) Read the number at the tip of the elbow and divide this number by two: this is the midpoint of the arm.
- (8.2.5) Mark the midpoint with a marker on the arm.



(8.3) Measuring Mid Upper Arm Circumference (MUAC)

(8.3.1) Ask the child to relax and straighten the child's arm, insert the tape at the mid-point.



(8.3.2) Wrap the MUAC tape horizontally around the midpoint of the upper arm. (the tape should lie on top of the marked midpoint).

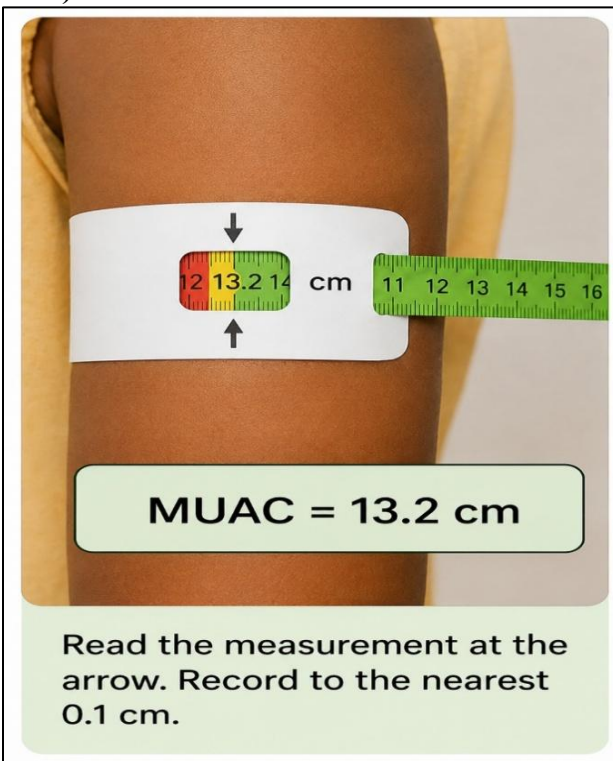
(8.3.3) Ensure the tape is:

- Make sure the numbers are right side up
- Flat against the skin
- Neither too tight nor too loose
- Horizontal around the arm

(8.3.4) Measure the MUAC (Take three Consecutive measurements and record the average value)

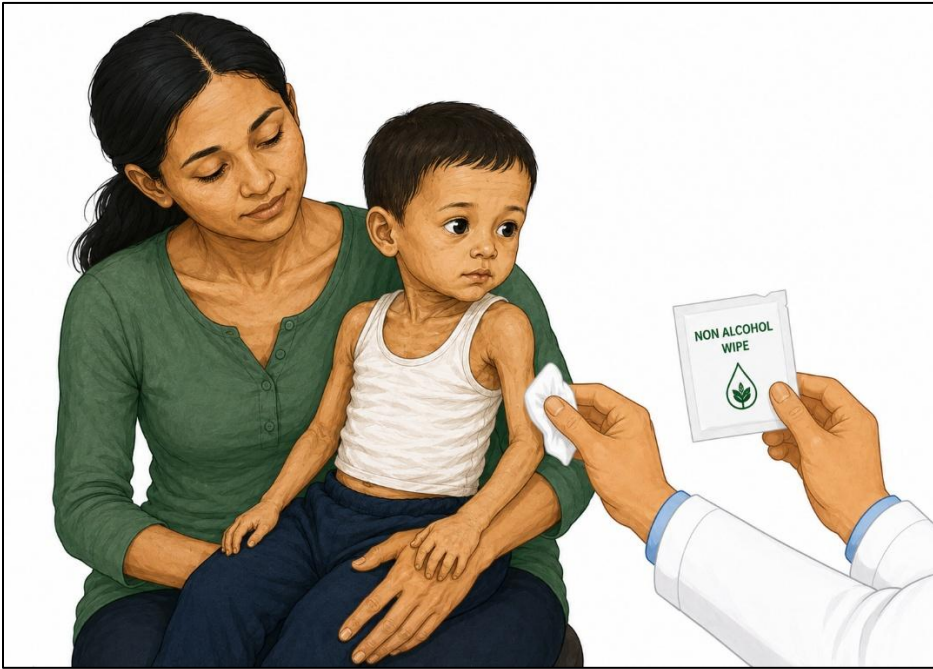


(8.3.5) Read the measurement to the nearest 0.1 cm.

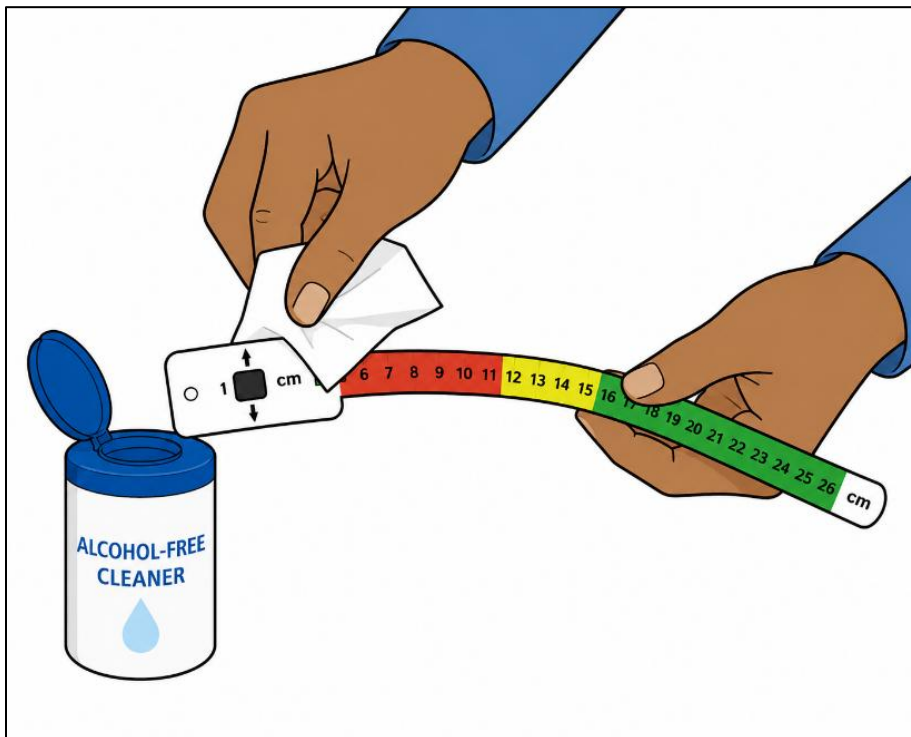


(8.3.6) Remove the tape from the child's arm and record the measurement.

(8.3.7) After taking the three MUAC measurements, the measurer will offer a non-alcohol wipe to the caregiver so that she/he can wipe off the marks on the child's arm.



(8.3.8) After a child has been measured (three times) and if sanitizing is required, the measurer will clean the MUAC tape with an alcohol-free cleaner.



(8.4) Repeat Measurement

- Repeat the measurement if there is uncertainty.
- Confirm the final reading before documentation.

(9) Interpretation of Results

MUAC Measurement	Nutritional Status	Colour Coding
< 11.5 cm	Severe Acute Malnutrition (SAM)	Red Zone
11.5 cm – 12.5 cm	Moderate Acute Malnutrition (MAM)	Yellow Zone
≥ 12.5 cm	Normal Nutritional Status	Green Zone



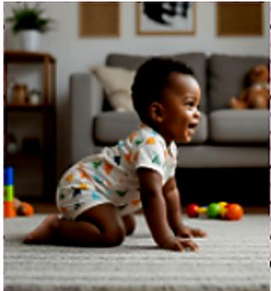
Red (Severe Wasting)

If a child has an MUAC reading in the red zone, s/he is severely wasted and requires treatment at the Pukesmas.



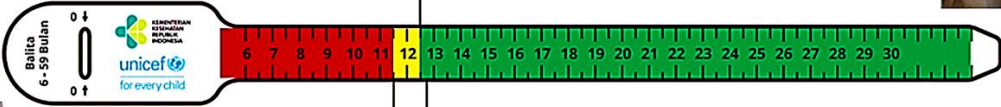
Yellow (Moderate Wasting)

If a child has an MUAC reading in the yellow zone, s/he is moderately wasted and should be provided with local supplementary food, counseling and regular monitoring to ensure they don't become severely wasted.



Green (No wasted)

If a child has an MUAC reading in the green zone, she/he is not wasted.



(10) Referral Criteria

(10.1) Refer the child for medical evaluation if:

- MUAC < 11.5 cm
- Child appears severely ill or has feeding difficulties

(10.2) Provide nutrition counselling and follow-up for children with MUAC 11.5–12.4 cm.

(11) Documentation

Record:

- (11.1)** Date of assessment
- (11.2)** Child's name and age
- (11.3)** MUAC measurement (cm)
- (11.4)** Nutritional status classification
- (11.5)** Advice given
- (11.6)** Referral made (if applicable)

(12) References

1. WHO Child Growth Standards and the Identification of Severe Acute Malnutrition in Infants and Children.
2. UNICEF MUAC Guidelines-A simple tool to detect Child wasting and save lives in children aged between 6 months and 5 years old.

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