PREDICTORS OF WASTING BY THE AGE OF 1 YEAR AMONG INFANTS UNDER 6 MONTHS ENROLLED IN A MAMI PROGRAM IN COX'S BAZAR REFUGEE CAMP

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Abstract language: English

Topic: Nutrition in children

Background and aims: The detection and management of (nutritionally) at-risk mothers and infants under 6 months (MAMI) has been identified by WHO as a priority. In 2015 the MAMI tool was published. As the tool is new with updated versions being developed/piloted, there is still uncertainty on the ideal MUAC cut-off for enrolling these infants. In addition, it is unknown which risk factors during their enrolment period in MAMI, contribute to the development of wasting beyond the age of 6 months.

Methods: With the aim of identifying the predictors associated with wasting by the age of 1 year, Medair conducted a prospective cohort study among infants enrolled in MAMI in Cox's Bazar refugee camp, Bangladesh. MAMI enrolment criteria included weight-for-age z-score (WAZ) <-2 (discharge WAZ >-2), breastfeeding and maternal problems (latter excluded from analysis). Acute malnutrition in children over 6 months was diagnosed as MUAC <12.5 cm.

Results: 497 infants were enrolled between January 2020 and April 2021. 246 infants presented with WAZ <-2 ('WAZ' group); 251 were enrolled for breastfeeding problems ('OTHERS' group). In multivariate analysis, 'WAZ' group was strongly associated with the risk of wasting by the age of 1 year, when compared to 'OTHERS' group (OR 2.59 (95% CI [1.39-4.80], p=0.007)). Sub-analysis of 'WAZ' group identified predictors protecting from wasting occurrence: protective younger age (<2 months) at MAMI enrollment (OR 0.98 (95% CI [0.97–0.99], p=0.011)); protective male sex (OR 0.41 (0.19–0.89, p<0.024); protective higher MUAC (≥12.3 cm) at discharge (OR 0.30 (0.17–0.50, p<0.001).

Group ALL	Total	WAZ	OTHERS
N	497	246	251
Female # (%)		133 (54.1%)	132 (52.6%)
GAM # (%)	101	66 (26.8%)	35 (13.9%)
SAM # (%)	11	8 (3.3%)	3 (1.2%)
Age Adm Days		62.1 (42.4)	51.5 (35.9)
Age Disc Days		132.5 (55.6)	115.2 (49.3)
MUAC Admis cm (SD)		10.6 (1.1)	11.5 (1.0)
MUAC Disc cm		12.2 (1.0)	12.8 (1.0)
LoS Days (SD)		67.5 (35.7)	63.7 (30.8)
AWG g/kg/day		7.51 (3.94)	5.92 (2.80)

WAZ Group	Total	GAM	No GAM	Univariate Analysis	Multivariate Analysis	OR (95% CI)
WAZ	246	66	180	_P_<0.001	P=0.007	2.59 (1.39-4.80)
Male # (%)	113	26 (39.4%)	87 (48.3%)	_P_=0.213	_P_=0.024	0.41 (0.19-0.89)
Age Adm Days (SD)		90.9 (49.2)	51.2 (33.7)	_P_<0.001	_P_=0.011	0.98 (0.97-0.99)
MUAC Admission		10.8	10.5	_P_=0.063		

		(0.8)	(1.2)			
Age Disc **Days (SD)**		161.5 (42.0)	120.0 (56.2)	*P*<0.001		
MUAC Discharge **cm (SD)**		12.0 (0.6)	12.3 (1.2)	*P*=0.014	*P*<0.001	0.30 (0.17-0.50)
AWG g/kg/day (SD)		5.67 (3.17)	8.35 (3.98)	*P*<0.001	*P*=0.022	0.84 (0.72-0.98)

Conclusions: 'WAZ' infants have a higher risk of wasting by the age of 1 year compared to 'OTHERS'. To mitigate this risk, 'WAZ' infants should be screened/enrolled in MAMI as early as possible. When they reach the age of 6 months, 'WAZ' infants should be considered for receiving Small-Quantity Lipid Nutrient Supplementation.

This study is: Other, please explain:

Details: MAMI is an integral part of the nutrition intervention in Cox's Bazar Refugee Camp, endorsed by the Nutrition Sector Coordination/Unicef/WFP (coordinator:brahimov@unicef.org).
Moreover, all children above 6 months old were systematically enrolled in the BSFP program, screened for acute malnutrition and referred to OTP/TSFP treatment (implemented by Medair) if needed.

1. I confirm that the abstract and that all information is correct: Yes

2. I confirm that the abstract constitutes consent to publication: Yes

3. I confirm that I submit this abstract on behalf of all authors.: Yes

4. Selected for either oral or poster presentation.: Yes

Conflict of interest to declare?: No