Community-Based Developmental Milestones Assessment Tool for Cambodian Children

Dr. Chanpheaktra Ngoun & Lina Saem Stoey, Angkor Hospital for Children (AHC)
Klaus Basel & Dr. Piet de Mey, Gesellschaft für Internationale Zusammenarbeit (GIZ)

Contact: Dr Ngoun Chanpheaktra at pheaktra@angkorhospital.org for more information on cDMAT and CB-DMAT

MULTIDISCIPLINARY

Overcoming Obstacles and **Moving Towards** a **Multidisciplinary Approach** to **Rehabilitation**!!

Childhood development milestones are essential skills that define the way a child can participate socially, physically, and intellectually. Not reaching these milestones on time can be an indicator of a developmental delay, and the child must be assessed in time for early support.

To assess these skills and detect delays/disabilities, a culturally sensitive and environmentally appropriate tool specific to Cambodian children has been created based on an observational study in Cambodia children. The tool is called the Cambodian Developmental Milestone Assessment tool (cDMAT).

The cDMAT consists of reference graphs for four functional domains (socio/personal, fine motor, language/cognition and gross motor skills), providing age norms of achievement of 129 milestones for children up to six years old.

The cDMAT should be applied by trained health professionals or preschool teachers. It requires practice to remember the specific assessment steps and performance definitions for each milestone.

CB-DMAT

The cDMAT can be too time consuming for nurses and too complex for use at the community level with the parents. Therefore, a shorter, simpler and community-based DMAT (CB-DMAT) has been developed.

The CB-DMAT can be used at health centres and community level to potentially trigger the referral of children with suspected developmental delays to a trained paediatrician or physiotherapist.

Outlook

Before a country-wide implementation of the cDMAT and the CB-DMAT can be envisaged, it would be a step in the right direction to create a small-scale comprehensive pilot service provision network within the public and the private sector. This endeavor should cover child developmental milestones monitoring, assessment and intervention as provided already at the Angkor Hospital for Children (AHC).

Community based-DMAT (CB-DMAT) — Age 6 months–2 years

Age	Milestones	yes	no	Referral
6 months	By age 6 months, your child can: Look at face? / Follow object passed midline? / Turn head to sounds? / Head up 45 degrees?	☐	☐	If one or more 'no', refer to specialist
9 months	By age 9 months, your child can: Explore environment? / Follow object 180 degrees? / Squeal? / Chest up with arm support?	☐	☐	If one or more 'no', refer to specialist
1 year	By age 12 months, your child can: Recognize stranger? / Rake lotus seed (≥1 /3 attempts)? / Sit without support (≥10 sec)? / Pull up to stand (≥2 sec)	☐	☐	If one or more 'no', refer to specialist
1.5 years	By age 18 months, your child can: Hold and drink from cup? / Take objects in each hand? / Babble? / Walk alone (≥5 steps)?	☐	☐	If one or more 'no', refer to specialist
2 years	By age 24 months, your child can: Play 'woh .... vak-eu'? / Transfer object between hands? / Ma or pa (non-specific)? / Stoop and recover	☐	☐	If one or more 'no', refer to specialist

Age 2.5 years - 6 years

Age	Milestones	yes	no	Referral
2.5 years	By age 30 months, your child can: Use spoon / Put block in cup / Makmak/paa/bong (specific) / Run with good balance (≥2 m)	☐	☐	If one or more 'no', refer to specialist
3 years	By age 36 months, your child can: Put on simple clothes with help? / Bang 2 objects together? / Say words (≥3) / Walk backward (≥2 steps)	☐	☐	If one or more 'no', refer to specialist
4 years	By age 48 months, your child can: Play well with others (sharing)? / Unscrew a jar? / Say words (≥6)? / Kick ball forward?	☐	☐	If one or more 'no', refer to specialist
5 years	By age 60 months, your child can: Wiggle one thumb? / Speak understandably? / Use pronouns correctly? / Throw object overhand?	☐	☐	If one or more 'no', refer to specialist
6 years	By age 72 months, your child can: Play kid games? / Catch soft ball? / Count 1 to 5? / Straight heel-to-toe walk (≥4 steps)?	☐	☐	If one or more 'no', refer to specialist

AHC Improving Healthcare for Cambodia's Children

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References

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(2) Ngoun C, De Mey P, Baesel K, Khan RK, Stoey LS (2018). Cambodian Developmental Milestone Assessment Tool (cDMAT): making of the reference chart and reliability check of a tool to assess child development in Cambodian children. PLoS ONE (submitted Aug 2018)