

Using Infant Growth Charts in MTN-016

Rachel Scheckter

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What are growth charts?

- MTN-016 uses the WHO growth standards to monitor growth for infants up to one year of age.
- Growth charts are not diagnostic instruments. They are screening tools that help you form an overall clinical impression for the child being measured.
- The positions of the individual points on the graph are less important than the overall trajectory of the growth curve over time.



How to use a growth chart

- Accurately measure weight and recumbent length
- Plot measurements on appropriate chart
- Use the percentile lines to assess body size and growth, and ***monitor growth over time***
- Gather additional history, exam as needed
- Discuss growth pattern with parent/caregiver and agree on subsequent action if required



Describing a plotted point - 1

- If the plotted point is right on or near the percentile line, then in practice the child is described as being at that percentile:
 - E.g. If Point A is on or near the 50th percentile, the child is described as being “at the 50th percentile”
 - For the MTN-016 CRF: Enter the number 50 as the percentile

Describing a plotted point - 2

- If the plotted point is between percentile lines, then in practice the child is described as being between the two percentiles:
 - E.g. If Point A is between the 50th and 75th percentile, the child is described as being “between the 50th and 75th percentiles”
 - For the MTN-016 CRF, we cannot report “between percentiles” so instead we estimate a percentile in blocks of 5-10% (e.g. 55th, 60th, 65th, 70th percentile) and record this number on the CRF



Normal growth in a healthy infant

- Typically follows the same growth curve or trajectory over time.
- A normal growth curve is between the 2nd and 98th percentile and parallels the 50th percentile growth trajectory.
- Weight should be proportional to length
- An infant should regain birth weight by two weeks of age and then will typically gain 15-30 grams (0.5-1 ounce) per day*



When further investigation is needed

- Unexplained growth including:
 - Sharp upwards or downwards trend over a short period of time when child crosses one major percentile curve and may be close to crossing a second major percentile curve
 - Growth at $<2^{\text{nd}}$ percentile or $>98^{\text{th}}$ percentile
 - Consistent flat growth trend
 - Concerns such as poor nutritional intake, presence of a chronic illness, etc.