Tips for Weighing and Measuring Children

Accurate growth measurements are required for the safe administration of medications, calculation of fluid needs, nutrition screening, and assessment of patients.

Growth Charts:
The CDC recommendations are to plot all children on a standard growth chart for their gender and age:

- Under 24 months: use WHO chart
- Over 2 years: use CDC chart
- **WHO and CDC Charts:** http://www.cdc.gov/growthcharts/

Height and Length:

- A recumbent length should be obtained from age 0-24 months.
- A standing height should be obtained in children and adolescents older than 24 months of age
    - A recumbent length may also be obtained in patients greater than 24 months of age who cannot stand unassisted
    - Measurement should be obtained using a length board and the patient must be able to lie flat

Alternate Length Measurements:
Alternate length measurements can be obtained for patients who are greater than 24 months of age and cannot stand unassisted

Arm Span:

- Patient must be able to stretch arms maximally
- Measure from the tip of one middle finger to the tip of other

Knee Height:
Knee height is the distance from the top of the patella to the bottom of the foot. It is measured using a knee height caliper. Knee height should not be used for calculating BMI or Ideal Body Weight

- The subject lies on his/her back with their left knee and ankle bent at 90 degree angles
- The caliper is placed under the heel and against the thigh
- The measurement is read to the nearest 0.1 cm
- Place obtained measurement in the appropriate equation to estimated height (see below)

Equation for Predicting Stature for Children from 3 to 12 years

Stature (cm) = (2.69 x knee ht) + 24.2

Equation for Predicting Stature in Children 13 to 18 Years of Age

Caucasian/Other Boys

Stature (cm) = 40.54 + (2.22 x knee height)

African American Boys

Stature (cm) = 39.6 + (2.18 x knee height)

Caucasian/Other Girls

Stature (cm) = 43.21 + (2.15 x knee height)

African American Girls

Stature (cm) = 46.59 + (2.02 x knee height)