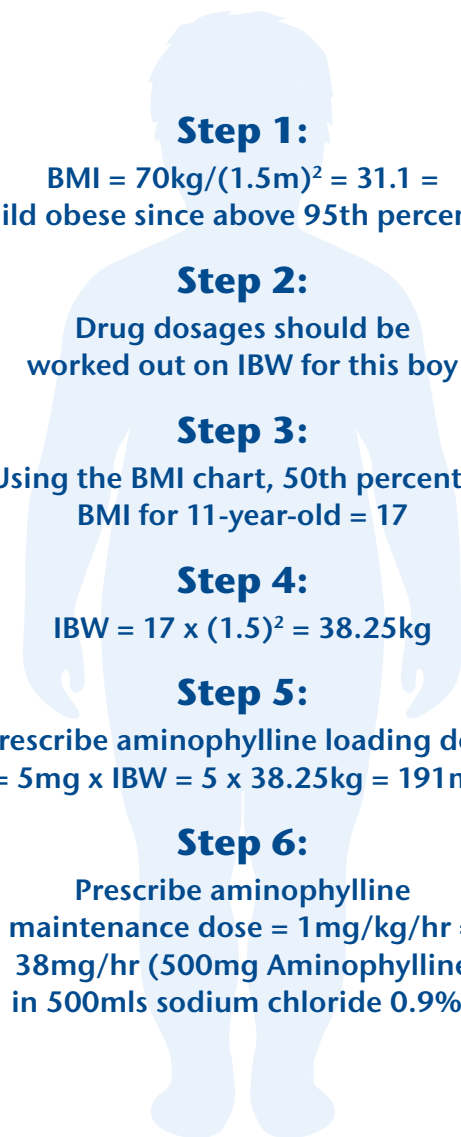


CALCULATING IDEAL BODY WEIGHT (IBW) IN OVERWEIGHT CHILDREN

1. If you suspect a child is overweight, calculate their body mass index (BMI) using the formula below:
BMI = weight(kg)/[height(m)]²
2. Plot the child’s calculated BMI into their BMI percentile chart on clinical portal iGROW.
3. A child is overweight if their BMI is >91st percentile and obese if their BMI is on or above the 95th percentile for their age.
4. If a child is overweight then the drug dosages recommended by BNF for Children for the following drugs should be based on their Ideal body weight (IBW):
Aciclovir, Amikacin, Aminophylline, Atracurium, Fentanyl, Gentamicin, Lidocaine, Tobramycin, Vecuronium
5. If a child is overweight then the oral dosages recommended for **Paracetamol** and **Ibuprofen** are based on **age** and dosing guidance in the BNF for children should be followed.
6. Dosing guidance for all other drugs including antibiotics should follow the BNF for children and if dose calculated from weight use patient’s actual weight.
7. IBW is calculated using the **BMI percentile method:**
IBW = 50th percentile BMI for age x[ht(m)]²

EXAMPLE

An 11-year-old asthmatic boy presents with exacerbation. His true body weight is 70kg. He is 1.5m tall. You think he looks overweight for age. Prescribe Aminophylline.



Step 1:
 BMI = 70kg/(1.5m)² = 31.1 = child obese since above 95th percentile

Step 2:
 Drug dosages should be worked out on IBW for this boy

Step 3:
 Using the BMI chart, 50th percentile BMI for 11-year-old = 17

Step 4:
 IBW = 17 x (1.5)² = 38.25kg

Step 5:
 Prescribe aminophylline loading dose = 5mg x IBW = 5 x 38.25kg = 191mg

Step 6:
 Prescribe aminophylline maintenance dose = 1 mg/kg/hr = 38mg/hr (500mg Aminophylline in 500mls sodium chloride 0.9%)

Document name: Calculating ideal body weight version 2	Checked by: Prepared by: Dr S. Naidoo and L McAulay
Supercedes: Calculating ideal body weight	Reviewed by: L McAulay
Approved by Clinical director: Dr C Lees	Date reviewed: January 2020
	Next Review Date: January 2023

CONFIDENTIALITY AND THE USE OF PATIENT INFORMATION

NHS Lanarkshire take care to ensure your personal information is only accessible to authorised people. Our staff have a legal and contractual duty to keep personal health information secure, and confidential. In order to find out more about current data protection legislation and how we process your information, please visit the Data Protection Notice on our website at www.nhslanarkshire.scot or ask a member of staff for a copy of our Data Protection Notice.

NHS Lanarkshire - for local services and the latest health news visit www.nhslanarkshire.org.uk
NHS Lanarkshire General Enquiry Line: 0300 30 30 243

NHS inform - The national health information service for Scotland.
www.nhsinform.co.uk
Tel No: 0800 22 44 88

If you need this information in another language or format, please contact the NHS Lanarkshire General Enquiry Line on 0300 30 30 243 or e-mail info@lanarkshire.scot.nhs.uk



www.careopinion.org.uk

Pub. date:	January 2020
Review date:	January 2023
Issue No:	01