



Royal College  
of Nursing

# Standards for the weighing of infants, children and young people in the acute health care setting

*RCN guidance for children's nurses and nurses working with children and young people*





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This publication has been revised in 2013 to signpost to recent initiatives and to encompass up-to-date references and resources to support nurses in practice.

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This publication is due for review in September 2015. To provide feedback on its contents or on your experience of using the publication, please email [publications.feedback@rcn.org.uk](mailto:publications.feedback@rcn.org.uk)

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## Introduction

This document outlines the RCN's position in relation to the weighing of infants, children and young people in the acute setting. For the purposes of this document, the term 'child' is used to refer to an infant, child or young person under the age of 19 years (*National Service Framework (NSF) for children, young people and maternity services: standard 7*, Department of Health (DH) 2003; *National Service Framework (NSF) for children, young people and maternity services in Wales*, Welsh Assembly Government (WAG) 2005).

The weighing of children is an essential skill for all nurses caring for children of all ages. The Nursing and Midwifery Council has specified the standards (NMC, 2010) which nurses must achieve to enter the professional register, including the ability to:

- select valid and reliable assessment tools for the purpose required
- systematically collect data regarding health and functional status of individuals, clients and communities through appropriate interaction, observation and measurement
- analyse and interpret data accurately and take appropriate action.

In many instances a child's weight will be measured and recorded by health care assistants and nursing students, under the direction and supervision of a registered nurse. For the purposes of this document, the term 'practitioner' is used to refer to both the registered nurse and the un-registered member of the nursing team except where it is indicated otherwise.

This document focuses primarily on the weighing of children in the acute hospital setting. Its key aims are to identify best practice and to ensure consistency in practice across the UK.

These aims are particularly important in light of the findings of a survey undertaken by members of the RCN Paediatric Benchmarking and Standards Community which highlighted wide variation in all aspects of practice (for example, the equipment used and whether clothing was removed or not) and a lack of formal training in relation to accurate methods of weighing children.

Of the 35 organisations that responded to the survey, 22 indicated they had no local standard or policy on the weighing of children in place, confirming the need for this document.

## Background

The possible difficulties regarding the role of the nurse in relation to growth measurements were highlighted by an investigation undertaken by Stoner and Walker (2006) into the growth monitoring practices in a children's unit of a large NHS teaching trust hospital.

Their initial audit uncovered wide variations in practice and also found that some areas did not either have the relevant equipment, or that available equipment was not working properly. As a result of these findings, guidelines for practice were developed, new equipment purchased, several standards developed and a teaching programme devised to support the implementation of the guidelines.

However, further audits of practice revealed that the standard of growth measurement did not improve. Stoner and Walker questioned whether nurses regard growth monitoring as having less value than their wider role and concluded:

*"Whatever the reason, growth monitoring in children does not seem to be perceived as a high priority by nurses and other health care professionals."*

Stoner and Walker (2006)

The Stoner and Walker study findings highlighted the need for further work in this area and provided the context for the development of this standards document.

It is important to clarify that this guidance does not cover the intricacies of growth monitoring and therefore does not address the methods of obtaining other measurements such as height/length or head circumference.

Should further information be required on additional aspects of growth monitoring and/or nutrition screening tools, the reader may find it helpful to access the resources listed in Section 7.

# The key reasons for weighing children

It is essential to obtain a reliable weight measurement for a child for the following reasons.

## To facilitate the accurate calculation of drug doses

In the *Standards for medicines management* the NMC (2010) clearly states that as part of administering medication, the registered nurse must record the weight of the patient on the prescription sheet for all children. A child's weight may be measured by an unregistered member of nursing staff who has been assessed as competent in this skill and who is working under the direction and supervision of a registered nurse.

The British National Formulary for Children (BNFC) highlights the need to obtain a correct measurement of a child's weight to ensure the accurate calculation of drug doses. Many of the doses for children in the BNFC are standardised by weight. Doses are calculated by multiplying standardised measures by the child's body weight in kilogrammes.

The need for accurate weight measurements in relation to drug doses is also indicated in the *National Service Framework (NSF) for children, young people and maternity services: standard for hospital services* (DH 2003) and the *National Service Framework (NSF) for children, young people and maternity services: standard for hospital services in Wales* (WAG, 2005). These documents state that hospitals should have in place policies and procedures relating to safe medicines practice, including the weighing of all children, to ensure the accurate calculation of drug dosages.

In addition, accurate weight measurement is also an essential requirement for the correct calculation of intravenous and oral fluids and oral and enteral feeds.

## To facilitate accurate growth monitoring and nutritional assessment

Normal growth is a sign of good health in infants and children. Healthy children receiving adequate nutrition and living in an emotionally supportive environment follow a steady growth pattern which can be monitored, in part, by measuring and plotting their weight at regular intervals and comparing it to their height centile.

Measurement of a child's height and weight is the key method of identifying disorders of growth. The routine monitoring of height and weight for growth assists in the diagnosis of problems which might either be missed or become apparent later in life when treatment may be less successful (British Society for Paediatrics and Endocrinology).

Weighing a child provides the opportunity for all nurses to observe the child's general health and be alert to any safeguarding concerns. All nurses and health professionals who are required to assess and monitor children, which includes obtaining weight measurements, must receive an appropriate level of training in safeguarding children. This will ensure that they are aware of the significance of observing and assessing the whole child and being alert to indicators that might give cause for concern such as growth measurements. For example, a diagnosis of failure to thrive or increased weight gain in hospital may indicate parental neglect at home and such concerns will need to be explored further.

Growth monitoring also assists in the management of obesity. Childhood obesity has become a significant problem in the United Kingdom and also at a global level (NHS, 2009) (Academy of Medical Royal Colleges (2013) *Measuring up: The medical professions prescription for the Nations obesity crisis*, Academy of Medical Royal Colleges).

Results from the National Child Measurement Programme (Health and Social Care Information Centre, 2012 and National Child Measurement Programme, 2011-2012) indicate that currently an average of 9.5% of reception year children are obese (ages four to five) and an average of 19.2% of Year 6 children are obese (ages 10 to 11).

# Best practice standards in relation to the weighing of children

## 1

## Education and training

### Standards

- All registered nurses, nursing students and health care assistants who observe and monitor children are trained and competent in weight measurement and documentation according to their level of responsibility.
- The registered nurse maintains accountability to ensure non-registered staff are trained and competent in any nursing skill, including obtaining accurate weight measurements.
- The practitioner is trained in the accurate use of weighing equipment and maintains this competence by receiving regular updates.
- All practitioners require comprehensive induction training when joining a new health care organisation. Obtaining accurate weight measurements is a vital component of induction.
- Registered nurses must keep their knowledge and skills up to date (NMC, 2012).
- Ward sisters/charge nurses, team leaders, practice development nurses, endocrine nurse specialists and dieticians are in an ideal position to teach staff how to weigh children correctly. Only a competent registered nurse is able to assess the competence of registered or non-registered members of the nursing team.

### Practice criteria

The practitioner will have undergone theoretical and practical training in relation to the following:

- legal and professional issues
- anatomy, physiology and disease process
- normal development of children across the age range
- recognition of a sick child and prioritising actions and care needs
- holistic assessment of a sick child including obtaining an initial weight
- normal and abnormal parameters for weight in children
- the use, limitations and risks associated with weighing devices
- obtaining the most accurate weight using metric and not imperial measurements
- methods of assessing and measuring weight in children
- action to take when a weight measurement is outside normal parameters
- the accurate recording of weight measurements (see Standard 4)
- safeguarding issues to ensure awareness of the significance of growth measurements which may lead to, for example, concerns regarding parental neglect.

Other important elements are:

- consent and assent
- preparing the child to gain full participation
- therapeutic holding skills
- maintaining privacy and dignity in all age groups
- age appropriate information-giving and communication with family and other health personnel
- distraction techniques
- general observation of the infant, child or young person
- medical devices, indications for use, limitations and safety
- adverse incident reporting.

## Competence statement: weighing a child

The following competence suggests the indicators which could be adopted by each health care organisation in relation to nursing staff at all levels.

Competence indicators <b>1st level</b> Health care assistant (HCA)	Competence indicators <b>2nd level</b> (junior registered nurse RN/senior HCA)	Competence indicators <b>3rd level</b> (senior RN)	Competence indicators <b>4th level</b> (experienced RN)
<p><b>After obtaining consent from the patient or parent:</b></p> <ul style="list-style-type: none"> <li>a) Ensure scales used are correct for age of child</li> <li>b) Discuss and demonstrate how to calibrate and set to record using metric (kgs) measurement</li> <li>c) Discuss how to ensure scales have been checked by medical engineering</li> <li>d) Discuss method for obtaining an accurate weight across the age range</li> <li>e) Demonstrate knowledge of age-appropriate skills to prepare child and family for procedure and promote co-operation</li> <li>f) Discuss how to maintain privacy and dignity</li> <li>g) Discuss appropriate action –               <ul style="list-style-type: none"> <li>- if child refuses to remove excess clothing</li> <li>- if a child refuses to be weighed</li> </ul> </li> <li>h) Discuss who to inform following the procedure (weight recording)</li> <li>i) Discuss where a weight would need to be recorded</li> <li>j) Demonstrate how to accurately record the weight in the patient's clinical records including the Parent Held Child Health Record</li> <li>k) Ensure the staff member has undertaken local induction training where they were taught how to use equipment.</li> </ul>	<p><b>After obtaining consent from the patient, 1 plus:</b></p> <ul style="list-style-type: none"> <li>a) Discuss two reasons for weighing a child</li> <li>b) Discuss types of equipment for different age groups</li> <li>c) Discuss how to calibrate equipment</li> <li>d) Discuss where to record a weight</li> <li>e) Discuss the frequency and the examples of when the same time, similar clothing and same day of week should be used for consistency (for example, eating disorders) when recording a weight</li> <li>f) Discuss in detail all the relevant clinical records where a weight is required (incl. Parent Held Child Health Record)</li> <li>g) Discuss who is accountable for accurate recording of weight and who is responsible for unregistered staff (RN to countersign)</li> <li>h) Discuss expected response if weight is significantly higher or lower than last recording is outside set parameters</li> <li>i) Discuss relevance of dietary intake, feeding charts, exercise and medication in relation to weight measurements</li> <li>j) Discuss limitations and risks associated with weighing devices.</li> </ul>	<p><b>After obtaining consent from the patient, 1 &amp; 2 plus:</b></p> <ul style="list-style-type: none"> <li>a) Discuss what measures should be taken if weight is wrongly recorded (for example, in lbs)</li> <li>b) Discuss what measures may need to be put in place to ensure weight recording is acted upon</li> <li>c) Discuss when to refer to a dietician</li> <li>d) Discuss age appropriate preparation and distraction techniques for procedures</li> <li>e) Discuss other general observations that can be undertaken during procedure</li> <li>f) Discuss percentile charts and types</li> <li>g) Demonstrate competence in plotting weight on growth charts and the relevance of referring to the height and head circumference measurements to get an accurate and full assessment (RN only with training)</li> <li>h) Discuss who to report to if any concerns or abnormal observations are identified</li> <li>i) Discuss physiological status/child development and abnormal parameters</li> <li>j) Discuss how to estimate a child's weight.</li> </ul>	<p><b>After obtaining consent from the patient, 1, 2 &amp; 3 plus:</b></p> <ul style="list-style-type: none"> <li>a) Able to teach other health care staff how to weigh a child</li> <li>b) Ensure all staff that are weighing children are competent (explain procedure) and where competences can be checked</li> <li>c) Manage and ensure weight has been accurately recorded on child's percentile chart and the Parent Held Child Health Record</li> <li>d) Demonstrate competence in undertaking an estimated weight (includes use of parent/staff when holding a child)</li> <li>e) Able to articulate how to interpret weight measurement</li> <li>f) Undertake audit/benchmark to ensure standards are in place for the correct weighing of children</li> <li>g) Act as an expert resource: advising, teaching and supporting members of the health care team, patient and family/significant others</li> <li>h) Proficient in adverse incident reporting when recording any equipment errors or incident.</li> </ul>

### Education resources to support your development

<p>Glasper EA and Richardson J (2006) <i>A textbook of children and young people's nursing</i>, Edinburgh: Churchill Livingstone.</p> <p>Hockenberry MJ and Wilson D (2011) <i>Wong's nursing care of infants and children</i> (8th edition), Mosby: St. Louis.</p> <p>Nursing and Midwifery Council (2010) <i>Record keeping: guidance for nurses and midwives</i>, London: NMC.</p>	<p>Glasper EA and Richardson J (2006) <i>A textbook of children and young people's nursing</i>, Edinburgh: Churchill Livingstone.</p> <p>Huband S and Mohammed (2006) <i>Practices in children's nursing: guidelines for hospital and community</i>, Edinburgh: Churchill Livingstone.</p> <p>Nursing and Midwifery Council (2010) <i>Record keeping: guidance for nurses and midwives</i>, London: NMC.</p>	<p>Glasper EA and Richardson J (2006) <i>A textbook of children and young people's nursing</i>, Edinburgh: Churchill Livingstone.</p> <p>Huband S and Mohammed (2006) <i>Practices in children's nursing: guidelines for hospital and community</i>, Edinburgh: Churchill Livingstone.</p> <p>Nursing and Midwifery Council (2010) <i>Record keeping: guidance for nurses and midwives</i>, London: NMC.</p>	<p>Advanced Life Support Group (2010) <i>Advanced paediatric life support: the practical approach</i>. Oxford: BMJ Books. Wiley Blackwell.</p> <p>Glasper EA and Richardson J (2006) <i>A Textbook of children and young people's nursing</i>, Edinburgh: Churchill Livingstone.</p> <p>Hockenberry MJ and Wilson D (2011) <i>Wong's nursing care of infants and children</i> (8th edition), Mosby: St. Louis.</p> <p>Nursing and Midwifery Council (2010) <i>Record keeping: guidance for nurses and midwives</i>, London: NMC.</p>
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**Author:**

**Department:**

**Review date:**

### Record of achievement

To verify competence please ensure that you have the appropriate level signed as a record of your achievement in the boxes below.

Level 1	Level 2	Level 3	Level 4
Date:	Date:	Date:	Date:
Signature of assessor:	Signature of assessor:	Signature of assessor:	Signature of assessor:
Print name:	Print name:	Print name:	Print name:

## 2

## Choice and maintenance of equipment

The importance of the equipment used to weigh patients was highlighted in the National Medical Weighing Project which was established by Local Authorities Coordinators of Regulatory Services (LACORS) in 2008. The project was initiated following a series of pilot studies undertaken in 2007 which suggested that there may be problems associated with the equipment used in hospitals for weighing patients.

Council trading standards officers tested hospital scales as part of the nationwide study; 46% of UK local authorities participated and 203 hospitals were visited. Significant findings of the final interim report of the project (LACORS, 2009) included:

- 33% of all hospital scales tested were found to be inaccurate
- only 16% of the hospitals visited provided training for their staff in how to use the equipment correctly
- just under 33% of the hospitals visited did not inspect their equipment at all
- 75% of hospitals held an inventory of the equipment on site, however many of these records were not kept up to date and the inspectors found many unrecorded scales when they visited the hospitals
- 40% of the scales assessed were 'switchable' – in other words they could display metric, imperial and other units. The key risk is that a drug dose could be calculated based on a readout that was assumed to be metric.

As a result of these findings, LACORS developed a set of recommendations which have become the basis for the following standards.

### Standards

- One department in each hospital or health care organisation is responsible for the procurement, provision and maintenance of all weighing equipment for that organisation.
- Each health care organisation ensures that a programme of testing for their equipment is in place.
- Training for the use of weighing equipment is incorporated into each trust's training and induction procedures.
- Any equipment which is found to be inaccurate is removed from service and either repaired or replaced.
- All new weighing equipment is of Class III (suitably precise for medical applications).
- Scales purchased for medical purposes are only capable of metric display. There must be no capacity for switching or dual readouts.
- Accurate records of servicing of equipment must be kept.
- All weighing equipment is cleaned between different patients in accordance with local infection control policies.

## 3

# Obtaining accurate weight measurements across the age range

## Standards

- There is an organisation-wide policy which describes:
  - the timing and frequency of weight measurement and
  - a method of obtaining accurate weight measurements across the age range including clothing which can be worn or must be removed; preparation for the procedure; the weighing procedure itself and how to estimate weight when necessary.
- An agreed method for obtaining or estimating the weight of critically ill children.
- Agreed actions to take if there are concerns regarding a weight measurement.

## Practice criteria

A child's weight is determined as soon as possible after admission to an acute hospital environment, as most medicines and fluids are given as the dose per kilogram of body weight.

It may be impractical to weigh the child on scales in an emergency situation or if the child's clinical condition prevents an accurate measurement. Weight estimation can be used in these circumstances using the appropriate calculation.

The frequency of weighing is considered for each individual child and recorded in the care plan.

The child's privacy and dignity is maintained at all times.

Visual observation, listening and communication are used when obtaining a weight measurement. This includes taking note of the views of the child and parent/carer regarding the weight measurement including concerns regarding any recent weight loss or weight gain.

Obtaining a reliable weight is not usually done in isolation but rather as an integral part of the holistic assessment and monitoring of the child. This includes the assessment, measurement and monitoring of vital signs as well as the observation of appearance and behaviour.

Obtaining a weight measurement is used, where necessary, as an opportunity to provide health education and advice on nutrition and healthy lifestyle options.

## General

The child and/or parent/carer should consent to weight measurement.

Where possible, the child and parent/carer should assist the practitioner in obtaining a reliable weight measurement.

## Timing and frequency of weight measurement

Each child must have their weight measured and recorded when attending an acute hospital setting such as OPD, A&E, CALI or a pre-assessment clinic, or when admitted to a ward setting. It is good practice to record the weight at a consistent time each week/day (and that the time is documented).

The frequency of weighing a child will depend on medical need.

If admission is longer than seven days, then the child must be weighed at least weekly (RCN, 2006) this is also in the process of currently being updated.

Daily measurements should only be used to indicate fluctuations in fluid status.

A child's weight should be measured on discharge if he/she has a chronic condition or has been in hospital for longer than seven days depending on diagnosis.

Where necessary, weight measurements are shared with primary care staff to promote continuity of care on discharge and families are informed of this.

## Clothing

The Child Growth Foundation (2012) identifies best practice as follows:

- 0 to two years of age – naked
- over two years of age – minimal clothing
- nappies, shoes or slippers and the contents of pockets must always be removed.

If, for any reason, clothing has not been removed or if a child is weighed with additional equipment (for example, a splint, cast, medical equipment or dressing) this must be recorded in the child's clinical notes.

A child who is unable to sit or stand should be weighed in light clothing on a hoist scale.

If a young person refuses to undress, then this must be documented in their clinical notes.

A private environment must be ensured, preferably a room with a lockable door.

## Preparation for weighing a child or young person

Weighing scales must be checked, cleaned and calibrated prior to use.

The scale must be on a flat hard surface.

The child must be prepared for the procedure by being giving an age-appropriate explanation. In the case of a young child who may be frightened, it may be appropriate to involve a play specialist to provide distraction therapy.

Obtaining the child's weight should be postponed if the child is unsettled or upset. In this case, the practitioner must clearly document the reason for not taking the measurement and must ensure that the weight is recorded as soon as possible.

## The weighing procedure

The suggested types of equipment according to a child's age are as follows:

- 0 to two years of age – baby scales
- over two years of age – either sitting or stand on scales

- a child with complex needs may need to be weighed in a hoist with age appropriate slings.

The child or young person must be placed centrally on the scales with their feet slightly apart.

The reading must then be taken when the child is still and documented accordingly (see Section 3). Children under two years of age should be weighed to the nearest 10g (1/100th of a kg) and children over the age of two weighed to the nearest 100g (1/10th of a kg).

The weighing scales must be thoroughly wiped down between patients.

## Methods for weight estimation

(Advanced Life Support Group 2010)

There are two methods for weight estimation:

- the **Broselow** tape method uses height to determine weight; a tape is laid along the length of the child with the approximate weight being read from the appropriate calibration
- in the **formula** method, if the age of the child is known and is between one and 10 years of age, then  $(\text{age}+4)$  multiplied by 2 = the approximate weight in kilogrammes.

Whatever method is used it is essential that the practitioner is familiar enough with it to use it quickly and accurately under pressure.

It is recommended that an actual weight be obtained as soon as the child's clinical condition allows.

## Action to take if there are concerns regarding a weight measurement

A single weight measurement is of limited value when assessing a child's nutritional status and does not reflect rate of growth.

Where there are concerns regarding a weight measurement, the child or young person and the parent/carer should be consulted regarding any history of changes in appetite and/or feeding patterns. A previous weight measurement should be obtained for comparative purposes.

The nurse must be aware of appropriate action to take in relation to any concerns regarding weight measurement including how and when to refer to the dietetics department.

## Tared weighing

It may be necessary to weigh the child in the arms of a parent, carer or colleague should the child refuse to stand still (this is known as tared weighing).

To obtain the most accurate weight of a child using this method please ensure that the parent/carer removes their shoes and stands on the weighing scales first. Obtain the weight of the parent/carer and record this. The undressed child should then be handed to the parent/carer and the total weight must be recorded. Then subtract the weight of the parent/carer from the total weight to obtain the child's weight. Best practice documentation would be to record that a 'tared weight' was required, state who was weighed and show both weights as well as the subtraction result as in the child's weight. If the initial reason for 'tared' weight was a distressed and uncooperative child and the child subsequently becomes more compliant, then an actual weight should be attempted.

## Specialist weight estimation

Specialised equipment for obtaining weights in children such as 'weighing beds' may be used in specific areas such as Renal Units, Paediatric Intensive Care Units and Burns Units where the weight of the child is essential to managing their condition but normal equipment such as weighing scales cannot safely be used. Wherever specialist weighing systems are in use these departments will ensure that specific induction and training on this equipment is provided.

## 4

## Record keeping

### Standards

- There is an organisation-wide policy describing best practice in recording weight measurements.
- The policy incorporates the assessment, measurement, monitoring and recording of a child's weight and includes actions which must be taken in response to deviations from the normal or other changes.
- The policy identifies whose responsibility it is to record the weight measurement on a growth chart.
- All weight measurements are recorded contemporaneously and clearly in accordance with NMC guidance for record keeping (2010).
- Actions taken in response to interpretation of weight measurements are clearly documented in the child's health care record including the Parent Held Child Health Record (PHCHR).
- The charts used for recording and monitoring weight measurements are suitable for use in the care of children across the age range.

### Practice criteria

The child's weight must be recorded in kilogrammes, with the date, in the following documentation:

- the health care record
- the admission assessment record
- the parent held record (where appropriate)
- the prescription chart
- the theatre checklist (where appropriate)
- the child's growth chart
- the child's discharge documentation (in order to share information about the child's weight with community staff).

In addition, information obtained from the wider assessment of the child should be documented.

The nurse will have undergone theoretical and practical training in relation to the following:

- the accurate plotting of weight measurements on growth charts where it is their responsibility to do so, as identified in their trust policy.
- the interpretation of previous and current measurements and their relationship to each other.

The UK World Health Organization (WHO) Growth Charts (RCPCH 2013) for children from birth to four years of age are based on the WHO Child Growth Standards which describe the optimal growth of healthy breast-fed babies. These charts have been in use for all new births and new referrals in England (from May 2009) and in Wales and Scotland (from January 2010). The existing UK90 Growth Charts can be used for children born before this date and for children aged over four years of age.

## 5

# Audit of practice and benchmarking

## Audit tool

The following templates can be adapted in order to audit practice and to benchmark with other centres.

### 1 Choice and maintenance of equipment

#### (a) Are all the following available for use?

	YES	NO	COMMENT
a) Baby scales			
b) Sit on scales			
c) Stand on scales			
d) Hoist scales for disabled children			
e) Weighing bed			
f) Broselow tape			

#### (b) Equipment maintenance

	YES	NO	COMMENT
a) Is there an inventory spreadsheet detailing record of service history, maintenance and repair of all scales?			
b) Is calibration checking undertaken and recorded with documentary evidence available to support this?			
c) Are all scales zeroed prior to use with documentary evidence available to support this?			
d) Are all scales cleaned before and after use with documentary evidence available to support this?			
e) Are kilogrammes used and is there documentary evidence to confirm this?			
f) Has a risk assessment been done on weighing children with disabilities and special needs to minimise any manual handling challenges?			

## 2 Education and training

	YES	NO	COMMENT
a) Are staff trained and assessed as competent in specific equipment used to measure weight?			
b) Can staff estimate child's weight (age+4) x 2 to determine accuracy of measurement obtained?			
c) Do staff have an awareness and understanding/knowledge and skills relating to weight measurement and growth and development specific disease processes (for example, renal unit would have different criteria from eating disorder unit)?			

## 3 Practice

	YES	NO	COMMENT
a) Are staff able to enlist the cooperation of the child/young person through appropriate explanation?			
b) Do staff choose most appropriate equipment and use equipment correctly (including calibration/cleaning/decontamination before and after use)?			
c) Is the child prepared – psychologically – for weighing through medium of play?			
d) Is the child prepared physically for weighing – removal of shoes etc?			
e) Do staff take appropriate action on completion of assessment of weight of a child?			
f) Do staff adhere to the risk assessment plan for weighing disabled children?			

## 4 Record keeping

	YES	NO	COMMENT
Is there a suitable weight chart available for plotting the weight of the range of children within the clinical areas?			
Is there a complete range of growth percentile charts available for continuous monitoring of weight?			
Is there evidence of a nursing care plan indicating frequency of weights, time to be undertaken etc (for example, anorexic needs same day/same time/same clothes maybe weekly or fortnightly)?			
Is there evidence to show that the obtained weight has been acted upon where applicable – for example, renal patient and fluids adjusted or failure to thrive seen by dietitian for review of feeds?			
Is the parent-held record book updated for all infants, including those with special needs			
Are there records of staff training?			

## Weight measurement benchmark

Score relates to practice on/in team/practice/ward/area:		
Trust/organisation:		
Comparison group member:	Date to be scored: By: _____ (insert name)	Date form to be returned: __ / __ / __
Scored by:	Date scored: __ / __ / __ Copied: Y/ N	Posted on: __ / __ / __

Date comparison group meeting to share good practice and compile action plan:	Re-score date agreed: __ / __ / __
To be attended by: (insert name)	

Agreed patient/client focused outcome		
Overall outcome: The child's weight is measured, monitored and recorded accurately using the most appropriate equipment		
Definition: A child A family Who, what, where, etc.		
Indicators/information that highlight concerns which may trigger the need for benchmarking activity:		
	FACTOR	BENCHMARK OF BEST PRACTICE
1	The child is central to all care and interventions	The child is central to all care and interventions
2	Child focused weight assessment	Children's weight is measured and recorded as required for that individual and is accurate
3a	Appropriate action is taken following weight measurement	Child's weight is integral to ongoing care/treatment plan
3b	Child is compliant and engages in process	Child is comfortable/accepts the need to be weighed
4	Child focused communication	Child's and family's views are listened to and acted upon
5	Competence	Health care professionals are skilled in the use of weighing equipment, understand the methods of measuring children, and accurately record weight and report findings

**Factor 1: The child is central to all care and interventions**

	FACTOR	BENCHMARK OF BEST PRACTICE
1	The child is central to all care and interventions	The child is central to all care and interventions

Outline below the practices undertaken by your service that move towards this best practice statement:

Outline below the barriers that prohibit you from undertaking practice that moves towards this best practice statement:

Types of evidence include:	Statements to stimulate comparison group discussion around best practice include:
Patient satisfaction surveys	How is privacy and dignity addressed?
PALS contributions/complaints/reflections	Evidence of child-friendly timetable for treatment regimes
Philosophy demonstrates child as central – child-friendly environment	
Philosophy – common to benchmark – include in Children’s Act, etc.	
National Association Hospital Play Specialists	
Evidence of change in practice/service to highlight that child is central	
UN Declaration on the Rights of the Child	
Human Rights Act	
Protocols, policies and guidelines	
Evidence of child’s views	

**Factor 2: Child-focused weight assessment**

	FACTOR	BENCHMARK OF BEST PRACTICE
2	Child-focused weight assessment	Children's weight is measured as required for that individual and is accurate

Outline below the practices undertaken by your service that move towards this best practice statement:

Outline below the barriers that prohibit you from undertaking practice that moves towards this best practice statement:

Types of evidence include:	Statements to stimulate comparison group discussion around best practice include:
A range of weighing equipment is available, and appropriate selection is achieved	Are the child and family always involved, how do we integrate them in planning?
Weighing equipment is serviced at least annually	
Play specialist is available to assist child in complying with weight measurement	How do we enable child/family to manage/cope with equipment in hospital?
Guidelines for weight measurement	Who, what, where, when and how?
Policies, protocols and guidelines to support weight measurement – for example, record keeping, health and safety	
Audit department evidence	
Database of weight and other growth measurement tools/methods – accessing information – web journals, etc	
Evidence of evaluation exists within the assessment document	
Evidence of consistency in use of equipment – for example, time of day, clothing – where regular weighing is required	
Evidence of child-friendly information including consent and choices	
Partnership – family-centred care	

**Factor 3(a): Appropriate action is taken following weight measurement**

	FACTOR	BENCHMARK OF BEST PRACTICE
3(a)	Appropriate action is taken following weight measurement	Child's weight is integral to ongoing care/treatment plan

Outline below the practices undertaken by your service that move toward this best practice statement:

Outline below the barriers that prohibit you from undertaking practice that moves toward this best practice statement:

Types of evidence include:	Statements to stimulate comparison group discussion around best practice include:
Weight charts, centile charts and parent held records are accurately completed as appropriate	How are staff made aware of record keeping practices and the importance of accuracy?
Where a weight highlights concern and requires immediate action, there is evidence within the assessment and evaluation that appropriate action has been taken – for example, loss of weight in a new born infant	How do staff apply and follow care pathways/care plans/treatment plans
Where a weight requires a long-term management plan there is evidence of multi professional collaboration/including where appropriate referral to community staff	Healthy lifestyle choices are everyone's business – how do staff apply this?

**Factor 3(b): Child is compliant and engages in process**

	FACTOR	BENCHMARK OF BEST PRACTICE
3(b)	Child is compliant and engages in process	Child is comfortable/accepts the need to be weighed

Outline below the practices undertaken by your service that move toward this best practice statement:

Outline below the barriers that prohibit you from undertaking practice that moves toward this best practice statement:

Types of evidence include:	Statements to stimulate comparison group discussion around best practice include:
Who, what, where, when and how?	How are staff made aware of involving children in decision making?
Play specialist is available to assist child in complying with weight measurement	
Audit of above – efficiency and safety	How do you initiate the child and family into weight management?
Evidence and partnership	
Evidence of child friendly information, consent and choices	
Evidence of delaying weight measurement to obtain child's assent/consent and cooperation	

**Factor 4: Child-focused communication**

	FACTOR	BENCHMARK OF BEST PRACTICE
4	Child-focused record keeping, documentation and communication	Child and family's views are listened to and acted upon

Outline below the practices undertaken by your service that move toward this best practice statement:

Outline below the barriers that prohibit you from undertaking practice that moves toward this best practice statement:

Types of evidence include:	Statements to stimulate comparison group discussion around best practice include:
Evidence of child's views	User involvement (Pt satisfaction/PALS/audit)
Evidence of children being listened to and acted upon their views	Transcultural issues addressed?
Patient satisfaction surveys, PALS audit	Who, what, where, when and how?
Care pathways	
Parents understand information sharing may occur	

**Factor 5: Competence**

	FACTOR	BENCHMARK OF BEST PRACTICE
5	Competence	Health care professionals are skilled in the use of weighing equipment, understand the methods of measuring children, and accurately record weight and report findings

Outline below the practices undertaken by your service that move toward this best practice statement:

Outline below the barriers that prohibit you from undertaking practice that moves toward this best practice statement:

Types of evidence include:	Statements to stimulate comparison group discussion around best practice include:
Courses, training, learning development updates	How do health care professionals maintain competence?
Protocols	How is competence among health care professionals measured?
Patient satisfaction surveys	What support mechanisms exist for training and development? Link nurse. MDT
Support mechanism – link nurse	What resources exist for training and development?
Competence – audit of	
Generic training for health care professionals	
Clinical student training pack	

## 6

## References

- Advanced Life Support Group (2010) *Advanced paediatric life support: the practical approach* (5<sup>th</sup> edition), Oxford: BMJ Books/WileyBlackwell.
- British Medical Association, Royal Pharmaceutical Society of Great Britain, Royal College of Paediatrics and Child Health, and the Neonatal and Paediatric Pharmacists' Group (2013) *The British national formulary for children* (BNFC), London: Royal Pharmaceutical Society Publishing.
- British Society for Paediatric Endocrinology and Diabetes (BSPED) *A statement from the British Society for Paediatric Endocrinology on growth monitoring*, Bristol: BSPED. Available from [www.bsped.org.uk](http://www.bsped.org.uk) (Internet).
- Child Growth Foundation (2012) *Recommended growth monitoring*, London: GCF. Available from [www.childgrowthfoundation.org](http://www.childgrowthfoundation.org) (Internet).
- Department of Health (2004) *The National Service Framework for children, young people and maternity services: standard for hospital services: standard 7*, London: DH.
- Department of Health (2004) *The National Service Framework for children, young people and maternity services: medicines for children: standard 10*, London: DH.
- Health and Social Care Information Centre (2012) *National Child Measurement Programme 2011-2012* <https://catalogue.ic.nhs.uk/publications/public-health/obesity/nati-chil-meas-prog-eng-2011-2012/nati-chil-meas-prog-eng-2011-2012-rep.pdf>
- Local Authorities Coordinators of Regulatory Services (2009) *The weight of the matter: final report of the LACORS National Medical Weighing Project 2008/9* <http://www.lacors.gov.uk/lacors/upload/24951.pdf> (Accessed 12/7/2013)
- NHS Evidence: National Library for Public Health (2009) *2009 annual evidence update – obesity – childhood obesity: surveillance and prevention*, London: NLPH. Available from [www.library.nhs.uk/publichealth](http://www.library.nhs.uk/publichealth) (Internet).
- Nursing and Midwifery Council (2010) *Standards of proficiency for pre-registration nursing education*, London: NMC.
- Nursing and Midwifery Council (2008a) *Standards for medicines management*, London: NMC.
- Nursing and Midwifery Council (2012) *The Code: standards of conduct, performance and ethics for nurses and midwives*, London: NMC.
- Nursing and Midwifery Council (2010) *Record keeping: guidance for nurses and midwives*, London: NMC.
- Royal College of Nursing (2006) *Malnutrition. What nurses working with children and young people need to know and do*, London: RCN.
- Royal College of Paediatrics and Child Health (2013) *UK-WHO growth charts*, London: RCPCCH. Available from [www.growthcharts.rcpch.ac.uk](http://www.growthcharts.rcpch.ac.uk) (Internet).
- Stoner A and Walker J (2006) Growth assessment: how do we measure up? *Paediatric Nursing*, 18 (7), pp.26-28.
- Welsh Assembly Government (2005) *The National Service Framework for children, young people and maternity services in Wales*, Cardiff: WAG.

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## Resources

Central Manchester and Manchester Children's University Hospital NHS Trust and The British Dietetic Association (2008) *Screening tool for the assessment of malnutrition in paediatrics*. Available from [www.stampscreeningtool.org](http://www.stampscreeningtool.org) (Accessed 12 July 2010) (Internet).

Department of Children, Schools and Families (2009) *Every child matters: change for children*, London: DCSE. Available from [www.dcsf.gov.uk/everychildmatters](http://www.dcsf.gov.uk/everychildmatters) (Accessed 12 July 2010) (Internet).

Department of Health (2013) *Change 4 Life*, London: DoH available at <http://www.nhs.uk/change4life/Pages/change-for-life.aspx> (Accessed 12/7/2013).

Department of Health (2013) National Child Measurement Programme: operational guidance for the 2012/3 school year London: DoH Available at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/146720/dh\\_133677.pdf.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/146720/dh_133677.pdf.pdf) (Accessed 12/7/2013)

Department of Health (2011) *Healthy weight, healthy lives: child weight management programme and training providers framework*, London: DoH Available at <https://www.gov.uk/government/publications/child-weight-management-programme-and-training-providers-framework> (Accessed 15/7/2013)

Now I understand: consulting parents on chart design and parental information for the UK-WHO child growth charts.

Publication info: *Child: Care, Health & Development* 38.3 (May 2012): 435-440.

Looking at obesity trends in primary school children.

Publication info: *British Journal of School Nursing* 7.7 (September 2012): 322-324.

Children's perspectives on height and weight screenings.

Publication info: *British Journal of School Nursing* 6.10 (December 2011): 482-488.

Using the new UK-WHO growth charts.

Publication info: *BMJ (Clinical Research Edition)* 340.7747 (March 20, 2010): 647-650.

A guide to the UK-WHO child growth charts.

Publication info: *Nursing in Practice* 49 (Jul-Aug 2009): 65-67.

Monitoring infants' and children's growth.

Publication info: *Practice Nursing* 20.7 (July 2009): 364-367.

Weighing in schools: are you getting it right?

Publication info: *School Health* 5.2 (2009): 23-24.

New infant growth charts.

Publication info: *Community Practitioner* 82.6 (June 2009): 36-37.

Department of Health, Social Services and Public Safety Northern Ireland (2007) *Fit futures. Focus on food, activity and young people*, Belfast: DHSSPSNI.

Infant and Toddler Forum ([www.infantandtoddlerforum.org](http://www.infantandtoddlerforum.org))

National Institute for Health and Clinical Excellence (2006) *Obesity – the prevention, identification, assessment and management of overweight and obesity in adults and children: NICE guideline*, London: NICE. Available from [www.guidance.nice.org.uk/CG43](http://www.guidance.nice.org.uk/CG43) (Accessed 12 July 2010) (Internet).

Welsh Assembly Government (WAG) (2008) *Food and fitness implementation plan – promoting health eating and physical activity for children and young people of Wales*. Cardiff: WAG.



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