The Dudley Group NHS Foundation Trust

Trust Headquarters
Russell's Hall Hospital
Dudley
West Midlands
DY1 2HQ

Ref: FOI-062024-000958

Date: 04/09/2024

Address / Email:

Dear

Request Under Freedom of Information Act 2000

Thank you for requesting information under the Freedom of Information Act 2000.

Request

Dear Sir/Madam

Please find below a freedom of information request relating to local policies and guidelines for the treatment of obesity.

Question 1: Does The Dudley Group NHS Foundation Trust have any local guidelines or polices for the treatment of obesity?	Yes/No
	If Yes, please provide a copy.

Question 2: Does The Dudley Group NHS Foundation Trust have referral pathways for Tier 3 or Tier 4 weight management services?	Yes/No
	If Yes, please provide a copy.

Response

Q1. Please find attached guidelines relating to obesity.

Q2. Patients are referred according to guidelines for referral to specialist weight management tier three services (see NICE Guidelines) and those who fulfil the criteria for medical therapy on the NHS.

If you are dissatisfied with our response, you have the right to appeal in line with guidance from the Information Commissioner. In the first instance you may contact the Information Governance Manager of the Trust.

Information Governance Manager
Trust Headquarters
Russell's Hall Hospital
Dudley
West Midlands
DY1 2HQ

Email: dgft.dpo@nhs.net

Should you disagree with the contents of our response to your appeal, you have the right to appeal to the Information Commissioners Office at.

Information Commissioners Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF
Tel: 0303 123 1113
www.ico.org.uk

If you require further clarification, please do not hesitate to contact us.

Yours sincerely

Freedom of Information Team
The Dudley Group NHS Foundation Trust

The Dudley Group NHS Foundation Trust

CARE OF THE PLUS SIZED (BARIATRIC) PATIENT (SAFER MOVING OF) GUIDELINE			
	DOCUMENT TITLE:	**CARE OF THE PLUS SIZED (BARIATRIC) PATIENT (SAFER MOVING OF) GUIDELINE**	
	Name of Originator/Author /Designation & Specialty:	[redacted] Professional Development Lead- Core skills (Manual handling & Core high risk medical devices)	
	Local / Trust wide	Trust Wide	
	Statement of Intent:	This Guideline is produced to support Trust staff in delivering the best quality care to patient whose weight exceeds 159kg. It sets out the principles on how to safely move & support patient utilising appropriate equipment and methods.	
	Target Audience:	All clinical staff	
	Version:	4.1	
	Name of Group and Date when Recommended for Ratification	Medicine and Integrated Divisional Meeting Surgery, Women and Children Divisional Meeting Community and Core Clinical Services Divisional Meeting	Date: 21/05/2024 May 2024(virtual) 21/05/2024
	Name of Division and Date of Final Ratification:	Deputy Chief Nurse [redacted]	Date: 04/07/2024
	Review Date:	30/11/2026	
	Contributors:	**Designation:** Manual Handling Team Fire specialist Health & Safety advisor Equality, Diversity & inclusion Tissue Viability team	
	The electronic version of this document is the definitive version		

CHANGE HISTORY

Version	Date	Reason
1.0	2014	New Guidelines
1.1	2015	Full review and update of 1.0
1.2	2016	Full review and update of 1.1
2.0	2017	Full review and update of 1.2
3.0	2020	This document has been reviewed and replaces version 2.0

4.0	November 2023	Full review and change of name from Bariatric Patients (Safer handling of) Guideline to Care of the Plus sized Patient (Safer Moving of) Guideline
4.1	July 2024	Amendments to inform staff members to complete measurements of plus size patient and trollies available across the organisation and insertion of illustration of equipment.

THE DUDLEY GROUP NHS FOUNDATION TRUST

CARE OF THE PLUS (BARIATRIC) SIZED PATIENT (SAFER HANDLING OF) GUIDELINE

GUIDELINE SUMMARY

The term “Bariatric” is identified as the treatment or specialization in the treatment of obesity and the term “Plus size” referrers to an individual’s body weight.
Within this guide the safer moving of, will refer to patients as plus size unless medically deemed otherwise.

These guidelines have been produced to provide Trust staff with guidance on the management of plus sized patients who exceed the weight limits of standard Trust equipment (most equipment has a generic safe working load of 159 KG / 25 stone) and minimise the risks associated with the care of the Plus sized patients.

Patients that are plus size may require support to move around and reposition; techniques to support them may be different due to multiple factors such as size, weight, or body shape. It will be essential for a risk assessment to be caried out prior to moving a patient who is identified as plus size. This will support in providing the most adequate safe care and to ensure the safety of the staff involved.

Please note the guidance given in this document is in relation to purely moving and handling procedures and in no way detracts or overrides techniques that are carried out for therapeutic rehabilitation purposes. Clinical judgment must prevail, and the patient should be assessed individually to their needs and an appropriate Care Plan completed on sunrise.

ABBREVIATIONS

BMI = Body Mass Index
HSE = Health & Safety Executive
MH = Moving and Handling
NHSSC= National Health Service Supply Chain
PEEP = Personal Emergency Evacuation Plan

GUIDELINE DETAIL

For the purposes of these guidelines to take effect the patient should as a minimum:

- Have a BMI more than 35 with other medical issues, EG Asthma, Diabetes, or a BMI greater than 40 without any medical history.
- Exceed the Safe Working Load and dimensions of standard equipment.

Assessment and classification

Classification	BMI (kg/m2)
Overweight	**25-29.9**
Obesity Level I	**30-34.9**
Obesity Level II	**35-39.9**
Obesity Level III	**40 or more**

(NICE 2014)
Note: use of BMI may be a less accurate method in highly muscular people. To assess patients' health risks, their waist should also be measured.

BMI classification	Waist Circumference		
Low	High	Very high	
Overweight	No increased risk	Increased risk	High risk
Obesity 1	Increased risk	High risk	Very high risk

(NICE 2023)

For men	waist circumference of less than 94 cm is low. 94–102 cm is high, and more than 102 cm is very high.	
For women	waist circumference of less than 80 cm is low, 80–88 cm is high, and more than 88 cm is very high	

(NICE 2023)

For Body shape and BMI Classification
Other Factors to be assessed should include:

- Has the patient full independent mobility / what is their mobility score?
- Will the patient still have full mobility following the reason for admission?
- What is their body shape classification?
- What strength do they have in their legs, arms, and core stability?
- Does the patient require assistance to mobilise, if so, do they require aids?
- Will communication support be required such as an interpreter or observe for sign of pain where pain relief will be required?
- It must be remembered that as all mobility and manual handling situations are dynamic and liable to change, an assessment based on their individual needs should be carried out on a regular basis.

Legislation

The Human rights Act 1998 – Within this act is 'the prohibition of torture and inhumane treatment' This is an absolute right to be treated in a humane way with dignity, no matter the situation. It also states that there should be no discrimination which says that everyone's rights are equal, and you should not be treated unfairly.

Lifting Operation Lifting Equipment Regulation – (LOLER) requires that lifting equipment must be of adequate strength and stability. Lifting equipment should be positioned or installed in such a way as to reduce the risk, as far as reasonably practicable. All lifting equipment, including accessories, must be clearly marked to indicate the safe working load.

Manual Handing Operations Regulations 1992 – (MHOR) This regulation sets out several different measurements to reduce the risk of manual handling, for instance, avoid hazardous manual handling operations as far as reasonably practicable, assess any manual handling task that cannot be avoided and reduce the risk as far as reasonably practicable.

Health and Safety at Work act 1974 – (HSE) This act outlines the legal duties that the employer must protect the health, safety and welfare at work of all employees.

The Care Act 2014 – All staff within health services has a responsibility for the safety and wellbeing of patients and colleagues. Safeguarding is a fundamental part of patient safety and wellbeing and the outcomes expected of the NHS.

Duty of Care – Duty of Care is defined as a legal obligation to always act in the best interest of the patient, to not act or fail to act in a way that may result in harm and to always act within your competence and stay within your boundaries.

Patient Admissions

Pre-Assessment for Elective Admission

When a patient attends for pre assessment the assessing staff should:

- Establish as accurately as possible the weight, (BMI), body shape classification and level of mobility of the patient.
- Staff to be sensitive to the content of information and where possible reduce the use of medical jargon to prevent miscommunication and ensure the patient has a good understanding of their care.
- For the patient with mobility difficulties, patient baseline should be obtained.
- Make contact to all relevant departments informing them of the planned admission i.e., admitting Ward Manager, Bed manager, Theatre Team, Manual Handling Team, and speciality secretary so all appropriate actions can be taken.
- Clinical judgment must prevail, and the patient should be assessed individually to their needs and an appropriate Care Plan completed.

Emergency Admission

- Guidelines to be initiated as early as possible after the stabilisation of the patient's condition and by the first area to be involved in delivering care (ED or AMU).
- Patient should be admitted onto the most appropriate or hired bariatric bed.
- Establish weight / BMI and level of mobility of the individual, carry out a manual handling assessment as required. (Dependent on treatment and length of stay)
- Inform other departments that are required as part of the patients care pathway e.g., Imaging – note that there is weight restriction on all their equipment, check with the department before transferring.
- If the patient is to be admitted then the bed manager / on site manager must be informed to organise appropriate bed space, staffing levels and equipment for expected admission area.

Elective Admission

The guidelines should be initiated a soon as possible or at least within four hours of admission.

- Establish whether there is or will be sufficient staff available, dependent on patient abilities.
- Where possible the admitting staff must obtain the appropriate equipment for the patient prior to admission.
- On admission assess / reassess weight / BMI and level of mobility by an appropriate clinician.
- Complete Care plan

Outpatients Clinics

- When a patient is to attend /or attends for an appointment:
- The medical team should, when possible, inform the clinic in advance so that the staff can obtain appropriate equipment required prior to clinic starting.
- If the known weight of the patient exceeds the safe working load of the Trust supplied generic transport wheelchairs, then clinic staff should utilise a trolley or bed with the most appropriate Safe Working Load. Alternatively hire one if a known admission
- Clinic staff should when required obtain the appropriate equipment to weigh the patient and establish an up-to-date weight and BMI and record in the notes.
- Document any mobility difficulties for future reference.
- If the patient is going to be seen at alternative Trust sites, then risk assess the appropriateness of the patients access to care and provision of appropriate equipment available. Where possible try to book appointments at RHH.

Risk assessment, Care plans and safe systems of work.

All patients must have an appropriate care plan completed within 4 hours of admission, all components must be completed to formulate a comprehensive care plan and the assessment must be reviewed daily or when changes occur by clinical staff. Care Plans are generated on Sunrise.

Specialist Equipment Requirements

The Trust have a minimal supply of bariatric beds onsite kept within the bed store.
The Ward/ Dept is responsible in arranging this via the Hub or via switch board.
Advice, guidance, or support is available from the Core skills team who are more than happy to sign post Ward/Dept in the right direction.

Most standard equipment found within the Trust can support a weight of up to 159kgs/25 stone (always check the Safe Working Load before use). As there is a limited supply of bariatric equipment within the Trust, please only obtain specialist equipment when:

- Patients weight exceeds the Safe Working Load of standard equipment.
- Patients body shape is not compatible with standard equipment.

The Core Skills Manual handling team are available to advise and support, please contact [redacted]

If specialist equipment is required, then:

- It should be obtained and where possible organised prior to a planned admission.
- The care plan/assessment should indicate the equipment required to meet the current and ongoing patients care requirements.
- When obtaining any of the Trust bariatric equipment, the on-site manager can be called to assist if available. However, the responsibility for sourcing equipment lies with the clinical area.
- When the equipment is no longer required it must be cleaned, green stickered and returned to its original ward or unit. In accordance with the infection control policy.
- If the Trust equipment is broken contact the Help desk on [redacted] and arrange the repair. Place a yellow card and cleaned green sticker on the piece of equipment and take out of use until repaired.
- If it is hired equipment the unit must ensure that it is **off hired as soon as possible,** and all parts go back to the hire company as they will be charged for repair or replacement.

Acute Trust weighing options.

The Trust is equipped with a selection of sitting and standing scales which will go up to a weight of 25 stone (Each scale should be checked for its safe working load before use).
If it is felt that the patient's weight exceeds 25 stone or body shape, or mobility restricts them from utilising the existing scales then further equipment can be found:

Equipment	Location	Comments
Bed Shoe Scales Marsden MP950 – capacity 1000Kgs Various low profile load cell pads available Marsden M-950 Bed Scales.pdf 	Medical equipment library, B6, C4,	Contact EMBE [redacted] for location of devices
Secca 677 Electronic Wheelchair Scales Capacity 300 Kgs 	Renal Unit *	Fixed scales so patient has to be transported to unit
Secca 959 Chair Scales Capacity 300Kgs 	Diabetic Resource Centre *	Unit must be contacted to establish availability

*Correct at the time of writing the guideline

Trolleys

The Trust uses various trolleys to meet individual department's requirements, staff must ensure the width of the patient, measured at shoulders left to right, abdomen and hips are within the current width of the trolleys within trust. These include:

- Arjo Huntleigh Lifeguard LG 50 – Safe Working Load 250kg
- Stryker 738 – Safe Working Load 227kg
- Howard Wright – Safe Working Load 250kg
- Wardray Premis (MRI dept) MR5501- Safe working load 220kg

Electric profiling beds

The Trust has four types of profiling beds on site, please assess which bed is required before automatically seeking a bariatric bed.

<table>
<tr><th colspan="2">Trust electric profiling bed models</th></tr>
<tr><td>Arjo Enterprise 9000x safe working load 250kg/ 39 stone PWL 185kg (29 stone)
  </td><td></td></tr>
<tr><td>Arjo Enterprise 5000 beds Safe Working Load 250kgs/39 stone. PWL 185kgs/29 stone
  </td><td>Note that the Safe Working Load and PWL are different</td></tr>
<tr><td>Medstrom MM05000 Hi Lo Bed Specialised Bed Safe Working Load 250Kg (39 stone) PWL 215kgs/33stone
  </td><td>Specialist bed for patients with falls risk or for patients who are smaller in height</td></tr>
<tr><td colspan="2">New Trust beds will need to be assessed on arrival for Safe Working Load & PWL and clinical placement</td></tr>
<tr><td colspan="2">These beds are a standard fixed width that are suitable for patients with an apple shape and who do not exceed safe working load. Please note the bed rails cannot be used as grab rail as they only have 5-8kgs Safe Working Load depending on the bed.</td></tr>
</table>

Approximate guide for sizing the patient to the bed:

A quick assessment of a centralised patient in the bed will ascertain whether there is six inches of clearance from widest part of the patient's body to the edge of the mattress. This allows for safe patient movement and prevents possible pressure from bed rails. If there is not adequate clearance, then a hire bed should be considered. These are ordered via the wards budget directly. Please refer to the training instructions given by the hire company for hire bed specifications and functions.

Baros Extendable Bariatric Profiling Bed (C5 only) 
• Safe Working Load 500kgs / 79 stone. New Baros beds are now provided by Arjo 1st Call Mobility are 450kgs / 70 stone. Width specifications remain the same. • The width can be adjusted from 36 to 48 inches. • Two beds located in the trust on C5
Suitable for the patient with an extensive pear shape or a large gluteal shelf that require safe log rolling. Bed rails can be used as hand holds only; they are not grab rails.
Citadel Plus Bariatric bed 
• Safe Working Load 522kgs / 82 stone. PWL 454kgs / 71 stone. Width specifications remain the same. • The width can be adjusted from 36 to 48 inches. • Built in weight scales
Suitable for the patient with an extensive pear shape or a large gluteal shelf that require safe log rolling. Bed rails can be used as hand holds only; they are not grab rails.

Please remember that if the bed is too wide this will cause postural issues for attending staff and the patient may not be able to reach side of the bed or the bed rails reducing their mobility. Ask the patient to lean in the direction of the move and use the appropriate number of staff to be able to move the patient.

Always check Manufacturers guidance before using as specific models may vary.

Pressure Area Care.

Bariatric patients are more prone to the development of pressure damage due.
to poor blood supply to fatty tissues resulting in skin breakdown.
All patients require a Water low risk assessment score to be completed within 6 hours of admission to the hospital. If they are deemed to be at risk of pressure damage i.e., risk assessment above 10 they will require a pressure ulcer prevention document to be completed on Sunrise.

The equipment selection guide should be followed to determine if any additional pressure relieving equipment is required.

Bariatric patients may stay in prolonged static postures and may not feel pressure.
on their tissue which increases the risk of ulcer development. This is especially likely if limbs are compressed by items such as bed rails / wheelchairs sides /chair.
arms therefore it is essential that regular assessments are carried out and the correct equipment is sourced.

Remember: All plus sized or bariatric patients do not require pressure relieving equipment as this can reduce their independent mobility.

How to assess for an Air mattress (Approximate guide only)			
Is the patient.	Mobile Water low of < 20 Regular girth Weight < 250kg	Reduced mobility Water low of > 20 Existing skin damage Regular girth Weight < 250kg	Reduced mobility Water low of > 20 Excessive girth Weight > 250kg

Bed and Mattress required	Enterprise 5000 high specification foam mattress or static air.	Enterprise 5000 and an appropriate pressure relieving mattress. (Order via Sunrise from Tissue Viability Equipment Store) Baros Extendable Bed (hire bed)	Hire bed and mattress from Arjo 1st call mobility.

Used air mattresses must be cleaned, deflated, and rolled before returning to tissue viability equipment store for decontamination as per hospital guidelines. Mattress (Static, Air and Foam) and Cushion Cleaning SOP

To order bariatric beds/mattresses for discharge please contact the Tissue Viability team.

Chairs and Commodes

There are few chairs and commodes available on the RHH site, but they are constantly moved according to clinical need. Contact the onsite coordinator for availability and whereabouts of their items; however, if they are unable to assist, it is the responsibility of the ward to source equipment.

Available Equipment – no fixed location	Chair SWL 390 kg / 60 stone Commode SWL 320 kg / 50 stone

Please note Bariatric chairs are designed to support the Plus sized or bariatric patient and should not be used for people that are less than 150 Kg /24 stone as they can cause increased pressure areas.

Note of caution: If the patient is using normal toileting facilities be aware that the porcelain base will potentially have a higher Safe Working Load (150-400Kgs) than the toilet seat (up to 150Kgs). However, the toilet seats vary from 150 -400Kgs. Estates may be able to assist with individual toilet Safe Working Load assessments or alternatively use a bariatric commode to ensure patient safety.

Hoist available within the Trust to raise more than 200kg Safe Working Load.	
Viking M (Most acute wards) 	205 Kg / 32 stone
Viking XL (B2, C1, C8) 	300 Kg / 47 stone
Oxford Presence (Corbett Site, Coronary care & Imaging RHH) 	227 Kg / 35 stone

If a mobile hoist is used ensure that patient is less than the Safe Working Load. The handler must be aware of the increased risk of moving this type of hoist with a bariatric patient in situ, use at least two members of staff to perform the manoeuvre. Please note it is more appropriate to move the receiving surface to the patient rather than the hoist to receiving surface. If a clinical area requires the Viking XL hoist from another area, then they must contact the person in charge to confirm the availability before borrowing. Under no circumstances should any equipment be taken off a ward without arrangements being made first, as this action creates a patient safety risk.

For a very morbidly obese, immobile patient (over 45st/286Kgs) the Liko Ultra Twin Gantry hoist it would be safer to hire one from the bariatric suppliers who will ensure supply, safe installed and training on receipt. Please remember the gantry hoist necessitates space and it is better placed in four bedded bays, taking over two bays for the patient. This should not be used in a side room as it may cause the doorway to the bathroom to be blocked and the space would not be adequate to perform safe manual handling.

Hoist Slings

Select single patient use slings have a SWL of 230kg/36 stone.

For the morbidly obese patient who exceeds this SWL or for a patient that has a very large girth/shoulder measurement staff should consider hiring Manual Handling - Core Skills - Bariatric

Advice can be gained from Physiotherapy, Occupational Therapy, or area-based champion.

For the fully immobile patient that requires regular turning then a repo sheet
(SWL 500kg/70 stone) is recommended to be used with a hired gantry hoist, please contact the Manual Handling team for advice. Please record the size and type of sling and hoist used for the patient on the care plan.

Slide sheets.

Red & Yellow PATPAQ slide sheets are used throughout the Trust and can be purchased via top up or through NHS Supply Chain. These slide sheets will meet the needs of most obese patients but may be too narrow for morbidly obese plus patients. The manual handling team can loan out reusable blue extra wide slide sheets for these patients. These can be purchased by the wards to have a stock if required via NHS Supply Chain. Please note that transfers up and down the bed and laterally from bed to trolley etc. should always be facilitated by a pair of slide sheet.

Type of Slide sheet	Dimensions	NHSCC Code
Red & Yellow Patpaq SPU 	100cm x 200cm	PATPAQ-EGF100200
Blue wide slide sheets 	140cm x 200cm	LGF140200

Other associated equipment available within the Trust should be accessed via the specific department for example – therapy department.

Hiring Specialist Equipment

If specialist bariatric equipment is required and the Trusts equipment is in use, then staff will need to arrange the hire. You must contact and seek permission from the area matron/ manager or on-site manager to hire the equipment and raise a requisition/purchase order number via IB solutions Capita Integra - 20.24.00/478 (integrahosting.co.uk). If urgent during working hours 8-5 call procurement dept Procurement - Home
If a Purchases order is not obtained following out of hours request, ward/ dept lead to follow this up and lease with the manual handling team as required.

Approved 24 Hour service company contact:

Arjo 1st Call Ltd
[redacted]

Delivery of equipment is usually within 4 hours from order.
If you require any other equipment, please check equipment hire catalogue.

Bariatric Rentals.pdf

Moving and Handling suggestions when moving the plus sized/ bariatric patient

Plus, sized patients should always be encouraged to be as independent as possible; if they do require assistance to mobilise then the help given should be governed by a mobility and condition assessment.
Staff involved with the personal care and nursing interventions that involve moving and handling of the Plus sized patient must refrain from attempting to lift the patient or their limbs as it may be hazardous due to stretching and weight bearing. When it is not possible to refrain from moving and handling the patient all actions should be planned and agreed with an appropriate number of staff. To reduce the risk, staff should constantly assess their working postures whilst performing any task and wherever possible alter the process to adopt safer postures and to use appropriate equipment as required. Try to alternate staff to reduce the risk of repetitive injuries. Additional staffing maybe required if multiple Plus sized patients are present on an individual ward area to ensure staff safety.

Bed manoeuvres and Lateral transfers.

- 6 staff for fully dependant patients
- 4 staff for able body patients
- Clinical staff to use clinical judgement for those patients with varying ability.
- Extra wide slide sheets available dependent upon patient measurements shoulders, abdomen and hips/ waist.
- Repo sheets (Contact manual handling team for advice)
- Full use of the bed controls to assist with bed mobility is essential.
- Hoist and Sling
- Pat slide and Lateral transfer glide sheet
- Air Pod/ Hoover Jac, (located in medical equipment library)

Note Bed sheets should not be used for any patient transfers as this breaks the Provision of Working Equipment Regulations 1998.

Bed space/ environment.

5ft Clearence around bedspace due to size of equipment compared to standard equipment, allowing for staff moving around.

Sit to stand transfers from Bed to Chair – Mobile patients/ Patients with reduced mobility.

- 2–4 staff available depending on risk assessment.
- Ensure the bed is at its lowest height appropriate for the patient. Raising the bed at the same time as standing can facilitate the initial stand. Refer to Physiotherapist if required.
- Provide appropriate equipment to cater for the patient's needs.

Transfers for Immobile Patients using hoist.

- Minimum of 2-4 staff available depending on risk assessment
- Obtain appropriate hoist (if gantry hoist is required obtain it through the manual handling team or hire company)
- Measure and obtain the correct size of sling (you need height, weight, measurement from coccyx to top of head, girth, and shoulder width measurements)
- If required use slide sheets to insert sling, remembering to remove them before hoisting.
- Carry out transfer as for normal hoisting.

Mobilising with minimal support

- Encourage mobilisation where appropriate.
- Minimum of two staff
- Carry out a Falls Assessment as per Falls Policy Guideline Template

Limb handling

To cradle, support a limb, reduce staff posture problems and the possibility of tissue damage to the patient, then you should use:

- Specific patient slings
- Slide sheets.
- Limb holders (if applicable)

Hygiene and Toileting

- Walk in showers available on most wards.
- Heavy duty shower seat
- Ensure toilet and seat meet Safe Working Load of the patient. Alternatively place a bariatric commode over toilet (for patients with reduced mobility a hoist should be used to position patient)

- Bariatric bed pan (for patients who cannot raise themselves a hoist should be used)
- It is important the patient feels safe, and their dignity is always protected.

Transferring patients to other departments

For the morbidly obese patient when possible and to reduce the risk, any treatments should be brought to the patient rather than the patient being taken to the treatment.
When a patient's treatment requires to be performed outside of the ward area then appropriate organisation is required.

- Staffing levels need to be adjusted for transport and handling.
- Communication to all staff involved regarding handling activities e.g., porters, theatre staff, X-Ray staff.
- equipment that may be required to support the patient must be checked for SWL and be prepared with appropriate width extensions if required.
- If the patient is to be laterally transferred, use slide sheets and the air pod inserted using unravelling technique and sandwiching the air pod in-between. Remember to remove the slide sheets prior to the lateral transfer.

If the Trusts equipment e.g., CT scanner is not suitable to meet the patient's weight and the investigations are required then the attending doctor will have to arrange for transfer to a specialist unit that will meet the patients' needs.

Bariatric Cross Sectional Scanning Referral SOP

Lifts
Note: Bariatric beds do not fit in all lifts so sometimes it will be necessary to reduce the width by reducing one side (dependent on bed type) or by deflating the mattress to reduce the size. Staff must remember to re extend, lock the side extensions, and re-inflate the mattress at the earliest possible time. Check for Tissue Viability Issues.

West Wing

Lift 1 (Bed Lift)	Lift 2 (Bed Lift)	Lift 3 (Bed Lift)	Lift 4 (Bed Lift)	Lift 5 (Bed Lift)
127 cm	127 cm	l27 cm	126 cm	126 cm

Central – Main Entrance

Lift 6 (Passenger Lift Only)	Lift 7 (Bed Lift)
110 cm	131.5

East Wing

Lift 8 (Bed Lift)	Lift 9 (Bed Lift)	Lift 10 (Passenger Lift Only)	Lift 11 (bed Lift)
130 cm	130 cm	110 cm	130 cm

Discharge planning.

The discharge planning of a bariatric patient must commence as soon as possible after admission, to ensure all necessary assessments, equipment provision or staffing levels are implemented by the appropriate agencies /personnel (district nursing, intermediate care, social services, or community hospitals), especially if the patient's condition or circumstances change during their hospitalisation. Advice should be sought from the appropriate nurse specialist, occupational therapist, or physiotherapist in relation to the discharge.

Consideration should be given to:

- Appropriate transportation contact West Midlands Ambulance via site co-ordinator
- Access to property
- Appropriate staffing levels should be organised to allow a safe transfer.
- Any equipment required.
- Any outside agencies and care packages involve.

Each stage of the discharge process should be documented in the patients plan of care and communicated to the appropriate agencies.

Community equipment should be sourced through the appropriate service providers following a full assessment of the patients' individual needs prior to discharge this may require a home visit. **Please allow adequate time to plan the discharge.**

Discharge may be delayed if awaiting funding for equipment or waiting on environmental alterations being completed.

Prior to discharge the discharging team must liaise with the Ambulance service giving a minimum of 2 days prior notice for them to undertake a risk assessment and exit strategy. Further advice can be sought from the Discharge Team.

Dealing with the falling / fallen patient

All patients must be assessed for the risk of falling Prevention and Management of Patient Falls Policy and preventative control measures put in place to ensure the patient is secure and safe in standing and walking (i.e., sufficient carers or equipment). Completing the manual handling assessment for the patient and document the current requirements of the patient.
If required a referral to the therapy team can be actioned through Sunrise.
Please ensure care, compassion is provided to protect the patient privacy and dignity.

Ensure that all patient falls are documented, and appropriate observations recorded, treatment provided and that a Datix is completed. Advice can be obtained from the Falls Lead.

The HSE (2004) state that hazardous manual handling should be avoided and if this not possible to reduce the introduce control methods to reduce the risk. Therefore, staff should not attempt to catch a falling/ fallen patient (Muir & Rush 2013).

There are two recognised methods of fall injury prevention:

- Assist the decent – this would not be appropriate as it is not safe to do so.
- Guide/shroud the patient to protect their head and neck as they fall, but only if it is safe to so and you are in the right place at the right time.

It is not expected that you will be able to assist every falling patient (Resus 2015)

When a patient has fallen you should assess for any medical issues due to the fall. Especially identify possible spinal, bony, query bony, head, and neurological injuries.

If the patient is un-injured promote independence and provide suitable hand holds (e.g., bed frame) to take their weight as they stand.

Patients who are unable to get up off the floor independently must be lifted using the appropriate mechanical aids.

- Hover Jack/ flo jack up to 70 stone.
- Scoop and Hover Jack – using the scoop to contain and align the patient but using the hover jack to lift the patient. At no point can the scoop be manually lifted due to SWL breach – this technique would need to be risk assessed on an individual basis.

Note - If the patient must remain on the floor for some time, you should consider rising. the patient's upper body into half sitting, as their diaphragm can be compromised when lying in supine severely restricting the patient's breathing. Ensure that they are no bony injuries before altering their position.

Please note it is no longer acceptable to hoist with the scoop.

Emergency Evacuation

When the bariatric patient is admitted, consideration should be given to how they will be evacuated in the case of an emergency (Please refer to Fire Safety Procedures and Evacuation Aids SOP).

- The shift lead is responsible for making sure the team aware of what actions to take in the event of an emergency for the bariatric patient.

- In the case of an emergency such as fire, progressive horizontal evacuation (on the bed if immobile) should be undertaken in the first instance.

- If progressive horizontal evacuation is not possible then staff should be prepared to use bariatric evacuation equipment down stair wells (Please contact Fire Safety

Specialist or fire safety team for further details). The bariatric evacuation mat is dark green in a dark green carry case and requires 6-12 members of staff to operate safely. Training on how to use this equipment is available to all staff.

In the Event of the Death of the Plus sized Patient

- Please also refer to Trust Care after Death in Hospital Policy.
- The ward must inform all relevant personal who will be involved with transfer, handling and storing of the patient.
- The appropriate trolley or bed concealment cover should be obtained prior to transfer and appropriate staffing levels should be organised to allow a safe transfer (4 – 6 staff are required dependant on weight)
- If the patient is deemed too big to be transferred to the mortuary on a normal mortuary trolley or will not be able to fit into the available mortuary fridges, then the body should be transferred on the bed to the mortuary with bed cover in situ and then transferred to the mortuary table with a SWL for the patient.
- Mortuary staff will inform Funeral Directors of the deceased patient's weight prior to them collecting the body. For any mortuary issues please contact the mortuary team for advice

Care in the community.

The Manual Handling needs of the patient in the community can be.
very challenging due:

- Patient mobility
- Availability of equipment (e.g., bed, chair, commode, hoists)
- Environmental constraints e.g., access, room layout
- Care package requirements.

As discussed, alterations to the care setting or equipment required should be in place prior to the patients discharge.
Staff should ensure and assess that all necessary, equipment provision and/or staffing levels are implemented where appropriate.
All community staff that will be involved in the patients care pathway must be informed of any specific handling needs and guidance sought if required from the Manual Handling Team
When required extra advice should be sought from the appropriate advisor, nurse specialist, occupational therapist, or physiotherapist?

Dignity and Respect

As with all patients regardless of size, patients need to be treated with dignity and respect. The patients care should not be compromised, and best efforts should be made to achieve safe patient handling by planning the care, optimizing patient outcomes, reducing the risk of staff injury, and promoting good provision and cultures.

TRAINING/SUPPORT

Training for manual handling training is mandatory. This is provided by the manual handling team or manual handling champions in the clinical area.

Specialist Plus sized training is provided by the Manual Handling team. Dates available on the hub. Manual Handling - Core Skills - Home

Champion will be advised to book Plus size training, spinal care, and emergency equipment training.

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The Dudley Group
NHS Foundation Trust

BARIATRIC (CARE OF) PREGNANT WOMEN WHO HAVE PREVIOUSLY UNDERGONE BARIATRIC SURGERY GUIDELINE			
	DOCUMENT TITLE:	**BARIATRIC (CARE OF) PREGNANT WOMEN WHO HAVE PREVIOUSLY UNDERGONE BARIATRIC SURGERY GUIDELINE.**	
	Name of Originator/Author /Designation & Specialty:	Dr [redacted] Consultant in Chemical Pathology & Metabolic Medicine Dr [redacted] Consultant in Diabetes and Endocrinology	
	Local / Trust wide	Trust Wide	
	Statement of Intent:	To ensure all women who have undergone bariatric surgery receive appropriate care during pre-conception and pregnancy	
	Target Audience:	Midwifery, Obstetrics, Clinical Biochemistry, Diabetes Teams	
	Version:	2.0	
	Name of Group and Date when Recommended for Ratification	Antenatal Diabetes QPDT	Date: 31/08/2023
	Name of Division and Date of Final Ratification:	Surgery, Women and Children: GAMe	Date: 22/11/2023
	Review Date:	30/11/2026	
	Contributors:	**Designation:** Antenatal Diabetes QPDT Specialist Midwife for Long Term Conditions	
	The electronic version of this document is the definitive version medical consultant endocrinology consultant obstetrician specialist midwife long-term conditions.		

CHANGE HISTORY

Version	Date	Reason
1	December 2019	This is a new document
1.1	June 2021	Guideline summary page updated to ensure clear instructions for timing of CBG home monitoring for woman with no history of diabetes meeting the screening criteria
2.0	November 2023	Full review

A translation service is available for this document. The Interpretation/Translation Policy, Guidance for Staff is located on the intranet under Trust-wide Policies.

THE DUDLEY GROUP NHS FOUNDATION TRUST

BARIATRIC (CARE OF) PREGNANT WOMEN WHO HAVE PREVIOUSLY UNDERGONE BARIATRIC SURGERY GUIDELINE

INDEX

1. GUIDELINE SUMMARY

Consultant-led care	• Refer all women who have previously undergone bariatric surgery for consultant-led care as they are a high-risk pregnancy
Obesity Clinic	• At booking, refer all patients to [redacted] obesity clinic • Patient with gastric bands need immediate referral to [redacted] to deflate the band
Initial Management	• Check bloods for micronutrients • Increase folic acid to 5mg until 13/40. • Commence aspirin 150 mg with gastric protection if indicated • Commence multi-vitamin preparation
Screening for diabetes	• Patients with current diabetes should be referred to Combined Diabetic Clinic/DIPEC as soon as pregnancy is diagnosed • **Do not** arrange a GTT to screen for diabetes. If previous GDM or diabetes history uncertain, refer to DIPEC for 1 week home blood glucose monitoring.If no history of diabetes, or GDM 25-27 weeks DIPEC appointment
Screening for IUGR	• Arrange growth scans at 28, 32 and 36 weeks
Labour and delivery	• Follow standard Trust Guidelines • No contra-indication to normal vaginal delviery • Delivery should be planned before 40/40

2. GUIDELINE DETAIL

2.1 Planning a pregnancy after bariatric surgery

It is generally recommended that women ***avoid conception*** **for 12 to18 months** after bariatric surgery. This is the period when women lose weight most rapidly, and there is an increased risk of post-bariatric surgical nutritional deficiencies, which can lead to poorer outcome for neonates. Early pregnancy is also associated with poorer weight loss and a reduction in the long-term effectiveness of the weight-loss surgery.

Obesity is associated with subfertility due to oligo-ovulation/anovulation, as well as a reduced response to fertility treatment. This is rapidly reversed after surgery and women should be counselled about the increased chance of becoming pregnant and advised to use appropriate contraception. All oral contraceptive pills should be avoided because of poor absorption, but any other form of contraception can be used.

Obesity is associated with numerous adverse pregnancy outcomes, including miscarriage, pre-eclampsia, gestational diabetes, foetal macrosomia, caesarean delivery, intrauterine growth restriction (IUGR), stillbirth, and possibly congenital birth defects.

After bariatric surgery, the frequencies of many of these adverse outcomes are reduced. In addition, the type of bariatric surgery appears to impact pregnancy outcomes. Those who have undergone a malabsorptive procedure (gastric by-pass, duodenal switch, biliopancreatic diversion) have a fewer large for gestational age infants (LGA) and smaller for gestational age (SGA) infants, as compared with those who underwent a restrictive procedure (gastric sleeve or gastric band).

Following bariatric surgery, several adverse pregnancy outcomes have been attributed to micronutrient deficiencies. Iron and B12 deficiencies have resulted in maternal anaemia. Folate deficiency has been reported in neural tube defects, microphthalmia attributed to vitamin A deficiency, and fetal cerebral haemorrhage attributed to vitamin K deficiency. Wernicke's encephalopathy due to thiamine deficiency is a particular concern in women with hyperemesis gravidarum and gastric bypass.

Therefore, the importance of compliance with micronutrient supplementation should be emphasised in all women who are planning a pregnancy after bariatric surgery.

Other complications of pregnancy following bariatric surgery are post-prandial hypoglycaemia, ‘dumping syndrome’ which is a constellation of GI symptoms due to rapid gastric emptying, gallstones, bowel obstruction and bacterial overgrowth.

Women who have undergone bariatric surgery are also at higher risk of mental health issues during pregnancy.

All pregnant women who have had bariatric surgery should be referred for consultant-led care at booking.

2.2 Immediate management (gastric bands)

It is the practice of the local surgical centre to advise the following during pregnancy with gastric bands:

- First trimester deflate band by 2ml
- Second trimester inflate band by 1ml
- Third trimester deflate band by 1ml

Gastric band deflation/inflation can be arranged by contacting the chemical pathology team. [redacted]

Some surgery teams may suggest the gastric band is completely deflated during pregnancy – this is dependent on symptoms the patient and any symptoms they are experiencing – if there is hyperemesis or reflux then please ask the chemical pathology team for advice.

2.3 Who to refer to obesity team

Please refer all women who have undergone bariatric surgery to the Tier three obesity clinic at Russell's Hall Hospital for nutritional care via Letter emailed to [redacted]

Inform women that the risks associated with obesity and pregnancy will be less after having weight loss surgery than they were before.

Whilst it is expected that there will be some weight gain during pregnancy, it is important that excessive weight gain is avoided, and women should be referred to their bariatric team for monitoring across pregnancy. The bariatric team will monitor the women for nutritional deficiency in each trimester and advise on appropriate dietary intake.

Advise women that they do not need to increase their calorie intake in the first two trimesters. In the third trimester, they may need an additional 200 kCal per day.

2.4 Micronutrient supplements

Women who have had surgery should continue with the usual vitamin B12 supplements, as well as their calcium and vitamin D supplements. Folic acid should be given as below. Women must stop their usual multivitamin and mineral supplements that they take, ideally three months pre-conception but if not, upon finding they are pregnant.

Gastric bypass:
Pregnancy-specific vitamin and mineral supplements should be given e.g., Pregnacare – two tablets per day, with food.
Measure Active Vitamin B12, iron, calcium, folate, selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Repeat nutrient levels each trimester, including vitamins A and E.

Gastric sleeve:
Pregnancy-specific vitamin and mineral supplements should be given e.g., Pregnacare – two tablets per day, with food.
Measure Active Vitamin B12, iron, calcium, folate, selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Repeat nutrient levels each trimester, including vitamins A and E.

Duodenal switch:
Pregnancy-specific vitamin and mineral supplements should be given e.g., Pregnacare – two tablets per day, with food.

Measure Active Vitamin B12, iron, calcium, folate, selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Repeat nutrient levels each trimester, including vitamins A, E and K

Biliopancreatic Diversion (BPD)
Pregnancy-specific vitamin and mineral supplements should be given e.g., Pregnacare – two tablets per day, with food.
Measure Active Vitamin B12, iron, calcium, folate, selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Repeat nutrient levels each trimester, including vitamins A, E and K

Gastric band:
Pregnancy-specific vitamin and mineral supplements.
Measure Active Vitamin B12, iron, calcium, folate selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Some surgical teams may suggest the gastric band is deflated during pregnancy – see advice above and refer to bariatric team.

Folic acid
Commence all women who have undergone weight loss surgery on folic 5mg OD if they are planning a pregnancy, or as soon as pregnancy is diagnosed.
Continue folic acid 5 mg od until 13/40 completed weeks

Some women may require ongoing folic acid supplementation. Monitor folic acid levels once each trimester.

Iron Supplementation
Iron supplementation may be required with all forms of bariatric surgery, and levels should be monitored as is normal care in pregnancy and repeated in each trimester along with nutritional bloods. Iron should be given to maintain the normal ranges required in pregnancy.

Thiamine Supplementation
In patients who have prolonged vomiting or hyperemesis in pregnancy are at risk of acute thiamine deficiency. Thiamine supplementation may be required. Severely thiamine-deficient mothers should avoid breast-feeding as toxic methyl-glyoxal present in milk.

2.5 Screening for gestational diabetes

Women who have bariatric surgery (BS) include many who have a high risk of developing diabetes. The indications for screening for gestational diabetes are the same as those in the general population (see Diabetes in Pregnancy Guideline)

Do not offer an oral glucose tolerance test (OGTT) to screen for gestational diabetes (GDM) in women who have undergone bariatric surgery.

Glucose tolerance testing is not an acceptable or reliable screening test and should not be used in this population group. The alteration of bowel anatomy and gastro-intestinal physiology following bariatric surgery leads to altered gastro-intestinal transit time which makes the result unreliable.

2.5.1 Who to screen for GDM.

It is important to establish whether the woman has a current or previous diagnosis of diabetes.

Current diagnosis of Type 1 or Type 2 Diabetes:
At the booking visit, immediately refer all women after BS who have a current diagnosis of diabetes, including those now managed by diet alone, to the combined diabetes antenatal clinic and follow the Diabetes in Pregnancy guidelines.

Previous diagnosis of T2DM or GDM, now in remission:
T2DM can go into remission following BS. Depending on the type of bariatric surgery, between 30-60% of patients can go into remission from T2DM. However, the risks associated with diabetes and pregnancy remain raised until the woman has been in remission for a significant period of time.

If their surgery or procedure was within the last 7 years, they should be managed in the same way as a woman with ongoing T2DM and referred to the joint diabetes antenatal clinic at booking (DIPEC, and MEEDAL)

If their surgery or procedure was more than 7 years ago, and they have remained in remission ever since, they should be referred for home blood glucose monitoring (HBGM) at 16-18 weeks and 25-27 weeks (see 2.5.2)

Unknown diabetes status prior to surgery or procedure, no current evidence of diabetes:
Refer for HBGM at 16-18 weeks and 25-27 weeks.

Never had diabetes.
Refer all women who have undergone BS for HBGM at 25-27 weeks.

2.5.2 How to screen for GDM in women who have undergone BS:

Book a face-to-face appointment in DIPEC clinic at either 16 weeks and/or 25 weeks depending on the criteria in (2.5.1)

Teach HBGM and offer healthy eating advice. Ask women to record fasting and 1-hour post prandial blood glucose for 7 days.

If 2 readings are above the target for women with GDM, refer to a diabetes combined antenatal clinic and treat as GDM.

	FASTING	1 HOUR
Targets for HBGM:	<5.3	<7.8 (<9.0 twins)

If 1 or 2 readings are abnormal, discuss with lead consultants (Dr Dale and Dr Solomon)

If all readings are normal, advise the woman to discontinue monitoring and advise on healthy eating through pregnancy. Arrange a repeat monitoring depending on criteria 2.5.1

2.6 Aspirin

All pregnant women who are at increased risk of pre-eclampsia at the booking appointment should offered a prescription of 150mg of aspirin to take daily from 12 weeks until birth.

There is no contra-indication to using aspirin in women who have had bariatric surgery, but it is usual to ensure that appropriate antacid protection is prescribed such as ranitidine or omeprazole to protect against reflux and anastomotic ulcers in the stomach.

2.7 Obstetric management during labour and delivery

Labour and delivery should be managed according to Trust guidelines.

There is no contraindication to a normal vaginal delivery in women who have had bariatric surgery.

Discussion about the timing of delivery should consider the women's preference and individual risk factors. Women should be offered delivery before 40 completed weeks.

2.8 Other complications/considerations.

Intrauterine growth restriction – patients are at increased risk of IUGR for at least two years post-surgery, this risk is greater in women who have undergone malabsorptive surgery. All women should have serial growth scans at 28, 32 and 36 weeks.

Reactive hypoglycaemia – this can be due to a combination of rapid gastric emptying and bacterial overgrowth. Ask diabetes team for specialist advice if required.

Mental health issues – women should be screened for mental health issues and managed appropriately.

Bowel obstruction – the gravid uterus can increase the risk of bowel obstruction from an internal hernia because of the abnormal anatomy. This often has an atypical presentation with abdominal pain and vomiting but has been associated with maternal mortality. Ensure all women presenting with abdominal pain are appropriately assessed.

Gall-stones – there is an increased risk of gallstones because of the abnormal internal anatomy.

2.9 Postnatal care

Women should be advised to restart their normal vitamin supplements and contact their bariatric surgery team for follow-up.

Breast-feeding should be encouraged.

3. DEFINITIONS/ABBREVIATIONS (IF APPLICABLE)

BS	Bariatric Surgery
DIPEC	Diabetes in Pregnancy Education Clinic – DSN and dietician
DSN	Diabetes Specialist Nurse
GDM	Gestational Diabetes
GDMW	Joint diabetes antenatal clinic – Wednesday pm
GTT	Glucose Tolerance Test
MEEDAL	Joint diabetes antenatal clinic – Tuesday pm
HBGM	Home blood glucose monitoring

4. TRAINING/SUPPORT (IF APPLICABLE)

All health care professionals working within this Standard will have attended mandatory training for diabetes.

5. REFERENCES

Pregnancy after bariatric surgery: screening for gestational diabetes
BMJ 2017; 356 doi: https://doi.org/10.1136/bmj.j533 (Published 03 February 2017)

The Dudley Group NHS Foundation Trust

OBESITY MANAGEMENT DURING MATERNITY CARE GUIDELINE			
	DOCUMENT TITLE:	**OBESITY MANAGEMENT DURING MATERNITY CARE GUIDELINE**	
	Name of Originator/Author /Designation & Specialty:	[redacted] Specialist Midwife Long Term Conditions [redacted] / Public Health Midwife	
	Local / Trust wide	Maternity Services	
	Statement of Intent:	To support the Maternity Service to identify, manage and make appropriate referrals for pregnant women with a raised Body Mass Index (BMI) and ensure that any identification of specialist equipment requirements	
	Target Audience:	Midwives, Obstetricians, Sonographers, Maternity Support Workers, Healthy Pregnancy Services Support Workers, Public Health.	
	Version:	1.0	
	Name of Review and Approval Group Date when Recommended for Ratification	MDT	Date 26/05/2021
	Name of Division/Group and Date of Final Ratification:	Surgery Women and Children: GAMe Virtual Ratification	Date 10 June 2021
	Review Date:	30/06/2024	
	Contributors: Emma Paul Liz Punter Dr Jennifer Denham	**Designation:** Specialist Midwife long-term conditions Public Health Midwife ST5 O&G	
	The electronic version of this document is the definitive version		

CHANGE HISTORY

Version	Date	Reason
1.0	June 2021	Previous Weight Management During Maternity Care guideline integrated into new Obesity Management During Maternity Care guideline.

A translation service is available for this document. The Interpretation/Translation Policy, Guidance for Staff is located on the intranet under Trust-wide Policies.

THE DUDLEY GROUP NHS FOUNDATION TRUST

OBESITY MANAGEMENT DURING MATERNITY CARE GUIDELINE

1. GUIDELINE SUMMARY

This guideline summarises the changes in management and referrals to be considered to optimise care for women with a Body Mass Index (BMI) above the normal range (>25) in the pre-conceptual, antenatal and postnatal periods. It also details the treatment service available from the Midwifery Service's Healthy Pregnancy Support Service (HPSS).

2. GUIDELINE DETAIL

2.2 Rationale

Having a BMI above the normal range has become increasingly common, with a rapid increase in the prevalence of raised BMI between 1993 and 2000 and slower but continued rate of increase resulting in the majority (60%) of adult women having a weight above the normal range in 2008. 29% of women in England are obese and 4% morbidly obese, with overall higher rates of obesity in the West Midlands region[1]. As such, a raised BMI is regularly encountered at antenatal booking appointments and Obesity during pregnancy is a risk factor for adverse pregnancy outcomes CMACE/RCOG 2010

There are several complications that are significantly associated with maternal obesity (with increasing obesity increasing risk). Maternal risks include:

- Miscarriage
- Gestational diabetes (GDM)
- Pre-eclampsia (PET)
- Venous thromboembolism (VTE)
- Increased rates of induction of labour and emergency caesarean section
- Prolonged active first stage of labour
- Post-partum haemorrhage
- Wound infection

Risks to the unborn baby of the obese mother include

- Increased rates of congenital anomaly
- Fetal macrosomia
- Shoulder dystocia
- Perinatal mortality

Breast feeding rates are also reduced at the time of discharge[2,7].

2.3 Assessment of BMI

BMI is a simple, inexpensive and non-invasive measure familiar to most patients which measures excess weight and gives an indirect assessment of adiposity (the proportion of body weight made up by fat) and therefore a statistical propensity to disease and complications.

Routine measurement of BMI allows healthcare professionals (HCPs) to identify those with a raised BMI and modify their antenatal management to improve pregnancy outcome and also presents an opportunity to encourage behaviour change to improve their health. Height (m) and weight (kg) measurements should be taken at the antenatal booking visit as part of a full risk assessment and used to calculate BMI in kg/m^2 using the following formula.

$$\text{BMI} = \frac{\text{Weight(kg)}}{\text{Height(m)x Height(m)}}$$

All midwives in the hospital maternity outpatient department and community have been provided with BMI calculators. All wards and departments have been provided with BMI charts. There are also free online tools to calculate BMI https://www.nhs.uk/Tools/Pages/Healthyweightcalculator.aspx

It will give a BMI calculation which will fall within one of the following ranges:

- Healthy weight 18.5-24.9
- Overweight (pre-obese) 25-29.9
- Obese (Class I) 30-34.9
- Obese (Class II) 35-39.9
- Obese (Class III, Morbid) 40 or more[3]

It should be considered that the distribution of adiposity will also influence potential complications.

2.4 Ongoing Assessment

All women should be re-weighed routinely at 36 weeks by the community midwife or in Maternity outpatients when they attend, to allow reassessment for referral to HPSS. If BMI has increased or remains ≥26 they will be offered or re-offered referral to the HPSS via the HPSS referral slips (Appendix 2).

For women with obesity in pregnancy, re-measurement of maternal weight during the third trimester will allow appropriate plans to be made for equipment and personnel required during labour and delivery[2]

Consideration should be given to repeating a weight measurement in the third trimester to make appropriate plans for equipment and staff availability at delivery[7].

Women who have a BMI over ≥26, who engage with HPSS, will be weighed within the service.

2.5 Pre-conceptual Care

As obesity is one of two modifiable risk factors (alongside stopping smoking), women with a BMI of 30 or more who may become pregnant should be advised, encouraged and helped to reduce their weight before becoming pregnant in the context of general health benefits, improving the chance of becoming pregnant and reducing the risk of pregnancy complications. Further to an initial, realistic, aim to reduce their weight by 5-10%, women planning a pregnancy should aim to reduce their weight such that their BMI is within the normal range[4].

If a woman with a BMI ≥30 is trying to conceive, she should be prescribed 5mg Folic Acid once daily for at least one month before conception and during the first trimester to reduce the risk of neural tube defects[7].

Booking weight will have a greater influence on maternal and fetal health and wellbeing than weight gained during pregnancy and there is a lack of any evidence-based UK guidance on expected weight gain during pregnant. As such, any focus on weight loss should be **prior to conception**[4]. However the HPSS service will encourage and motivate women to eat healthily and increase activity, to aid a healthy lifestyle

2.6 Antenatal Care

2.6.1 Community Midwife Booking

All women should be given a patient information leaflet within the pregnancy pack: Pregnancy and your Weight **(Appendix 1)**, and given an opportunity to discuss the risks for their pregnancy and how to minimise them[7]

The community midwife will discuss with all women with a BMI ≥26 the implications of being overweight in pregnancy and the possible intrapartum complications. This is documented in the woman's pregnancy hand held notes

All women should be offered screening for chromosomal abnormalities. Women should be counselled that the screening tests are slightly less effective if they have a raised BMI.

2.6.2 Lifestyle/Weight Management Advice

During pregnancy, women should be advised on eating a healthy diet and undertaking daily, moderate physical activity up until delivery.

Anti-obesity and weight loss drugs should not be used in pregnancy[4,7].

Referral to a dietician is recommended for women with a BMI ≥30 [7,9] Within the trust, dietary advice is offered through referral to the Healthy Pregnancy Support Service (HPSS) for all women with a BMI ≥26, with additional input from a dietician considered in specific conditions such as Diabetes.

All women with a BMI ≥26 will be routinely referred to the Healthy Pregnancy Support Service (HPSS), by electronic referral, on receipt of the referral letter by outpatient booking team.

The HPSS is an **opt out** service, and the booking midwife should inform the woman that this is a routine pathway for Dudley women who have a BMI ≥26, due to added complications of raised BMI during pregnancy. This opt out system increases the opportunity for all women with an elevated BMI to receive specialist information from the HPSS Team. Encouragement to engage with the service should be given.

Following the dating scan women with BMI>26, will again be routinely referred to HPSS, via the Public Health support worker electronic pick list to reduce the possibility of missed referrals.

At any time in pregnancy the woman can be re-referred using the HPSS referral forms, to the HPSS service if deemed appropriate **(Appendix 2).**

The weight management pathway for maternal obesity **(Appendix 3)** is followed, for women who engage with the HPSS service

2.6.3 Dating USS

Transvaginal scanning should be considered if NT measurement is technically difficult transabdominally.

2.6.4 Antenatal Clinic Booking

The Maternity Service are unable to offer routine Consultant-led (Maternity Team) care for women whose sole risk factor is a BMI ≥30 but <35. Women with a BMI over ≥35 or <18.5, must be referred for Consultant-led care.

For women who otherwise require antenatal care under a Consultant Obstetrician, care women with a BMI ≥30 can be undertaken in any antenatal clinic[7].

2.6.5 Vitamin D

Whilst obese women are more likely to be Vitamin D deficient, formal testing for this is not indicated unless other risk factors are present. There is a lack of evidence on if treatment improves maternal and fetal outcomes, but NICE guidance remains that pregnant women with risk factors should take 10mg Vitamin D daily.

More recently, in respect of the COVID pandemic, the UK government have recommended that everyone considers Vitamin D supplementation, as their sunlight exposure may be reduced from spending more time than previously indoors[8]. Pragmatic advice is that patients should take a women's or pregnancy multivitamin, such as those available via the Sure Start scheme.

2.6.6 Pre-eclampsia Risk

A BMI ≥35 or higher confers a moderate risk for the development of PET during pregnancy. If an additional moderate risk factor is present, or one high risk factor, then aspirin should be prescribed for PET prophylaxis. This should be at a dose of 150mg OD, to be taken at night (as this may confer increased efficacy) from the 12th week of pregnancy until delivery. The dose may require reduction in conditions such as renal or hepatic impairment. Women should not be advised to buy aspirin over the counter[6,7,9].

2.6.7 Venous Thromboembolism Risk

A VTE risk assessment should be undertaken and documented at booking, at every antenatal encounter, if the woman is admitted as an inpatient or develops an intercurrent problem intrapartum and postpartum.

A booking BMI ≥30 scores 1 and a booking BMI of ≥40 scores 2 on the VTE risk assessment. Women with a VTE score of 3 or more should be referred to the Obstetric Haematology clinic by use of the electronic document available on sunrise. Particular care with VTE assessment in the obese population is warranted: of the 37 women who died in the 2014-2016 triennium due to venous thromboembolism, 57% had a BMI ≥30 (MBRRACE UK 2018)

2.6.8 Gestational Diabetes Risk

All women with a BMI ≥30 should be offered screening for GDM with an Oral Glucose Tolerance Test (OGTT) between 25-27 weeks of pregnancy[7].

If a woman is 36 weeks gestation or above, a random blood glucose test (RBG) is required instead of an OGTT

2.6.9 Referral to Specialist Midwife

If the booking BMI ≥ 40, referral should be made to the Specialist Midwife for long-term conditions as specialist equipment and multidisciplinary involvement may be required - ext. 2331/bleep 5054 (appendix 6)

2.6.10 Anaesthetic Assessment

Women with a booking BMI ≥40 should be referred to Obstetric Anaesthetic clinic for antenatal assessment, via the dedicated link available on the Hub. Women with a BMI <45 will receive a letter asking them if they require a face-to-face appointment **(Appendix 4)** and information leaflets **(Appendix 5)**

Women with a BMI ≥45 receive an appointment and an anaesthetic management plan is formulated with the woman for labour and delivery and should be documented in the notes. If there is the potential for significant difficulties, an MDT approach to planning care should be used[7]

2.6.11 Anomaly Scan

Screening for structural anomalies (USS at 18 - 21+6 weeks) should still be offered in women with a raised BMI, however they should be advised that all forms of screening for structural anomalies are more limited in women with obesity.

2.6.12 Serial Growth Measurement

Serial fundal height measurement should be undertaken regularly from 24 weeks gestation in all women.

Serial assessment of fetal size should be undertaken by ultrasound in women with a booking BMI ≥35 or <18.5, as symposia-fundal height (SFH) measurement is less accurate.

Assessment of presentation by ultrasound can be considered if palpation is technically difficult in women with obesity.

2.6.13 Medication

Booking weight must be used for most drug calculations. However, there are exceptional drugs where current weight is to be used e.g. Zidovudine and therapeutic heparin. Please refer to individual guidelines for further information. Midwives should be aware of early warning signs of complications e.g. thromboembolism and diabetes and take appropriate action when necessary.

2.6.14 Manual Handling & Tissue Viability

A manual handling and tissue viability assessment should be completed in 3rd trimester. This will usually be completed on admission in labour. It should also be considered earlier in the antenatal period in women whose BMI ≥ 40.

2.7 Assessment of the availability of suitable equipment

It is important to consider the safety of the birth environment for women with a raised BMI, whether it is in the hospital or at home. Special consideration must be given to the environment for antenatal care and birth for women with a weight which exceeds 160kg, including the availability of appropriate equipment. Please refer also to the Trust guidance on manual handling of Bariatric patients. Bariatric patients (safer handling of) guideline

In antenatal clinic, examination and ultrasound couches have a weight tolerance of up to 160kg and the weighing scales can measure up to a maximum weight of 250kg

Bariatric moving and handling equipment is available within the Trust. Manual handling can be contacted on ext. 1113 or ext. 1169 for advice

Large blood pressure cuffs are available. Blood pressure readings are accurate if an appropriately sized cuff is used when undertaking the measurement, and the size of cuff used should be documented in the notes. If an appropriately sized cuff is not available for the upper arm, consider taking the blood pressure at the wrist[5].

Several sizes of thromboembolic stockings are available, however if a large enough size is not available, thromboembolic stockings should not be applied and consideration given to other methods of mechanical thromboprophylaxis, such as Flowtrons.

2.8 Timing, Mode and Location of Delivery

All women with obesity should have an informed discussion with an Obstetrician and, if indicated, their Anaesthetist to determine an individualised plan for labour and birth. Consideration of the most appropriate birth setting is required, and a discussion of the increased risks in labour due to maternal obesity and the additional care available on a CLU should be undertaken with the woman. Women with a BMI over 35 are advised to deliver in the obstetric unit within the trust, as per the low risk labour guideline.

Elective induction at term in women with obesity reduces the chances of Caesarean delivery, without increasing the risk of adverse outcomes and this should be discussed with women

Induction of labour versus expectant management for suspected fetal macrosomia in the context of maternal obesity should be discussed.

The decision for planned delivery by Caesarean section should follow an MDT approach.

The decision for VBAC should be made on an individual basis

Women should be advised that there is an increased risk of still birth, but that there is a lack of evidence to recommend routine monitoring for a post-dates pregnancy.

2.9 In labour

The on-duty anaesthetist and obstetric theatre team should be informed on the admission of women with BMI >40, and this should be documented in the notes.

Women with a BMI ≥40 should have an IV cannula sited in early labour

On admission to the maternity unit, a moving and handling assessment **(appendix 7)** and a Waterlow score risk assessment **(appendix 8)** is completed by the midwife who admits the woman in labour.

CTG monitoring should be undertaken as per NICE CG190[7]

Active management of the third stage of labour should be recommended to reduce the incidence of PPH.

2.10 Postnatal Care

A manual handling and tissue viability assessment should be completed following delivery

Women should be advised that reducing their weight between pregnancies will reduce the chance of stillbirth, hypertensive disease and fetal macrosomia.

If applicable, women should be informed that weight loss also improves the chances of successful VBAC in a future pregnancy.Referral to HPSS can be made up to 6 weeks postnatally, using the HPSS referral form (appendix 2)

2.10.1 Equipment considerations for intrapartum care

Standard Delivery beds tolerate a weight of up to 180kg, ward beds check model, maximum weight identified on individual beds

Ave 2 birthing beds can tolerate up to 240kg

Extra-long spinal and epidural needles are available for regional analgesia in obese women

3. Equipment considerations for the postnatal period

4. DEFINITIONS/ABBREVIATIONS

BMI – Body Mass Index
GDM – Gestational Diabetes Mellitus
GROW Chart – Gestational Related Optimal Weight Chart
HPSS – Health Pregnancy Support Service
OGTT – Oral Glucose Tolerance Test
PET – Pre-eclampsia
VBAC – Vaginal Birth After Caesarean section
VTE – Venous Thromboembolism

Body Mass Index (BMI): A number calculated from a person's weight in kilograms and height in metres. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.

Bariatric medicine: Branch of medicine that deals with the causes, prevention and treatment of obesity

Congenital anomalies: A condition which is present at the time of birth which varies from the norm.

Oral Glucose Tolerance Test (OGTT): A test to diagnose gestational diabetes.

HPSS – Healthy Pregnancy Support Service

Intrapartum: The labour period of childbirth.

Macrosomia: Is used to describe a new-born with an excessive birth weight.

Perinatal mortality: Refers to the death of a foetus or neonate.

Pre-Eclampsia: A condition that may develop in late pregnancy and may lead to convulsions if not treated. Symptoms are high blood pressure, fluid retention, excessive weight gain, and the presence of protein in the urine.

Random Blood Glucose (RBG): Test used to screen for diabetes for women over 36 weeks gestation.

Thromboembolic: Blocking of a blood vessel by a blood clot dislodged from its site of origin.

Thromboembolism: Formation in a blood vessel of a clot (thrombus) that dislodges from its site of origin.

Venflon: Or cannula is a tube that can be inserted into the body, often for the delivery or removal of fluid.
Waterlow risk assessment: Gives an estimated risk for the development of a pressure ulcer in a given patient.

5. TRAINING/SUPPORT (IF APPLICABLE)

All staff receive training at induction and updates during the yearly mandatory study sessions.

6. LINKED PROCEDURAL DOCUMENTS

Bariatric patients (safer handling of) guideline

Low Risk Labour guideline.pdf

7. REFERENCES

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7.5 National Institute for health and Care Excellence [NICE]. (2010) **Weight management before, during and after pregnancy. Public Health Guideline 27**. [accessed 30 h September 2020]

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7.7 National Institute for health and Care Excellence [NICE]. (2019) **Hypertension in Pregnancy: Diagnosis and Management**. [accessed 30 h September 2020]

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7.9 COVID-19 rapid evidence summary https://www.nice.org.uk/advice/es28/resources/covid19-rapid-evidence-summary-vitamin-d-for-covid19-pdf-1158182526661

7.10 Saving Babies Lives https://www.england.nhs.uk/wp-content/uploads/2019/03/Saving-Babies-Lives-Care-Bundle-Version-Two-Updated-Final-Version.pdf

7.11 NICE Caesarean Section https://www.nice.org.uk/guidance/cg132/resources/caesarean-section-pdf-35109507009733

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Royal College of Obstetricians and Gynaecologists (2018) Care of Women with Obesity in Pregnancy. Green-top guideline no. 72

5.2 *Journal*

Author. (Year). Article title. Journal title, Volume, Part/issue or date/month, Page numbers [Date accessed if online]
Example: Haith, Mark P. (2012) How to use action learning sets to support nurses. Nursing Times, Vol 108, no 18/19, pp. 12-14.

5.3 ***Command paper*** *(including green and white)*

Country. Department name in full (Year). Title. Place: Publisher [Full web address and date accessed if online]
Example: Great Britain. Department of Health (2010). Equity and excellence: Liberating the NHS 2010. London: The Stationery Office. [accessed 4th May 2012]

5.4 *Act of parliament*

Title and year. Chapter number. Place: Publisher [Full web address and date accessed if online]

Example: Health and Social Care Act 2012. c.7. London: The Stationery Office. [accessed 4th May 2012 http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted/data.htm]

5.5 Web page

Author. (Date). Title. Web page address in full [date accessed – must state]
Example: NHS Litigation Authority. (2012) Risk Management. http://www.nhsla.com/RiskManagement/ [accessed 4th May 2012]

5.6 Library Support

The Trust Library Services clinical.library@dgh.nhs.uk x1078/7 will provide advice and/or support with referencing practice and guidelines searching on request.

This leaflet provides information about your choice of care in pregnancy. If you want more information in other languages please contact a midwife on 01384 456111.

Available in larger print and audio version
call 01384 244418

Version 1.
Author – Maternity Documentation Group, Date produced – October 2009, Date for review – October 2012

The Dudley Group of Hospitals NHS
NHS Foundation Trust

The Dudley Group of Hospitals NHS
NHS Foundation Trust

pregnancy
and your weight

October 2009

Congratulations on being pregnant. We hope your pregnancy will be healthy and enjoyable.

Eating a healthy diet and being physically active is especially important in pregnancy as your unborn baby has to get everything it needs to grow and develop from you.

Many women's weight will be higher or lower than the health range when they become pregnant, and this can affect the pregnancy as well as the woman's general health.

What is a healthy weight?

This depends on how tall you are. We use a calculation that tells us about your weight in relation to your height. This measurement is called Body Mass Index (BMI) and it is calculated from your weight in kilograms and your height in meters squared.

Weight status	BMI
Healthy range	18.5 to 25
Underweight	Less than 18.5
Overweight	More than 25

www.eatwell.gov.uk/healthydiet/healthyweight/bmicalculator/

For the purposes of pregnancy, there are increased risks of certain complications if the BMI is less than 18 or more than 30.

Your height in cm _____ Your weight in kg _____

Your BMI _____

For more information on BMI visit
www.eatwell.gov.uk/healthydiet/healthyweight/bmicalculator/

Weight gain in pregnancy

It is important to accept that you are going to put some weight on in pregnancy, although this is normal you may be concerned about this.

The normal changes in the body during pregnancy, plus the growing baby can add an average weight gain of around 11kg (24lb).

The table below shows the recommended weight gain for the whole pregnancy based on your BMI. You should expect most of the weight gain to happen after the 20th week of pregnancy:

BMI at beginning of pregnancy	Recommended total weight gain
18 or less	12.5 – 18 kg (28 – 40 lbs)
19-25	11.5 – 16kg (26 – 36 lbs)
26-29	7.0 – 11.5 kg (15 – 25 lbs)
30 or more	7.0 kg (15 lbs)

The more weight you put on above the recommended amount in pregnancy, the more weight you will be left carrying after the birth of the baby. Importantly, excess weight gain also increases risks to both you and your baby during the pregnancy and the birth.

It is not recommended that you try to diet during pregnancy, but you should try to eat healthily and be as active as you can.

We can give you more information about how to eat healthy and exercise safely in pregnancy and if eligible you can be referred to the Maternal & Early Years Service. For more information about this service ask your midwife.

There is a helpful section on the Food Standards Agency "Eat well, be well" website, called "When you are Pregnant".

www.eatwell.gov.uk/agesandstages/pregnancy

What are the problems with being underweight in pregnancy?

If you have a very low BMI in pregnancy, you have an increased chance of the following problems:

- Having a low birth weight (small) baby
- Premature birth
- Anaemia (low amount of iron in the blood)

What are the problems with being overweight in pregnancy?

If you have a high BMI in pregnancy (especially if it is higher than 30), you have an increased chance of the following problems:

- High blood pressure
- Pre-eclampsia
- Diabetes (some women can become diabetic just during pregnancy)
- Anaesthetic complications
- Having an abnormally big baby
- Blood clots in the legs or lungs (especially in the few weeks after the birth)

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Although the chance of these problems is increased, it is important to remember that most women with a low or high BMI have normal, healthy babies and pregnancies.

When you see a midwife or doctor during the pregnancy, they will be checking you and the baby to try to detect whether any of these complications are developing. If you are worried, speak to the midwife or doctor and they will be able to explain things in more detail.

Our plan for your care

If your BMI is 18 or less, or 35 or more

- You will be referred for an opinion from a doctor at the hospital because of the increased chance of certain complications.
- You will not need to come to the hospital for every antenatal appointment and will probably have many of your appointments locally with your community midwife.

You can get further help and advice about your weight and healthy eating from:

- Midwives
- Children's Centre Staff
- NHS Dudley's Weight Management Team
- NHS Dudley's Food & Nutrition Team
- NHS Dudley's Physical Activity Team

Please ask if you would like to be weighed when you attend for your antenatal checks. If your BMI is over 30 you may be eligible to access the Maternal & Early Years Service who will support you at home to avoid gaining an excessive amount of weight during your pregnancy and help you to lose weight once you have had your baby.

Pregnancy is a great time for learning about healthy eating and being physically active as a whole family, this way your baby will benefit from the changes! One of the most important things we can do for our children is to give them a healthy start in life.

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Exercise in Pregnancy

It is important to be as active as possible during pregnancy and you can exercise safely without risk to you or your baby. Gentle exercise, such as swimming, yoga and walking, can improve muscle tone and strength and can also relieve tiredness, lower back pain and reduce varicose veins and swollen ankles.

Staying fit during pregnancy helps women cope better with the physical demands of pregnancy by offsetting constipation, tiredness and circulation problems. It can help you through your labour by building muscle tone, strength and stamina and can also improve your mood and self-image; it can even help you sleep more soundly!

During pregnancy you should avoid contact sports where there is a risk of being hit in the abdomen, such as kick-boxing, martial arts or squash. If you are uncertain about what exercise is safe for you and your baby, please discuss this with your doctor or midwife. You can also get support & advice on physical activity from the Maternal & Early Years Service and if eligible, discounted leisure passes from NHS Dudley's Physical Activity Team.

There is a helpful information leaflet about exercise in pregnancy on the "Information for patients" section on the Royal College of Obstetricians and Gynaecologists website: www.rcog.org.uk

five

After the baby is born

After the pregnancy, you should try to get your weight into the healthy range. It is important to remember that you do need extra energy for breastfeeding, so you must consider this if you do decide to try to lose weight or if you are underweight. This extra energy should be calorie intake from healthy food such as fruit and vegetables.

You can get help and advice about losing weight and healthy eating from your health visitor, GP, practice nurse and NHS Dudley's Weight Management Team. Or if you BMI is over 30 you may be eligible to receive a home visit from the Maternal & Early Years Service who will support you to lose weight having had your baby and offer help, information and support on breastfeeding and weaning.

You can reduce the chance of complications in future pregnancies by trying to get your weight into the healthy range before you try for another baby and by being active with your baby you are giving them the best start to life!

The following services are available to help you lose or manage your weight (eligibility criteria apply):

Weight Watchers
Slimming World
Slimmers Kitchen
Shapes
Get Cooking!
Exercise on Referral

Please contact the Weight Management Team on 01384 366 601 for more information on any of the above services.

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Appendix 2:
Referral for Healthy Pregnancy Support Service

The Dudley Group
NHS Foundation Trust

The Dudley Group
Foundation Trust

DUDLEY STOP SMOKING SERVICE
HEALTHY PREGNANCY SUPPORT SERVICE
PREGNANCY REFERRAL

Dudley NHS Bloomin

Name: _____ Unit No/NHS No: _____
DOB: _____ Tel. No: _____
Address: _____ Mobile No: _____
_____ Gestation or EDD: _____
_____ GP: _____
Postcode: _____

CO reading: _____
Smoking Referral Y: ☐

BMI _____
HPSS Referral Y: ☐

Referred by (print) _____
Job title: _____
Date of referral: _____

www.dudleystopsmoking.co.uk

20.12.16 _HPSS referral form (3).doc

Initial Consultation	Check details on database are correct Check if patient knows why they have been referred Explain the role of HPSS and reducing childhood obesity Promote Facebook Group Complete Food Frequency Questionnaire (FFQ) Agree Smart Goals for exercising Discuss BF Email information Check booking bloods done Offer Healthy Start Vitamins and Vouchers if eligible Do you or anyone at home smoke? If yes, refer accordingly
16/40	Review FFQ and set more goals of needed Has patient received email? Advise on Antenatal Classes Have you been re-weighed?
20/40	Review FFQ plus Mention may now contact Triage if has pregnancy concerns Check GTT been booked Feeling Flutters? Has WCV been booked?
24/40	Review FFQ plus Good FM's?
28/40	Review FFQ plus Check fetal movements are present and normal for this baby Complete referral to Flo Advise to increase Iron Rich Foods Advise to increase fibreand good fluid intake) to help constipation
32/40	Review FFQ plus Check fetal movements are present and normal for this baby Advise to consider packing hospital bag
36/40	Check fetal movements are present and normal for this baby Final weight for Database Healthy snacks for labour Feeding and Safe Sleep
Postnatal Ward	BF/AF Birth details Refer to S4H if applicable Email details of 'This Mom Moves' postnatal exercises

Appendix 4:
Anaesthetic Department Letter

The Dudley Group NHS Foundation Trust

Department of Anaesthesia
Russells Hall Hospital
Dudley
West Midlands
DY1 2HQ
Tel: [redacted]

Our Ref:

Date:

Dear

You have been referred to the Antenatal Anaesthetic Assessment Clinic as your body mass index (BMI) is raised. We have recently updated our guidelines and no longer routinely see patients with a BMI of 40-45 unless there are other health issues or concerns regarding anaesthesia.

Please see the attached information regarding high body mass index and pregnancy which we hope you will find helpful.

If you have any further concerns and would like to attend for a consultation with an anaesthetist, please contact the Anaesthetic Department on [redacted] and we will organise this for you.

Yours sincerely

[redacted]

Enc.

The Dudley Group NHS Foundation Trust

Anaesthetic Information for Pregnant with Women a High Body Mass Index

Who are Anaesthetists?

Anaesthetists are doctors who work in operating theatres and maternity wards. They work alongside the Obstetric doctors and midwives to provide care for women during pregnancy and birth. They help to provide pain relief during labour and anaesthetics for childbirth. Anaesthetists are also involved in caring for women who have difficulties, or become unwell, during pregnancy and birth.

Body Mass Index (BMI)

Your Body Mass Index, or BMI, is calculated from your height and weight. It is used to determine if a person is underweight, within a healthy weight range, overweight or obese. Your BMI is recorded during pregnancy and is a useful measure.

Body Mass Index and Pregnancy

Research shows that women who have a high BMI at the start of their pregnancy are at a higher risk of complications during their pregnancy and labour. For example, women with a BMI above 35 are twice as likely to need a caesarean section (and therefore an anaesthetic) compared to women whose BMI lies within the normal range of 20 – 25.

If your BMI is very high (above 45), or it is felt that you have other health problems or concerns, you may be sent an appointment to see an Anaesthetist in the Antenatal Clinic during your pregnancy.

High Body Mass Index and Labour

As soon as you arrive on Delivery Suite you should ask the midwife looking after you to inform the Anaesthetist that you are here. They can then assess you and discuss with you options for labour and delivery.

If labour is not straightforward you should think about having an epidural early during labour rather than later. It might take longer than usual to give you an epidural or a spinal anaesthetic.

The Anaesthetist may encourage you to have an epidural in labour so that you can avoid a general anaesthetic if you need a Caesarean section.

High Body Mass Index and Caesarean Section

In most cases it is better for you to have a regional anaesthetic for a caesarean section, such as a spinal or an epidural. This means an injection is given into your back to make the lower half of your body numb.

With a regional anaesthetic you stay awake during the operation. This has many advantages for both you and your baby; during delivery and afterwards.

There are times when we need to deliver a baby as quickly as possible. If you have an epidural during labour that is working well, we can often use it to deliver your baby by caesarean section. It can also be used to help deliver your baby using instruments such as forceps.

High BMI and Anaesthetic Procedures

If you have a high BMI, this can make anaesthetic procedures more difficult. It may be harder to find the correct place for your spinal or epidural and it may be more difficult to get the anaesthetic to work properly straight away.

A high BMI can make it more difficult to put a cannula (drip) in your hand and it may also cause problems with general anaesthesia (if we have to put you to sleep) during and after the procedure.

Summary

If your BMI is above 35, you are more likely to need some sort of help with the delivery of your baby than someone with a lower BMI.

- ✓ It is generally better to stay awake while your baby is delivered.
- ✓ It can be more difficult, and take longer, to do epidurals and other injections in your back to make you numb. This means that it may be better to have an epidural early in labour in case we need to deliver your baby by caesarean section or by using instruments.
- ✓ Giving you a general anaesthetic may be more difficult than for women with a lower BMI.
- ✓ Having an epidural can avoid the need for general anaesthesia in an emergency.
- ✓ When you go onto the labour ward to have your baby, tell the midwives that you need to see the Anaesthetist on duty.

LabourPains.com

Reliable information from doctors, midwives & mothers on pain relief & anaesthesia choices for your baby's birth

Anaesthetics and pregnant women with a high BMI

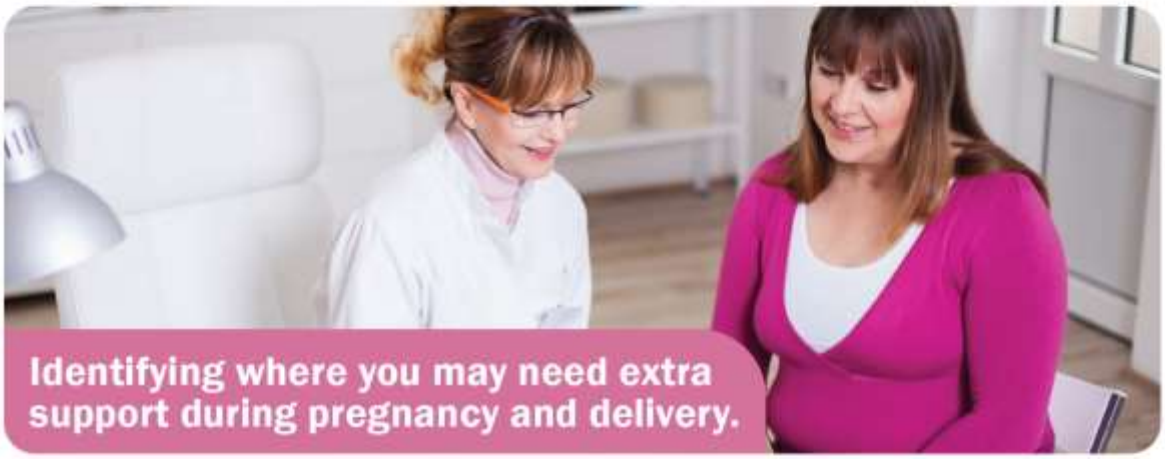
What you need to know

Who would have a high BMI?

One of the aims of antenatal care is to identify those women who may need extra support during pregnancy and birth. One thing that makes this more likely is if you have a high body mass index or BMI. BMI is calculated by your midwife at the time of booking using your height and weight and as it goes up, particularly if it is above 40, the chances of you having certain pregnancy related complications increases although many births will be completely uncomplicated and need no intervention.

What will happen next?

During pregnancy you may be offered an appointment to talk to an anaesthetist about your thoughts on pain relief and anaesthetic choices for your labour and delivery. It is easier to do this in relaxed surroundings, rather than trying to explain things when you are coping with labour. You have all the same choices for pain relief in labour as any other mother but as some options like epidurals or having drips can take longer if you have a high BMI this is a good time to discuss them.



Identifying where you may need extra support during pregnancy and delivery.

Why will an anaesthetist want to discuss epidurals?

It could be more difficult and take longer to get an epidural in and working if you suddenly decide you would like one so we may offer advice on planning for an epidural earlier in labour. We may also examine your back at this visit, sometimes using ultrasound.

If you had to have blood thinning injections in pregnancy we can discuss with you when to stop these beforehand.

What happens if I need to go to theatre?

If your baby needs to be born in theatre, this can happen quickly if you already have an epidural in place. However, if you do not have an epidural, you may need to have a general anaesthetic, which would mean that you will be asleep when the baby is born.

We will do all our routine checks of your airway so that we know if we would need more time or equipment to give you a safe general anaesthetic.

Other considerations

You may or may not have had times when having your blood tested has been tricky. If so this is also a great time to work out where we could take your blood or put a drip in if needed in labour. Sometimes we use an ultrasound machine to do this.

For more general information about how having a high BMI may affect you and your baby there is an excellent patient information leaflet on the Royal College of Obstetricians and Gynaecologists website: **www.rcog.org.uk/en/patients/patient-leaflets/why-your-weight-matters-during-pregnancy-and-after-birth**

Appendix 6:
Specialist Midwife Referral Letter

The Dudley Group NHS Foundation Trust

REFERRAL TO SPECIALIST MIDWIFE FOR WOMEN WITH LONG TERM CONDITIONS

Please complete this form and leave in folder to be collected. For urgent referrals/advice ring [redacted]

LONG-TERM CONDITIONS: see overleaf for examples, if unsure please refer anyway. Provide brief details below of the long term condition/s. **Obtain consent for referral**.

Name: (affix patient ID label if available) Unit No: DOB Address

Gravida ……
Parity…….. EDD ……
Consultant ……

Booking weight if for BMI..... (**ONLY REFER FOR BMI IF ≥ 40)**

Long-term condition:

Current medication:

Further Information **e.g. is woman under Dudley Group or another Trust for their long term condition/ any upcoming appointments?**

Referred by…….

Date…….

Long term conditions

Cardiac - congenital and ischaemic heart disease, previous cardiac surgery.
Neurological – multiple sclerosis, spina bifida, cerebral palsy, intracranial lesions/surgery , spinal cord injury, epilepsy.
Orthopaedic – scoliosis.
Haematological -clotting factor deficiency, thrombocytopenia, von willebrands sickle cell disease, thalassaemia, DVT/PE, on anticoagulation therapy during pregnancy.
Other - deafness, blindness, learning difficulties, mobility problems, HIV, lupus, morbidly obese (BMI ≥40) porphyria, pre-existing liver/renal disease, cancer

MOVING AND HANDLING ASSESSMENT

Review and document moving and handling risk factors at every AN admission, during labour and following delivery, or at **ANY POINT WHERE A RISK FACTOR CHANGES**. Document an **Action Plan** (see below) for any risk factors identified.

	ASSESSMENT FACTORS	**DATE**		**DATE**		**DATE**		**DATE**		**DATE**		**DATE**	
		YES	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**
1	Has the patient's history been fall free in the last 6 months?												
2	Can the patient communicate clearly?												
3	Is the patient cooperative?												
4	Can the patient change their position independently?												
5	Can the patient weight bear?												
6	Can the patient stand unaided?												
7	Can the patient walk unaided?												
8	Is the patient free from attachments that will hinder mobility?												
9	Is the patient free from medical conditions that will hinder mobility?												
10	Bromage score "0" (if applicable)												
	INITIALS												

ACTION PLAN (where any answer above = "No")

ASSESSMENT	**ACTION PLAN** (implementation of Action Plan must be recorded in notes)	**SIGNATURE**
AN / Labour / PN Date and Time: Factor Number:		
AN / Labour / PN Date and Time: Factor Number:		
AN / Labour / PN Date and Time: Factor Number:		
AN / Labour / PN Date and Time: Factor Number:		
AN / Labour / PN Date and Time: Factor Number:		

WATERLOW PRESSURE SORE RISK ASSESSMENT

Review and document pressure sore risk factors at every AN admission, during labour and following delivery, or at **ANY POINT WHERE A RISK FACTOR CHANGES**. Document Waterlow score and if score **≥10** document and implement **Action Plan** (see below).

ADAPTED WATERLOW PRESSURE SCORE RISK ASSESSMENT FOR MATERNITY			
BMI		**CONTINENCE**	
20-24.9	0	Complete / catheterised	0
25.29.9	1	Urinary incontinence / ruptured membranes	1
>30	2	Faecal incontinence	2
<20	3	**MOBILITY**	
SEX/AGE		Fully	0
Female	2	Restless / fidgety	1
14-49	1	Apathetic	2
50-64	2	Restricted	3
SKIN TYPE		Chairbound, e.g. wheelchair	5
Healthy	0	**TISSUE MALNUTRITION**	
Tissue paper	1	Anaemia	2
Dry	1	Smoking	1
Oedema	1	Diabetes	2
Discoloured (Grade1)	2	Surgery	1
Broken (Grade 2-4)	3	**NEUROLOGICAL DEFICIT / TRAUMA**	
APPETITE		Motor / sensory, eg paraplegia, epidural, spinal	4
Average	0	**MAJOR TRAUMA**	
Poor	1	Orthopaedic / spinal injury	5
Nasogastric tube / fluids only	2	On table 2 hours	5
NBM / anorexic	3	On table 6 hours	8

Score: ≥10 at risk ≥15 high risk ≥20 very high risk

(Waterlow pressure ulcer prevention/treatment policy)

ASSESSMENT	**ACTION PLAN** (where score ≥10) (must indicate sites to be observed, eg sacrum, buttocks, bony prominences, frequency of change of position and any pressure relieving aids used)
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	

ASSESSMENT OF PRESSURE AREAS
(to be undertaken 2 hourly where score ≥10)

DATE/TIME	EVALUATION/ACTION TAKEN Skin Condition: **A =** Normal **B =** Red, blanching **C =** Grade of pressure ulcer if present **D =** Covered by dressing	INITIALS

The Dudley Group NHS Foundation Trust

CARE OF THE PLUS SIZED (BARIATRIC) PATIENT (SAFER MOVING OF) GUIDELINE			
	DOCUMENT TITLE:	**CARE OF THE PLUS SIZED (BARIATRIC) PATIENT (SAFER MOVING OF) GUIDELINE**	
	Name of Originator/Author /Designation & Specialty:	[redacted] Professional Development Lead- Core skills (Manual handling & Core high risk medical devices)	
	Local / Trust wide	Trust Wide	
	Statement of Intent:	This Guideline is produced to support Trust staff in delivering the best quality care to patient whose weight exceeds 159kg. It sets out the principles on how to safely move & support patient utilising appropriate equipment and methods.	
	Target Audience:	All clinical staff	
	Version:	4.1	
	Name of Group and Date when Recommended for Ratification	Medicine and Integrated Divisional Meeting Surgery, Women and Children Divisional Meeting Community and Core Clinical Services Divisional Meeting	Date: 21/05/2024 May 2024(virtual) 21/05/2024
	Name of Division and Date of Final Ratification:	Deputy Chief Nurse [redacted]	Date: 04/07/2024
	Review Date:	30/11/2026	
	Contributors:	**Designation:** Manual Handling Team Fire specialist Health & Safety advisor Equality, Diversity & inclusion Tissue Viability team	
	The electronic version of this document is the definitive version		

CHANGE HISTORY

Version	Date	Reason
1.0	2014	New Guidelines
1.1	2015	Full review and update of 1.0
1.2	2016	Full review and update of 1.1
2.0	2017	Full review and update of 1.2
3.0	2020	This document has been reviewed and replaces version 2.0

4.0	November 2023	Full review and change of name from Bariatric Patients (Safer handling of) Guideline to Care of the Plus sized Patient (Safer Moving of) Guideline
4.1	July 2024	Amendments to inform staff members to complete measurements of plus size patient and trollies available across the organisation and insertion of illustration of equipment.

THE DUDLEY GROUP NHS FOUNDATION TRUST

CARE OF THE PLUS (BARIATRIC) SIZED PATIENT (SAFER HANDLING OF) GUIDELINE

GUIDELINE SUMMARY

The term “Bariatric” is identified as the treatment or specialization in the treatment of obesity and the term “Plus size” referrers to an individual’s body weight.
Within this guide the safer moving of, will refer to patients as plus size unless medically deemed otherwise.

These guidelines have been produced to provide Trust staff with guidance on the management of plus sized patients who exceed the weight limits of standard Trust equipment (most equipment has a generic safe working load of 159 KG / 25 stone) and minimise the risks associated with the care of the Plus sized patients.

Patients that are plus size may require support to move around and reposition; techniques to support them may be different due to multiple factors such as size, weight, or body shape. It will be essential for a risk assessment to be caried out prior to moving a patient who is identified as plus size. This will support in providing the most adequate safe care and to ensure the safety of the staff involved.

Please note the guidance given in this document is in relation to purely moving and handling procedures and in no way detracts or overrides techniques that are carried out for therapeutic rehabilitation purposes. Clinical judgment must prevail, and the patient should be assessed individually to their needs and an appropriate Care Plan completed on sunrise.

ABBREVIATIONS

BMI = Body Mass Index
HSE = Health & Safety Executive
MH = Moving and Handling
NHSSC= National Health Service Supply Chain
PEEP = Personal Emergency Evacuation Plan

GUIDELINE DETAIL

For the purposes of these guidelines to take effect the patient should as a minimum:

- Have a BMI more than 35 with other medical issues, EG Asthma, Diabetes, or a BMI greater than 40 without any medical history.
- Exceed the Safe Working Load and dimensions of standard equipment.

Assessment and classification

Classification	BMI (kg/m2)
Overweight	**25-29.9**
Obesity Level I	**30-34.9**
Obesity Level II	**35-39.9**
Obesity Level III	**40 or more**

(NICE 2014)
Note: use of BMI may be a less accurate method in highly muscular people. To assess patients' health risks, their waist should also be measured.

BMI classification	Waist Circumference		
Low	High	Very high	
Overweight	No increased risk	Increased risk	High risk
Obesity 1	Increased risk	High risk	Very high risk

(NICE 2023)

For men	waist circumference of less than 94 cm is low. 94–102 cm is high, and more than 102 cm is very high.	
For women	waist circumference of less than 80 cm is low, 80–88 cm is high, and more than 88 cm is very high	

(NICE 2023)

For Body shape and BMI Classification
Other Factors to be assessed should include:

- Has the patient full independent mobility / what is their mobility score?
- Will the patient still have full mobility following the reason for admission?
- What is their body shape classification?
- What strength do they have in their legs, arms, and core stability?
- Does the patient require assistance to mobilise, if so, do they require aids?
- Will communication support be required such as an interpreter or observe for sign of pain where pain relief will be required?
- It must be remembered that as all mobility and manual handling situations are dynamic and liable to change, an assessment based on their individual needs should be carried out on a regular basis.

Legislation

The Human rights Act 1998 – Within this act is 'the prohibition of torture and inhumane treatment' This is an absolute right to be treated in a humane way with dignity, no matter the situation. It also states that there should be no discrimination which says that everyone's rights are equal, and you should not be treated unfairly.

Lifting Operation Lifting Equipment Regulation – (LOLER) requires that lifting equipment must be of adequate strength and stability. Lifting equipment should be positioned or installed in such a way as to reduce the risk, as far as reasonably practicable. All lifting equipment, including accessories, must be clearly marked to indicate the safe working load.

Manual Handing Operations Regulations 1992 – (MHOR) This regulation sets out several different measurements to reduce the risk of manual handling, for instance, avoid hazardous manual handling operations as far as reasonably practicable, assess any manual handling task that cannot be avoided and reduce the risk as far as reasonably practicable.

Health and Safety at Work act 1974 – (HSE) This act outlines the legal duties that the employer must protect the health, safety and welfare at work of all employees.

The Care Act 2014 – All staff within health services has a responsibility for the safety and wellbeing of patients and colleagues. Safeguarding is a fundamental part of patient safety and wellbeing and the outcomes expected of the NHS.

Duty of Care – Duty of Care is defined as a legal obligation to always act in the best interest of the patient, to not act or fail to act in a way that may result in harm and to always act within your competence and stay within your boundaries.

Patient Admissions

Pre-Assessment for Elective Admission

When a patient attends for pre assessment the assessing staff should:

- Establish as accurately as possible the weight, (BMI), body shape classification and level of mobility of the patient.
- Staff to be sensitive to the content of information and where possible reduce the use of medical jargon to prevent miscommunication and ensure the patient has a good understanding of their care.
- For the patient with mobility difficulties, patient baseline should be obtained.
- Make contact to all relevant departments informing them of the planned admission i.e., admitting Ward Manager, Bed manager, Theatre Team, Manual Handling Team, and speciality secretary so all appropriate actions can be taken.
- Clinical judgment must prevail, and the patient should be assessed individually to their needs and an appropriate Care Plan completed.

Emergency Admission

- Guidelines to be initiated as early as possible after the stabilisation of the patient's condition and by the first area to be involved in delivering care (ED or AMU).
- Patient should be admitted onto the most appropriate or hired bariatric bed.
- Establish weight / BMI and level of mobility of the individual, carry out a manual handling assessment as required. (Dependent on treatment and length of stay)
- Inform other departments that are required as part of the patients care pathway e.g., Imaging – note that there is weight restriction on all their equipment, check with the department before transferring.
- If the patient is to be admitted then the bed manager / on site manager must be informed to organise appropriate bed space, staffing levels and equipment for expected admission area.

Elective Admission

The guidelines should be initiated a soon as possible or at least within four hours of admission.

- Establish whether there is or will be sufficient staff available, dependent on patient abilities.
- Where possible the admitting staff must obtain the appropriate equipment for the patient prior to admission.
- On admission assess / reassess weight / BMI and level of mobility by an appropriate clinician.
- Complete Care plan

Outpatients Clinics

- When a patient is to attend /or attends for an appointment:
- The medical team should, when possible, inform the clinic in advance so that the staff can obtain appropriate equipment required prior to clinic starting.
- If the known weight of the patient exceeds the safe working load of the Trust supplied generic transport wheelchairs, then clinic staff should utilise a trolley or bed with the most appropriate Safe Working Load. Alternatively hire one if a known admission
- Clinic staff should when required obtain the appropriate equipment to weigh the patient and establish an up-to-date weight and BMI and record in the notes.
- Document any mobility difficulties for future reference.
- If the patient is going to be seen at alternative Trust sites, then risk assess the appropriateness of the patients access to care and provision of appropriate equipment available. Where possible try to book appointments at RHH.

Risk assessment, Care plans and safe systems of work.

All patients must have an appropriate care plan completed within 4 hours of admission, all components must be completed to formulate a comprehensive care plan and the assessment must be reviewed daily or when changes occur by clinical staff. Care Plans are generated on Sunrise.

Specialist Equipment Requirements

The Trust have a minimal supply of bariatric beds onsite kept within the bed store.
The Ward/ Dept is responsible in arranging this via the Hub or via switch board.
Advice, guidance, or support is available from the Core skills team who are more than happy to sign post Ward/Dept in the right direction.

Most standard equipment found within the Trust can support a weight of up to 159kgs/25 stone (always check the Safe Working Load before use). As there is a limited supply of bariatric equipment within the Trust, please only obtain specialist equipment when:

- Patients weight exceeds the Safe Working Load of standard equipment.
- Patients body shape is not compatible with standard equipment.

The Core Skills Manual handling team are available to advise and support, please contact [redacted]

If specialist equipment is required, then:

- It should be obtained and where possible organised prior to a planned admission.
- The care plan/assessment should indicate the equipment required to meet the current and ongoing patients care requirements.
- When obtaining any of the Trust bariatric equipment, the on-site manager can be called to assist if available. However, the responsibility for sourcing equipment lies with the clinical area.
- When the equipment is no longer required it must be cleaned, green stickered and returned to its original ward or unit. In accordance with the infection control policy.
- If the Trust equipment is broken contact the Help desk on [redacted] and arrange the repair. Place a yellow card and cleaned green sticker on the piece of equipment and take out of use until repaired.
- If it is hired equipment the unit must ensure that it is **off hired as soon as possible,** and all parts go back to the hire company as they will be charged for repair or replacement.

Acute Trust weighing options.

The Trust is equipped with a selection of sitting and standing scales which will go up to a weight of 25 stone (Each scale should be checked for its safe working load before use).
If it is felt that the patient's weight exceeds 25 stone or body shape, or mobility restricts them from utilising the existing scales then further equipment can be found:

Equipment	Location	Comments
Bed Shoe Scales Marsden MP950 – capacity 1000Kgs Various low profile load cell pads available Marsden M-950 Bed Scales.pdf 	Medical equipment library, B6, C4,	Contact EMBE [redacted] for location of devices
Secca 677 Electronic Wheelchair Scales Capacity 300 Kgs 	Renal Unit *	Fixed scales so patient has to be transported to unit
Secca 959 Chair Scales Capacity 300Kgs 	Diabetic Resource Centre *	Unit must be contacted to establish availability

*Correct at the time of writing the guideline

Trolleys

The Trust uses various trolleys to meet individual department's requirements, staff must ensure the width of the patient, measured at shoulders left to right, abdomen and hips are within the current width of the trolleys within trust. These include:

- Arjo Huntleigh Lifeguard LG 50 – Safe Working Load 250kg
- Stryker 738 – Safe Working Load 227kg
- Howard Wright – Safe Working Load 250kg
- Wardray Premis (MRI dept) MR5501- Safe working load 220kg

Electric profiling beds

The Trust has four types of profiling beds on site, please assess which bed is required before automatically seeking a bariatric bed.

<table>
<tr><th colspan="2">Trust electric profiling bed models</th></tr>
<tr><td>Arjo Enterprise 9000x safe working load 250kg/ 39 stone PWL 185kg (29 stone)
  </td><td></td></tr>
<tr><td>Arjo Enterprise 5000 beds Safe Working Load 250kgs/39 stone. PWL 185kgs/29 stone
  </td><td>Note that the Safe Working Load and PWL are different</td></tr>
<tr><td>Medstrom MM05000 Hi Lo Bed Specialised Bed Safe Working Load 250Kg (39 stone) PWL 215kgs/33stone
  </td><td>Specialist bed for patients with falls risk or for patients who are smaller in height</td></tr>
<tr><td colspan="2">New Trust beds will need to be assessed on arrival for Safe Working Load & PWL and clinical placement</td></tr>
<tr><td colspan="2">These beds are a standard fixed width that are suitable for patients with an apple shape and who do not exceed safe working load. Please note the bed rails cannot be used as grab rail as they only have 5-8kgs Safe Working Load depending on the bed.</td></tr>
</table>

Approximate guide for sizing the patient to the bed:

A quick assessment of a centralised patient in the bed will ascertain whether there is six inches of clearance from widest part of the patient's body to the edge of the mattress. This allows for safe patient movement and prevents possible pressure from bed rails. If there is not adequate clearance, then a hire bed should be considered. These are ordered via the wards budget directly. Please refer to the training instructions given by the hire company for hire bed specifications and functions.

Baros Extendable Bariatric Profiling Bed (C5 only) 
• Safe Working Load 500kgs / 79 stone. New Baros beds are now provided by Arjo 1st Call Mobility are 450kgs / 70 stone. Width specifications remain the same. • The width can be adjusted from 36 to 48 inches. • Two beds located in the trust on C5
Suitable for the patient with an extensive pear shape or a large gluteal shelf that require safe log rolling. Bed rails can be used as hand holds only; they are not grab rails.
Citadel Plus Bariatric bed 
• Safe Working Load 522kgs / 82 stone. PWL 454kgs / 71 stone. Width specifications remain the same. • The width can be adjusted from 36 to 48 inches. • Built in weight scales
Suitable for the patient with an extensive pear shape or a large gluteal shelf that require safe log rolling. Bed rails can be used as hand holds only; they are not grab rails.

Please remember that if the bed is too wide this will cause postural issues for attending staff and the patient may not be able to reach side of the bed or the bed rails reducing their mobility. Ask the patient to lean in the direction of the move and use the appropriate number of staff to be able to move the patient.

Always check Manufacturers guidance before using as specific models may vary.

Pressure Area Care.

Bariatric patients are more prone to the development of pressure damage due.
to poor blood supply to fatty tissues resulting in skin breakdown.
All patients require a Water low risk assessment score to be completed within 6 hours of admission to the hospital. If they are deemed to be at risk of pressure damage i.e., risk assessment above 10 they will require a pressure ulcer prevention document to be completed on Sunrise.

The equipment selection guide should be followed to determine if any additional pressure relieving equipment is required.

Bariatric patients may stay in prolonged static postures and may not feel pressure.
on their tissue which increases the risk of ulcer development. This is especially likely if limbs are compressed by items such as bed rails / wheelchairs sides /chair.
arms therefore it is essential that regular assessments are carried out and the correct equipment is sourced.

Remember: All plus sized or bariatric patients do not require pressure relieving equipment as this can reduce their independent mobility.

How to assess for an Air mattress (Approximate guide only)			
Is the patient.	Mobile Water low of < 20 Regular girth Weight < 250kg	Reduced mobility Water low of > 20 Existing skin damage Regular girth Weight < 250kg	Reduced mobility Water low of > 20 Excessive girth Weight > 250kg

Bed and Mattress required	Enterprise 5000 high specification foam mattress or static air.	Enterprise 5000 and an appropriate pressure relieving mattress. (Order via Sunrise from Tissue Viability Equipment Store) Baros Extendable Bed (hire bed)	Hire bed and mattress from Arjo 1st call mobility.

Used air mattresses must be cleaned, deflated, and rolled before returning to tissue viability equipment store for decontamination as per hospital guidelines. Mattress (Static, Air and Foam) and Cushion Cleaning SOP

To order bariatric beds/mattresses for discharge please contact the Tissue Viability team.

Chairs and Commodes

There are few chairs and commodes available on the RHH site, but they are constantly moved according to clinical need. Contact the onsite coordinator for availability and whereabouts of their items; however, if they are unable to assist, it is the responsibility of the ward to source equipment.

Available Equipment – no fixed location	Chair SWL 390 kg / 60 stone Commode SWL 320 kg / 50 stone

Please note Bariatric chairs are designed to support the Plus sized or bariatric patient and should not be used for people that are less than 150 Kg /24 stone as they can cause increased pressure areas.

Note of caution: If the patient is using normal toileting facilities be aware that the porcelain base will potentially have a higher Safe Working Load (150-400Kgs) than the toilet seat (up to 150Kgs). However, the toilet seats vary from 150 -400Kgs. Estates may be able to assist with individual toilet Safe Working Load assessments or alternatively use a bariatric commode to ensure patient safety.

Hoist available within the Trust to raise more than 200kg Safe Working Load.	
Viking M (Most acute wards) 	205 Kg / 32 stone
Viking XL (B2, C1, C8) 	300 Kg / 47 stone
Oxford Presence (Corbett Site, Coronary care & Imaging RHH) 	227 Kg / 35 stone

If a mobile hoist is used ensure that patient is less than the Safe Working Load. The handler must be aware of the increased risk of moving this type of hoist with a bariatric patient in situ, use at least two members of staff to perform the manoeuvre. Please note it is more appropriate to move the receiving surface to the patient rather than the hoist to receiving surface. If a clinical area requires the Viking XL hoist from another area, then they must contact the person in charge to confirm the availability before borrowing. Under no circumstances should any equipment be taken off a ward without arrangements being made first, as this action creates a patient safety risk.

For a very morbidly obese, immobile patient (over 45st/286Kgs) the Liko Ultra Twin Gantry hoist it would be safer to hire one from the bariatric suppliers who will ensure supply, safe installed and training on receipt. Please remember the gantry hoist necessitates space and it is better placed in four bedded bays, taking over two bays for the patient. This should not be used in a side room as it may cause the doorway to the bathroom to be blocked and the space would not be adequate to perform safe manual handling.

Hoist Slings

Select single patient use slings have a SWL of 230kg/36 stone.

For the morbidly obese patient who exceeds this SWL or for a patient that has a very large girth/shoulder measurement staff should consider hiring Manual Handling - Core Skills - Bariatric

Advice can be gained from Physiotherapy, Occupational Therapy, or area-based champion.

For the fully immobile patient that requires regular turning then a repo sheet
(SWL 500kg/70 stone) is recommended to be used with a hired gantry hoist, please contact the Manual Handling team for advice. Please record the size and type of sling and hoist used for the patient on the care plan.

Slide sheets.

Red & Yellow PATPAQ slide sheets are used throughout the Trust and can be purchased via top up or through NHS Supply Chain. These slide sheets will meet the needs of most obese patients but may be too narrow for morbidly obese plus patients. The manual handling team can loan out reusable blue extra wide slide sheets for these patients. These can be purchased by the wards to have a stock if required via NHS Supply Chain. Please note that transfers up and down the bed and laterally from bed to trolley etc. should always be facilitated by a pair of slide sheet.

Type of Slide sheet	Dimensions	NHSCC Code
Red & Yellow Patpaq SPU 	100cm x 200cm	PATPAQ-EGF100200
Blue wide slide sheets 	140cm x 200cm	LGF140200

Other associated equipment available within the Trust should be accessed via the specific department for example – therapy department.

Hiring Specialist Equipment

If specialist bariatric equipment is required and the Trusts equipment is in use, then staff will need to arrange the hire. You must contact and seek permission from the area matron/ manager or on-site manager to hire the equipment and raise a requisition/purchase order number via IB solutions Capita Integra - 20.24.00/478 (integrahosting.co.uk). If urgent during working hours 8-5 call procurement dept Procurement - Home
If a Purchases order is not obtained following out of hours request, ward/ dept lead to follow this up and lease with the manual handling team as required.

Approved 24 Hour service company contact:

Arjo 1st Call Ltd
[redacted]

Delivery of equipment is usually within 4 hours from order.
If you require any other equipment, please check equipment hire catalogue.

Bariatric Rentals.pdf

Moving and Handling suggestions when moving the plus sized/ bariatric patient

Plus, sized patients should always be encouraged to be as independent as possible; if they do require assistance to mobilise then the help given should be governed by a mobility and condition assessment.
Staff involved with the personal care and nursing interventions that involve moving and handling of the Plus sized patient must refrain from attempting to lift the patient or their limbs as it may be hazardous due to stretching and weight bearing. When it is not possible to refrain from moving and handling the patient all actions should be planned and agreed with an appropriate number of staff. To reduce the risk, staff should constantly assess their working postures whilst performing any task and wherever possible alter the process to adopt safer postures and to use appropriate equipment as required. Try to alternate staff to reduce the risk of repetitive injuries. Additional staffing maybe required if multiple Plus sized patients are present on an individual ward area to ensure staff safety.

Bed manoeuvres and Lateral transfers.

- 6 staff for fully dependant patients
- 4 staff for able body patients
- Clinical staff to use clinical judgement for those patients with varying ability.
- Extra wide slide sheets available dependent upon patient measurements shoulders, abdomen and hips/ waist.
- Repo sheets (Contact manual handling team for advice)
- Full use of the bed controls to assist with bed mobility is essential.
- Hoist and Sling
- Pat slide and Lateral transfer glide sheet
- Air Pod/ Hoover Jac, (located in medical equipment library)

Note Bed sheets should not be used for any patient transfers as this breaks the Provision of Working Equipment Regulations 1998.

Bed space/ environment.

5ft Clearence around bedspace due to size of equipment compared to standard equipment, allowing for staff moving around.

Sit to stand transfers from Bed to Chair – Mobile patients/ Patients with reduced mobility.

- 2–4 staff available depending on risk assessment.
- Ensure the bed is at its lowest height appropriate for the patient. Raising the bed at the same time as standing can facilitate the initial stand. Refer to Physiotherapist if required.
- Provide appropriate equipment to cater for the patient's needs.

Transfers for Immobile Patients using hoist.

- Minimum of 2-4 staff available depending on risk assessment
- Obtain appropriate hoist (if gantry hoist is required obtain it through the manual handling team or hire company)
- Measure and obtain the correct size of sling (you need height, weight, measurement from coccyx to top of head, girth, and shoulder width measurements)
- If required use slide sheets to insert sling, remembering to remove them before hoisting.
- Carry out transfer as for normal hoisting.

Mobilising with minimal support

- Encourage mobilisation where appropriate.
- Minimum of two staff
- Carry out a Falls Assessment as per Falls Policy Guideline Template

Limb handling

To cradle, support a limb, reduce staff posture problems and the possibility of tissue damage to the patient, then you should use:

- Specific patient slings
- Slide sheets.
- Limb holders (if applicable)

Hygiene and Toileting

- Walk in showers available on most wards.
- Heavy duty shower seat
- Ensure toilet and seat meet Safe Working Load of the patient. Alternatively place a bariatric commode over toilet (for patients with reduced mobility a hoist should be used to position patient)

- Bariatric bed pan (for patients who cannot raise themselves a hoist should be used)
- It is important the patient feels safe, and their dignity is always protected.

Transferring patients to other departments

For the morbidly obese patient when possible and to reduce the risk, any treatments should be brought to the patient rather than the patient being taken to the treatment.
When a patient's treatment requires to be performed outside of the ward area then appropriate organisation is required.

- Staffing levels need to be adjusted for transport and handling.
- Communication to all staff involved regarding handling activities e.g., porters, theatre staff, X-Ray staff.
- equipment that may be required to support the patient must be checked for SWL and be prepared with appropriate width extensions if required.
- If the patient is to be laterally transferred, use slide sheets and the air pod inserted using unravelling technique and sandwiching the air pod in-between. Remember to remove the slide sheets prior to the lateral transfer.

If the Trusts equipment e.g., CT scanner is not suitable to meet the patient's weight and the investigations are required then the attending doctor will have to arrange for transfer to a specialist unit that will meet the patients' needs.

Bariatric Cross Sectional Scanning Referral SOP

Lifts
Note: Bariatric beds do not fit in all lifts so sometimes it will be necessary to reduce the width by reducing one side (dependent on bed type) or by deflating the mattress to reduce the size. Staff must remember to re extend, lock the side extensions, and re-inflate the mattress at the earliest possible time. Check for Tissue Viability Issues.

West Wing

Lift 1 (Bed Lift)	Lift 2 (Bed Lift)	Lift 3 (Bed Lift)	Lift 4 (Bed Lift)	Lift 5 (Bed Lift)
127 cm	127 cm	l27 cm	126 cm	126 cm

Central – Main Entrance

Lift 6 (Passenger Lift Only)	Lift 7 (Bed Lift)
110 cm	131.5

East Wing

Lift 8 (Bed Lift)	Lift 9 (Bed Lift)	Lift 10 (Passenger Lift Only)	Lift 11 (bed Lift)
130 cm	130 cm	110 cm	130 cm

Discharge planning.

The discharge planning of a bariatric patient must commence as soon as possible after admission, to ensure all necessary assessments, equipment provision or staffing levels are implemented by the appropriate agencies /personnel (district nursing, intermediate care, social services, or community hospitals), especially if the patient's condition or circumstances change during their hospitalisation. Advice should be sought from the appropriate nurse specialist, occupational therapist, or physiotherapist in relation to the discharge.

Consideration should be given to:

- Appropriate transportation contact West Midlands Ambulance via site co-ordinator
- Access to property
- Appropriate staffing levels should be organised to allow a safe transfer.
- Any equipment required.
- Any outside agencies and care packages involve.

Each stage of the discharge process should be documented in the patients plan of care and communicated to the appropriate agencies.

Community equipment should be sourced through the appropriate service providers following a full assessment of the patients' individual needs prior to discharge this may require a home visit. **Please allow adequate time to plan the discharge.**

Discharge may be delayed if awaiting funding for equipment or waiting on environmental alterations being completed.

Prior to discharge the discharging team must liaise with the Ambulance service giving a minimum of 2 days prior notice for them to undertake a risk assessment and exit strategy. Further advice can be sought from the Discharge Team.

Dealing with the falling / fallen patient

All patients must be assessed for the risk of falling Prevention and Management of Patient Falls Policy and preventative control measures put in place to ensure the patient is secure and safe in standing and walking (i.e., sufficient carers or equipment). Completing the manual handling assessment for the patient and document the current requirements of the patient.
If required a referral to the therapy team can be actioned through Sunrise.
Please ensure care, compassion is provided to protect the patient privacy and dignity.

Ensure that all patient falls are documented, and appropriate observations recorded, treatment provided and that a Datix is completed. Advice can be obtained from the Falls Lead.

The HSE (2004) state that hazardous manual handling should be avoided and if this not possible to reduce the introduce control methods to reduce the risk. Therefore, staff should not attempt to catch a falling/ fallen patient (Muir & Rush 2013).

There are two recognised methods of fall injury prevention:

- Assist the decent – this would not be appropriate as it is not safe to do so.
- Guide/shroud the patient to protect their head and neck as they fall, but only if it is safe to so and you are in the right place at the right time.

It is not expected that you will be able to assist every falling patient (Resus 2015)

When a patient has fallen you should assess for any medical issues due to the fall. Especially identify possible spinal, bony, query bony, head, and neurological injuries.

If the patient is un-injured promote independence and provide suitable hand holds (e.g., bed frame) to take their weight as they stand.

Patients who are unable to get up off the floor independently must be lifted using the appropriate mechanical aids.

- Hover Jack/ flo jack up to 70 stone.
- Scoop and Hover Jack – using the scoop to contain and align the patient but using the hover jack to lift the patient. At no point can the scoop be manually lifted due to SWL breach – this technique would need to be risk assessed on an individual basis.

Note - If the patient must remain on the floor for some time, you should consider rising. the patient's upper body into half sitting, as their diaphragm can be compromised when lying in supine severely restricting the patient's breathing. Ensure that they are no bony injuries before altering their position.

Please note it is no longer acceptable to hoist with the scoop.

Emergency Evacuation

When the bariatric patient is admitted, consideration should be given to how they will be evacuated in the case of an emergency (Please refer to Fire Safety Procedures and Evacuation Aids SOP).

- The shift lead is responsible for making sure the team aware of what actions to take in the event of an emergency for the bariatric patient.

- In the case of an emergency such as fire, progressive horizontal evacuation (on the bed if immobile) should be undertaken in the first instance.

- If progressive horizontal evacuation is not possible then staff should be prepared to use bariatric evacuation equipment down stair wells (Please contact Fire Safety

Specialist or fire safety team for further details). The bariatric evacuation mat is dark green in a dark green carry case and requires 6-12 members of staff to operate safely. Training on how to use this equipment is available to all staff.

In the Event of the Death of the Plus sized Patient

- Please also refer to Trust Care after Death in Hospital Policy.
- The ward must inform all relevant personal who will be involved with transfer, handling and storing of the patient.
- The appropriate trolley or bed concealment cover should be obtained prior to transfer and appropriate staffing levels should be organised to allow a safe transfer (4 – 6 staff are required dependant on weight)
- If the patient is deemed too big to be transferred to the mortuary on a normal mortuary trolley or will not be able to fit into the available mortuary fridges, then the body should be transferred on the bed to the mortuary with bed cover in situ and then transferred to the mortuary table with a SWL for the patient.
- Mortuary staff will inform Funeral Directors of the deceased patient's weight prior to them collecting the body. For any mortuary issues please contact the mortuary team for advice

Care in the community.

The Manual Handling needs of the patient in the community can be.
very challenging due:

- Patient mobility
- Availability of equipment (e.g., bed, chair, commode, hoists)
- Environmental constraints e.g., access, room layout
- Care package requirements.

As discussed, alterations to the care setting or equipment required should be in place prior to the patients discharge.
Staff should ensure and assess that all necessary, equipment provision and/or staffing levels are implemented where appropriate.
All community staff that will be involved in the patients care pathway must be informed of any specific handling needs and guidance sought if required from the Manual Handling Team
When required extra advice should be sought from the appropriate advisor, nurse specialist, occupational therapist, or physiotherapist?

Dignity and Respect

As with all patients regardless of size, patients need to be treated with dignity and respect. The patients care should not be compromised, and best efforts should be made to achieve safe patient handling by planning the care, optimizing patient outcomes, reducing the risk of staff injury, and promoting good provision and cultures.

TRAINING/SUPPORT

Training for manual handling training is mandatory. This is provided by the manual handling team or manual handling champions in the clinical area.

Specialist Plus sized training is provided by the Manual Handling team. Dates available on the hub. Manual Handling - Core Skills - Home

Champion will be advised to book Plus size training, spinal care, and emergency equipment training.

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The Dudley Group
NHS Foundation Trust

BARIATRIC (CARE OF) PREGNANT WOMEN WHO HAVE PREVIOUSLY UNDERGONE BARIATRIC SURGERY GUIDELINE			
	DOCUMENT TITLE:	**BARIATRIC (CARE OF) PREGNANT WOMEN WHO HAVE PREVIOUSLY UNDERGONE BARIATRIC SURGERY GUIDELINE.**	
	Name of Originator/Author /Designation & Specialty:	Dr [redacted] Consultant in Chemical Pathology & Metabolic Medicine Dr [redacted] Consultant in Diabetes and Endocrinology	
	Local / Trust wide	Trust Wide	
	Statement of Intent:	To ensure all women who have undergone bariatric surgery receive appropriate care during pre-conception and pregnancy	
	Target Audience:	Midwifery, Obstetrics, Clinical Biochemistry, Diabetes Teams	
	Version:	2.0	
	Name of Group and Date when Recommended for Ratification	Antenatal Diabetes QPDT	Date: 31/08/2023
	Name of Division and Date of Final Ratification:	Surgery, Women and Children: GAMe	Date: 22/11/2023
	Review Date:	30/11/2026	
	Contributors:	**Designation:** Antenatal Diabetes QPDT Specialist Midwife for Long Term Conditions	
	The electronic version of this document is the definitive version medical consultant endocrinology consultant obstetrician specialist midwife long-term conditions.		

CHANGE HISTORY

Version	Date	Reason
1	December 2019	This is a new document
1.1	June 2021	Guideline summary page updated to ensure clear instructions for timing of CBG home monitoring for woman with no history of diabetes meeting the screening criteria
2.0	November 2023	Full review

A translation service is available for this document. The Interpretation/Translation Policy, Guidance for Staff is located on the intranet under Trust-wide Policies.

THE DUDLEY GROUP NHS FOUNDATION TRUST

BARIATRIC (CARE OF) PREGNANT WOMEN WHO HAVE PREVIOUSLY UNDERGONE BARIATRIC SURGERY GUIDELINE

INDEX

1. GUIDELINE SUMMARY

Consultant-led care	• Refer all women who have previously undergone bariatric surgery for consultant-led care as they are a high-risk pregnancy
Obesity Clinic	• At booking, refer all patients to [redacted] obesity clinic • Patient with gastric bands need immediate referral to [redacted] to deflate the band
Initial Management	• Check bloods for micronutrients • Increase folic acid to 5mg until 13/40. • Commence aspirin 150 mg with gastric protection if indicated • Commence multi-vitamin preparation
Screening for diabetes	• Patients with current diabetes should be referred to Combined Diabetic Clinic/DIPEC as soon as pregnancy is diagnosed • **Do not** arrange a GTT to screen for diabetes. If previous GDM or diabetes history uncertain, refer to DIPEC for 1 week home blood glucose monitoring.If no history of diabetes, or GDM 25-27 weeks DIPEC appointment
Screening for IUGR	• Arrange growth scans at 28, 32 and 36 weeks
Labour and delivery	• Follow standard Trust Guidelines • No contra-indication to normal vaginal delviery • Delivery should be planned before 40/40

2. GUIDELINE DETAIL

2.1 Planning a pregnancy after bariatric surgery

It is generally recommended that women ***avoid conception*** **for 12 to18 months** after bariatric surgery. This is the period when women lose weight most rapidly, and there is an increased risk of post-bariatric surgical nutritional deficiencies, which can lead to poorer outcome for neonates. Early pregnancy is also associated with poorer weight loss and a reduction in the long-term effectiveness of the weight-loss surgery.

Obesity is associated with subfertility due to oligo-ovulation/anovulation, as well as a reduced response to fertility treatment. This is rapidly reversed after surgery and women should be counselled about the increased chance of becoming pregnant and advised to use appropriate contraception. All oral contraceptive pills should be avoided because of poor absorption, but any other form of contraception can be used.

Obesity is associated with numerous adverse pregnancy outcomes, including miscarriage, pre-eclampsia, gestational diabetes, foetal macrosomia, caesarean delivery, intrauterine growth restriction (IUGR), stillbirth, and possibly congenital birth defects.

After bariatric surgery, the frequencies of many of these adverse outcomes are reduced. In addition, the type of bariatric surgery appears to impact pregnancy outcomes. Those who have undergone a malabsorptive procedure (gastric by-pass, duodenal switch, biliopancreatic diversion) have a fewer large for gestational age infants (LGA) and smaller for gestational age (SGA) infants, as compared with those who underwent a restrictive procedure (gastric sleeve or gastric band).

Following bariatric surgery, several adverse pregnancy outcomes have been attributed to micronutrient deficiencies. Iron and B12 deficiencies have resulted in maternal anaemia. Folate deficiency has been reported in neural tube defects, microphthalmia attributed to vitamin A deficiency, and fetal cerebral haemorrhage attributed to vitamin K deficiency. Wernicke's encephalopathy due to thiamine deficiency is a particular concern in women with hyperemesis gravidarum and gastric bypass.

Therefore, the importance of compliance with micronutrient supplementation should be emphasised in all women who are planning a pregnancy after bariatric surgery.

Other complications of pregnancy following bariatric surgery are post-prandial hypoglycaemia, ‘dumping syndrome’ which is a constellation of GI symptoms due to rapid gastric emptying, gallstones, bowel obstruction and bacterial overgrowth.

Women who have undergone bariatric surgery are also at higher risk of mental health issues during pregnancy.

All pregnant women who have had bariatric surgery should be referred for consultant-led care at booking.

2.2 Immediate management (gastric bands)

It is the practice of the local surgical centre to advise the following during pregnancy with gastric bands:

- First trimester deflate band by 2ml
- Second trimester inflate band by 1ml
- Third trimester deflate band by 1ml

Gastric band deflation/inflation can be arranged by contacting the chemical pathology team. [redacted]

Some surgery teams may suggest the gastric band is completely deflated during pregnancy – this is dependent on symptoms the patient and any symptoms they are experiencing – if there is hyperemesis or reflux then please ask the chemical pathology team for advice.

2.3 Who to refer to obesity team

Please refer all women who have undergone bariatric surgery to the Tier three obesity clinic at Russell's Hall Hospital for nutritional care via Letter emailed to [redacted]

Inform women that the risks associated with obesity and pregnancy will be less after having weight loss surgery than they were before.

Whilst it is expected that there will be some weight gain during pregnancy, it is important that excessive weight gain is avoided, and women should be referred to their bariatric team for monitoring across pregnancy. The bariatric team will monitor the women for nutritional deficiency in each trimester and advise on appropriate dietary intake.

Advise women that they do not need to increase their calorie intake in the first two trimesters. In the third trimester, they may need an additional 200 kCal per day.

2.4 Micronutrient supplements

Women who have had surgery should continue with the usual vitamin B12 supplements, as well as their calcium and vitamin D supplements. Folic acid should be given as below. Women must stop their usual multivitamin and mineral supplements that they take, ideally three months pre-conception but if not, upon finding they are pregnant.

Gastric bypass:
Pregnancy-specific vitamin and mineral supplements should be given e.g., Pregnacare – two tablets per day, with food.
Measure Active Vitamin B12, iron, calcium, folate, selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Repeat nutrient levels each trimester, including vitamins A and E.

Gastric sleeve:
Pregnancy-specific vitamin and mineral supplements should be given e.g., Pregnacare – two tablets per day, with food.
Measure Active Vitamin B12, iron, calcium, folate, selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Repeat nutrient levels each trimester, including vitamins A and E.

Duodenal switch:
Pregnancy-specific vitamin and mineral supplements should be given e.g., Pregnacare – two tablets per day, with food.

Measure Active Vitamin B12, iron, calcium, folate, selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Repeat nutrient levels each trimester, including vitamins A, E and K

Biliopancreatic Diversion (BPD)
Pregnancy-specific vitamin and mineral supplements should be given e.g., Pregnacare – two tablets per day, with food.
Measure Active Vitamin B12, iron, calcium, folate, selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Repeat nutrient levels each trimester, including vitamins A, E and K

Gastric band:
Pregnancy-specific vitamin and mineral supplements.
Measure Active Vitamin B12, iron, calcium, folate selenium, copper, zinc and fat-soluble vitamins at the start of pregnancy.
Some surgical teams may suggest the gastric band is deflated during pregnancy – see advice above and refer to bariatric team.

Folic acid
Commence all women who have undergone weight loss surgery on folic 5mg OD if they are planning a pregnancy, or as soon as pregnancy is diagnosed.
Continue folic acid 5 mg od until 13/40 completed weeks

Some women may require ongoing folic acid supplementation. Monitor folic acid levels once each trimester.

Iron Supplementation
Iron supplementation may be required with all forms of bariatric surgery, and levels should be monitored as is normal care in pregnancy and repeated in each trimester along with nutritional bloods. Iron should be given to maintain the normal ranges required in pregnancy.

Thiamine Supplementation
In patients who have prolonged vomiting or hyperemesis in pregnancy are at risk of acute thiamine deficiency. Thiamine supplementation may be required. Severely thiamine-deficient mothers should avoid breast-feeding as toxic methyl-glyoxal present in milk.

2.5 Screening for gestational diabetes

Women who have bariatric surgery (BS) include many who have a high risk of developing diabetes. The indications for screening for gestational diabetes are the same as those in the general population (see Diabetes in Pregnancy Guideline)

Do not offer an oral glucose tolerance test (OGTT) to screen for gestational diabetes (GDM) in women who have undergone bariatric surgery.

Glucose tolerance testing is not an acceptable or reliable screening test and should not be used in this population group. The alteration of bowel anatomy and gastro-intestinal physiology following bariatric surgery leads to altered gastro-intestinal transit time which makes the result unreliable.

2.5.1 Who to screen for GDM.

It is important to establish whether the woman has a current or previous diagnosis of diabetes.

Current diagnosis of Type 1 or Type 2 Diabetes:
At the booking visit, immediately refer all women after BS who have a current diagnosis of diabetes, including those now managed by diet alone, to the combined diabetes antenatal clinic and follow the Diabetes in Pregnancy guidelines.

Previous diagnosis of T2DM or GDM, now in remission:
T2DM can go into remission following BS. Depending on the type of bariatric surgery, between 30-60% of patients can go into remission from T2DM. However, the risks associated with diabetes and pregnancy remain raised until the woman has been in remission for a significant period of time.

If their surgery or procedure was within the last 7 years, they should be managed in the same way as a woman with ongoing T2DM and referred to the joint diabetes antenatal clinic at booking (DIPEC, and MEEDAL)

If their surgery or procedure was more than 7 years ago, and they have remained in remission ever since, they should be referred for home blood glucose monitoring (HBGM) at 16-18 weeks and 25-27 weeks (see 2.5.2)

Unknown diabetes status prior to surgery or procedure, no current evidence of diabetes:
Refer for HBGM at 16-18 weeks and 25-27 weeks.

Never had diabetes.
Refer all women who have undergone BS for HBGM at 25-27 weeks.

2.5.2 How to screen for GDM in women who have undergone BS:

Book a face-to-face appointment in DIPEC clinic at either 16 weeks and/or 25 weeks depending on the criteria in (2.5.1)

Teach HBGM and offer healthy eating advice. Ask women to record fasting and 1-hour post prandial blood glucose for 7 days.

If 2 readings are above the target for women with GDM, refer to a diabetes combined antenatal clinic and treat as GDM.

	FASTING	1 HOUR
Targets for HBGM:	<5.3	<7.8 (<9.0 twins)

If 1 or 2 readings are abnormal, discuss with lead consultants (Dr Dale and Dr Solomon)

If all readings are normal, advise the woman to discontinue monitoring and advise on healthy eating through pregnancy. Arrange a repeat monitoring depending on criteria 2.5.1

2.6 Aspirin

All pregnant women who are at increased risk of pre-eclampsia at the booking appointment should offered a prescription of 150mg of aspirin to take daily from 12 weeks until birth.

There is no contra-indication to using aspirin in women who have had bariatric surgery, but it is usual to ensure that appropriate antacid protection is prescribed such as ranitidine or omeprazole to protect against reflux and anastomotic ulcers in the stomach.

2.7 Obstetric management during labour and delivery

Labour and delivery should be managed according to Trust guidelines.

There is no contraindication to a normal vaginal delivery in women who have had bariatric surgery.

Discussion about the timing of delivery should consider the women's preference and individual risk factors. Women should be offered delivery before 40 completed weeks.

2.8 Other complications/considerations.

Intrauterine growth restriction – patients are at increased risk of IUGR for at least two years post-surgery, this risk is greater in women who have undergone malabsorptive surgery. All women should have serial growth scans at 28, 32 and 36 weeks.

Reactive hypoglycaemia – this can be due to a combination of rapid gastric emptying and bacterial overgrowth. Ask diabetes team for specialist advice if required.

Mental health issues – women should be screened for mental health issues and managed appropriately.

Bowel obstruction – the gravid uterus can increase the risk of bowel obstruction from an internal hernia because of the abnormal anatomy. This often has an atypical presentation with abdominal pain and vomiting but has been associated with maternal mortality. Ensure all women presenting with abdominal pain are appropriately assessed.

Gall-stones – there is an increased risk of gallstones because of the abnormal internal anatomy.

2.9 Postnatal care

Women should be advised to restart their normal vitamin supplements and contact their bariatric surgery team for follow-up.

Breast-feeding should be encouraged.

3. DEFINITIONS/ABBREVIATIONS (IF APPLICABLE)

BS	Bariatric Surgery
DIPEC	Diabetes in Pregnancy Education Clinic – DSN and dietician
DSN	Diabetes Specialist Nurse
GDM	Gestational Diabetes
GDMW	Joint diabetes antenatal clinic – Wednesday pm
GTT	Glucose Tolerance Test
MEEDAL	Joint diabetes antenatal clinic – Tuesday pm
HBGM	Home blood glucose monitoring

4. TRAINING/SUPPORT (IF APPLICABLE)

All health care professionals working within this Standard will have attended mandatory training for diabetes.

5. REFERENCES

Pregnancy after bariatric surgery: screening for gestational diabetes
BMJ 2017; 356 doi: https://doi.org/10.1136/bmj.j533 (Published 03 February 2017)

The Dudley Group NHS Foundation Trust

OBESITY MANAGEMENT DURING MATERNITY CARE GUIDELINE			
	DOCUMENT TITLE:	**OBESITY MANAGEMENT DURING MATERNITY CARE GUIDELINE**	
	Name of Originator/Author /Designation & Specialty:	[redacted] Specialist Midwife Long Term Conditions [redacted] / Public Health Midwife	
	Local / Trust wide	Maternity Services	
	Statement of Intent:	To support the Maternity Service to identify, manage and make appropriate referrals for pregnant women with a raised Body Mass Index (BMI) and ensure that any identification of specialist equipment requirements	
	Target Audience:	Midwives, Obstetricians, Sonographers, Maternity Support Workers, Healthy Pregnancy Services Support Workers, Public Health.	
	Version:	1.0	
	Name of Review and Approval Group Date when Recommended for Ratification	MDT	Date 26/05/2021
	Name of Division/Group and Date of Final Ratification:	Surgery Women and Children: GAMe Virtual Ratification	Date 10 June 2021
	Review Date:	30/06/2024	
	Contributors: Emma Paul Liz Punter Dr Jennifer Denham	**Designation:** Specialist Midwife long-term conditions Public Health Midwife ST5 O&G	
	The electronic version of this document is the definitive version		

CHANGE HISTORY

Version	Date	Reason
1.0	June 2021	Previous Weight Management During Maternity Care guideline integrated into new Obesity Management During Maternity Care guideline.

A translation service is available for this document. The Interpretation/Translation Policy, Guidance for Staff is located on the intranet under Trust-wide Policies.

THE DUDLEY GROUP NHS FOUNDATION TRUST

OBESITY MANAGEMENT DURING MATERNITY CARE GUIDELINE

1. GUIDELINE SUMMARY

This guideline summarises the changes in management and referrals to be considered to optimise care for women with a Body Mass Index (BMI) above the normal range (>25) in the pre-conceptual, antenatal and postnatal periods. It also details the treatment service available from the Midwifery Service's Healthy Pregnancy Support Service (HPSS).

2. GUIDELINE DETAIL

2.2 Rationale

Having a BMI above the normal range has become increasingly common, with a rapid increase in the prevalence of raised BMI between 1993 and 2000 and slower but continued rate of increase resulting in the majority (60%) of adult women having a weight above the normal range in 2008. 29% of women in England are obese and 4% morbidly obese, with overall higher rates of obesity in the West Midlands region[1]. As such, a raised BMI is regularly encountered at antenatal booking appointments and Obesity during pregnancy is a risk factor for adverse pregnancy outcomes CMACE/RCOG 2010

There are several complications that are significantly associated with maternal obesity (with increasing obesity increasing risk). Maternal risks include:

- Miscarriage
- Gestational diabetes (GDM)
- Pre-eclampsia (PET)
- Venous thromboembolism (VTE)
- Increased rates of induction of labour and emergency caesarean section
- Prolonged active first stage of labour
- Post-partum haemorrhage
- Wound infection

Risks to the unborn baby of the obese mother include

- Increased rates of congenital anomaly
- Fetal macrosomia
- Shoulder dystocia
- Perinatal mortality

Breast feeding rates are also reduced at the time of discharge[2,7].

2.3 Assessment of BMI

BMI is a simple, inexpensive and non-invasive measure familiar to most patients which measures excess weight and gives an indirect assessment of adiposity (the proportion of body weight made up by fat) and therefore a statistical propensity to disease and complications.

Routine measurement of BMI allows healthcare professionals (HCPs) to identify those with a raised BMI and modify their antenatal management to improve pregnancy outcome and also presents an opportunity to encourage behaviour change to improve their health. Height (m) and weight (kg) measurements should be taken at the antenatal booking visit as part of a full risk assessment and used to calculate BMI in kg/m^2 using the following formula.

$$\text{BMI} = \frac{\text{Weight(kg)}}{\text{Height(m)x Height(m)}}$$

All midwives in the hospital maternity outpatient department and community have been provided with BMI calculators. All wards and departments have been provided with BMI charts. There are also free online tools to calculate BMI https://www.nhs.uk/Tools/Pages/Healthyweightcalculator.aspx

It will give a BMI calculation which will fall within one of the following ranges:

- Healthy weight 18.5-24.9
- Overweight (pre-obese) 25-29.9
- Obese (Class I) 30-34.9
- Obese (Class II) 35-39.9
- Obese (Class III, Morbid) 40 or more[3]

It should be considered that the distribution of adiposity will also influence potential complications.

2.4 Ongoing Assessment

All women should be re-weighed routinely at 36 weeks by the community midwife or in Maternity outpatients when they attend, to allow reassessment for referral to HPSS. If BMI has increased or remains ≥26 they will be offered or re-offered referral to the HPSS via the HPSS referral slips (Appendix 2).

For women with obesity in pregnancy, re-measurement of maternal weight during the third trimester will allow appropriate plans to be made for equipment and personnel required during labour and delivery[2]

Consideration should be given to repeating a weight measurement in the third trimester to make appropriate plans for equipment and staff availability at delivery[7].

Women who have a BMI over ≥26, who engage with HPSS, will be weighed within the service.

2.5 Pre-conceptual Care

As obesity is one of two modifiable risk factors (alongside stopping smoking), women with a BMI of 30 or more who may become pregnant should be advised, encouraged and helped to reduce their weight before becoming pregnant in the context of general health benefits, improving the chance of becoming pregnant and reducing the risk of pregnancy complications. Further to an initial, realistic, aim to reduce their weight by 5-10%, women planning a pregnancy should aim to reduce their weight such that their BMI is within the normal range[4].

If a woman with a BMI ≥30 is trying to conceive, she should be prescribed 5mg Folic Acid once daily for at least one month before conception and during the first trimester to reduce the risk of neural tube defects[7].

Booking weight will have a greater influence on maternal and fetal health and wellbeing than weight gained during pregnancy and there is a lack of any evidence-based UK guidance on expected weight gain during pregnant. As such, any focus on weight loss should be **prior to conception**[4]. However the HPSS service will encourage and motivate women to eat healthily and increase activity, to aid a healthy lifestyle

2.6 Antenatal Care

2.6.1 Community Midwife Booking

All women should be given a patient information leaflet within the pregnancy pack: Pregnancy and your Weight **(Appendix 1)**, and given an opportunity to discuss the risks for their pregnancy and how to minimise them[7]

The community midwife will discuss with all women with a BMI ≥26 the implications of being overweight in pregnancy and the possible intrapartum complications. This is documented in the woman's pregnancy hand held notes

All women should be offered screening for chromosomal abnormalities. Women should be counselled that the screening tests are slightly less effective if they have a raised BMI.

2.6.2 Lifestyle/Weight Management Advice

During pregnancy, women should be advised on eating a healthy diet and undertaking daily, moderate physical activity up until delivery.

Anti-obesity and weight loss drugs should not be used in pregnancy[4,7].

Referral to a dietician is recommended for women with a BMI ≥30 [7,9] Within the trust, dietary advice is offered through referral to the Healthy Pregnancy Support Service (HPSS) for all women with a BMI ≥26, with additional input from a dietician considered in specific conditions such as Diabetes.

All women with a BMI ≥26 will be routinely referred to the Healthy Pregnancy Support Service (HPSS), by electronic referral, on receipt of the referral letter by outpatient booking team.

The HPSS is an **opt out** service, and the booking midwife should inform the woman that this is a routine pathway for Dudley women who have a BMI ≥26, due to added complications of raised BMI during pregnancy. This opt out system increases the opportunity for all women with an elevated BMI to receive specialist information from the HPSS Team. Encouragement to engage with the service should be given.

Following the dating scan women with BMI>26, will again be routinely referred to HPSS, via the Public Health support worker electronic pick list to reduce the possibility of missed referrals.

At any time in pregnancy the woman can be re-referred using the HPSS referral forms, to the HPSS service if deemed appropriate **(Appendix 2).**

The weight management pathway for maternal obesity **(Appendix 3)** is followed, for women who engage with the HPSS service

2.6.3 Dating USS

Transvaginal scanning should be considered if NT measurement is technically difficult transabdominally.

2.6.4 Antenatal Clinic Booking

The Maternity Service are unable to offer routine Consultant-led (Maternity Team) care for women whose sole risk factor is a BMI ≥30 but <35. Women with a BMI over ≥35 or <18.5, must be referred for Consultant-led care.

For women who otherwise require antenatal care under a Consultant Obstetrician, care women with a BMI ≥30 can be undertaken in any antenatal clinic[7].

2.6.5 Vitamin D

Whilst obese women are more likely to be Vitamin D deficient, formal testing for this is not indicated unless other risk factors are present. There is a lack of evidence on if treatment improves maternal and fetal outcomes, but NICE guidance remains that pregnant women with risk factors should take 10mg Vitamin D daily.

More recently, in respect of the COVID pandemic, the UK government have recommended that everyone considers Vitamin D supplementation, as their sunlight exposure may be reduced from spending more time than previously indoors[8]. Pragmatic advice is that patients should take a women's or pregnancy multivitamin, such as those available via the Sure Start scheme.

2.6.6 Pre-eclampsia Risk

A BMI ≥35 or higher confers a moderate risk for the development of PET during pregnancy. If an additional moderate risk factor is present, or one high risk factor, then aspirin should be prescribed for PET prophylaxis. This should be at a dose of 150mg OD, to be taken at night (as this may confer increased efficacy) from the 12th week of pregnancy until delivery. The dose may require reduction in conditions such as renal or hepatic impairment. Women should not be advised to buy aspirin over the counter[6,7,9].

2.6.7 Venous Thromboembolism Risk

A VTE risk assessment should be undertaken and documented at booking, at every antenatal encounter, if the woman is admitted as an inpatient or develops an intercurrent problem intrapartum and postpartum.

A booking BMI ≥30 scores 1 and a booking BMI of ≥40 scores 2 on the VTE risk assessment. Women with a VTE score of 3 or more should be referred to the Obstetric Haematology clinic by use of the electronic document available on sunrise. Particular care with VTE assessment in the obese population is warranted: of the 37 women who died in the 2014-2016 triennium due to venous thromboembolism, 57% had a BMI ≥30 (MBRRACE UK 2018)

2.6.8 Gestational Diabetes Risk

All women with a BMI ≥30 should be offered screening for GDM with an Oral Glucose Tolerance Test (OGTT) between 25-27 weeks of pregnancy[7].

If a woman is 36 weeks gestation or above, a random blood glucose test (RBG) is required instead of an OGTT

2.6.9 Referral to Specialist Midwife

If the booking BMI ≥ 40, referral should be made to the Specialist Midwife for long-term conditions as specialist equipment and multidisciplinary involvement may be required - ext. 2331/bleep 5054 (appendix 6)

2.6.10 Anaesthetic Assessment

Women with a booking BMI ≥40 should be referred to Obstetric Anaesthetic clinic for antenatal assessment, via the dedicated link available on the Hub. Women with a BMI <45 will receive a letter asking them if they require a face-to-face appointment **(Appendix 4)** and information leaflets **(Appendix 5)**

Women with a BMI ≥45 receive an appointment and an anaesthetic management plan is formulated with the woman for labour and delivery and should be documented in the notes. If there is the potential for significant difficulties, an MDT approach to planning care should be used[7]

2.6.11 Anomaly Scan

Screening for structural anomalies (USS at 18 - 21+6 weeks) should still be offered in women with a raised BMI, however they should be advised that all forms of screening for structural anomalies are more limited in women with obesity.

2.6.12 Serial Growth Measurement

Serial fundal height measurement should be undertaken regularly from 24 weeks gestation in all women.

Serial assessment of fetal size should be undertaken by ultrasound in women with a booking BMI ≥35 or <18.5, as symposia-fundal height (SFH) measurement is less accurate.

Assessment of presentation by ultrasound can be considered if palpation is technically difficult in women with obesity.

2.6.13 Medication

Booking weight must be used for most drug calculations. However, there are exceptional drugs where current weight is to be used e.g. Zidovudine and therapeutic heparin. Please refer to individual guidelines for further information. Midwives should be aware of early warning signs of complications e.g. thromboembolism and diabetes and take appropriate action when necessary.

2.6.14 Manual Handling & Tissue Viability

A manual handling and tissue viability assessment should be completed in 3rd trimester. This will usually be completed on admission in labour. It should also be considered earlier in the antenatal period in women whose BMI ≥ 40.

2.7 Assessment of the availability of suitable equipment

It is important to consider the safety of the birth environment for women with a raised BMI, whether it is in the hospital or at home. Special consideration must be given to the environment for antenatal care and birth for women with a weight which exceeds 160kg, including the availability of appropriate equipment. Please refer also to the Trust guidance on manual handling of Bariatric patients. Bariatric patients (safer handling of) guideline

In antenatal clinic, examination and ultrasound couches have a weight tolerance of up to 160kg and the weighing scales can measure up to a maximum weight of 250kg

Bariatric moving and handling equipment is available within the Trust. Manual handling can be contacted on ext. 1113 or ext. 1169 for advice

Large blood pressure cuffs are available. Blood pressure readings are accurate if an appropriately sized cuff is used when undertaking the measurement, and the size of cuff used should be documented in the notes. If an appropriately sized cuff is not available for the upper arm, consider taking the blood pressure at the wrist[5].

Several sizes of thromboembolic stockings are available, however if a large enough size is not available, thromboembolic stockings should not be applied and consideration given to other methods of mechanical thromboprophylaxis, such as Flowtrons.

2.8 Timing, Mode and Location of Delivery

All women with obesity should have an informed discussion with an Obstetrician and, if indicated, their Anaesthetist to determine an individualised plan for labour and birth. Consideration of the most appropriate birth setting is required, and a discussion of the increased risks in labour due to maternal obesity and the additional care available on a CLU should be undertaken with the woman. Women with a BMI over 35 are advised to deliver in the obstetric unit within the trust, as per the low risk labour guideline.

Elective induction at term in women with obesity reduces the chances of Caesarean delivery, without increasing the risk of adverse outcomes and this should be discussed with women

Induction of labour versus expectant management for suspected fetal macrosomia in the context of maternal obesity should be discussed.

The decision for planned delivery by Caesarean section should follow an MDT approach.

The decision for VBAC should be made on an individual basis

Women should be advised that there is an increased risk of still birth, but that there is a lack of evidence to recommend routine monitoring for a post-dates pregnancy.

2.9 In labour

The on-duty anaesthetist and obstetric theatre team should be informed on the admission of women with BMI >40, and this should be documented in the notes.

Women with a BMI ≥40 should have an IV cannula sited in early labour

On admission to the maternity unit, a moving and handling assessment **(appendix 7)** and a Waterlow score risk assessment **(appendix 8)** is completed by the midwife who admits the woman in labour.

CTG monitoring should be undertaken as per NICE CG190[7]

Active management of the third stage of labour should be recommended to reduce the incidence of PPH.

2.10 Postnatal Care

A manual handling and tissue viability assessment should be completed following delivery

Women should be advised that reducing their weight between pregnancies will reduce the chance of stillbirth, hypertensive disease and fetal macrosomia.

If applicable, women should be informed that weight loss also improves the chances of successful VBAC in a future pregnancy.Referral to HPSS can be made up to 6 weeks postnatally, using the HPSS referral form (appendix 2)

2.10.1 Equipment considerations for intrapartum care

Standard Delivery beds tolerate a weight of up to 180kg, ward beds check model, maximum weight identified on individual beds

Ave 2 birthing beds can tolerate up to 240kg

Extra-long spinal and epidural needles are available for regional analgesia in obese women

3. Equipment considerations for the postnatal period

4. DEFINITIONS/ABBREVIATIONS

BMI – Body Mass Index
GDM – Gestational Diabetes Mellitus
GROW Chart – Gestational Related Optimal Weight Chart
HPSS – Health Pregnancy Support Service
OGTT – Oral Glucose Tolerance Test
PET – Pre-eclampsia
VBAC – Vaginal Birth After Caesarean section
VTE – Venous Thromboembolism

Body Mass Index (BMI): A number calculated from a person's weight in kilograms and height in metres. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.

Bariatric medicine: Branch of medicine that deals with the causes, prevention and treatment of obesity

Congenital anomalies: A condition which is present at the time of birth which varies from the norm.

Oral Glucose Tolerance Test (OGTT): A test to diagnose gestational diabetes.

HPSS – Healthy Pregnancy Support Service

Intrapartum: The labour period of childbirth.

Macrosomia: Is used to describe a new-born with an excessive birth weight.

Perinatal mortality: Refers to the death of a foetus or neonate.

Pre-Eclampsia: A condition that may develop in late pregnancy and may lead to convulsions if not treated. Symptoms are high blood pressure, fluid retention, excessive weight gain, and the presence of protein in the urine.

Random Blood Glucose (RBG): Test used to screen for diabetes for women over 36 weeks gestation.

Thromboembolic: Blocking of a blood vessel by a blood clot dislodged from its site of origin.

Thromboembolism: Formation in a blood vessel of a clot (thrombus) that dislodges from its site of origin.

Venflon: Or cannula is a tube that can be inserted into the body, often for the delivery or removal of fluid.
Waterlow risk assessment: Gives an estimated risk for the development of a pressure ulcer in a given patient.

5. TRAINING/SUPPORT (IF APPLICABLE)

All staff receive training at induction and updates during the yearly mandatory study sessions.

6. LINKED PROCEDURAL DOCUMENTS

Bariatric patients (safer handling of) guideline

Low Risk Labour guideline.pdf

7. REFERENCES

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7.5 National Institute for health and Care Excellence [NICE]. (2010) **Weight management before, during and after pregnancy. Public Health Guideline 27**. [accessed 30 h September 2020]

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7.7 National Institute for health and Care Excellence [NICE]. (2019) **Hypertension in Pregnancy: Diagnosis and Management**. [accessed 30 h September 2020]

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7.9 COVID-19 rapid evidence summary https://www.nice.org.uk/advice/es28/resources/covid19-rapid-evidence-summary-vitamin-d-for-covid19-pdf-1158182526661

7.10 Saving Babies Lives https://www.england.nhs.uk/wp-content/uploads/2019/03/Saving-Babies-Lives-Care-Bundle-Version-Two-Updated-Final-Version.pdf

7.11 NICE Caesarean Section https://www.nice.org.uk/guidance/cg132/resources/caesarean-section-pdf-35109507009733

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Royal College of Obstetricians and Gynaecologists (2018) Care of Women with Obesity in Pregnancy. Green-top guideline no. 72

5.2 *Journal*

Author. (Year). Article title. Journal title, Volume, Part/issue or date/month, Page numbers [Date accessed if online]
Example: Haith, Mark P. (2012) How to use action learning sets to support nurses. Nursing Times, Vol 108, no 18/19, pp. 12-14.

5.3 ***Command paper*** *(including green and white)*

Country. Department name in full (Year). Title. Place: Publisher [Full web address and date accessed if online]
Example: Great Britain. Department of Health (2010). Equity and excellence: Liberating the NHS 2010. London: The Stationery Office. [accessed 4th May 2012]

5.4 *Act of parliament*

Title and year. Chapter number. Place: Publisher [Full web address and date accessed if online]

Example: Health and Social Care Act 2012. c.7. London: The Stationery Office. [accessed 4th May 2012 http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted/data.htm]

5.5 Web page

Author. (Date). Title. Web page address in full [date accessed – must state]
Example: NHS Litigation Authority. (2012) Risk Management. http://www.nhsla.com/RiskManagement/ [accessed 4th May 2012]

5.6 Library Support

The Trust Library Services clinical.library@dgh.nhs.uk x1078/7 will provide advice and/or support with referencing practice and guidelines searching on request.

This leaflet provides information about your choice of care in pregnancy. If you want more information in other languages please contact a midwife on 01384 456111.

Available in larger print and audio version
call 01384 244418

Version 1.
Author – Maternity Documentation Group, Date produced – October 2009, Date for review – October 2012

The Dudley Group of Hospitals NHS
NHS Foundation Trust

The Dudley Group of Hospitals NHS
NHS Foundation Trust

pregnancy
and your weight

October 2009

Congratulations on being pregnant. We hope your pregnancy will be healthy and enjoyable.

Eating a healthy diet and being physically active is especially important in pregnancy as your unborn baby has to get everything it needs to grow and develop from you.

Many women's weight will be higher or lower than the health range when they become pregnant, and this can affect the pregnancy as well as the woman's general health.

What is a healthy weight?

This depends on how tall you are. We use a calculation that tells us about your weight in relation to your height. This measurement is called Body Mass Index (BMI) and it is calculated from your weight in kilograms and your height in meters squared.

Weight status	BMI
Healthy range	18.5 to 25
Underweight	Less than 18.5
Overweight	More than 25

www.eatwell.gov.uk/healthydiet/healthyweight/bmicalculator/

For the purposes of pregnancy, there are increased risks of certain complications if the BMI is less than 18 or more than 30.

Your height in cm _____ Your weight in kg _____

Your BMI _____

For more information on BMI visit
www.eatwell.gov.uk/healthydiet/healthyweight/bmicalculator/

Weight gain in pregnancy

It is important to accept that you are going to put some weight on in pregnancy, although this is normal you may be concerned about this.

The normal changes in the body during pregnancy, plus the growing baby can add an average weight gain of around 11kg (24lb).

The table below shows the recommended weight gain for the whole pregnancy based on your BMI. You should expect most of the weight gain to happen after the 20th week of pregnancy:

BMI at beginning of pregnancy	Recommended total weight gain
18 or less	12.5 – 18 kg (28 – 40 lbs)
19-25	11.5 – 16kg (26 – 36 lbs)
26-29	7.0 – 11.5 kg (15 – 25 lbs)
30 or more	7.0 kg (15 lbs)

The more weight you put on above the recommended amount in pregnancy, the more weight you will be left carrying after the birth of the baby. Importantly, excess weight gain also increases risks to both you and your baby during the pregnancy and the birth.

It is not recommended that you try to diet during pregnancy, but you should try to eat healthily and be as active as you can.

We can give you more information about how to eat healthy and exercise safely in pregnancy and if eligible you can be referred to the Maternal & Early Years Service. For more information about this service ask your midwife.

There is a helpful section on the Food Standards Agency "Eat well, be well" website, called "When you are Pregnant".

www.eatwell.gov.uk/agesandstages/pregnancy

What are the problems with being underweight in pregnancy?

If you have a very low BMI in pregnancy, you have an increased chance of the following problems:

- Having a low birth weight (small) baby
- Premature birth
- Anaemia (low amount of iron in the blood)

What are the problems with being overweight in pregnancy?

If you have a high BMI in pregnancy (especially if it is higher than 30), you have an increased chance of the following problems:

- High blood pressure
- Pre-eclampsia
- Diabetes (some women can become diabetic just during pregnancy)
- Anaesthetic complications
- Having an abnormally big baby
- Blood clots in the legs or lungs (especially in the few weeks after the birth)

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Although the chance of these problems is increased, it is important to remember that most women with a low or high BMI have normal, healthy babies and pregnancies.

When you see a midwife or doctor during the pregnancy, they will be checking you and the baby to try to detect whether any of these complications are developing. If you are worried, speak to the midwife or doctor and they will be able to explain things in more detail.

Our plan for your care

If your BMI is 18 or less, or 35 or more

- You will be referred for an opinion from a doctor at the hospital because of the increased chance of certain complications.
- You will not need to come to the hospital for every antenatal appointment and will probably have many of your appointments locally with your community midwife.

You can get further help and advice about your weight and healthy eating from:

- Midwives
- Children's Centre Staff
- NHS Dudley's Weight Management Team
- NHS Dudley's Food & Nutrition Team
- NHS Dudley's Physical Activity Team

Please ask if you would like to be weighed when you attend for your antenatal checks. If your BMI is over 30 you may be eligible to access the Maternal & Early Years Service who will support you at home to avoid gaining an excessive amount of weight during your pregnancy and help you to lose weight once you have had your baby.

Pregnancy is a great time for learning about healthy eating and being physically active as a whole family, this way your baby will benefit from the changes! One of the most important things we can do for our children is to give them a healthy start in life.

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Exercise in Pregnancy

It is important to be as active as possible during pregnancy and you can exercise safely without risk to you or your baby. Gentle exercise, such as swimming, yoga and walking, can improve muscle tone and strength and can also relieve tiredness, lower back pain and reduce varicose veins and swollen ankles.

Staying fit during pregnancy helps women cope better with the physical demands of pregnancy by offsetting constipation, tiredness and circulation problems. It can help you through your labour by building muscle tone, strength and stamina and can also improve your mood and self-image; it can even help you sleep more soundly!

During pregnancy you should avoid contact sports where there is a risk of being hit in the abdomen, such as kick-boxing, martial arts or squash. If you are uncertain about what exercise is safe for you and your baby, please discuss this with your doctor or midwife. You can also get support & advice on physical activity from the Maternal & Early Years Service and if eligible, discounted leisure passes from NHS Dudley's Physical Activity Team.

There is a helpful information leaflet about exercise in pregnancy on the "Information for patients" section on the Royal College of Obstetricians and Gynaecologists website: www.rcog.org.uk

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After the baby is born

After the pregnancy, you should try to get your weight into the healthy range. It is important to remember that you do need extra energy for breastfeeding, so you must consider this if you do decide to try to lose weight or if you are underweight. This extra energy should be calorie intake from healthy food such as fruit and vegetables.

You can get help and advice about losing weight and healthy eating from your health visitor, GP, practice nurse and NHS Dudley's Weight Management Team. Or if you BMI is over 30 you may be eligible to receive a home visit from the Maternal & Early Years Service who will support you to lose weight having had your baby and offer help, information and support on breastfeeding and weaning.

You can reduce the chance of complications in future pregnancies by trying to get your weight into the healthy range before you try for another baby and by being active with your baby you are giving them the best start to life!

The following services are available to help you lose or manage your weight (eligibility criteria apply):

Weight Watchers
Slimming World
Slimmers Kitchen
Shapes
Get Cooking!
Exercise on Referral

Please contact the Weight Management Team on 01384 366 601 for more information on any of the above services.

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Appendix 2:
Referral for Healthy Pregnancy Support Service

The Dudley Group
NHS Foundation Trust

The Dudley Group
Foundation Trust

DUDLEY STOP SMOKING SERVICE
HEALTHY PREGNANCY SUPPORT SERVICE
PREGNANCY REFERRAL

Dudley NHS Bloomin

Name: _____ Unit No/NHS No: _____
DOB: _____ Tel. No: _____
Address: _____ Mobile No: _____
_____ Gestation or EDD: _____
_____ GP: _____
Postcode: _____

CO reading: _____
Smoking Referral Y: ☐

BMI _____
HPSS Referral Y: ☐

Referred by (print) _____
Job title: _____
Date of referral: _____

www.dudleystopsmoking.co.uk

20.12.16 _HPSS referral form (3).doc

Initial Consultation	Check details on database are correct Check if patient knows why they have been referred Explain the role of HPSS and reducing childhood obesity Promote Facebook Group Complete Food Frequency Questionnaire (FFQ) Agree Smart Goals for exercising Discuss BF Email information Check booking bloods done Offer Healthy Start Vitamins and Vouchers if eligible Do you or anyone at home smoke? If yes, refer accordingly
16/40	Review FFQ and set more goals of needed Has patient received email? Advise on Antenatal Classes Have you been re-weighed?
20/40	Review FFQ plus Mention may now contact Triage if has pregnancy concerns Check GTT been booked Feeling Flutters? Has WCV been booked?
24/40	Review FFQ plus Good FM's?
28/40	Review FFQ plus Check fetal movements are present and normal for this baby Complete referral to Flo Advise to increase Iron Rich Foods Advise to increase fibreand good fluid intake) to help constipation
32/40	Review FFQ plus Check fetal movements are present and normal for this baby Advise to consider packing hospital bag
36/40	Check fetal movements are present and normal for this baby Final weight for Database Healthy snacks for labour Feeding and Safe Sleep
Postnatal Ward	BF/AF Birth details Refer to S4H if applicable Email details of 'This Mom Moves' postnatal exercises

Appendix 4:
Anaesthetic Department Letter

The Dudley Group NHS Foundation Trust

Department of Anaesthesia
Russells Hall Hospital
Dudley
West Midlands
DY1 2HQ
Tel: [redacted]

Our Ref:

Date:

Dear

You have been referred to the Antenatal Anaesthetic Assessment Clinic as your body mass index (BMI) is raised. We have recently updated our guidelines and no longer routinely see patients with a BMI of 40-45 unless there are other health issues or concerns regarding anaesthesia.

Please see the attached information regarding high body mass index and pregnancy which we hope you will find helpful.

If you have any further concerns and would like to attend for a consultation with an anaesthetist, please contact the Anaesthetic Department on [redacted] and we will organise this for you.

Yours sincerely

[redacted]

Enc.

The Dudley Group NHS Foundation Trust

Anaesthetic Information for Pregnant with Women a High Body Mass Index

Who are Anaesthetists?

Anaesthetists are doctors who work in operating theatres and maternity wards. They work alongside the Obstetric doctors and midwives to provide care for women during pregnancy and birth. They help to provide pain relief during labour and anaesthetics for childbirth. Anaesthetists are also involved in caring for women who have difficulties, or become unwell, during pregnancy and birth.

Body Mass Index (BMI)

Your Body Mass Index, or BMI, is calculated from your height and weight. It is used to determine if a person is underweight, within a healthy weight range, overweight or obese. Your BMI is recorded during pregnancy and is a useful measure.

Body Mass Index and Pregnancy

Research shows that women who have a high BMI at the start of their pregnancy are at a higher risk of complications during their pregnancy and labour. For example, women with a BMI above 35 are twice as likely to need a caesarean section (and therefore an anaesthetic) compared to women whose BMI lies within the normal range of 20 – 25.

If your BMI is very high (above 45), or it is felt that you have other health problems or concerns, you may be sent an appointment to see an Anaesthetist in the Antenatal Clinic during your pregnancy.

High Body Mass Index and Labour

As soon as you arrive on Delivery Suite you should ask the midwife looking after you to inform the Anaesthetist that you are here. They can then assess you and discuss with you options for labour and delivery.

If labour is not straightforward you should think about having an epidural early during labour rather than later. It might take longer than usual to give you an epidural or a spinal anaesthetic.

The Anaesthetist may encourage you to have an epidural in labour so that you can avoid a general anaesthetic if you need a Caesarean section.

High Body Mass Index and Caesarean Section

In most cases it is better for you to have a regional anaesthetic for a caesarean section, such as a spinal or an epidural. This means an injection is given into your back to make the lower half of your body numb.

With a regional anaesthetic you stay awake during the operation. This has many advantages for both you and your baby; during delivery and afterwards.

There are times when we need to deliver a baby as quickly as possible. If you have an epidural during labour that is working well, we can often use it to deliver your baby by caesarean section. It can also be used to help deliver your baby using instruments such as forceps.

High BMI and Anaesthetic Procedures

If you have a high BMI, this can make anaesthetic procedures more difficult. It may be harder to find the correct place for your spinal or epidural and it may be more difficult to get the anaesthetic to work properly straight away.

A high BMI can make it more difficult to put a cannula (drip) in your hand and it may also cause problems with general anaesthesia (if we have to put you to sleep) during and after the procedure.

Summary

If your BMI is above 35, you are more likely to need some sort of help with the delivery of your baby than someone with a lower BMI.

- ✓ It is generally better to stay awake while your baby is delivered.
- ✓ It can be more difficult, and take longer, to do epidurals and other injections in your back to make you numb. This means that it may be better to have an epidural early in labour in case we need to deliver your baby by caesarean section or by using instruments.
- ✓ Giving you a general anaesthetic may be more difficult than for women with a lower BMI.
- ✓ Having an epidural can avoid the need for general anaesthesia in an emergency.
- ✓ When you go onto the labour ward to have your baby, tell the midwives that you need to see the Anaesthetist on duty.

LabourPains.com

Reliable information from doctors, midwives & mothers on pain relief & anaesthesia choices for your baby's birth

Anaesthetics and pregnant women with a high BMI

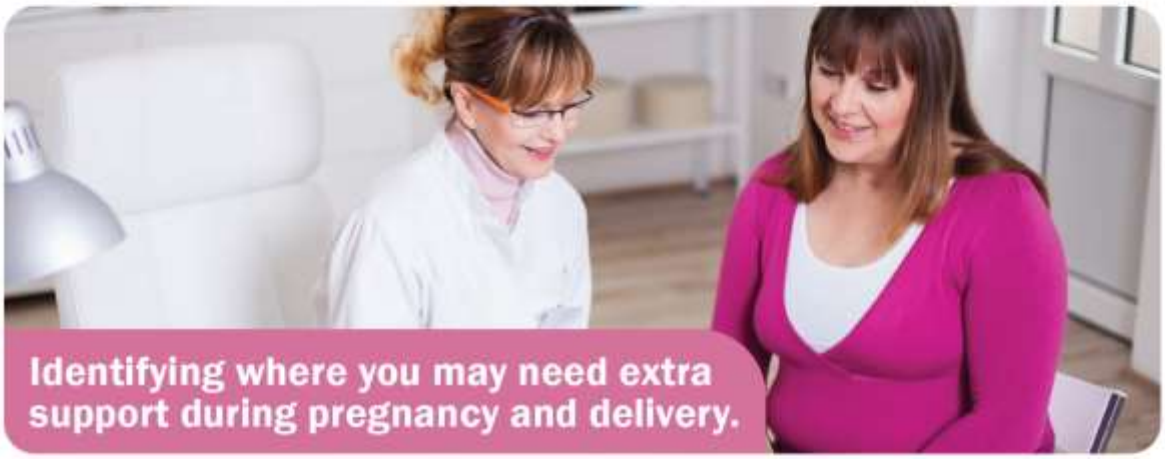
What you need to know

Who would have a high BMI?

One of the aims of antenatal care is to identify those women who may need extra support during pregnancy and birth. One thing that makes this more likely is if you have a high body mass index or BMI. BMI is calculated by your midwife at the time of booking using your height and weight and as it goes up, particularly if it is above 40, the chances of you having certain pregnancy related complications increases although many births will be completely uncomplicated and need no intervention.

What will happen next?

During pregnancy you may be offered an appointment to talk to an anaesthetist about your thoughts on pain relief and anaesthetic choices for your labour and delivery. It is easier to do this in relaxed surroundings, rather than trying to explain things when you are coping with labour. You have all the same choices for pain relief in labour as any other mother but as some options like epidurals or having drips can take longer if you have a high BMI this is a good time to discuss them.



Identifying where you may need extra support during pregnancy and delivery.

Why will an anaesthetist want to discuss epidurals?

It could be more difficult and take longer to get an epidural in and working if you suddenly decide you would like one so we may offer advice on planning for an epidural earlier in labour. We may also examine your back at this visit, sometimes using ultrasound.

If you had to have blood thinning injections in pregnancy we can discuss with you when to stop these beforehand.

What happens if I need to go to theatre?

If your baby needs to be born in theatre, this can happen quickly if you already have an epidural in place. However, if you do not have an epidural, you may need to have a general anaesthetic, which would mean that you will be asleep when the baby is born.

We will do all our routine checks of your airway so that we know if we would need more time or equipment to give you a safe general anaesthetic.

Other considerations

You may or may not have had times when having your blood tested has been tricky. If so this is also a great time to work out where we could take your blood or put a drip in if needed in labour. Sometimes we use an ultrasound machine to do this.

For more general information about how having a high BMI may affect you and your baby there is an excellent patient information leaflet on the Royal College of Obstetricians and Gynaecologists website: **www.rcog.org.uk/en/patients/patient-leaflets/why-your-weight-matters-during-pregnancy-and-after-birth**

Appendix 6:
Specialist Midwife Referral Letter

The Dudley Group NHS Foundation Trust

REFERRAL TO SPECIALIST MIDWIFE FOR WOMEN WITH LONG TERM CONDITIONS

Please complete this form and leave in folder to be collected. For urgent referrals/advice ring [redacted]

LONG-TERM CONDITIONS: see overleaf for examples, if unsure please refer anyway. Provide brief details below of the long term condition/s. **Obtain consent for referral**.

Name: (affix patient ID label if available) Unit No: DOB Address

Gravida ……
Parity…….. EDD ……
Consultant ……

Booking weight if for BMI..... (**ONLY REFER FOR BMI IF ≥ 40)**

Long-term condition:

Current medication:

Further Information **e.g. is woman under Dudley Group or another Trust for their long term condition/ any upcoming appointments?**

Referred by…….

Date…….

Long term conditions

Cardiac - congenital and ischaemic heart disease, previous cardiac surgery.
Neurological – multiple sclerosis, spina bifida, cerebral palsy, intracranial lesions/surgery , spinal cord injury, epilepsy.
Orthopaedic – scoliosis.
Haematological -clotting factor deficiency, thrombocytopenia, von willebrands sickle cell disease, thalassaemia, DVT/PE, on anticoagulation therapy during pregnancy.
Other - deafness, blindness, learning difficulties, mobility problems, HIV, lupus, morbidly obese (BMI ≥40) porphyria, pre-existing liver/renal disease, cancer

MOVING AND HANDLING ASSESSMENT

Review and document moving and handling risk factors at every AN admission, during labour and following delivery, or at **ANY POINT WHERE A RISK FACTOR CHANGES**. Document an **Action Plan** (see below) for any risk factors identified.

	ASSESSMENT FACTORS	**DATE**		**DATE**		**DATE**		**DATE**		**DATE**		**DATE**	
		YES	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**	**YES**	**NO**
1	Has the patient's history been fall free in the last 6 months?												
2	Can the patient communicate clearly?												
3	Is the patient cooperative?												
4	Can the patient change their position independently?												
5	Can the patient weight bear?												
6	Can the patient stand unaided?												
7	Can the patient walk unaided?												
8	Is the patient free from attachments that will hinder mobility?												
9	Is the patient free from medical conditions that will hinder mobility?												
10	Bromage score "0" (if applicable)												
	INITIALS												

ACTION PLAN (where any answer above = "No")

ASSESSMENT	**ACTION PLAN** (implementation of Action Plan must be recorded in notes)	**SIGNATURE**
AN / Labour / PN Date and Time: Factor Number:		
AN / Labour / PN Date and Time: Factor Number:		
AN / Labour / PN Date and Time: Factor Number:		
AN / Labour / PN Date and Time: Factor Number:		
AN / Labour / PN Date and Time: Factor Number:		

WATERLOW PRESSURE SORE RISK ASSESSMENT

Review and document pressure sore risk factors at every AN admission, during labour and following delivery, or at **ANY POINT WHERE A RISK FACTOR CHANGES**. Document Waterlow score and if score **≥10** document and implement **Action Plan** (see below).

ADAPTED WATERLOW PRESSURE SCORE RISK ASSESSMENT FOR MATERNITY			
BMI		**CONTINENCE**	
20-24.9	0	Complete / catheterised	0
25.29.9	1	Urinary incontinence / ruptured membranes	1
>30	2	Faecal incontinence	2
<20	3	**MOBILITY**	
SEX/AGE		Fully	0
Female	2	Restless / fidgety	1
14-49	1	Apathetic	2
50-64	2	Restricted	3
SKIN TYPE		Chairbound, e.g. wheelchair	5
Healthy	0	**TISSUE MALNUTRITION**	
Tissue paper	1	Anaemia	2
Dry	1	Smoking	1
Oedema	1	Diabetes	2
Discoloured (Grade1)	2	Surgery	1
Broken (Grade 2-4)	3	**NEUROLOGICAL DEFICIT / TRAUMA**	
APPETITE		Motor / sensory, eg paraplegia, epidural, spinal	4
Average	0	**MAJOR TRAUMA**	
Poor	1	Orthopaedic / spinal injury	5
Nasogastric tube / fluids only	2	On table 2 hours	5
NBM / anorexic	3	On table 6 hours	8

Score: ≥10 at risk ≥15 high risk ≥20 very high risk

(Waterlow pressure ulcer prevention/treatment policy)

ASSESSMENT	**ACTION PLAN** (where score ≥10) (must indicate sites to be observed, eg sacrum, buttocks, bony prominences, frequency of change of position and any pressure relieving aids used)
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	
AN / Labour / PN Date and Time: Waterlow Score: Signature: Print Name:	

ASSESSMENT OF PRESSURE AREAS
(to be undertaken 2 hourly where score ≥10)

DATE/TIME	EVALUATION/ACTION TAKEN Skin Condition: **A =** Normal **B =** Red, blanching **C =** Grade of pressure ulcer if present **D =** Covered by dressing	INITIALS