GIG CYMRU NHS WALES

Pwyllgor Gwasanaethau Iechyd Arbenigol Cymru (PGIAC)

Welsh Health Specialised Services Committee (WHSSC)

Specialised Services Commissioning Policy: CP259

Revision Surgery for Severe and Complex Obesity (Adults)

May 2023

Version 1.0

PARCH - RESPECT

PARTNERIAETH - PARTNERSHIP

GWELLA AC ARLOESI - IMPROVEMENT & INNOVATION

Document information	
Document purpose	Commissioning Policy
Document name	Revision Surgery for Severe and Complex Obesity (Adults)
Author	Welsh Health Specialised Services Committee
Publication date	May 2023
Commissioning Team	Cardiac
Target audience	Chief Executives, Medical Directors, Directors of Finance, Bariatric Surgeons, Bariatric Nurse Specialists, Bariatric Psychologists, Bariatric Dietitians
Description	NHS Wales will routinely commission this specialised service in accordance with the criteria described in this policy
Document No	CP259
Review Date	2024 Review date progressed to November 2025

Contents

Policy Statement

Welsh Health Specialised Services Committee (WHSSC) will commission revision surgery for adults (aged 18 years and over) with severe and complex obesity in accordance with the criteria outlined in this document.

In creating this document WHSSC has reviewed this clinical condition and the options for its treatment. It has considered the place of this treatment in current clinical practice, whether scientific research has shown the treatment to be of benefit to patients, (including how any benefit is balanced against possible risks) and whether its use represents the best use of NHS resources.

Welsh Language

WHSSC is committed to treating the English and Welsh languages on the basis of equality, and endeavour to ensure commissioned services meet the requirements of the legislative framework for Welsh Language, including the Welsh Language Act (1993), the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards (No.7) Regulations 2018.

Where a service is provided in a private facility or in a hospital outside of Wales, the provisions of the Welsh language standards do not directly apply but in recognition of its importance to the patient experience the referring health board should ensure that wherever possible patients have access to their preferred language.

In order to facilitate this WHSSC is committed to working closely with providers to ensure that in the absence of a Welsh speaker, written information will be offered and people have access to either a translator or 'Language-line' if requested. Where possible, links to local teams should be maintained during the period of care.

Decarbonisation

WHSSC is committed to taking assertive action to reducing the carbon footprint through mindful commissioning activities. Where possible and taking into account each individual patient's needs, services are provided closer to home, including via digital and virtual access, with a delivery chain for service provision and associated capital that reflects the WHSSC commitment.

Disclaimer

WHSSC assumes that healthcare professionals will use their clinical judgment, knowledge and expertise when deciding whether it is appropriate to apply this policy.

This policy may not be clinically appropriate for use in all situations and does not override the responsibility of healthcare professionals to make

decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian, or Local Authority.

WHSSC disclaims any responsibility for damages arising out of the use or non-use of this policy.

1. Introduction

This policy has been developed as a commissioning policy for the planning and delivery of revision surgery for severe and complex obesity for adults (aged 18 years and over) resident in Wales. This service will only be commissioned by the Welsh Health Specialised Services Committee (WHSSC) and applies to residents of all seven Health Boards in Wales.

1.1 Plain Language Summary

Revision surgery is a surgical procedure that is performed on people who have already undergone a form of obesity surgery. The surgical procedure involves the revision of the initial obesity operation and/or conversion to a different type of obesity procedure e.g. Laparoscopic adjustable gastric banding (LAGB) to Laparoscopic Sleeve gastrectomy (LSG) or Roux-en-Y gastric bypass (RYGB).

Revision surgery may be required due to:

- Surgical complications including technical problems due to the primary obesity surgical procedure. These may present as severe gastrointestinal symptoms such as reflux, nausea, vomiting, dysphagia or inability to tolerate solid foods. (a detailed list of obesity surgery complications is included in annex ii)
- Medical complications of the primary obesity surgical procedure including profound macro- and micronutrient deficiencies, anaemia, malnutrition and metabolic abnormalities such as disabling intractable hypoglycaemia.
- The failure of the primary obesity surgical procedure to provide adequate, stable and durable weight loss with adequate resolution of weight related comorbidities, or to address significant weight regain, frequently with re-emergence of pre-operative comorbidities.

Revision surgery is a more complex and technically challenging procedure than primary obesity surgery. It should be only undertaken in high volume Level 4 specialist centres by bariatric surgeons with extensive experience because of the high rate of complications and increased mortality[1].

For the purpose of informing commissioning and funding decisions patients have been categorised into the following four groups:

- **Group 1 -** patients that present with complications related to the primary obesity surgery which are classified as '**emergency**' or assessed as '**clinically urgent**'.

[1] NHS England: Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Revision Surgery for Complex Obesity (2016)

- **Group 2 -** patients that have failed to achieve the expected average weight loss targets for the primary obesity procedure performed or have regained their pre-operative weight.
- **Group 3 -** patients that have multiple, severe and life threatening co-morbidities which have persisted or re-emerged following primary obesity surgery.
- **Group 4 -** private patients that have had their primary obesity surgery outside of NHS contracts at independent/private providers (this includes patients who have had their obesity surgery overseas).

1.2 Aims and Objectives

This policy aims to define the commissioning position of WHSSC on the use of revision surgery for adults with severe and complex obesity.

The objectives of this policy are to:

- ensure commissioning for the use of revision surgery is evidence based
- ensure equitable access to revision surgery for severe and complex obesity
- define criteria for people with severe and complex obesity to access treatment
- improve outcomes for people with severe and complex obesity.

1.3 Epidemiology

Over the years there has been a steady increase in the number of obesity procedures performed. For example in England NHS hospitals, 8794 cases were performed in 2011/12. In addition, it is estimated that up to 5000 procedures per year are performed for residents of England within the private sector mainly in the UK but also overseas. A proportion of these cases will progress to a second procedure.

It is currently considered (on the basis of United States data) that the overall incidence of surgical revision after a primary obesity operation ranges between 5-50%. The lowest rate of revision is associated with duodenal switch at 5%. For gastric bypass it is 10-20%. For gastric banding it is the highest at up to 50% although some centres record a lower rate of 15% for laparoscopic adjustable gastric band (LAGB) revision.

The revision rate in England and Wales is unknown. However, it is likely that there are significant numbers of cases for the following reasons. Firstly, it is recognised that 40-50% of gastric bands will have complications, or

will achieve inadequate weight loss. A United States study suggests that 5.3% of all obesity operations are for revisional surgery[2].

1.4 Current Treatment

The model of care for managing obesity in Wales is presented in the All Wales Weight Management Pathway 2021 as follows:

- Level 1 – Brief advice and self–directed support
- Level 2 – Multi-component weight management support
- Level 3 – Specialist multi-disciplinary weight management services
- Level 4 – Specialist surgical services

Revision surgery is only commissioned by WHSSC at the Level 4 specialist surgical service at the Welsh Institute of Metabolic and Obesity Surgery (WIMOS) for patients in South Wales, through a 2-site model that includes Morriston and Singleton Hospitals in Swansea. Patients from North Wales access revision surgery at Salford Royal NHS Foundation Trust.

A patient will be referred and considered suitable for surgery by the Level 4 bariatric multidisciplinary team (MDT). A patient will be considered for revision surgery if they meet the access criteria outlined in section 2.1. Patients should undergo a thorough multidisciplinary MDT assessment and consideration of their individual risks and benefits before undergoing revisional surgery.

1.5 What NHS Wales has decided

WHSSC has carefully reviewed the evidence of revision surgery for severe and complex obesity. We have concluded that there is enough evidence to fund the use of revision surgery, within the criteria set out in section 2.1.

1.6 Relationship with other documents

This document should be read in conjunction with the following documents:

- **NHS Wales**
  - All Wales Policy: Making Decisions in Individual Patient Funding requests (IPFR).

- **WHSSC policies and service specifications**
  - CP29a Obesity Surgery for Complex and Severe Obesity Commissioning Policy (March 2023)
  - CP29b Obesity Surgery for Complex and Severe Obesity Service Specification (March 2023)

[2] NHS England: Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Revision Surgery for Complex Obesity (2016)

- **National Institute of Health and Care Excellence (NICE) guidance**
  - Obesity: identification, assessment and management, NICE Clinical Guideline (CG189), (November 2014) (updated 2022)
  - Obesity Identification, assessment and management of overweight and obesity in children, young people and adults, NICE Clinical Guideline (CG43), (November 2014)

- **Relevant NHS England policies**
  - Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Revision Surgery for Complex Obesity, (2016)

- **Other published documents**
  - BOMSS Professional Standards and Commissioning Guidance, 2012 (Updated 2019)
  - All Wales Weight Management Pathway 2021 (Adults): Core Components, Welsh Government (2021)

2. Criteria for Commissioning

The Welsh Health Specialised Services Committee has approved funding of revision surgery for adults (aged 18 years and over) resident in Wales with severe and complex obesity, in line with the criteria identified in this policy.

2.1 Indications for Re-operative and Revision Surgery

Re-operations are likely for either one or a combination of the following factors:

- Complications relating to their primary procedure
- Post-surgical failure to lose weight or significant weight regain following initial success
- Failure to improve or re-emergence of a co-morbidity
- A combination of factors 1 to 3
- Reversal is rarely required for excessive weight loss, malnutrition, or intractable diarrhoea etc.

2.2 MDT Specialist Re-assessment

Patient re-assessment should be conducted by a Level 4 obesity MDT with a full range of expertise. The composition of the team should include:

- Medical and surgical assessment by a specialist obesity physician and a surgeon with appropriate knowledge, training and experience, based on large caseload of both primary and revision procedures.
- Dietetic assessment from a dietitian experienced in weight management, usually at senior grade.
- Formal psychological assessment or case review by a psychologist experienced in weight management and obesity surgery.
- Analysis and documentation of reason(s) for failure, which may include the following:

Procedure Failure: There is documented evidence of procedure failure such as technical band complications, or persistent marginal ulcer and/or there is documented evidence of severe and disabling metabolic complications resulting from the original procedure such as malnutrition or intractable hypoglycaemia, or micronutrient deficiencies.

Patient Factors: The patient has not adhered to the post–operative advice given by the Level 4 MDT based on dietary, nutritional or physical activity guidance or has not attended the follow up appointments on a regular basis.

Service Failure: The patient may have been disadvantaged by lack of service arrangements i.e. inadequate/absent specialist weight management programmes (Level 3 and/or Level 4) and/or follow up arrangements that have either not been prescribed or commissioned. The

latter often happens in the private sector, where the focus is on the obesity operation and short-term follow up.

One or more of the above factors may co-exist in the same patient.

Ideally the MDT should meet physically, (virtual attendance is acceptable if required). At these meetings, the presence of the specialist team members as outlined above is mandatory; their attendance, discussion and management decision(s) should be recorded. Where possible there should be an agreement between the patient and MDT of the reason(s) for failure (procedural, patient or service).

A comprehensive management plan should be drawn up for each patient which may involve some or all of the following components; further dietetic/psychological support/psychological therapies, further clinical investigation/imaging, input from specialist teams such as gastroenterologists (e.g. for parenteral feeding), revision of the primary obesity procedure. Some patients will be deemed unsuitable for re-operation and may require further MDT specialist weight management by either Level 3 or Level 4 services.

Data should be collected on a database which will allow audit and benchmarking against other such services[3].

2.3 Inclusion Criteria

To be considered for revision surgery, patients must meet one of the criteria below (Group 1 or 4):

Group 1:

- Patients should present with a clinical history, and symptoms that suggest a deteriorating condition and/or surgical complications related to their primary obesity surgical procedure.

Patients should be triaged and treated immediately if classified as an '**emergency**'.

Patients should be triaged by an MDT and assessed as '**clinically urgent**', if it is felt they have a subsequent risk of developing emergency complications if they remain untreated.

This includes patients with adverse anatomical complications of the primary surgery but exclude loss of restriction due to dilatations of the gastric pouch and/ or the gastro-jejunal junction.

[3] NHS England: Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Revision Surgery for Complex Obesity (2016)

This corrective surgery, or in rare cases reversal surgery, would be as per routine and considered as good clinical practice. Providers should triage referral letters from GPs, hospital consultants on this basis.

Examples include:

1. Band complications i.e. slippage, then the band can be repositioned/replaced. Conversion can be considered if the criteria listed in this policy are met, and the patient is compliant, on regular follow up and the MDT agree.
2. Band erosion then band removal can be followed up by a bypass after 6 months if the criteria as stipulated in the WHSSC policy 'CP29a Obesity Surgery for Complex and Severe Obesity - Level 4 (Adults)' (in development) are met, and the patient is on regular follow up, compliant and the MDT agree.
3. Severe band intolerance with gastro-oesophageal reflux, oesophageal dysmotility, or persistent vomiting - then apply the same as 1, 2 above.

However, if the recommended criteria are not met and/or there has been poor response to primary obesity surgery (insufficient weight loss or weight regain in the absence of surgical complication), then only band removal will be funded.

Medical emergencies - these may include profound macro and micronutrient deficiencies; anaemia; malnutrition and metabolic abnormalities such as disabling intractable hypoglycaemia; and intractable diarrhoea.

If a band is removed for one of the examples above (1-3), then the patient may be considered for conversion to another operation following thorough assessment and counselling regarding treatment options by a Level 4 specialist surgical service. Ideally the patient should be required to attend the Level 4 specialist surgical service for at least six months prior to revision surgery, during which period compliance, improvement in weight and co-morbidities is demonstrated.

Group 4 (Private Patients):

- Some patients may have had their primary obesity surgery outside of NHS contracts at independent/private providers (in Europe, or within the United Kingdom) but subsequently present at NHS facilities as clinical emergencies. The NHS has a duty of care for these patients and will fund emergency and clinically urgent treatment on a similar basis as Group 1 patients.
- These patients may not have previously completed the recommended pre-surgical pathway or have met the NHS guidance for their primary obesity surgery and may not have been adequately followed up.

These patients should be referred to the Level 3 and/or 4 weight management services.

Any request for further (up to two years only) band filling and/or routine outpatient follow-up care (not associated with an acute, non-elective episode for these patients) will require the agreement of WHSSC and will need to demonstrate that the patient has met recommended eligibility criteria for obesity surgery.

The patient's GP and Private Provider will therefore be required to collaborate to provide evidence on:

- Weight Management Service attendance including Level 3
- Recommended criteria and guidance fulfilment
- Primary obesity operation
- Follow-up attendance
- Response to primary operation defined by progress with reduction of excess weight at 1 and 2 years including impact on co-morbidities

If these factors are not completely fulfilled, the patient must go through Level 2 and/or 3 weight management services in order to comply with recommended criteria[4].

2.4 Exclusion Criteria

- Early re-operation i.e. surgery within 90 days of the index obesity surgical procedure. This should be regarded as a complication of the primary surgical procedure and will be the responsibility of the provider undertaking the primary bariatric operation.
- Those patients who are undergoing planned phased or two-step procedures as agreed at the time of the initial MDT accepting the patient for surgery.
- Patient Groups 2 and 3:
    - **Group 2:** The patient has failed to achieve expected average weight loss targets for the primary obesity procedure performed or regained their pre-operative weight. This category will include patients who following a Gastric Bypass develop a dilated gastric pouch or gastro-jejunal anastomotic dilatation. This category will not include patients who have previously had vertical banded gastroplasty. These patients should not be offered further obesity surgery unless they fall within Group 3 below.
    - **Group 3:** The patient has multiple, severe and life-threatening co-morbidities which have persisted or re-emerged following

[4] NHS England: Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Revision Surgery for Complex Obesity (2016)

primary obesity surgery despite strong evidence that the patient has both attended and engaged with the follow up programme and multidisciplinary assessment has determined and agreed:

- The co-morbidities are potentially life threatening or represent a significant risk to health and well-being that is both severe and serious (in the short to medium term)
- The presence of clear grounds of clinical exceptionality

- **Groups 2 and 3 will not be routinely funded**: If the treating clinician feels strongly that there are clinically exceptional reasons that are relevant to a particular case such as technical failure or other special circumstances in patients who have complied with planned follow up, then an application for funding may be submitted through the Individual Patient Funding Request (IPFR) panel (see section 5.2).

2.5 Continuation of Treatment

Healthcare professionals are expected to review a patient's health at regular intervals to ensure they are demonstrating an improvement to their health due to the treatment being given.

If no improvement to a patient's health has been recorded then clinical judgement on the continuation of treatment must be made by the treating healthcare professional.

2.6 Acceptance Criteria

The service outlined in this policy is for patients ordinarily resident in Wales, or otherwise the commissioning responsibility of the NHS in Wales. This excludes patients who whilst resident in Wales, are registered with a GP Practice in England, but includes patients resident in England who are registered with a GP Practice in Wales.

2.7 Patient Pathway

Patients will follow the pathways outlined in the All Wales Weight Management Pathway 2021.

Patients who have had primary obesity surgery should be followed up by the obesity MDT or through a shared care arrangement between Level 3 and 4 services. Lifelong specialist follow up is advocated and should be reflected in Level 3 service liaison with Primary Care. Lifelong follow up will allow early detection of complications and morbidities following weight loss surgery, including weight loss failure. Specialist services (Level 3 and 4) will need to ensure that there is a process for early identification of

complications and re-referral to the bariatric surgeon or physicians if required[5].

Initial assessment of failure should ideally be conducted within the local follow up service. If there is no appropriately constituted follow up service available, then they should be referred to the Level 4 specialist surgical service (in Swansea and Salford) that can provide this service even if it is not at the original surgical centre[6].

2.8 Designated Centre

The obesity service for Wales is provided at the following Centres:

For patients resident in South Wales and South and Mid Powys

- Welsh Institute for Metabolic and Obesity Surgery (WIMOS)
  Swansea Bay University Health Board
  Morriston Hospital
  Heol Maes Eglwys
  Swansea
  SA6 6NL

- Singleton Hospital
  Sketty Lane
  Sketty
  Swansea
  SA2 8QA

For patients resident in North Wales and North Powys

- Salford Royal NHS Foundation Trust
  Salford Royal
  Stott Lane
  Salford
  M6 8HD

2.9 Exceptions

If the patient does not meet the criteria for treatment as outlined in this policy, an Individual Patient Funding Request (IPFR) can be submitted for consideration in line with the All Wales Policy: Making Decisions on Individual Patient Funding Requests. The request will then be considered by the All Wales IPFR Panel.

[5] Welsh Government: All Wales Weight Management Pathway 2021 (Adults): Core Components
[6] NHS England: Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Revision Surgery for Complex Obesity (2016)

If the patient wishes to be referred to a provider outside of the agreed pathway, an IPFR should be submitted.

Further information on making IPFR requests can be found at: Welsh Health Specialised Services Committee (WHSSC) | Individual Patient Funding Requests

2.10 Clinical Outcome and Quality Measures

The Provider will work to written quality standards and provide monitoring information to the lead commissioner.

- Refer to the WHSSC Commissioning Policy for Obesity Surgery for Complex and Severe (Adults) CP29a (in development), and the WHSSC Service Specification for Obesity Surgery for Complex and Severe Obesity (Adults) CP29b (in development).
- Provider(s) should meet the requirements of the NHS England Clinical Guidance: Revision Surgery for Complex Obesity (2016) and the British Obesity and Metabolic Surgery Society (BOMSS) Standards 2012 (updated 2019):
    - **Basic revisional surgery**: removal of repositioning of a gastric band may be performed by a bariatric surgeon and Level 4 Specialist Surgical Centre that fulfils the criteria for obesity surgery that is, annual case load of 100 per unit and 30 per individual surgeon.
    - **Complex revisional surgery**: surgical providers should demonstrate a cumulative activity for obesity surgery at a rate of 100 cases per year for 5 years and each bariatric surgeon should have personal lifetime experience of 500 cases within the NHS or which have been documented on the National Bariatric Surgery Registry (NBSR).

The following information is to be collected and reported to WHSSC:

Item to be collected and reported	Frequency
Number of new referrals	Quarterly
Number of re-referrals	Quarterly
Referral source and reason for application	Quarterly
Previous obesity procedure and provider	Quarterly
Fulfilment of recommended criteria and guidance, pre-op	Quarterly
Classification of admission (urgent, emergency, planned, elective)	Quarterly
Current procedure undertaken and indications	Quarterly

Number of procedures undertaken	Monthly
Discharge plan	Quarterly
Patient has engaged and complied with post-op follow-up	Quarterly
Adverse Incidents	As they arise and within 48 hours as per SLA
Post procedure mortality	Quarterly
Post procedures complications	Quarterly
Patient satisfaction: Patient Reported Outcome Measures (PROMS) Patient Reported Experience Measures (PREMS)	Quarterly

2.11 Responsibilities

Referrers should:

- inform the patient that this treatment is not routinely funded outside the criteria in this policy, and
- refer via the agreed pathway.

In all other circumstances an IPFR must be submitted.

3. Evidence

WHSSC is committed to regularly reviewing and updating all of its commissioning policies based upon the best available evidence of both clinical and cost effectiveness.

3.1 References

- All Wales Weight Management Pathway 2021 (Adults): Core Components, Welsh Government (2021)
- BOMSS Professional Standards and Commissioning Guidance 2012 (Updated 2019)
- NHS England: Guidance for Clinical Commissioning Groups (CCGs): Clinical Guidance: Revision Surgery for Complex Obesity, (2016)
- Obesity: identification, assessment and management, NICE Clinical Guideline (CG189), (November 2014) (updated 2022)
- Obesity Identification, assessment and management of overweight and obesity in children, young people and adults, NICE Clinical Guideline (CG43), (November 2014)

3.2 Date of Review

This document is scheduled for review before 2024, where we will check if any new evidence is available. If no new evidence or intervention is available the review date will be progressed.

If an update is carried out the policy will remain extant until the revised policy is published.

4. Equality Impact and Assessment

The Equality Impact Assessment (EQIA) process has been developed to help promote fair and equal treatment in the delivery of health services. It aims to enable Welsh Health Specialised Services Committee to identify and eliminate detrimental treatment caused by the adverse impact of health service policies upon groups and individuals for reasons of race, gender re-assignment, disability, sex, sexual orientation, age, religion and belief, marriage and civil partnership, pregnancy and maternity and language (Welsh).

This policy has been subject to an Equality Impact Assessment in line with guidance contained in CPL-026[7].

The Assessment demonstrates the policy is robust and there is no potential for discrimination or adverse impact. All opportunities to promote equality have been taken.

[7] https://whssc.nhs.wales/publications/corporate-policies-and-procedures/corp-026-eqia-policy/

5. Putting Things Right:

5.1 Raising a Concern

Whilst every effort has been made to ensure that decisions made under this policy are robust and appropriate for the patient group, it is acknowledged that there may be occasions when the patient or their representative are not happy with decisions made or the treatment provided.

The patient or their representative should be guided by the clinician, or the member of NHS staff with whom the concern is raised, to the appropriate arrangements for management of their concern.

If a patient or their representative is unhappy with the care provided during the treatment or the clinical decision to withdraw treatment provided under this policy, the patient and/or their representative should be guided to the LHB for NHS Putting Things Right. For services provided outside NHS Wales the patient or their representative should be guided to the NHS Trust Concerns Procedure, with a copy of the concern being sent to WHSSC.

5.2 Individual Patient Funding Request (IPFR)

If the patient does not meet the criteria for treatment as outlined in this policy, an Individual Patient Funding Request (IPFR) can be submitted for consideration in line with the All Wales Policy: Making Decisions on Individual Patient Funding Requests. The request will then be considered by the All Wales IPFR Panel.

If an IPFR is declined by the Panel, a patient and/or their NHS clinician has the right to request information about how the decision was reached. If the patient and their NHS clinician feel the process has not been followed in accordance with this policy, arrangements can be made for an independent review of the process to be undertaken by the patient's Local Health Board. The ground for the review, which are detailed in the All Wales Policy: Making Decisions on Individual Patient Funding Requests (IPFR), must be clearly stated

If the patient wishes to be referred to a provider outside of the agreed pathway, and IPFR should be submitted.

Further information on making IPFR requests can be found at: Welsh Health Specialised Services Committee (WHSSC) | Individual Patient Funding Requests

Annex i Codes

Code Category	Code	Description
ICD10	E66	Obesity
ICD10	E660	Obesity due to excess calories
ICD10	E661	Drug-induced obesity
ICD10	E662	Extreme obesity with alveolar hypoventilation
ICD10	E668	Other obesity
ICD10	E669	Obesity, unspecified
ICD10	K910	Vomiting following gastrointestinal surgery
ICD10	K911	Post gastric surgery syndromes
ICD10	K912	Postsurgical malabsorption, not elsewhere classified
ICD10	K913	Postoperative intestinal obstruction
ICD10	K918	Other postprocedural disorders of digestive system, not elsewhere classified
ICD10	K919	Postprocedural disorder of digestive system, unspecified
ICD10	T855	Mechanical complication of gastrointestinal prosthetic devices, implants and grafts
ICD10	T857	Infection and inflammatory reaction due to other internal prosthetic devices, implants and grafts
ICD10	T857	Infection and inflammatory reaction due to other internal prosthetic devices, implants and grafts
ICD10	T858	Other complications of internal prosthetic devices, implants and grafts, not elsewhere classified
ICD10	Z458	Adjustment and management of other implanted devices
ICD10	Z468	Fitting and adjustment of other specified devices
ICD10	Z488	Other specified surgical follow-up care
OPCS	G251	Revision of fundoplication of stomach
OPCS	G281	Partial gastrectomy and anastomosis of stomach to duodenum

OPCS	G282	Partial gastrectomy and anastomosis of stomach to transposed jejunum
OPCS	G283	Partial gastrectomy and anastomosis of stomach to jejunum NEC
OPCS	G284	Sleeve gastrectomy and duodenal switch
OPCS	G285	Sleeve gastrectomy NEC
OPCS	G288	Other specified partial excision of stomach
OPCS	G289	Unspecified partial excision of stomach
OPCS	G301	Gastroplasty NEC
OPCS	G302	Partitioning of stomach NEC
OPCS	G303	Partitioning of using band
OPCS	G304	Partitioning of stomach using staples
OPCS	G305	Maintenance of gastric band
OPCS	G308	Other specified plastic operations on stomach
OPCS	G309	Unspecified plastic operations on stomach
OPCS	G311	Bypass of stomach by anastomosis of oesophagus to duodenum
OPCS	G312	Bypass of stomach by anastomosis of stomach to duodenum
OPCS	G313	Revision of anastomosis of stomach to duodenum
OPCS	G315	Closure of connection of stomach to duodenum
OPCS	G316	Attention to connection of stomach to duodenum
OPCS	G318	Other specified connection of stomach to duodenum
OPCS	G319	Unspecified connection of stomach to duodenum
OPCS	G310	Conversion from previous anastomosis of stomach to duodenum
OPCS	G321	Bypass of stomach by anastomosis of stomach to transposed jejunum
OPCS	G331	Bypass of stomach by anastomosis of stomach to jejunum NEC

OPCS	G332	Revision of anastomosis of stomach to jejunum NEC
OPCS	G382	Open insertion of prosthesis into stomach
OPCS	G384	Open removal of foreign body from stomach
OPCS	G385	Incision of stomach NEC
OPCS	G387	Removal of gastric band
OPCS	G388	Other specified other open operations on stomach
OPCS	G389	Unspecified other open operations on stomach
OPCS	G485	Insertion of gastric balloon
OPCS	G486	Attention to gastric balloon
OPCS	Y752	Laparoscopic approach to abdominal cavity NEC

Annex ii Complications of obesity surgery

Gastric bypass complications after 90 days for complications of the primary obesity procedure

- Marginal ulceration (dyspepsia, bleeding, perforation)
- Anastomotic stenoses
- Gastro-gastric fistula formation
- Enteric fistula formation (rare)
- Obstruction (adhesions or internal hernias)
- Small bowel intussusception
- Chronic abdominal pain (often merits diagnostic laparoscopy)
- Staple or suture line leak can occur after 90 days and is likely to result in intra-abdominal Abscess formation requiring drainage

Band malfunction requiring further operation after 90 days

- Band slippage
- Gastric pouch enlargement
- Band erosion
- Band or port site infection
- Tube disconnection
- Band unbuckling
- Band intolerance
- Severe reflux oesophagitis

Sleeve gastrectomy complications requiring further operation after 90 days

- Severe gastro-oesophageal reflux
- Staple line leak can occur after 90 days and is likely to result in intra-abdominal abscess formation requiring drainage or fistula formation
- Late stricture formation

Duodenal switch (with sleeve gastrectomy)

- Rarely performed in UK but late complications include
- Anastomotic leaks
- Strictures
- Obstruction
- Protein-calorie malnutrition
- Sleeve gastrectomy complications

Revision for medical complications of primary obesity procedures

- Severe adverse and intractable symptoms e.g. dysphagia functional disorders e.g. dumping syndrome
- Persistent vomiting
- Disabling post prandial hypoglycaemia
- Protein and fat malnutrition
- Diarrhoea

- Intestinal failure
- Severe anaemia
- Bacterial overgrowth
- Recalcitrant hypocalcaemia (with associated hyperparathyroidism)
- Other micronutrient/nutritional deficiencies
- Severe weight loss (undesirably low BMI)
- Recurrent nephrolithiasis

Note: in elderly patients BMI may poorly reflect lean body mass and mask sarcopaenia (so-called sarcopaenic obesity).

Failure of weight reduction and/or resolution of severe co-morbidities

Repeat surgery for failure of a primary obesity procedure may be due to failure to achieve sufficient or expected weight loss; the latter may be accompanied by failure of co-morbidities to resolve e.g. diabetes, obstructive sleep apnoea.

Annex iii Abbreviations and Glossary

Abbreviations

AWMSG All Wales Medicines Strategy Group

BMI Body Mass Index

IPFR Individual Patient Funding Request

MDT Multidisciplinary Team

NEC Necrotizing Enterocolitis

WHSSC Welsh Health Specialised Services

Glossary

Bariatric surgery
Surgery on the stomach and/or intestines to help the person with extreme obesity lose weight.

Comorbidities
Comorbidities are diseases or conditions that someone has in addition to the health problem being studied or treated. Some comorbidities, such as type 2 diabetes, are associated with being overweight or obese, because the risk of developing them increases with an increasing BMI.

Complex obesity
Complex obesity occurs when someone who is obese has additional and related diseases or conditions, for example, type 2 diabetes. It can also occur when obesity results from an underlying condition, for example, an endocrine disease or condition, or when it is associated with various syndromes (such as Prader-Willi syndrome). Complex obesity can occur regardless of how obese the person is, although it is more likely as BMI increases.

Duodenal switch
A type of weight loss surgery in which the size of the stomach is reduced, leaving in place the pylorus and a little of the duodenum which is anastomosed (or joined to the ileum).

Follow-up
Observation over a period of time of an individual, group or initially defined population whose appropriate characteristics have been assessed in order to observe changes in health status or health-related variables.

Gastric band
A type of weight loss surgery that reduces the capacity of the stomach using an adjustable band.

Gastric bypass
There are a number of variations of gastric bypass operation but the most popular one conducted in the UK is called a Roux–en–Y gastric bypass (RNY). At surgery, the top section of the stomach is divided off by a line of staples, creating a small 'pouch' stomach. A new exit from this pouch is made into a 'Y' loop from the small intestine so that food bypasses your old stomach and part (about 100-150cm) of the small intestine. The size of stomach pouch and the length of small intestine that is bypassed are carefully calculated to ensure that patients will be able to eat enough for their body's needs at normal weight.

Healthcare Professional
A healthcare professional is a person associated with either a specialty or a discipline and who is qualified and allowed by regulatory bodies to provide a healthcare service to a patient.

Individual Patient Funding Request (IPFR)
An IPFR is a request to Welsh Health Specialised Services Committee (WHSSC) to fund an intervention, device or treatment for patients that fall outside the range of services and treatments routinely provided across Wales.

Laparoscopic
Laparoscopy is a type of surgical procedure that allows a surgeon to access the inside of the abdomen and pelvis without having to make large incisions in the skin. This procedure is also known as keyhole surgery or minimally invasive surgery.

Revisional surgery
Bariatric procedure performed to correct or modify a previous bariatric procedure.

Sleeve gastrectomy
The sleeve gastrectomy reduces the size of the stomach by about 75%. It is divided vertically from top to bottom leaving a banana shaped stomach along the inside curve and the pyloric valve at the bottom of the stomach, which regulates the emptying of the stomach into the small intestine, remains intact. This means that although smaller, the stomach function remains unaltered.

Welsh Health Specialised Services Committee (WHSSC)
WHSSC is a joint committee of the seven local health boards in Wales. The purpose of WHSSC is to ensure that the population of Wales has fair and equitable access to the full range of Specialised Services and Tertiary Services. WHSSC ensures that specialised services are commissioned from providers that have the appropriate experience and expertise. They ensure

that these providers are able to provide a robust, high quality and sustainable services, which are safe for patients and are cost effective for NHS Wales.