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REVIEW

Expert Consensus on Obesity Management Protocols – A Joint Position Statement by Obesity and Metabolic Surgery Society of India (OSSI) and Endocrine Society of India (ESI)

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Abstract

Background Obesity in India is rising rapidly, with higher body fat at lower BMI and younger age compared to Western populations, leading to earlier onset of type 2 diabetes and cardiovascular disease in a resource-constrained health system. Protocols for obesity care therefore need to address region-specific challenges and ensure culturally acceptable, feasible treatment options.

Methods The Obesity and Metabolic Surgery Society of India (OSSI) and the Endocrine Society of India (ESI) jointly developed India-specific obesity management protocols using a modified Delphi consensus. A protocol development team generated 73 statements based on literature review and expert experience. Seventy-eight experts (38 OSSI, 40 ESI) participated; 100% voted in round 1 and 90% attended an in-person round-2 meeting. Statements with more than 80% agreement were considered to have achieved consensus. After revision and deletion of redundant items, 55 statements across eight modules were finalized.

Results Consensus agreement exceeding 80% was achieved for all 55 statements covering obesity recognition, prevention, treatment selection, monitoring and follow-up, lifestyle therapy, obesity management medications, metabolic and bariatric surgery, and palliative care. The panel strongly endorsed recognition of obesity as a chronic non-communicable disease, integration of obesity care into national health programs, equitable access to treatment, and a multimodal, stigma-free approach tailored to Indian BMI and anthropometric thresholds.

Conclusion This first joint OSSI-ESI consensus provides India-specific guidance across the obesity care continuum. By integrating prevention, individualized therapy and multidisciplinary care, the recommendations aim to standardize clinical practice, inform policy and improve outcomes and quality of life for people living with obesity in India.

Keywords Obesity · Obesity management · Protocols · Diet and physical activity · Obesity management medications · Metabolic and bariatric surgery

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Introduction

In the last 50 years, the prevalence of overweight and obesity has tripled globally [1]. This escalating trend is evident in India too where obesity is fast becoming a growing public health issue. Successive rounds of National Family Health Surveys (NFHS) from 2005 to 2015 have shown that overweight or obesity among adult Indian women and men has increased from 10.6% to 24% and 9.3% to 22.9% respectively [2, 3]. It is also projected that by 2035, India will be home to 83 million children living with overweight/obesity [4]. It is also of concern that in the last few years, this surge in prevalence is not only in urban India but is increasingly being driven by rural India [1, 5].

Obesity is the harbinger of multiple metabolic, mechanical and psychological conditions. To name a few, it is a major risk factor for cardiovascular disease (CVD), type 2 diabetes mellitus (T2DM), hypertension (HTN), increased incidence of certain cancers, metabolic dysfunction associated steatotic liver disease (MASLD), obstructive sleep apnoea (OSA), osteo-arthritis, polycystic ovarian disease (PCOD) etc. Obesity is associated with increased mortality rates along with a higher risk of premature death compared to individuals with normal body weights [6].

The cumulative cost of obesity includes not only increased healthcare expenditure but also includes indirect costs such as decreased productivity, a higher prevalence of disability and premature mortality. Individuals with obesity are more likely to require medical treatment for related diseases such as T2DM, CVD, certain cancers, joint-related issues etc. The overall cost of treating these conditions places substantial pressure on healthcare resources and budgets, especially in resource-constrained settings such as India.

Over the last few years there has been a paradigm shift in the landscape of obesity management. It is driven by the advent of effective novel pharmacological agents for weight loss such as semaglutide and tirzepatide, the integration of digital health platforms and artificial intelligence (AI), and continued innovations in the field of metabolic and bariatric surgery (MBS) [7]. Large phase 3 programmes, including the STEP trials of once-weekly semaglutide and the SURMOUNT trials of tirzepatide, have demonstrated substantial and sustained weight loss in people with overweight and obesity, often approaching or exceeding 15–20% total body weight reduction at higher doses, with safety profiles similar to other incretin-based therapies [8, 9]. However, in India, even today, obesity is still not officially classified as a disease, leading to persistent ambiguity in policy, insurance coverage, and clinical practice [10].

In this rapidly evolving landscape, not only is there an urgent need to establish obesity as a disease but also to have streamlined, evidence-based protocols for its management. This should include clear guidance for implementation across all the stakeholders including primary health care providers, dietitians and nutritionists, exercise specialists, doctors and policymakers. There is a pressing need for all professionals to share a unified understanding of obesity as a disease and its treatment modalities.

Additionally, protocols for management of obesity must cater to region-specific healthcare challenges, ensuring that treatment options are both locally acceptable and take cultural differences into account. Presently, India is the most populous country in the world and is unique in its complexities. Indians tend to have a higher percentage of body fat as compared to the western population. This predisposes them to metabolic conditions such as T2DM and increased CVD risk at relatively lower body mass index (BMI) and at a much younger age [11–14]. Furthermore, as a lower-middle-income country (LMIC) with significant resource constraints, India faces additional barriers in implementing standardized models of care.

Obesity and Metabolic Surgery Society of India (OSSI) and the Endocrine Society of India (ESI) are the two leading national organizations dedicated to obesity care. In this consensus exercise, OSSI and ESI collaborated to formulate joint protocols for obesity management in India. This joint effort aims to provide clarity, streamline practice, and lay the foundation for multidisciplinary care for obesity management in India.

We hope that these will be incorporated into clinical practice and help healthcare professionals to work collaboratively with patients to create tailored treatment plans. These will also help to empower individuals to make informed decisions and ultimately strive toward better management and mitigation of the adverse effects associated with obesity.

Methods

A multidisciplinary protocol development team comprising members from the OSSI and ESI was established in March 2025. The group consisted of five members from OSSI (AGB, SB, CP, RW and SS) and five members from ESI (SS, NK, SD, HK, NK). During the first meeting, group members declared any conflicts of interest.

In the field of obesity management high quality evidence with regards to multimodal treatment modalities is scarce. This is further exaggerated by the influx of newer pharmacological medications in the last four years mainly glucagon like peptides -1 (GLP-1) agonists. Hence a modified Delphi approach was chosen. The use of this technique for development of clinical guidelines and protocols is well established [15].

Previous guidelines of OSSI, ESI and other international societies were studied. Newer studies were looked into by the protocol development team by performing a literature search in Embase, PUBMED/MEDLINE, Web of Science and Google Scholar. The search items used were- obesity, bariatric surgery, diet and lifestyle modification, endoscopic therapies, and anti-obesity medications/obesity management medications. The literature search included studies published from January 2010 to February 2025. In addition, selected seminal studies and landmark guidelines published prior to 2010 were included where necessary or where more recent evidence was not available. Studies with high-quality evidence in the form of randomized controlled trials, systematic reviews, meta-analysis, high-quality cohort studies and established international guidelines relevant to obesity management were included in the review of literature. Case reports, small case series, and studies lacking clinical relevance were excluded. As this was a consensus-driven Delphi methodology, formal quantitative grading of individual recommendations was not undertaken. Instead, the strength of evidence was evaluated qualitatively based on study design hierarchy, consistency of findings, and clinical relevance. It was then combined with expert consensus to formulate recommendations.

The protocols development team worked on developing 73 statements to be included in the survey. Preliminary statements were generated based on available literature review, expert clinical experience, and iterative panel discussions prior to circulation for voting. A total of 78 experts, 38 from OSSI and 40 from ESI were selected as voting experts after taking their consent (Supplementary Table 1). 3 more members from ESI contributed to the manuscript development and have been listed in Supplementary Table 1, however they were not a part of the pre-defined Delphi panel of experts.

Eligibility of the voting members was based upon: (1) Nomination by the protocol development team (2) At least a decade of clinical of experience (3) Clinical publications in peer reviewed scientific journals (4) Members of the executive committee of OSSI (5) Members of Obesity Task Force Initiative (ESI) (6) All members of the protocol development team were also eligible to vote.

A modified Delphi consensus building exercise was commenced by initiating first round of voting through a Google form in May 2025. Experts were instructed to select the single response that most closely reflected their clinical practice, with an optional free-text field provided at the end of each question for additional comments. Anonymity was maintained throughout the process and individual emails were sent to each of the invited experts to avoid interpersonal discussions which could influence responses.

Results of the first round were presented in round 2 in the "joint consensus meeting of OSSI and ESI" held on 29th June, 2025 in New Delhi, India. A brief discussion was held about the concerns raised for every statement in Round 1. Expert feedback was discussed in round 2 and 6 statements were revised. 18 statements that were considered redundant were removed. The Delphi process is delineated in Fig. 1.

Remaining 55 statements were divided into 8 modules-

1. Obesity the disease
2. Prevention of obesity
3. General guidelines for selecting a treatment modality
4. Monitoring and follow up of individuals with obesity
5. Dietary and lifestyle modification
6. Obesity management medications
7. Metabolic and bariatric surgery
8. Palliative therapy for obesity

Thereafter the Steering Committee evaluated the results of the survey, and statements which received consensus without any negative comments were accepted as consensus statements.

Voting was considered as robust in all rounds as 100% of all experts voted in round 1. 90% of all experts attended the physical meeting and voted in round 2. More than 80% agreement was defined as consensus for the purpose of this study. This is similar to other collaborative efforts in published surgical literature using the Delphi process. Data was analysed using descriptive statistics and expressed as percentage agreement. Recommendations were derived through expert consensus and may be reflective of varying levels of supporting evidence across different domains. Recommendations in areas like palliative care, MBS in older patients, and those pertaining to overall policy changes are intended as guiding frameworks and not rigid mandates. These represent mainly grade 5 evidence/expert opinion and are subject to clinical discretion. Moreover, these recommendations must be viewed periodically with emergence of newer evidence.

This Delphi exercise involved only healthcare professionals as expert participants and did not include patient data, biological samples or clinical interventions. In accordance with institutional and national guidelines, it was therefore considered minimal-risk expert-opinion work and formally exempt from Institutional Ethics Committee review. All experts were invited via email, participation was voluntary, and electronic informed consent was obtained before survey completion and participation in the consensus meeting.

The steering committee drafted the manuscript and circulated amongst the experts for review prior to submission. Supplementary Table 1 (included as supplementary material) enlists the details of all experts from OSSI and ESI.

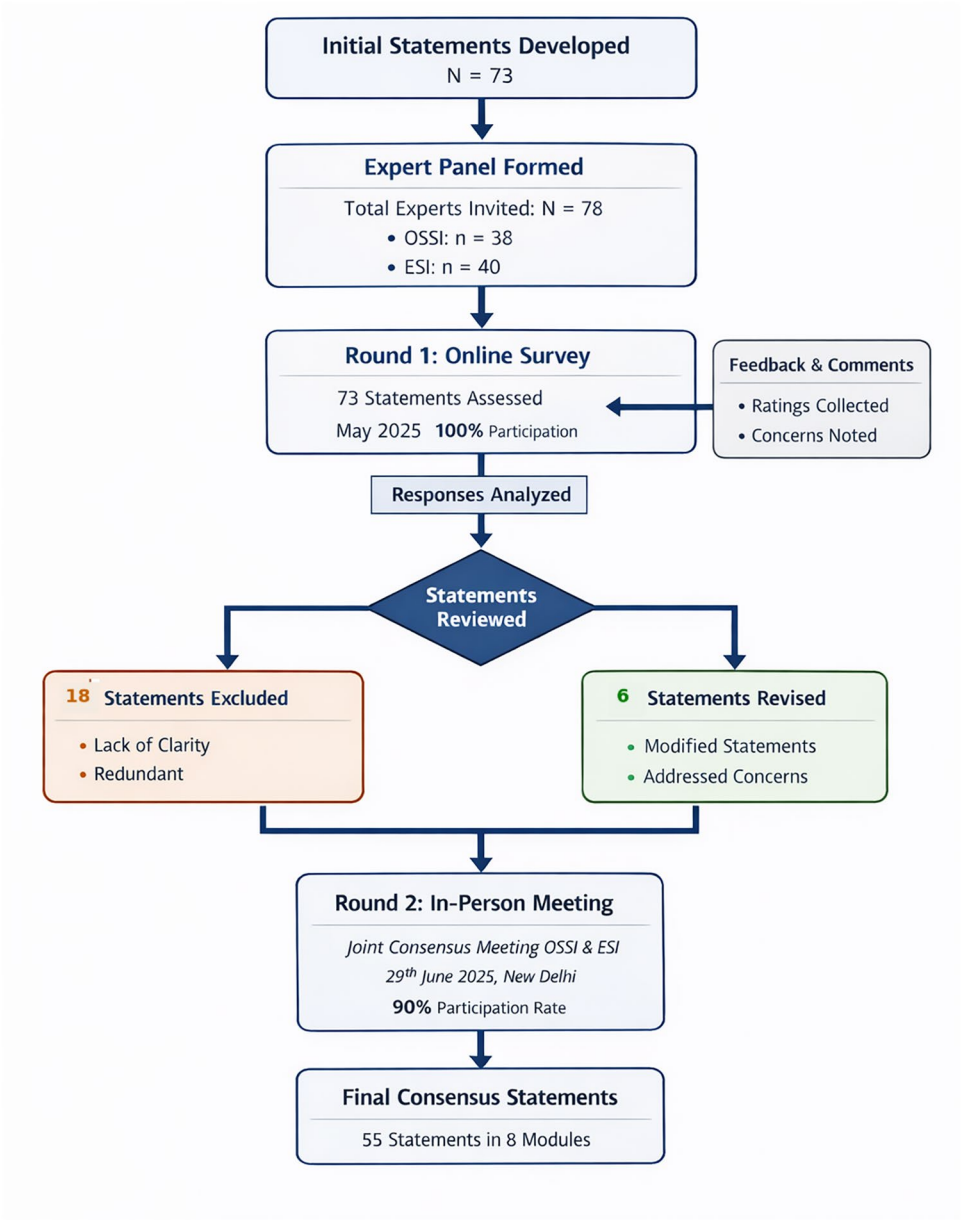

Fig. 1 Flow diagram of the Delphi consensus process

Results

The voting outcomes for each thematic module are summarized in the respective tables. Table 1 presents the consensus statements and voting results related to obesity as a disease. Table 2 details the voting outcomes for the prevention of obesity, while Table 3 outlines the consensus on general protocols for the management of obesity. Table 4 summarizes the voting outcomes pertaining to the monitoring and follow-up of individuals with obesity. Table 5 presents the consensus statements on dietary and lifestyle modification as well as obesity management medications (OMM). Finally, Table 6 reports the voting outcomes related to metabolic and bariatric surgery and palliative therapy for obesity.

Of the 78 experts enrolled, 90% participated in the second round of Delphi consensus. Furthermore, a small number of non-categorical responses (e.g., abstentions or incomplete submissions) were excluded from analysis. As the number of analysable responses varied for every statement, the consensus was calculated based on valid responses for each statement (agree and disagree). Where the agree and disagree counts do not add up to the total panel size, the remaining responses represent abstentions or other non-categorical/non-analysable responses.

Figure 2 depicts the treatment algorithm for the management of obesity that was agreed upon by 100% of the participants. This has been published separately in another

Table 1 Consensus statements about obesity as a disease

SN	Statement	Agree	%	Disagree	%	Consensus
	Section 1- Obesity the disease					
1	Obesity is a complex condition influenced by genetic, metabolic, hormonal, pharmacological, environmental, psychological, socioeconomic, and lifestyle factors—It is not simply a matter of willpower	76	97.4			Achieved
2	We agree with the Lancet Commission's definition of obesity- "Obesity is a condition characterized by excess adiposity, with or without abnormal distribution or function of adipose tissue, and with causes that are multifactorial and still incompletely understood"	78	100.0			Achieved
3	In the Indian population, obesity is defined at a BMI ≥ 25 kg/m^2. For individuals with BMI in the overweight range (23–24.9 kg/m^2), confirmation of excess adiposity is essential and should be based on anthropometric measures such as waist circumference, waist-to-hip ratio, or waist-to-height ratio. Direct assessment of body fat using bio-impedance analysis (BIA) or DEXA scanning should be used whenever available particularly in individuals with high muscle mass or athletic build	65	83.3	4	5.1	Achieved
4	Additionally, neck circumference can be a useful indicator of obesity and may complement other anthropometric markers (waist circumference, waist to hip ratio or waist to height ratio) to aid management	68	87.2	7	9.0	Achieved
5	Clinically relevant weight loss ranges from 5 to 15% TBW, depending on the condition. While ≥ 5% improves cardiometabolic risk, some conditions like MAFLD, OSA, GERD, and T2DM remission require greater loss for clinically significant benefits	71	91.0	1	1.3	Achieved
6	Clinically relevant weight loss for metabolic benefits is generally 5%–15% TBW, but in some people living with obesity, > 15% may be necessary to improve overall quality of life (QoL) and psychological health	75	96.2		0.0	Achieved
7	The Ministry of Health and Family Welfare in India must recognize obesity as a major non-communicable disease (NCD), alongside Cardio-vascular diseases (CVDs), Cancers, Chronic Respiratory Diseases (CRDs), and Diabetes	78	100.0		0.0	Achieved
8	Implementing effective strategies for obesity prevention and management can envisage a healthier future for the population and reduce financial burdens	77	98.7		0.0	Achieved
9	Addressing stigma associated with obesity should be part of all obesity management strategies, as stigma can impair effective treatment and recovery	78	100.0		0.0	Achieved
10	Patients with obesity will benefit from a comprehensive, patient-centred approach by a multidisciplinary team (MDT) of healthcare professionals to address their diverse needs and provide effective care	77	98.7		0.0	Achieved
11	The MDT for obesity management should comprise, but may not be limited to, the following professionals: Primary care physicians, registered dietitians and nutritionists, exercise physiologists or physical therapists, endocrinologists, physicians and metabolic and bariatric surgeons	78	100.0		0.0	Achieved
12	Obesity assessment should extend beyond anthropometric parameters and include Edmonton Obesity Staging System (EOSS) for a more precise evaluation of health risks and eligibility for MBS	70	90.0		0.0	Achieved

Table 2 Consensus statements about prevention of obesity

SN	Statement	Agree	%	Disagree	%	Consensus
	Section 2- Prevention of obesity					
13	A population-based initiative must be rolled out as a part of comprehensive primary health care for all individuals, regardless of weight status, to get counselling and support for healthy lifestyle behaviours, including a balanced diet, regular physical activity, adequate sleep, and mental health management	78	100.0		0.0	Achieved
14	Obesity prevention and management should be included in non-communicable disease programs as a part of the national health program for each country	76	97.4		0.0	Achieved
15	The government should implement universal health coverage strategies to provide accessible, affordable, and equitable prevention and treatment services for obesity	77	98.7		0.0	Achieved
16	Regulations should mandate clear front-of-pack food labelling and discourage marketing of unhealthy foods and beverages to children and adults	74	94.9	1	1.3	Achieved
17	For prevention of childhood obesity, schools must promote active lifestyles and healthy eating by enhancing infrastructure, curriculum, and accessibility	75	96.2		0.0	Achieved
18	Nationwide awareness campaigns on healthy lifestyles should be regularly conducted using print, electronic, and social media to educate and reduce stigma related to obesity	78	100.0		0.0	Achieved

Table 3 Consensus statements about general protocols for management of obesity

SN	Statement	Agree	%	Disagree	%	Consensus
	Section 3- General guidelines for selecting a treatment modality					
19	Obesity frequently coexists with other health conditions, including but not limited to, type 2 diabetes, hypertension, obstructive sleep apnea (OSA), metabolic dysfunction-associated fatty liver disease (MAFLD), and mental illness, etc. A combined multi-modality approach to manage both obesity and its related diseases concurrently is essential for improving overall health outcomes	77	98.7	1	1.3	Achieved
20	Management of obesity requires a flexible and dynamic approach where different treatment strategies may overlap, and various combinations can be adapted based on the clinical needs at any stage	77	98.7		0.0	Achieved
21	The selection of treatment options should prioritize the most effective and clinically beneficial evidence-based therapy while also considering loco-regional availability, expertise, and affordability	75	96.2		0.0	Achieved
22	The choice of treatment at every stage should be the outcome of a shared decision-making process between the patient, family (in the case of adolescents and children with obesity), and the healthcare team, ensuring an informed and collaborative approach	78	100.0		0.0	Achieved
23	When different modalities yield similar outcomes, priority should be given to the most effective, sustainable and affordable approach that enhances overall QoL while preserving organ function	77	98.7		0.0	Achieved

Table 4 Consensus statements about monitoring and follow up individuals with obesity

SN	Statement	Agree	%	Disagree	%	Consensus
	Section 4- Monitoring and follow up of individuals with obesity					
24	Standard practice for all individuals seeking weight management should be self-weight monitoring along with measurement of waist circumference on at least a monthly basis or more frequently depending on patient preference or clinical discretion	70	89.7	1	1.3	Achieved
25	Standard laboratory tests for assessing excess adiposity should include CBC, glycaemic parameters, lipid profile, and renal and liver function tests, with additional tests as needed based on clinical findings or suspected obesity-related comorbidities and complications	64	82.1	1	1.3	Achieved
26	If BMI and/or waist circumference/waist-to-hip ratio/waist-to-height ratio/neck circumference exceed the recommended target range, individuals must seek guidance from relevant healthcare providers	77	98.7		0.0	Achieved
27	Review with an obesity management specialist is recommended every three to six months, or more frequent assessments if BMI and/or waist circumference/waist-to-hip ratio/waist-to-height ratio/neck circumference remain outside the recommended target	76	97.4		0.0	Achieved
28	Individuals with confirmed excess adiposity are recommended to undergo periodic laboratory assessment every 3–6 months through standard tests	68	87.2	1	1.3	Achieved
29	Individuals who do not achieve clinically significant weight loss (at least 5% of total body weight) even after 3–6 months of a specific therapy must be referred to the appropriate specialist to consider additional treatment options	77	98.7		0.0	Achieved

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Discussion

Section 1 - Obesity the Disease

Obesity is now recognised as a chronic, progressive, relapsing disease driven by multifaceted aetiologies, many times beyond individual control, necessitating structured monitoring and intervention frameworks. These joint management protocols by the Obesity and Metabolic Surgery Society of India (OSSI) and the Endocrine Society of India (ESI) endorse this concept, incorporating the EOSS and Lancet Commission's definitions to inform anthropometric and staging assessments in the high-risk South Asian populations [12].

Obesity arises from a complex interplay of genetic, metabolic, endocrine, pharmacological, environmental, psychological, socioeconomic, and lifestyle factors. Genetic variants (e.g., MC4R mutations) account for 2–5% severe cases (more in consanguineous populations), while epigenetics, gut microbiota dysbiosis, and endocrine disruptors amplify the susceptibility for weight gain [17].

The OSSI-ESI obesity management protocols endorse the Lancet definition: obesity is a condition characterised by excess adiposity, with or without abnormal distribution or function of adipose tissue, and with causes that are multifactorial and still incompletely understood [18]. This shifts the focus from BMI to adiposity-driven pathophysiology, capturing India's thin-fat phenotype where 15–30% individuals

Table 5 Consensus statements about dietary and lifestyle modification and obesity management medications (OMM)

SN	Statement	Agree	%	Disagree	%	Consensus
	Section 5- Dietary and lifestyle modification					
30	Comprehensive dietary and lifestyle modifications form the fundamental cornerstone of all treatment approaches for obesity, playing a crucial role at every stage of management, regardless of the chosen therapeutic modality	78	100.0		0.0	Achieved
31	In the management of obesity, dietary and lifestyle modifications are advocated as the first-line of treatment, with additional interventions warranted based on disease stage and clinical severity	72	92.3	1	1.3	Achieved
	Section 6- Obesity management medication (OMM)					
32	Obesity management medications (OMM) for weight loss are recommended for individuals with BMI > 30 kg/m^2 or > 27 kg/m^2 with associated co-morbidities, alongside nutrition therapy, physical activity, and psychological interventions	73	93.6	2	2.6	Achieved
33	ESI and OSSI recommend that OMMs can be one of the treatment options for individuals who have not achieved clinically significant weight loss despite undergoing 3 months of dietary and lifestyle interventions	71	91.0	1	1.3	Achieved
34	OMMs must be recommended in conjunction with diet and lifestyle modification and not be used as standalone interventions	77	98.7	1	1.3	Achieved
35	OMMs may serve as a therapeutic option for individuals who are unwilling, unable to access, or medically unfit for MBS	76	97.4			Achieved
36	OMMs may be used as adjunct therapy for high-risk individuals or those with severe obesity to optimize weight loss and comorbidities before undergoing MBS. In this context OMMs serve as a bridge to surgery and not as a substitute for it. Adjunct therapy with OMM should be time-bound and should not delay definitive MBS once anaesthesia fitness is achieved or when further delay poses clinical risk to the patient	71	91.0	2	2.6	Achieved
37	OMMs can serve as adjunct therapy following MBS to address suboptimal clinical response or weight recurrence	76	97.4	1	1.3	Achieved
38	A comprehensive medical evaluation by a doctor is essential to assess eligibility, identify any underlying medical conditions, and determine the most appropriate choice of OMM and dosage	77	98.7			Achieved
39	Careful monitoring during the use of OMMs should be done periodically to evaluate for potential side effects	78	100.0			Achieved
40	The use of OMMs in adolescents and elderly individuals requires special consideration and should be in accordance with country-specific approvals and guidelines	76	97.4			Achieved
41	Individuals with the presence of contraindications or allergies to specific OMMs, intolerance or adverse effects to OMMs, pregnancy and breastfeeding or women planning pregnancy within 3 months, as well as uncontrolled substance abuse, must be considered unsuitable for the use of OMMs	75	96.2			Achieved
42	A successful outcome of OMMs is marked by achieving clinically significant weight loss within the first 3–6 months	76	97.4	1	1.3	Achieved
43	Individuals who are not able to achieve clinically significant weight loss after 3–6 months of lifestyle interventions and optimal use of OMMs require additional interventions, such as endoscopic or surgical options for treatment of obesity. OMMs may be used as an adjunct during this period where clinically appropriate, however a prior OMM trial is not mandatory pre-requisite for MBS. Direct MBS without prior OMM therapy is appropriate where clinical urgency, disease severity, anaesthesia fitness, patient preference or shared decision making so indicate	70	89.7	3	3.8	Achieved
44	When obesity-related diseases or complications worsen despite at least 3–6 months of treatment with OMMs, additional interventions, such as endoscopic or surgical options, may be necessary	75	96.2	1	1.3	Achieved

who fall under the normal BMI category harbour high fat mass and potentially greater cardiometabolic risk. In the Indian population, obesity is defined at a lower BMI threshold of > 25 kg/m2 [19]. The addition of centripetal adiposity indices (waist circumference, waist-hip ratio) are recommended to identify normal-weight obesity. Additionally, neck circumference (> 35.5 cm in men and > 31.5 cm in women) serves as a useful adjunct to waist-based measures and has been shown to independently predict metabolic syndrome in Indians [20].

Weight loss targets typically range between 5–15% total body weight (TBW). Weight loss ≥ 5% is associated with improvement in cardio-metabolic parameters, including a reduction in HbA1c by 0.5–1% along with improvement in lipid profile. Greater weight loss ranging from 7–10% leads to improvement in MAFLD in 64–90% of individuals along with improvement in OSA, gastro-oesophageal

Table 6 Consensus statements about metabolic and bariatric surgery and palliative therapy for obesity

SN	Statement	Agree	%	Disagree	%	Consensus
	Section 7- Metabolic and bariatric surgery (MBS)					
45	The OSSI and ESI align with the 2022 guidelines for indications of metabolic/bariatric surgery set by the American Society for Metabolic and Bariatric Surgery (ASMBS) and the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO)	76	97.4	1	1.3	Achieved
46	MBS is recommended for individuals with BMI ≥ 35 kg/m2 regardless of presence, absence, or severity of comorbidities	73	93.6	1	1.3	Achieved
47	MBS is recommended in patients with BMI ≥ 30 kg/m2 and associated co-morbidities	72	92.3	2	2.6	Achieved
48	MBS should be considered as a treatment option in individuals with BMI of 30– 34.9 kg/m2 who do not achieve substantial or durable weight loss or co-morbidity improvement using nonsurgical methods. Additionally, MBS may be offered as a primary intervention without requiring prior non-surgical failure in individuals within this BMI range who have poorly controlled T2DM	74	94.9	4	5.1	Achieved
49	BMI thresholds for obesity differ across populations, with Asian cutoffs set 2.5 points lower (WHO). Access to MBS should not be limited solely by BMI cutoffs. This applies to all BMI-based recommendations in this document, including indications for MBS	75	96.2	3	3.8	Achieved
50	There is no upper age limit criteria for MBS, and patients may be considered as candidates for surgery after careful MDT assessment of co-morbidities and frailty	69	88.5	6	7.7	Achieved
51	Children and adolescents with a BMI > 120% of the 95th percentile and a major co-morbidity, or a BMI > 140% of the 95th percentile, should be considered for MBS only after evaluation by an MDT	68	87.2	4	5.1	Achieved
52	MBS is an effective bridging treatment of severe obesity in patients who need other specialty surgery, such as joint arthroplasty, abdominal wall hernia repair, or organ transplantation, etc	78	100.0			Achieved
	Section 8- Palliative therapy for obesity					
53	A subset of patients with severe obesity may require a palliative care approach when comprehensive therapeutic interventions cannot achieve disease control, shifting the focus to physical, psychological, social, and spiritual/mental well-being	72	92.3	2	2.6	Achieved
54	Palliative care, focusing on symptom management and enhancing comfort, has the potential to significantly improve the overall QoL for these individuals	76	97.4	1	1.3	Achieved
55	OMMs or endoscopic therapy with an MDT approach may be included in palliative management to improve QoL and alleviate obesity-related complications	74	94.9	1	1.3	Achieved

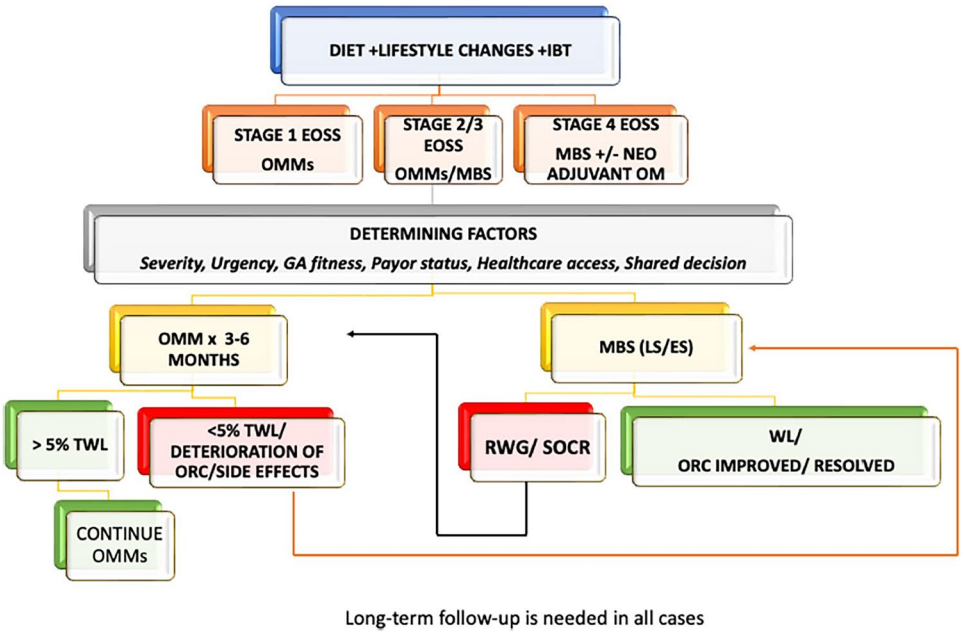

Fig. 2 Treatment algorithm for management of obesity

reflux disease and can lead to remission of T2DM. Further, a 5–15% TBW leads to significant metabolic gains including T2DM reversal in 50–70% individuals. However, in individuals with advanced stage of the disease, > 15% TBW is often needed to achieve meaningful improvements. Individualized and structured goals tailored to the patient are important to prevent weight recurrence, which is commonly seen in 70–80% patients in the absence of structured monitoring and follow up [21].

Weight stigma has a negative impact on treatment adherence, exacerbating psychological distress in individuals with obesity. Hence all treatment strategies must incorporate sensitivity, anti-bias training and person-first language to promote recovery. Comprehensive multi-disciplinary care addresses biopsychosocial needs. This must include coordinated inputs from- endocrinologists, physicians, dietitians, psychologists, metabolic and bariatric surgeons and physiotherapists [22].

Section 2 - Prevention of Obesity

Obesity prevention demands population-wide, multisectoral strategies integrated across all levels of health care to check India's rapidly rising obesity burden, affecting 135 million adults characterized by the thin-fat phenotypes. The Endocrine Society of India (ESI) guidelines advocate primordial interventions through universal lifestyle behaviours, regardless of weight status, to mitigate cardiometabolic risk and disease progression.

Population-based counselling must be embedded in comprehensive primary health care for all individuals, promoting balanced diets, ≥ 150 min/week physical activity (PA), adequate sleep, and mental health support. This frontline approach, using 5As (assess, advise, agree, assist, arrange), boosts adherence. The use of motivational interviewing can yield up to 2–5 kg loss and foster sustained behavioural change across the diverse Indian population.

Obesity prevention must be integrated in national non-communicable disease (NCD) programs alongside cardiovascular disease (CVD), diabetes, cancers, and chronic respiratory diseases (CRDs). WHO Acceleration Plan endorses this, embedding physical activity (PA) in schools, food reformulation, and labelling. LMICs that adopt these strategies have shown 5–10% drop in prevalence of obesity. India's National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) offers flexi-pool funding for obesity modules. It remains underutilized and its full integration can potentially reduce the urban increase (20–80%) to half by 2030 [23].

Regulations mandating clear front-of-pack labelling (e.g., warning icons) and curbing unhealthy food/beverage marketing to children/adults are essential. Indian trials show warning labels boost high-sugar/sodium identification by 60%. This helps to slash purchase intent. Traffic light labelling increases efficacy by about 55%. Restrictions on advertisements targeting children have been shown to reduce consumption by 10–20%. This is an important consideration amid rising availability of processed food in India [24].

Schools must foster active lifestyles and healthy eating via infrastructure (playgrounds), curriculum with increased emphasis on nutrition, physical activity and improved accessibility to healthy mid-day meals. Meta-analyses confirm when these interventions are combined, they reduce the BMI z-scores by 0.1–0.2 along with a 5% weight reduction [25].

Section 3 - General Protocols for Selecting a Treatment Modality

A multi-disciplinary management strategy recognizes the complex nature of obesity and helps to tailor the management as per individual needs. It must cater to both, the physical and psychological aspects of obesity [26].

In the management of obesity, a flexible and dynamic approach is needed where different treatment strategies may overlap, and various combinations can be adapted based on the clinical needs at any stage. It includes diet modification, physical exercise, behaviour modifications, psychological support, weight loss medications and MBS. It is high time to recognize that obesity management needs to move beyond the traditional pyramid-based framework. It is in fact an intricate web which is influenced by multiple factors including individual needs, local availability, accessibility, affordability, systemic support and government intervention. It has also been proven that obesity treatments do not work in isolation and no single approach can effectively help all patients. A multicomponent combined treatment approach is the way forward [27–30].

As we recognize the complex nature of obesity, its management is gradually becoming more nuanced. Every individual seeking treatment merits the classic question by Paul GL—"What treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances"? While aiming for precision healthcare, it is necessary to tailor the evidence-based treatment to the individual needs of the patient and offer what fits them the best [31].

All experts agreed that the choice of treatment at every stage must be made by the shared decision making (SDM) approach. SDM entails explaining all treatment possibilities to the patient. The health care practitioner may then recommend a particular treatment or a combination of treatments based on all the collated information and work with the patient to reach to a final decision. Most importantly,

patient's choice of treatment must be discussed at length and they must be guided about the pros and cons of the chosen procedure to help them to make an informed choice. The final discussion between the patient and the team must intend to help everyone to take an informed and value-based decision in the best interest of the patient [32]. It is also crucial for the HCP to understand the patient's health literacy and numeracy so that they can be guided appropriately to make an informed choice [33].

Almost all experts agreed that when different modalities yield similar outcomes, priority should be given to the most effective, sustainable and affordable approach that enhances overall QoL while preserving organ function. With increasing availability of therapeutic options, multiple factors can have an impact on the proposed line of management. In line with the principle of beneficence the health care practitioner must consider the best possible course of treatment after considering the risks and benefits. Wherever possible organ-preserving treatments must be preferred over radical approaches. However, this may not be feasible in all cases, especially in individuals with severe obesity. The best outcomes may need a balance between effective weight control and preserving organ functionality.

Section 4 - Monitoring and Follow up of Individuals with Obesity

Effective monitoring and follow up forms the cornerstone of obesity management, ensuring sustained progress and timely intervention. The Endocrine Society of India (ESI) Clinical Practice Guidelines provide a structured framework tailored to the Indian context, emphasizing anthropometric self-tracking, laboratory evaluations, and specialist oversight to mitigate cardiometabolic risks [21].

The guidelines mandate self-weight monitoring at least on a monthly basis or more frequently based on patient preference or clinical judgment. Frequent self-assessment, validated against professional measures, reduces false negatives in risk stratification. Self-measured values often underestimate high-risk abdominal obesity by 18–57% in overweight cohorts [34].

Studies affirm that consistent self-monitoring enhances outcomes; for instance, higher frequency links to greater weight loss (up to 5% more) and HbA1C improvements in patients with obesity and T2DM during intensive programs [35].

The obesity management protocol proposes initial evaluation with standard tests: complete blood count (CBC), glycaemic parameters (fasting/postprandial glucose, HbA1c), lipid profile, renal (creatinine), and liver function tests (e.g., SGPT), with add-ons for suspected comorbidities or nutritional deficiencies as per clinical discretion. Comprehensive evaluation panels are essential in the Indian settings as patients with a thin fat phenotype may have multiple comorbidities at relatively lower body mass index [36].

Individuals exceeding recommended targets must promptly consult the relevant healthcare providers. The Edmonton Obesity Staging System (EOSS) integrates these with comorbidities to enable nuanced triage. In practice, primary care serves as the first point of detection identifying deviations and escalating to endocrinologists and or metabolic and bariatric surgeons for multidisciplinary care. This reduces overdiagnosis while ensuring identification of visceral risks [37].

Obesity specialists should review the patients every 3–6 months and intensify treatment if metrics persist outside targets. Quarterly checks align with chronic disease models, mirroring diabetes protocols where frequent monitoring yields 5–15% total body weight loss and comorbidity reversal.

Failure to achieve $\geq$5% loss after 3–6 months of therapy must trigger specialist referral for advanced options like GLP-1 agonists or MBS. This threshold is clinically meaningful. ESI goals prioritize 5–15% for improvement in T2DM/MAFLD, with non-responders needing reassessment.

Clinical trials have shown that a sustained 5% total body weight loss is maintained in 76% of the patients, however, Indian phenotypes may need escalation of therapy. The thin-fat phenotype responds slower to lifestyle modification alone. Timely referral ensures SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) targets, averting frustration in a population where obesity has tripled since 2005 [38].

Section 5 - Dietary and Lifestyle Modification

Lifestyle modification must be recommended as the first line of management for all patients with obesity, and it should remain a fundamental component of subsequent additional therapies. The evidence from Look Ahead trial and Diabetes Prevention Program suggests that face to face counselling for over 14 sessions in 6 months can lead to clinically significant weight loss up to 5% of total body weight [39, 40]. International clinical practice guidelines support a personalized approach to nutrition and suggest that there is no single "most effective diet" for management of obesity [41].

Several guidelines addressing lifestyle management in patients with obesity in the Indian context have already been published by this group [21, 37, 42]. When it comes to OMMs and MBS, diet and lifestyle modification must be incorporated into the treatment plan to reduce sarcopenia and optimize weight loss outcomes and other health metrics

like physical fitness and strength, body composition and functional capacity [30].

Section 6 - Obesity Management Medications (OMMs)

Obesity management medications (OMMs) represent a critical tier in stepped-care approaches, bridging lifestyle interventions and surgical options for sustained weight reduction and comorbidity mitigation. Currently the approved OMMs in India are tirzepatide, semaglutide, liraglutide and orlistat. The experts agreed to the use of OMMS for South Asian phenotypes for BMI > 30 kg/m2 or > 27 kg/m2 with complications, integrated with nutrition, activity, and behavioural support.

ESI and OSSI endorse OMMs after 3 months of intensive diet-exercise yielding < 5% loss. This timeline allows behavioural optimization before escalation. This is in line with the 2024 IFSO consensus that recommends prior weight loss attempts as a pre-requisite before people with moderate to severe obesity are offered treatment with OMMs [30]. Trials confirm semaglutide or tirzepatide yield 15–20% loss post-lifestyle plateau, versus 2–5% lifestyle alone [42].

This consensus recommends that OMMs must pair with calorie-restricted diets, ≥ 150 min/week aerobic exercise, and psychological support, never standalone. For BMI 23–25 kg/m2 with high waist > 90 cm in males and more than 80 cm in female and with metabolic syndrome, OMMs merit individualized consideration. Thin-fat South Asians face 2–3 times increased risk of type 2 diabetes mellitus, metabolic syndrome and cardio-vascular risk despite normal BMI. GLP-1 receptor agonists and dual GIP/GLP-1 agonists, as evaluated in STEP and SURMOUNT phase 3 programmes, offer clinically meaningful weight loss and metabolic benefits but remain limited by cost and access in many Indian settings [8, 9].

Although not formally included as a voted consensus recommendation, emerging evidence suggests that GLP-1 receptor agonists may have a future preventive role in selected high-risk individuals with central adiposity and metabolic dysfunction. However, further prospective studies are required before such approaches can be routinely recommended in clinical practice.

OMMs also serve those unwilling, unfit, or unable to access MBS [42]. As adjuncts, OMMs optimize severe obesity (BMI ≥ 40 kg/m2) pre-MBS, enhancing surgical candidacy via 5–10% total body weight loss and can potentially reduce complications by 20–30%. Following MBS, OMMs can be used when additional weight loss is needed and to counter suboptimal response or weight recurrence (20–30% by 5 years) via GLP-1 augmentation of attenuated post-op satiety hormones. Studies show that use of OMMs leads to 10–15% additional loss, stabilizing PYY/GLP-1 deficits [30, 43].

Physician-led evaluation is important to assess eligibility, comorbidities, OMM selection/dosing and contraindications. History, lab evaluation (CBC, lipids, HbA1c, LFTs, TFTs), ECG, and Edmonton staging guide the choice of type of OMM.

Periodic reviews which are monthly in the initial period followed by regular quarterly checks my the multi-disciplinary team help to track side effects like gastro-intestinal intolerance (20–40% GLP-1 s), hypertension (sympathomimetics), or risk of pancreatitis. Laboratory evaluation every 3–6 months is recommended to assess efficacy and detect complications. Treatment should be reconsidered in the presence of significant adverse events (> 10%) or weight loss plateau.

OMMs are contraindicated in patients with allergies to the medications, pregnant women, women who are breast feeding and those who are planning a pregnancy within 3 months. They are also contra-indicated in patients with uncontrolled substance abuse or active psychosis. Intolerance (e.g., persistent nausea or vomiting) or adverse events (e.g., cholelithiasis, pancreatitis) warrant discontinuation. Success hinges on ≥ 5% loss by 3–6 months. Sub-optimal response 3–6 months post diet and lifestyle modification combined with OMMs may need further intervention in the form of additional endoscopic therapies or MBS. This stepwise therapeutic model prevents stagnation, as 40% of patients do not achieve favourable outcomes with OMMS alone [21].

Section 7 - Metabolic and Bariatric Surgery (MBS)

OSSI and ESI align with the 2022 guidelines for indications of MBS set by the American Society for Metabolic and Bariatric Surgery (ASMBS) and the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) [44, 45]. These guidelines represent a major revision to the NIH guidelines for bariatric surgery that were formulated more than 30 years ago, based on the scientific knowledge available at that time [46]. In the last three decades, scientific advancement has led to a greater understanding of obesity and expanded its range of treatment options. When it comes to MBS, multiple studies have proven its long-term effectiveness, durability and safety as a treatment option for obesity and related diseases [47–50].

The choice of bariatric procedure should be individualized based on obesity severity, metabolic profile, eating behaviour, gastroesophageal reflux disease (GERD), nutritional risk, and long-term follow-up feasibility. Sleeve gastrectomy (SG) remains the most commonly performed procedure because of its technical simplicity and favourable

safety profile; however, SG may worsen or precipitate GERD in susceptible individuals. Roux-en-Y gastric bypass (RYGB) offers superior reflux control and robust metabolic outcomes but requires closer nutritional surveillance. One anastomosis gastric bypass (OAGB) has demonstrated excellent weight loss and diabetes remission outcomes in Indian and Asian cohorts, though concerns regarding bile reflux and nutritional deficiencies remain relevant. More hypo- absorptive procedures such as SADI-S may provide greater total weight loss in selected patients with severe obesity but should be undertaken cautiously because of increased risks of protein-calorie malnutrition and micronutrient deficiencies. This risk is particularly pronounced when common channel or total alimentary limb lengths are kept excessively short, underscoring the need for careful tailoring of limb lengths and strict nutritional follow-up in Indian settings. In Indian practice, SG is often preferred in younger patients without severe reflux or advanced metabolic disease, whereas RYGB and OAGB are favoured when stronger metabolic control or reflux mitigation is required, and SADI-S is reserved for selected patients with severe or recurrent obesity due to its higher malabsorptive potential. Revisional bariatric procedures may be required in patients with weight recurrence, inadequate metabolic response, anatomical complications, or severe reflux following primary surgery, most commonly involving conversion of SG to RYGB or OAGB, or adjustment of limb configuration in malabsorption-related complications. However, long-term comparative data across different bariatric procedures in Indian populations remain limited, and further prospective studies are needed to better define procedure selection, nutritional outcomes, revisional surgery pathways, and durability of metabolic remission.

Despite its limitations, BMI thresholds continue to be used by leading organizations like WHO, Centers for Disease Control (CDC), National Institutes of Health (NIH), and the ASMBS along with others across the world as one of the main criteria for classifying obesity and to determine the eligibility for MBS [51–53]. BMI is easy to understand, simple to measure, inexpensive, correlates well with body fat and can predict mortality [54, 55]. In the revised guidelines the BMI thresholds for MBS were lowered from $\geq$40 kg/m^2 to $\geq$35 kg/m^2, regardless of presence, absence, or severity of co-morbidities. The BMI threshold for MBS for patients with metabolic disease were lowered from a BMI of $\geq$35 kg/m^2 to $\geq$30 kg/m^2. This framework was further expanded by the 2024 IFSO consensus which emphasized that suitable individuals with a BMI 30- 35 kg/m^2 with no obesity related complications could also be considered for MBS if they did not achieve substantial and durable weight loss with reasonable non-surgical methods [30].

In the Asian population, a progressive increase in the incidence of T2DM has been observed with rising BMI, beginning at $\geq$25.1 kg/m2 in men and $\geq$23.4 kg/m2 in women [51]. Hence while globally, a BMI of 25–29.9 kg/m^2 is classified as overweight and a BMI $\geq$30 kg/m^2 or higher is considered obesity in adults, as per the WHO criteria, for Asians, the thresholds are $\geq$23 kg/m2 for overweight and $\geq$25 kg/m2 for obesity [52]. Correspondingly the BMI threshold for MBS is also lower and it can be recommended for BMI $\geq$27.5 kg/m^2 in association with metabolic disease.

MBS is considered safe in individuals over 65 years old. It can lead to a sustained reduction in medication use and can help to improve overall quality of life in older individuals with class II obesity or higher. It is also considered suitable in individuals with class I obesity with T2DM [30]. The eligibility for MBS depends on careful MDT assessment of co-morbidities and frailty.

In a systematic review of 26 articles with more than 8000 elderly patients, MBS outcomes were similar to those seen in younger patients. Though sleeve gastrectomy is generally the procedure of choice in this patient population, this was independent of the type of procedure performed [56, 57]. The 2024 IFSO consensus recommends to avoid hypo-absorptive MBS procedures in patients over 65 years as they are associated with a greater risk of malnutrition and subsequent increase in frailty [30]. Presently, there is not much evidence for an age limit to qualify for MBS, however, frailty is considered to be associated with higher rates of post-operative complications and greater morbidity [58].

In case of children and adolescents those with a BMI > 120% of the 95th percentile and a major co-morbidity, or a BMI > 140% of the 95th percentile, should be considered for MBS, but only after evaluation by an MDT. Additionally, as per the 2024 IFSO consensus, MBS can be considered as a reasonable treatment option for paediatric individuals with class 1 obesity and T2DM. MBS can also be considered for syndromic obesity if the eligibility criteria applied to the general paediatric population are met. Sleeve gastrectomy is preferable to RYGB and hypo-absorptive procedures must not be undertaken in individuals less than 18 years of age [30].

Childhood obesity is a growing concern in India. It is estimated that by the year 2030, India will contribute 11% of its global burden [59]. Management of childhood and adolescent obesity is done in a step-wise manner depending on the severity and complications of obesity. MBS is reserved only for children and adolescents who show poor response, have severe obesity or significant co-morbidities [60]. Bhandari M. et al. have reported the outcomes of one anastomosis gastric bypass (OAGB) in a series of 20 Indian patients (median age 15 years; 55% males) with a mean preoperative BMI of 40.9 $\pm$ 8.2 kg/m2. The mean postoperative percent

excess body weight loss in their series was 75% and 80% at 1 and 2 years, respectively [61]. In another case report from India, a 2-years and 3 months-old girl child, with a BMI of 41.6 kg/m2 along with immobility, excessive eating and OSA underwent laparoscopic sleeve gastrectomy (SG). Two years postoperatively, her BMI reduced to 25.9 kg/m2, with restoration of mobility, normal developmental milestones, and age-appropriate functioning [62]. Even though now there is evidence to suggest that MBS is safe and does not have an adverse impact on linear growth and pubertal development, it is imperative to consider it only after an MDT assessment [63–65].

All experts agreed that MBS is an effective bridging treatment of severe obesity in patients who need other specialty surgery, such as joint arthroplasty, abdominal wall hernia repair, or organ transplantation [66–69]. These recommendations for older adults and paediatric patients synthesize panel discussion and external guideline evidence and should be interpreted as expert-opinion guidance rather than additional formal consensus statements.

Section 8 - Palliative Therapy for Obesity

The concept of palliative care is underutilized and insufficiently explored in the context of addressing end-stage obesity, despite its well-established benefits in enhancing the QoL for individuals confronting various other life-limiting conditions [70]. The term "end stage disease" is widely used across disease spectrums and refers to the final phase of a chronic progressive illness that is irreversible, incurable and is expected to result in mortality (eg: end stage kidney disease, end stage liver disease, end stage heart disease or end stage cancer). In such cases the medical focus shifts to palliative care. Even though obesity has been defined as a chronic, progressive and relapsing disease that affects multiple organ systems in the human body, the concept of "end stage obesity" is not yet universally established and represents a gap in the current classification systems. There are several reasons contributing to this oversight, including a lack of awareness, societal stigma, and misconceptions surrounding obesity. These lead to hesitancy in considering palliative care as a viable option for managing end-stage obesity.

Palliative care, focusing on symptom management and enhancing comfort, has the potential to significantly improve the overall QoL for these individuals. End-stage obesity presents a multitude of challenges, encompassing debilitating physical symptoms like chronic pain, limited mobility, and respiratory issues, along with profound psycho-social complexities. Beyond impacting the individual, end-stage obesity also profoundly affects their family and caregivers. Palliative care offers a comprehensive support system for patients and their families, providing crucial guidance, counselling, and respite care to alleviate the emotional and practical burdens they often endure.

The experts also agreed that OMMs or endoscopic therapy [71, 72] with an MDT approach may be included in palliative management to improve QoL and alleviate obesity-related complications. With a focus on symptom management and enhancing comfort, palliative care holds the potential to notably improve the overall QoL for individuals experiencing end-stage obesity. By enabling open discussions concerning care goals, advance directives, living will and end-of-life preferences, palliative care empowers patients to make informed decisions aligned with their personal values.

The concept of palliative care for end-stage obesity is relatively novel and demands further exploration, especially considering the escalating prevalence of obesity. Notably, palliative care for end-stage obesity differs substantially from that for other terminal illnesses due to the unique physical, medical, and psychological needs of these patients. Hence, exploring and adapting palliative care specifically for end-stage obesity is essential in providing tailored and effective support and completion of the treatment matrix in this challenging context.

These concepts around 'end-stage obesity' and tailored palliative care pathways represent interpretation and future directions based on current evidence and expert opinion, and were not part of the formally voted consensus statements.

Limitations of this Consensus Process

In this study, formal evidence grading mechanisms (e.g., GRADE, Oxford levels) were not used. The Delphi approach by itself constitutes level V evidence and essentially involves iterative expert assessment of the available evidence. This approach is commonly used in areas where there is limited or heterogeneous high-quality evidence and clinical expertise is required to contextualize recommendations. This is especially true for the policy-related statements, the palliative care section, and the recommendations on bariatric surgery in elderly patients and in children / adolescents where high-quality evidence remains limited.

This consensus included experts from OSSI and ESI. The panel did not include public health experts, patient representatives, primary care physicians, palliative experts or health economists. Though this allowed for a specialized, focused approach, inclusion of a broader range of stakeholders could have further strengthened the recommendations by incorporating patient-centred, population-level, and health economic considerations. As with all clinical guidelines, periodic updates and revisions are essential; it will be our effort that in any future iteration we adopt a more

multidisciplinary and inclusive approach with emergence of newer evidence and accumulation of real-world experience.

Future iterations of these recommendations should also incorporate implementation data, patient-reported outcomes, cost-effectiveness analyses, and broader multidisciplinary stakeholder participation to improve applicability across diverse healthcare settings.

Conclusion

This joint OSSI-ESI consensus is the first collaborative effort to provide a unified, evidence-based framework for the prevention and management of obesity across the disease spectrum in India. By bringing together experts across specialties, the protocols emphasize patient-centred, multidisciplinary care that integrates prevention, lifestyle therapy, obesity management medications, metabolic and bariatric surgery, and palliative approaches. The high level of agreement across all 55 statements reflects strong expert alignment on individualized treatment selection, shared decision-making, regular monitoring and stigma-free care, while explicitly incorporating India-specific BMI thresholds, anthropometric cut-offs and resource constraints.

Given that no single modality adequately addresses obesity for all patients, management must remain flexible and dynamic, with overlapping treatment strategies adapted to clinical severity, comorbidities and local feasibility. The accompanying treatment algorithm, reproduces here and published separately in *Obesity Surgery*, operationalizes this multicomponent approach by outlining escalation pathways and decision-making frameworks for Indian practice.

These recommendations are intended to guide clinicians and inform policymakers, including integration of obesity care into national non-communicable disease strategies, but they are not legally binding and must always be tailored to individual patients at the clinician's discretion. Future work should focus on implementation, capacity building, and periodic updates as new evidence and real-world data accumulate, with the overarching goal of improving outcomes and quality of life for people living with obesity in India.

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Declarations

Competing interest The authors declare no competing interests.

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