

Bibliography*: Surgical treatments for morbid obesity

*Selected, quality filtered, not subject to external review

Issue: Clinical managers at the Minneapolis VA Medical Center in VISN 23 are reviewing the evidence on bariatric surgery for obesity to develop uniform Network-wide processes. The VA Office of Patient Care Services requested VATAP to provide a non-annotated bibliography for their use, including any systematic reviews done in/by other countries, as per the International Network of Agencies for Health Technology Assessment (INAHTA) HTA database.

As a note, this is not an issue yet for a national VHA determination. Since Medicare covers this surgery, it would be difficult for VHA not to provide a service already available in Medicare. Reference to the Medicare Coverage manual (<http://www.cms.hhs.gov/coverage/>) indicates a national coverage determination was made as long ago as 1979. With the recent Medicare determination that obesity is a disease, *per se*, it is likely that Medicare coverage will become more expansive than restrictive.

Methods: VATAP queried INAHTA via electronic mail for relevant completed or ongoing technology assessments. In addition, VATAP searched the HTA database (www.inahta.org) using search terms for obesity, surgery, and bariatric and HTA reports (completed) and HTA projects (ongoing).

These queries resulted in several completed and ongoing health technology assessments on treatments for obesity from INAHTA members (see Tables 1 and 2). Of those with full text or summaries in English, reviews by NCCHTA (UK) and SBU (Sweden) represent the most recent systematic reviews that addressed a comprehensive array of surgical interventions for obesity. The ASERNIP-S (Australia) review was narrower in scope and considered more liberal inclusion criteria. SMM (Norway) produced a report (in Norwegian) based on previous HTA reports with an updated search of primary studies, and they provided their reference list.

VATAP supplemented these reviews with an updated search of primary studies published since 2001 comparing surgical interventions for morbid obesity. In January 2003, VATAP searched the Cochrane Library (2002, Issue 4), MEDLINE, EMBASE, and Current Contents, using search terms for controlled studies of bariatric surgery or surgical treatment of morbid obesity. In all, the search identified 108 citations. From the search and the list from SMM (Norway), VATAP selected primary randomized and/or controlled clinical trials published in English and high quality reviews with explicit methods that were relevant to the topic. It should be noted that VATAP retrieved a Cochrane review protocol (Colquitt J, Clegg A, Sidhu M, Royle P. Surgery for morbid obesity. In: The Cochrane Library, Issue 4, 2002. Oxford: Update Software), which corresponds to the NCCHTA (UK) review (2002).

Results:

- ?? A bibliography of: 1) the three most recent systematic reviews from INAHTA members published in 2002 with full text or summaries in English, and 2) primary studies of randomized and/or controlled clinical trials, and other high quality reviews retrieved in the search, published since 2001.
- ?? All responses from INAHTA agencies on completed or ongoing assessments of treatments for morbid obesity (Tables 1 and 2).

Systematic reviews (published in 2002, full text or summary in English)—summarized in attached table

Clegg AJ, Colquitt J, Sidhu MK, Royle P, Loveman E, Walker A. The clinical effectiveness and cost-effectiveness of surgery for people with morbid obesity : a systematic review and economic evaluation. *Health technology assessment Winchester, England*, 2002; 6: 1-153. <http://www.ncchta.org/project.asp?PjtId=1245>

SBU. (The Swedish Council on Technology Assessment in Health Care). Obesity--Problems and Interventions. June, 2002. <http://www.sbu.se/admin/Docs/PUB/1240/obsesityslut.pdf>

Chapman A, Game P, O'Brien P, et al. Systematic Review of Laparoscopic adjustable gastric banding for the treatment of obesity: Update and Re-appraisal. ASERNIP-S Report No. 31, Second Edition. Adelaide, South Australia: ASERNIP-S, June 2002. http://www.racs.edu.au/asernips/Gastric_Banding_Update0602.pdf

Primary studies and reviews published since 2001 in English

Abdel-Galil E, Abbas Sabry A. Laparoscopic Roux-en-Y gastric bypass - Evaluation of three different techniques. *Obesity Surgery*, 2002; 12: 639-642.

Arcila D, Velazquez D, Gamino R, Sierra M, Salin-Pascual R, Gonzalez-Barranco J, et al. Quality of life in bariatric surgery. *Obesity Surgery*, 2002; 12: 661-665.

Choban PS, Flancbaum L. The effect of Roux limb lengths on outcome after Roux-en-Y gastric bypass: A prospective, randomized clinical trial. *Obesity Surgery*, 2002; 12: 540-545.

Doherty C, Maher James W, Heitshusen Debra S, et al. Long-term data indicate a progressive loss in efficacy of adjustable silicone gastric banding for the surgical treatment of morbid obesity. *Surgery*, 2002; 132: 724-727; discussion 727-728.

Gentileschi P, Kini S, Catarci M, Gagner M. Evidence - based medicine: open and laparoscopic bariatric surgery. *Surgical Endoscopy and Other Interventional Techniques*, 2002; 16: 736-744. (review)

Noel PH, Pugh JA. Management of overweight and obese adults. *British Medical Journal*, 2002; 325: 757-761. (review)

Thorne A, Lonnqvist F, Apelman J, Hellers G, Arner P. A pilot study of long-term effects of a novel obesity treatment: omentectomy in connection with adjustable gastric banding. *International Journal of Obesity and Related Metabolic Disorders*, 2002; 26: 193-199.

Weiss HG, Nehoda H, Labeck B, Peer-Kuehberger R, Oberwalder M., Aigner F, et al. Adjustable gastric and esophagogastric banding: A randomized clinical trial. *Obesity Surgery*, 2002; 12: 573-578.

Table 1. Responses from INAHTA members on Completed Health Technology Assessments of Treatments for Morbid Obesity (as of January 15, 2003)

(listed in order of publication date)

Organization	Topic/Citation	Methods	Results
NCCHTA (UK)	Clegg AJ, Colquitt J, Sidhu MK, et al. The clinical effectiveness and cost-effectiveness of surgery for people with morbid obesity: a systematic review and economic evaluation. Health Technol Assess 2002;6(12) http://www.ncchta.org/project.asp?PjId=1245 (English)	Qualitative synthesis of 17 RCTs and one non-randomized clinical trial published in various databases through November 2001	In patients with BMI>40 or with BMI>35 with serious co-morbid disease in whom previous non-surgical interventions have failed: ?? Surgery was more effective (greater loss of weight) than conventional treatment in achieving long-term weight loss (at eight years) and improving QOL and co-morbidities ?? Gastric bypass surgery was associated with greater weight loss and/or improvements in co-morbidities and complications than either gastroplasty or jejunoileal bypass ?? Laparoscopic placement produced fewer complications than open procedures ?? Good quality research is needed to address the long-term consequences of surgery and its influence on the QOL of patients as well as economic evaluations comparing different surgical interventions.
NICE (UK)	Recommendations to the NHS on the use of gastric surgery for the treatment of morbid obesity http://www.nice.org.uk/cat.asp?c=34789	Based on NCCHTA systematic review above	NICE has recommended that surgery to aid weight loss should be available as a treatment option for people with morbid obesity provided that they meet all of the following criteria: ?? They are aged 18 years or over ?? They have been receiving treatment in a specialist obesity clinic at a hospital ?? They have tried all other appropriate non-surgical treatments to lose weight but have not been able to maintain weight loss ?? There are no specific medical or psychological reasons contraindicating surgery ?? They are generally fit enough to have an anesthetic and surgery ?? They should understand that they will need to be followed-up by a doctor and other healthcare professionals such as dieticians or psychologists over the long-term. People with morbid obesity should have surgery to aid weight loss only after they have had a full assessment by the specialist and other healthcare professionals involved in their care. In addition, counselling and support should be arranged for people before and after the surgery.

Bibliography*: Surgical treatments for morbid obesity

Organization	Topic/Citation	Methods	Results
SBU (Sweden)	Obesity—Problems and Interventions. A systematic review June 2002 (full text in Swedish with English translation available in Spring 2003; English summary available) http://www.sbu.se/admin/Docs/PUB/1240/obesityslut.pdf	Qualitative synthesis of results from 17 RCT, 15 non-randomized comparative studies, and one nonrandomized, comparative, controlled matched study from the Swedish Obese Subjects study; published between 1966 and 2001	<p>?? There is "strong evidence" (=more than one RCT) that Gastric Bypass is more effective on weight reduction than other surgical procedures</p> <p>?? Surgery is superior to any other treatment for morbid obesity (BMI>40)</p> <p>?? There is evidence that up to 5 years after the operation the weight loss is 50-75% of the overweight before operation (equivalent to 30-40 kg for most of these people).</p> <p>?? There is evidence that weight reduction 10 years after operation is more than 20 kg (about 16%)</p> <p>?? There is evidence that quality of life improves significantly among these patients (we have a separate chapter on all studies of quality of life in this field).</p> <p>?? There is also a chapter on prevention and one on alternative/complementary medicine including a number of Chinese studies. All together they identified 500 studies of alternative medicine and obesity treatment. There is no scientific evidence that any of the alternative treatments have any effect.</p>
ASERNIP-S (Australia)	Chapman A, Game P, O'Brien P, et al. Systematic Review of Laparoscopic adjustable gastric banding for the treatment of obesity: Update and Re-appraisal. ASERNIP-S Report No. 31, Second Edition. Adelaide, South Australia: ASERNIP-S, June 2002. http://www.racs.edu.au/asernips/Gastric_Banding_Update0602.pdf (update of 2000 report)	Qualitative synthesis of 6 studies published in various databases through Summer 2001 comparing LAGB to vertical banded gastroplasty and/or gastric bypass	<p>The level of evidence for follow up data up to 4 years is from quasi-randomized controlled trials or from non-randomized comparative studies without significant flaws. For people with BMI>35:</p> <p>?? LAGB is safer than vertical banded gastroplasty or gastric bypass, in terms of short term mortality rates</p> <p>?? LAGB and its comparator procedures are effective at least up to 4 years. Up to 2 years gastric bypass results in more weight loss than LAGB; from 2-4 years there is insufficient evidence to conclude that gastric bypass is more effective than LAGB</p> <p>?? Investigators recommend further evaluation by RCT to define the long term efficacy of LABG relative to comparator procedures.</p>
SMM (Norway)	Produced a report in 2002	Review based on previous HTA reports with an updated search for primary studies	<p>In Norwegian http://www.oslo.sintef.no/smm/</p> <p>Supplied VATAP with reference list</p>
AHFMR (Alberta, Canada)	Schneider WL. Laparoscopic adjustable gastric banding for clinically severe (morbid) obesity, December 2000. http://www.ahfmr.ab.ca/hta/hta-publications/briefs/tb7lagd.pdf	Qualitative synthesis of 9 studies (one RCT, 2 prospective comparative studies, 6 clinical series) comparing LAGB to other surgical procedures published in various databases from 1993 through 2000	<p>?? Based on fair to poor levels of evidence with unclear inclusion criteria, the comparative safety and efficacy of LAGB for treatment of morbid obesity cannot be firmly established.</p> <p>?? The role of LAGB should be determined by well designed studies with > 5 years outcomes of patients with the procedure</p>
ANAES (France)	Produced a report in 2000. It is available on their web site (www.anaes.fr).		In French
AETMIS (Quebec, Canada) (formerly CETS)	The surgical treatment of morbid obesity – a systematic review.1998 http://www.aetmis.gouv.qc.ca/fr/publications/scientifiques/aetmis_x/1998_01_res_fr.pdf		In French

Bibliography*: Surgical treatments for morbid obesity

Organization	Topic/Citation	Methods	Results
DACEHTA (Denmark)	Richelsen B, Almdal T., Burcharth F. eds. Er der indikation for kirurgisk behandling af ekstrem overvægt i Danmark? 2001; 163 (suppl 7). Svendsen OL., Heitmann BL., Mikkelsen KL. eds. Fedme i Danmark 2001; 163 (suppl 8).	Reviews	in Danish Contact info: Dr. Ole Lander Svendsen Bispebjerg Hospital Centre for Clinical and Basic Research Ballerup Byvej 222 2750 Ballerup ols@dadlnet.dk

BMI, body mass index

See also:

Allgood P. Surgical interventions for morbid obesity. In Foxcroft DR, Muthu V (Eds.) STEER: Succinct and Timely Evaluated Evidence Reviews 2001; 1(18). Wessex Institute for Health Research & Development, University of Southampton. <http://www.signpoststeer.org>. Based largely on a review by NHS Centre for Reviews and Dissemination (1997).

Bibliography*: Surgical treatments for morbid obesity

Table 2. Ongoing INAHTA Assessments of Treatments for Morbid Obesity

Source: HTA database at www.inahta.org and INAHTA listserv

Organization	Topic
CCOHTA (Canada)	CCOHTA is planning to do a "pre-assessment" (a summary of the available HTA evidence from other agencies) as they get regular requests for information on this procedure.
MSAC (Australia)	MSAC is currently reviewing gastric banding for morbid obesity. The review is expected to be finalised at the Committee's March or May 2003 meeting, with the Federal Minister for Health and Ageing then to make a decision on the Committee's funding recommendation.
CMS (US)	CMS Coverage and Analysis Group is starting to look at treatments for obesity. The project is not driven by a request for a national coverage determination so the timeline is more elastic than usual. The review will include surgical procedures. They are commissioning a TA through AHRQ for parts of the review while we plan to do other portions in-house.
AHRQ (US)	They are beginning a TA on non-drug treatments for obesity, which will probably take about 6 months.
OSTEBA (Spain)	Last year they did a quick review on Bariatric Surgery and the results are available (in Spanish). PDF on file with VATAP. During 2002 they developed a new project on this topic, with systematic review and a survey of practice in Spain. The report will be available by March.

Bibliography*: Surgical treatments for morbid obesity

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