Supplemental Online Content

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eFigure 1. Flowchart

eFigure 2. Use of lipid-lowering drugs and anxiolytics. Red representing surgery group, blue representing intensive lifestyle modification group

eFigure 3. Diabetes medication before and after treatment for patients with diabetes drug treatment before intervention

eFigure 4. Alcohol use disorders after intervention for patients receiving sleeve gastrectomy or intensive lifestyle treatment

eTable 1. Outcome definitions

eTable 2. Description and definitions of propensity score variables

eTable 3. Surgical complications within 30 days following sleeve gastrectomy

This supplemental material has been provided by the authors to give readers additional information about their work.
**eFigure 1** Flowchart (sequential exclusions)
**eFigure 2** Use of lipid-lowering drugs and anxiolytics. Red representing surgery group, blue representing intensive lifestyle modification group.
eFigure 3 Diabetes medication before and after treatment for patients with diabetes drug treatment before intervention
eFigure 4 Alcohol use disorders after intervention for patients receiving sleeve gastrectomy or intensive lifestyle treatment showing higher incidence of alcohol use disorders among patients receiving sleeve gastrectomy (69 vs 30 per 10,000 person-years; HR 2.24, 95%CI 1.45-3.48; P<0.001)
# eTable 1 Outcome definitions

| Outcomes                          | Data Source            | ICD/ATC Codes                                      | Comment                      |
|-----------------------------------|------------------------|---------------------------------------------------|------------------------------|
| 1y weight & BMI loss              | SOReg & Itrim          | Not applicable                                    |                              |
| Diabetes drug use                 | Prescribed Drug Register | A10                                               |                              |
| Antihypertensive therapy          | Prescribed Drug Register | C02, C03A, C03B, C03EA01, C07 (except C07AA07), C08C, C08G, C09 |                              |
| Inpatient CVD care                | National Patient Register | I00-I99                                           |                              |
| SAFETY                            |                        |                                                   |                              |
| Any complication 30d              | SOReg                  | -                                                 |                              |
| Serious complication 30d          | SOReg                  | -                                                 |                              |
| Revision surgery                  | SOReg                  | -                                                 |                              |
| Any admission (first 30 days after index date) | National Patient Register | Any entry                                          |                              |
| Gastric acid suppressing agents  | Prescribed Drug Register | A02BC, A02BA                                      |                              |
| Inpatient psychiatric care        | National Patient Register | F00-F99                                          | Out- & inpatient care        |
| Substance use disorder           | National Patient Register | F10-F19                                          |                              |
|                                   | Prescribed Drug Register | N07BB, N07BC                                      |                              |
| Suicide or self-harm              | Causes of Death Register | X60-84, Y10-Y34, Y87.0                            | Main & contributing causes   |
| Antidepressants                   | National Patient Register |                                             | Out- & inpatient care        |
| Anxiolytics                       | Prescribed Drug Register | N06A                                              |                              |
|                                   |                        | N05B                                              |                              |
| Variable          | Categories & Definition                                      | Data Source                                      | Comment                  |
|-------------------|-------------------------------------------------------------|--------------------------------------------------|--------------------------|
| Age               | Continuous                                                  | Total Population Register                        |                          |
| Sex               | Woman/Man (Biological sex)                                  | Total Population Register                        |                          |
| BMI               | Continuous                                                  | Height and weight from SOReg & Itrim             |                          |
| Treatment year    | 2012, 2013, 2014, 2015, 2016, 2017                         | SOReg operation date Itrim program start date    |                          |
| **Socioeconomic** |                                                             |                                                  |                          |
| Education level   | Highest attained (<10y/10-12/>12y)                          | LISA Register                                    | <0.6% missing            |
| Disposable income | Mean of last 2y Adjusted to 2016 price level, converted to USD with exchange rate from December 30, 2016 | LISA Register                                    | <0.2% missing            |
| **Comorbidities** |                                                             |                                                  |                          |
| Diabetes          | Diabetes drug treatment                                      | Prescribed drugs register                        | ATC A10                  |
| CVD history       | In- or outpatient admission                                 | National Patients register                       | ICD10 chapter “I”        |
| **Psychiatric**   |                                                             |                                                  |                          |
| Antidepressant use| Prescribed drugs register                                   | ATC N06A                                         |                          |
| Anxiolytics       | Prescribed drugs register                                   | ATC N05B                                         |                          |
### eTable 3 Surgical complications within 30 days following sleeve gastrectomy

| COMPLICATIONS                                           | BMI 30-<35 |                |  | BMI ≥ 35 |                |  |
|---------------------------------------------------------|------------|----------------|---|----------|----------------|---|
|                                                         | Yes | No | Missing (n) | % | Yes | No | Missing (n) | % |
| Readmission 30 Days, n (%)                              | 33  | 1183 | 0 | 2.7 | 243 | 6168 | 0 | 3.8 |
| Serious Complication<sup>1</sup>                         | 16  | 1090 | 110 | 1.4 | 115 | 6079 | 217 | 1.9 |
| Postoperative Complication                              | 56  | 1050 | 110 | 5.1 | 347 | 5847 | 217 | 5.6 |
| Leak                                                    | 4   | 1102 | 110 | 0.36 | 35 | 6159 | 217 | 0.57 |
| Bleeding                                                | 9   | 1097 | 110 | 0.81 | 73 | 6121 | 217 | 1.18 |
| Abcesses/Deep Intraabdominal Infection                  | 3   | 1103 | 110 | 0.27 | 22 | 6172 | 217 | 0.36 |
| Abdominal Wall Complication                             | 11  | 1095 | 110 | 0.99 | 67 | 6127 | 217 | 1.08 |
| Bowel Obstruction                                       | 0   | 1106 | 111 | 0 | 8 | 6186 | 216 | 0.13 |
| Stricture                                               | 2   | 1104 | 111 | 0.18 | 11 | 6183 | 216 | 0.18 |
| Marginal Ulcers                                         | 3   | 1103 | 110 | 0.27 | 2 | 6192 | 217 | 0.03 |
| Cardiovascular Complication                             | 2   | 1104 | 110 | 0.18 | 2 | 6192 | 217 | 0.03 |
| DVT/PE                                                  | 1   | 1105 | 110 | 0.09 | 3 | 6191 | 217 | 0.05 |
| Pulmonary Complication                                  | 7   | 1099 | 110 | 0.63 | 16 | 6178 | 217 | 0.26 |
| Urinary Tract Infection                                 | 6   | 1100 | 110 | 0.54 | 26 | 6168 | 217 | 0.42 |
| Other Complication                                       | 22  | 1084 | 110 | 1.99 | 148 | 6046 | 217 | 2.39 |

<sup>1</sup> Clavien-Dindo grades 3b, 4a, 4b or 5