## Postoperative Complications, Obesity and Metabolic Surgery

The proportion of patients who experienced a postoperative complication within 30 days of obesity and metabolic surgery

## Definitions

• Major complications: Complications that arise after obesity and metabolic surgery, including an anastomotic leakage required revision surgery or stent insertion, the hemorrhage of the gastrointestinal tract required the blood transfusion or revision surgery, intestinal perforation out of an anastomotic site, the blockage or stenosis of the small intestine required revision surgery, kidney disease required hemodialysis, respiratory failure required tracheal intubation, surgical site infection required revision surgery, and others.

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#### 🛶 Interpretation

 The rate of major complications occurring within the 30-day post-operative period following obesity and metabolic surgery decreased to 1.47% in 2022 when compared to the preceding year. Notably, it has consistently maintained a range of approximately 1% from 2008 to 2022.

#### 青 Improvement

 The low complication rate has been consistently maintained, and even in the event of major complications, patients achieve full recovery and are discharged promptly through early detection and proper management.

Data source SNUBH EMR (Electronic Medical Record), Department of Surgery Complication Registry

## 30-Day Readmission Rate, Obesity and Metabolic Surgery

The proportion of readmitted patients, who had been discharged after obesity and metabolic surgery

Definitions

 Readmission rate: The proportion of patients with readmission within 30 days for any cause after the discharge following obesity and metabolic surgery (limited the readmission in SNUBH).



Interpretation

The 30-day readmission rate following obesity and metabolic surgery was reported to be 0.49% in 2022.

#### Improvement

• Comprehensive counseling on postoperative nutritional management is provided to patients, given that dehydration resulting from poor dietary compliance is the primary cause of readmission.

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## 30-Day Mortality Rate, Obesity and Metabolic Surgery

The proportion of patients who died within 30 days of obesity and metabolic surgery



Mortality: The proportion of deceased patients among all patients who received obesity and metabolic surgery.



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• Efforts are ongoing to maintain a 0% mortality rate.

Data source SNUBH EMR (Electronic Medical Record), CDW (Clinical Data Warehouse)

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## Pre- and Post-Operative Weight Comparison

A comparison between the preoperative weight and postoperative average weight for one year of the patients who received obesity and metabolic surgery





## Interpretation

 Patients who underwent obesity and metabolic surgery in 2021 were found to have an average weight loss of 31.33 kg compared to their pre-surgery weight.

#### Improvement

• Efforts are being made to enhance surgical techniques and provide comprehensive patient education to achieve sufficient weight loss while maintaining a comfortable dietary regimen.

Data source SNUBH EMR (Electronic Medical Record), Department of Surgery Obesity and Metabolic Surgery Registry

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## 1-Year Diabetes Remission Rate/Improvement Rate

The proportion of 1-year diabetes remission and improvement rates in patients with diabetes mellitus received obesity and metabolic surgery

## Definitions

- ◆ Diabetes: It is a diabetes drug administration or insulin injection, or HbA1c ≥ 6.5%.
- Diabetes remission: It decreases HbA1c < 6.5% or fasting blood glucose <125mg/dL without diabetes drug administration or an insulin injection.

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 Diabetes improvement: It significantly decreases the HbA1c or fasting blood glucose that isn't regarded as the remission definition.



#### 🛶 Interpretation

• The one-year remission/improvement rate for diabetes following obesity and metabolic surgery was reported at 97.5% for surgeries performed in 2021, while the average rate from 2008 to 2021 was in the 92% range.

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Data source SNUBH EMR (Electronic Medical Record), Department of Surgery Obesity and Metabolic Surgery Registry

# Obesity and Metabolic Center Ob

## 1-Year Hypertension Remission Rate/Improvement Rate

The proportion of 1-year hypertension remission and improvement rates in patients with hypertension who received obesity and metabolic surgery

### Definitions

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- ◆ Hypertension: It is a hypertension drug administration, systolic blood pressure ≥140mmHg or diastolic blood pressure ≥90mmHg.
- Hypertension remission: Blood pressure is decreased to less than 120–140/80–89mmHg without antihypertensive drugs.
- Hypertension improvement: The number of antihypertensive drug administration or the blood pressure for the same drug administration is decreased as it isn't regarded as the remission definition.



### 🛶 Interpretation

 The one-year remission/improvement rate for hypertension following obesity and metabolic surgery was reported at 95.84% for surgeries performed in 2021, while the average rate from 2008 to 2021 was in the 89% range.



Data source SNUBH EMR (Electronic Medical Record), Department of Surgery Obesity and Metabolic Surgery Registry

## 1-Year Hyperlipidemia Remission Rate/Improvement Rate

The proportion of 1-year hyperlipidemia remission and improvement rates in patients with hyperlipidemia who received obesity and metabolic surgery

## Definitions

◆ Hyperlipidemia: It is hyperlipidemia drug administration or is shown LDL ≥160, HDL <40, or TG ≥200 from a blood test.

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- Hyperlipidemia remission: It suspends hyperlipidemia drug administration and keeps triglyceride <150, LDL</li> cholesterol <130, and HDL cholesterol >40.
- Hyperlipidemia improvement: The number of hyperlipidemia drugs is decreased or the hyperlipidemia level for the same drug administration is improved as it isn't regarded as the remission definition.



#### Interpretation

 The one-year remission/improvement rate for hyperlipidemia following obesity and metabolic surgery was reported at 93.89% for surgeries performed in 2021, while the average rate from 2008 to 2021 was in the 89% range.

