MONASH University

Expanding the MBS guidelines MBS for high-risk patients

Elderly, Transplant and Cardiac patients

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A partnership between:

MONASH University | AlfredHealth | Alfred Research Alliance

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Indications for MBS

NIH consensus statement 1991

BMI > 40 kg/m2, *or*

BMI >35 kg/m2 with comorbidities

- *Non-surgical programs should be initial therapy for severe obesity;*
- *Patients should be carefully selected for surgery after evaluation by a multidisciplinary team;*
- *Lifelong medical surveillance should continue after surgery.*

Gastrointestinal Surgery for Severe Obesity. NIH Consens Dev Conf Consens Statement 1991; 9:1-20.

IFSO/ASMBS consensus statement 2022

BMI >35 kg/m2

considered for:

- *BMI 30-34*
- *As*
- *Ap*

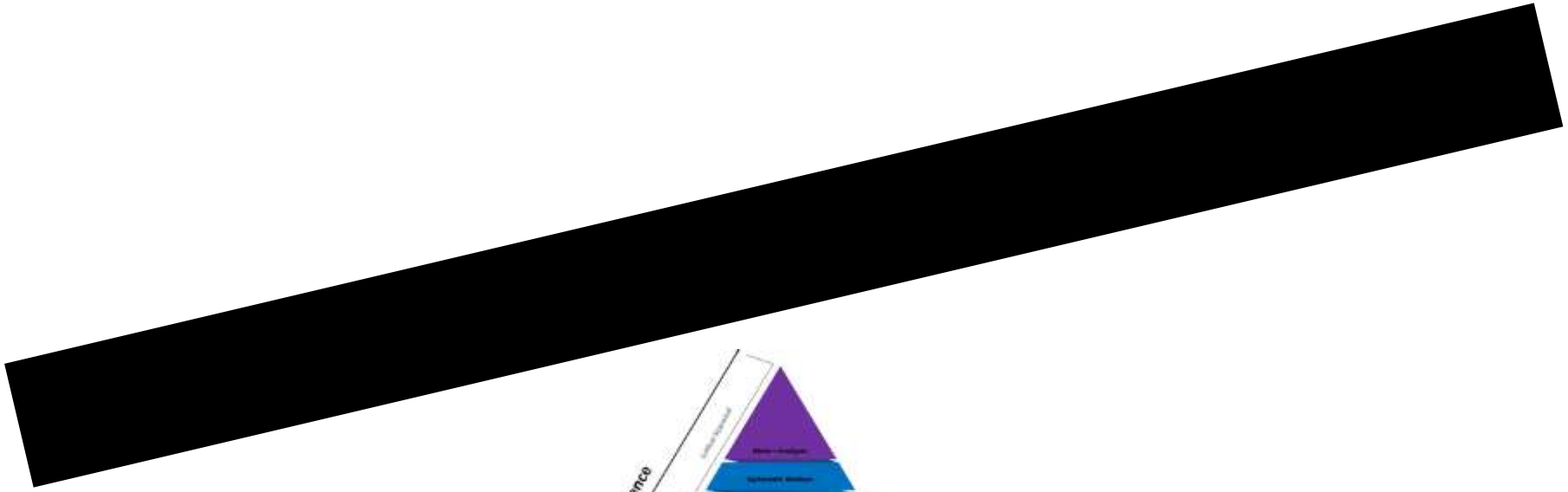
sh

There is upper age li *Assess comorbi*

MBS is an effective treatment in patients with obesity who require organ transplant

Recommendation Grade	Level of Evidence	Type of Study
A	1a	Systematic review of (homogeneous) RCT
A	1b	Individual RCT (with narrow CI)
B	2a	Systematic review of (homogeneous) cohort studies of "exposed" and "unexposed" subjects
B	2b	Individual cohort study / low-quality RCT
B	3a	Systematic review of (homogeneous) CC studies
B	3b	Individual CC studies
C	4	Case series, low-quality cohort or case-control studies
D	5	Expert opinions

Risk vs Benefit



Risk of Harm

Possibility of Benefit

Older People

Level 2a
Recommendation B

- One RCT

  BASE Trial *Pajecki D et al. Obes Surg. 2021;31(6):2359-63*

  derly

  nd T2D control at 12 months

  st-op complication rate

  esolution of T2D

  mplication rates in older people

  tcomes LSG, LRYGB

  - LAGB safer but less LOW and more LT complications
- Cost-Effectiveness

  Gulliford MC et al. Value Health. 2017;20(1):85-92.

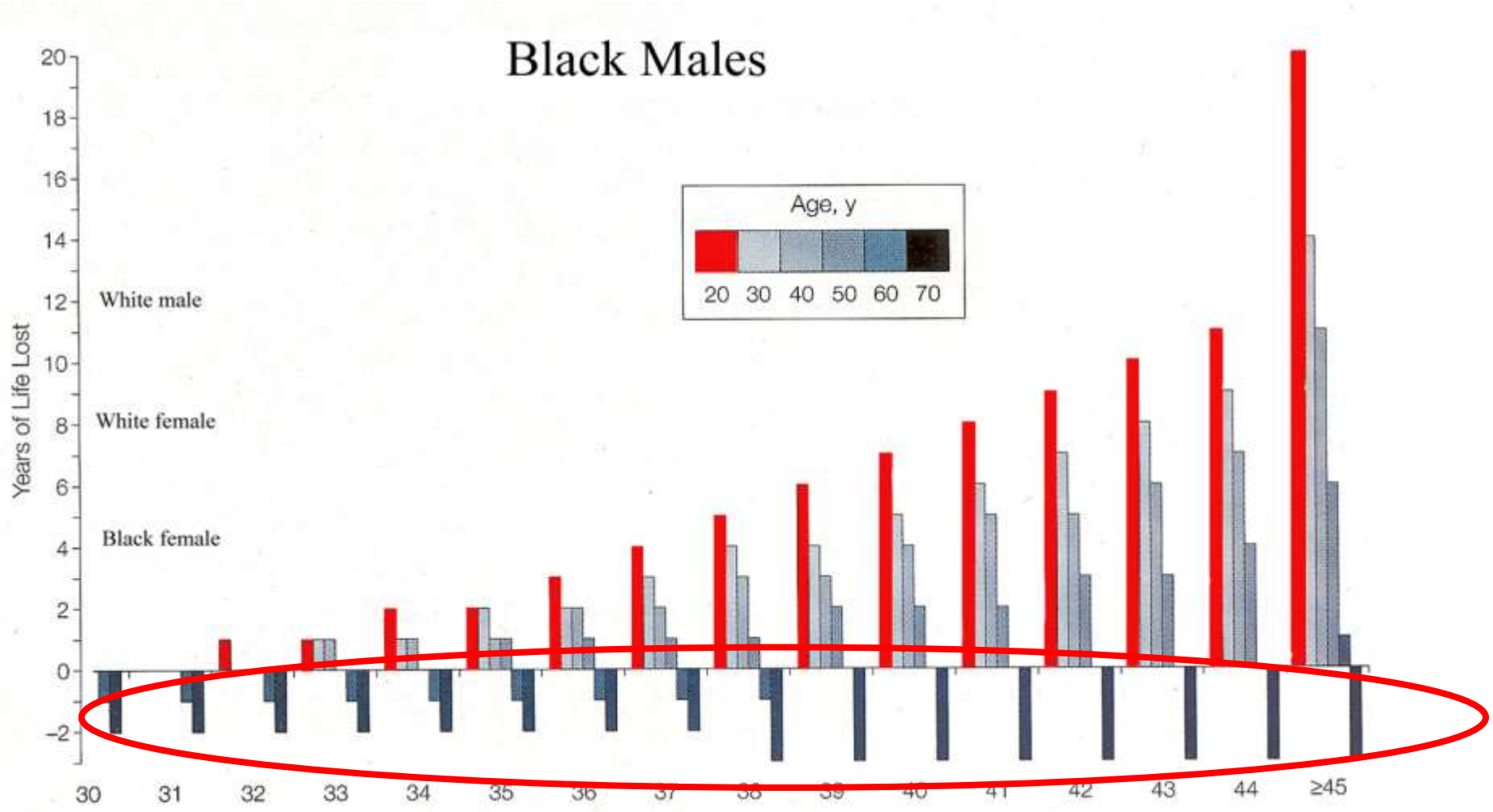
  - Similar benefits in people aged 55 to 74 years compared with younger age groups

* Haywood C, Sumithran P. Treatment of obesity in older persons—A systematic review. Obesity Reviews. 2019;20:588–598. https://doi.org/10.1111/obr.12815

Giordano S, Victorzon M. Bariatric surgery in elderly patients: a systematic review. Clin Interv Aging. 2015;10:1627-35

Shenoy SS, Gilliam A, Mehanna Aet al. LSG Versus LRYGB in Elderly Bariatric Patients: Safety and Efficacy-a Systematic Review and Meta-analysis. Obes Surg. 2020;30(11):4467-73

Impact of BMI on life expectancy



Fontaine et al JAMA 289:187, 2003

Frailty

Bariatric frailty index items matched between MBSAQIP and CHSA-FI

	CSHA-FI	MBSAQIP
1	Changes in everyday activity or problems with getting dressed, bathing, carrying out personal grooming, cooking, or going out alone	Preoperative functional status: partially dependent or totally dependent
2	Impaired mobility	Patient's ambulation limited most or all of the time preoperatively
5	Myocardial infarction	History of myocardial infarction
3	History of diabetes	Preoperative diabetes
4	Lung problems or respiratory problems	Preoperative history of COPD, preoperative oxygen-dependent, or preoperative obstructive sleep apnea
6	Cardiac problems	Previous PCI/PTCA or previous cardiac surgery
7	Arterial hypertension	Preoperative hypertensive requiring medication
8	Gastrointestinal problems or abdominal problems	Preoperative GERD requiring medication
9	Other medical history	Preoperative renal insufficiency or on dialysis

CHSA-FI = Canadian Study of Health and Aging Frailty Index; MBSAQIP = Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program; COPD = chronic obstructive pulmonary disease; PCI = percutaneous coronary intervention; PTCA = percutaneous transluminal coronary angioplasty; GERD = gastroesophageal reflux disease.

Difference in outcomes of interest between frail and nonfrail patients (n = 21,426)

Outcome	Nonfrail (n = 55.6%)	Frail (n = 44.4%)	*P* value
CD-I	1.63%	2.55%	.000
CD-II	2.13%	3.30%	.000
CD-III	.59%	.93%	.005
CD-IV	1.31%	2.57%	.000
CD-V	.11%	.39%	.000
At least 1 readmission	3.53%	5.49%	.000
At least 1 reoperation	1.34%	1.80%	.007
At least 1 ED visit not resulting in hospital admission	3.67%	5.39%	.000
LOS (mean ± SD)	1.6±1.7	1.9±1.8	.000

CD-I = Clavien-Dindo grade I; CD-II = Clavien-Dindo grade II; CD-III = Clavien-Dindo grade III; CD-IV = Clavien-Dindo grade IV; CD-V = Clavien-Dindo grade V; ED = emergency department; LOS = length of stay; SD = standard deviation.

frailty score - the sum of all positive co-morbidities in a patient)
frailty index - the sum of positive bFI items divided by 9

Gondal AB, Hsu CH, Zeeshan M, et al, Surg Obes Relat Dis. 2019; 15:1582-8.

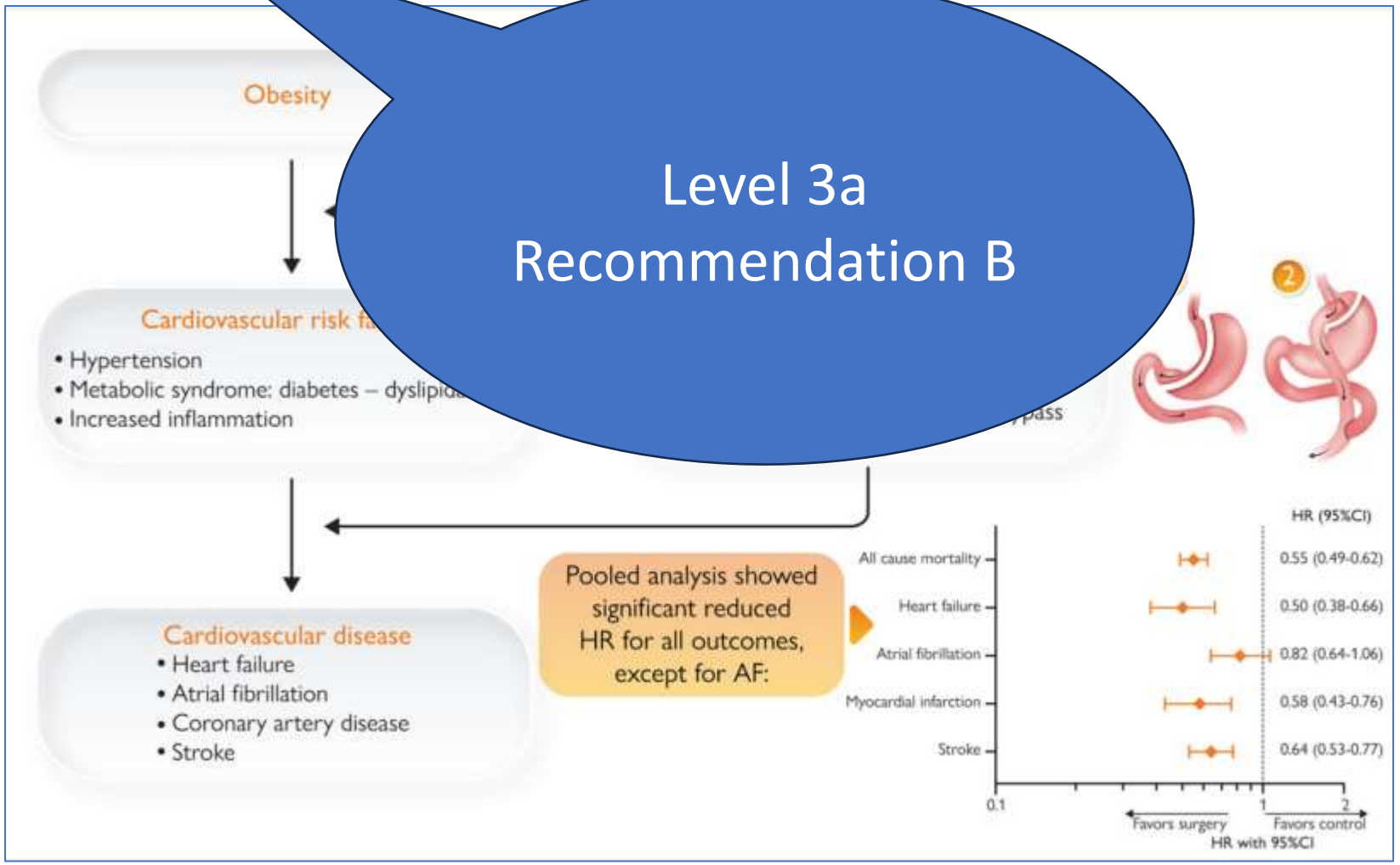
Solid Organ Transplantation

- Case Series/Cohor dies; one iew outcomes Cardiac Tx
- Obesity may preclude
- Weight loss achieved v n rates and may defer the need for transpla
- Solid organ transplan IBS
- LSG may be preferred d ncurrently

Level 2b/3b
Recommendation B

	Kidney		Liver		Heart/Lung	
	Before	After	Before	After	Before	After
Safety	✓	✓	✓	✓	✓	✓
Efficacy	✓	✓	✓	✓	✓	✓

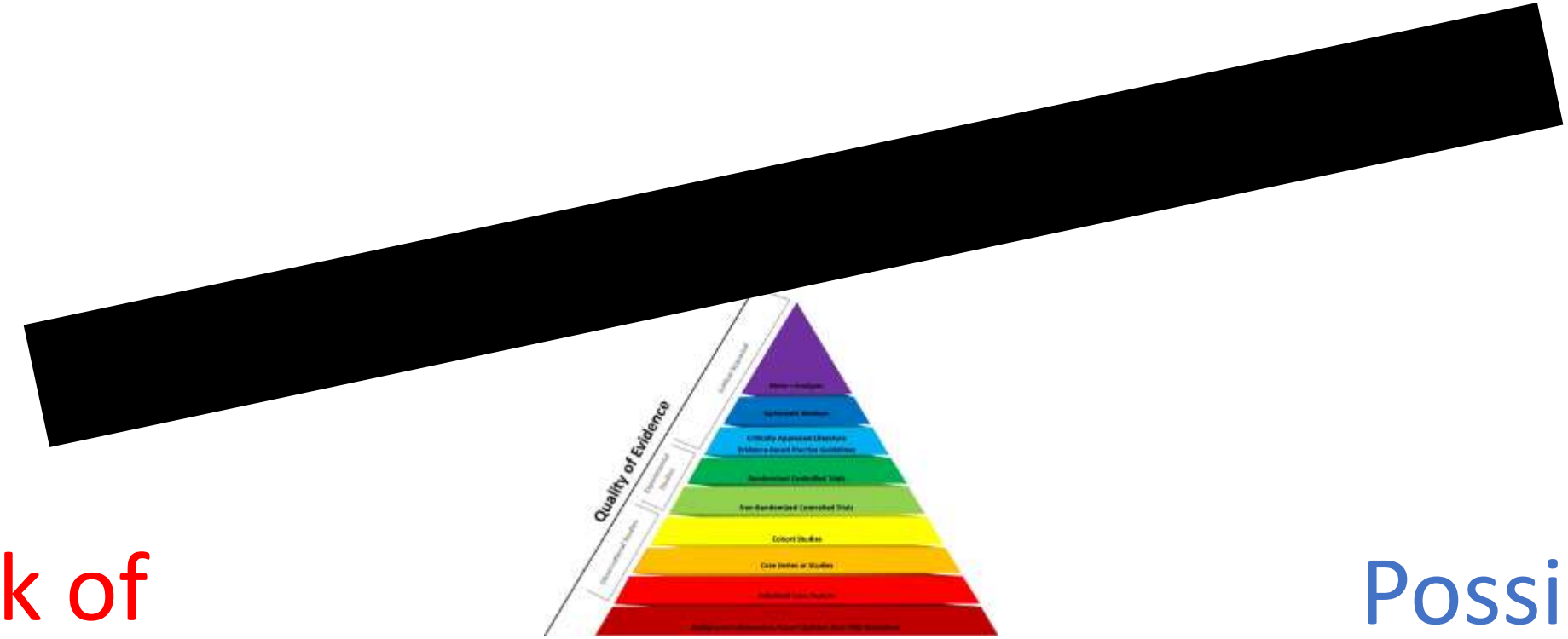
Heart Failure



Level 3a
Recommendation B

van Veldhuisen et al. European Heart Journal (2022) 43, 1955–1969

Risk vs Benefit



Risk of Harm

Possibility of Benefit

Conclusion

There is emerging evidence for increasing the access to MBS even for high risk populations

- Lack of RCT and high level evidence
  - *Maybe impossible*
  - *Possible role for registries*
- Risk vs Benefit comparison needs to be considered in all cases
  - *Frailty scores*
  - *Risk calculation*
  - *Likelihood of achieving not only weight loss but improved health*
  - *Cost-efficacy*
  - *Consider safest operation*
  - *Site where surgery occurs*

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3 - 6 September 2024

www.ifso2024.org

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MERRY CHRISTMAS

Acknowledgements

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