



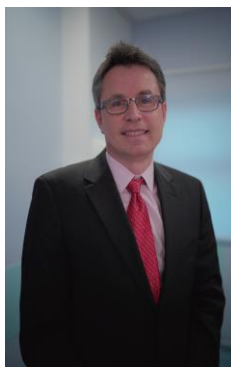
XXIX IFSO World Congress

1-4 September 2026 | Toronto, Canada

INCIDENCE OF DE NOVO GALLSTONE
FORMATION FOLLOWING METABOLIC
BARIATRIC SURGERY: A SYSTEMATIC
REVIEW AND META-ANALYSIS

TORONTO2026

**The Future of Obesity Management:
From Weight Loss to Health Gain**



Mr Peter Vasas
Consultant Bariatric Surgeon, MD PhD FEBS in MBS



ifso2026.org

Disclosure Slide



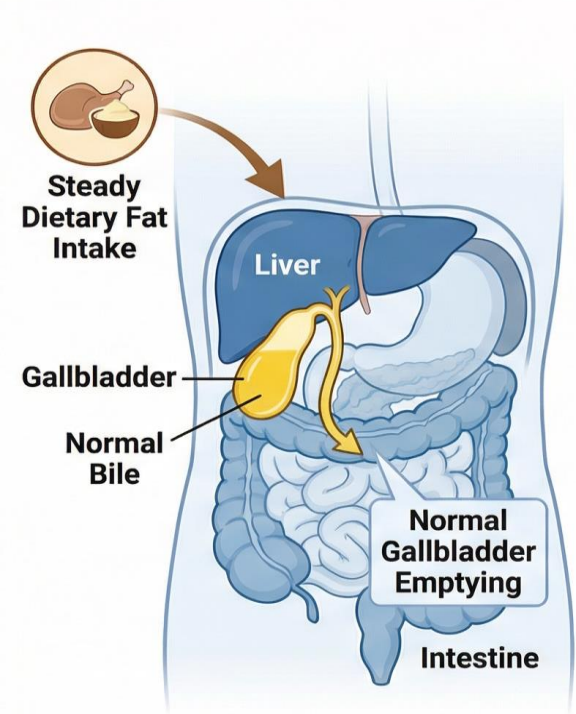
Nothing to disclose



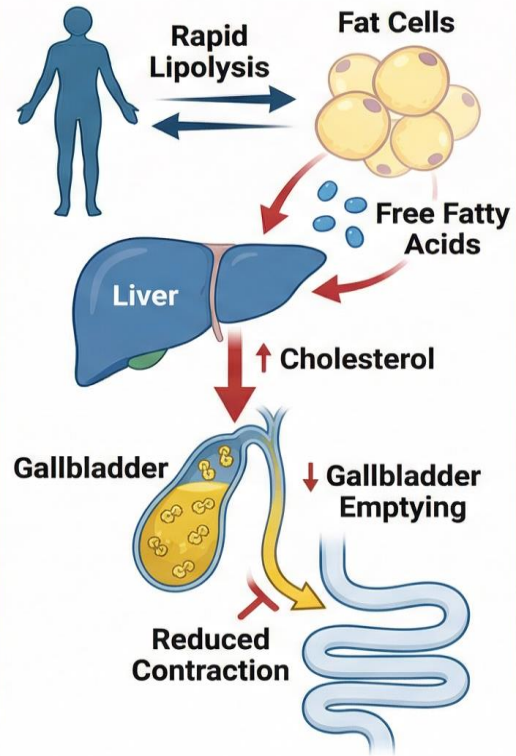
Introduction & Background: Obesity is a well-established risk factor for gallstone (GS) formation

Mechanism of Gallstone Formation After Significant Weight Loss

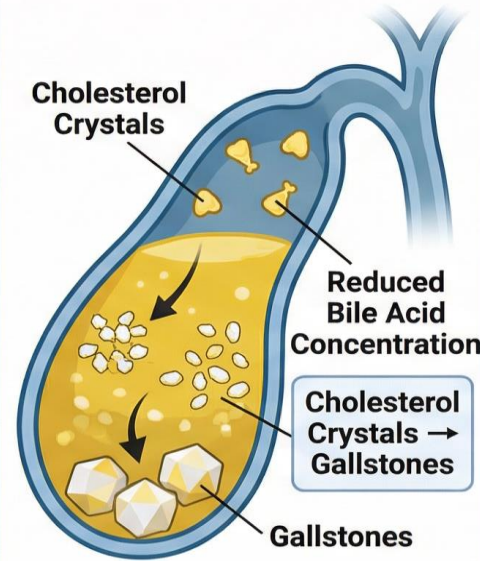
Panel 1: Initial State
(Before Weight Loss)



Panel 2: Rapid/Significant
Weight Loss



Panel 3: Gallbladder Response
& Gallstone Formation



Panel 4: Potential
Complications



In individuals with severe obesity (SO), both rapid weight loss and Metabolic Bariatric Surgery (MBS) further increase the likelihood of GS formation; however, the true incidence remains unclear.



Objective and methods

- Objectives:

- 1.: To determine the pooled incidence of de novo gallstone formation following MBS through a comprehensive meta-analysis of recently published studies.



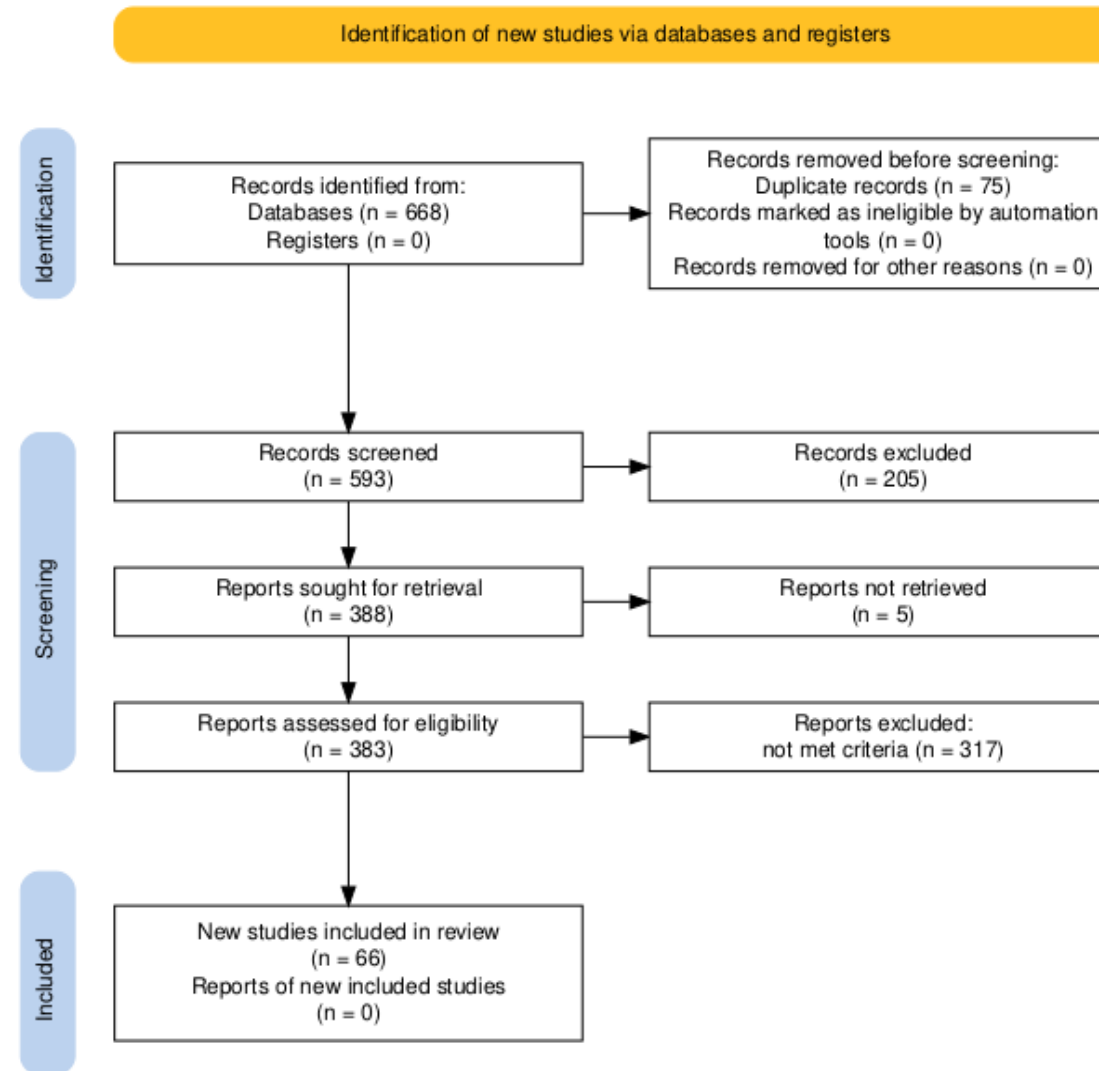
- 2.: ... following GLP-1RA treatment...



- Methods: A systematic review and meta-analysis were conducted, examining surgical publications from 2015 to 2026 that reported postoperative GS incidence following MBS or GLP-1RA treatment.
- Random -effect statistical model was applied to calculate pooled incidence rates, using the inverse-variance method and Freeman–Tukey double arcsine transformation.

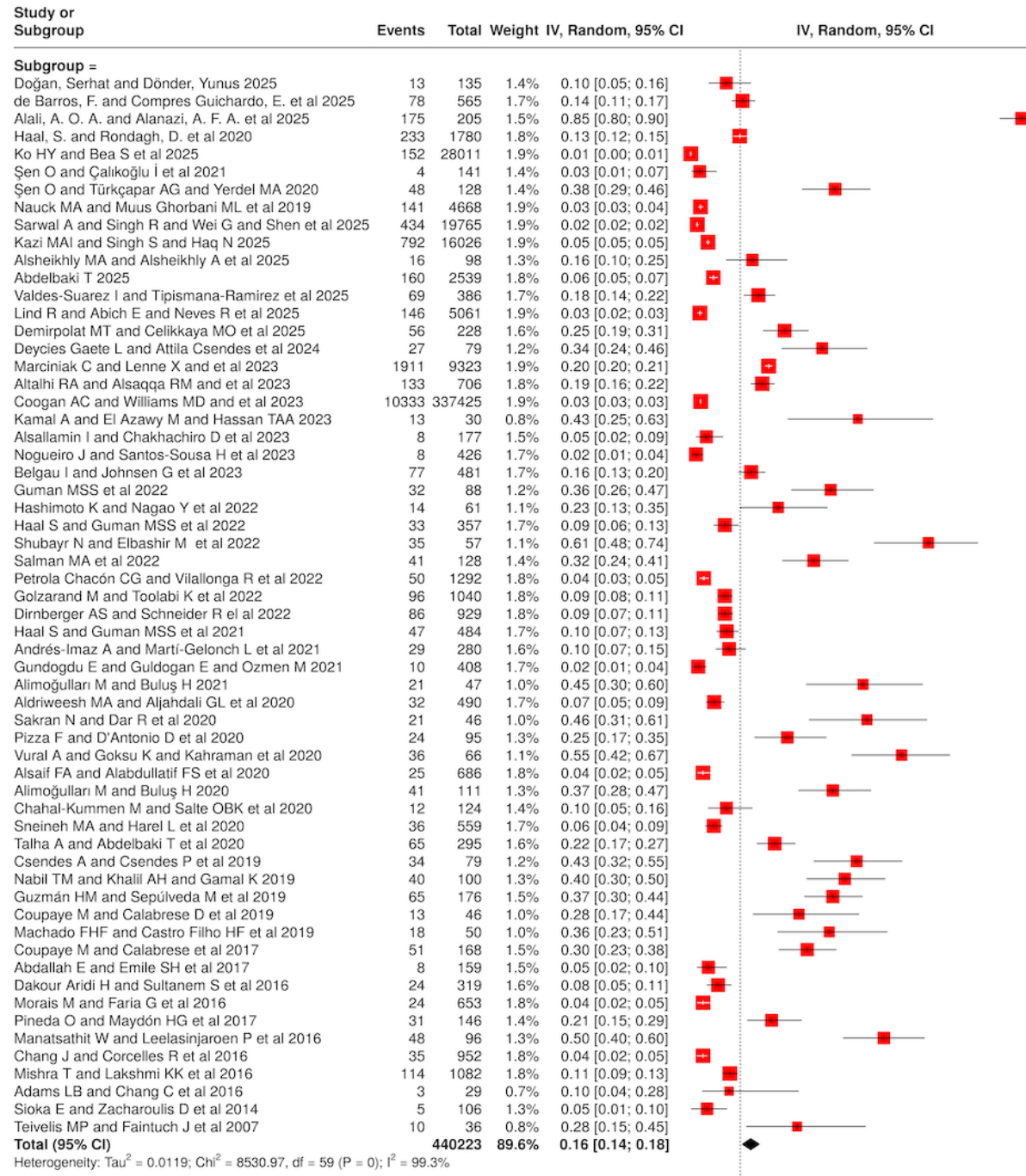


Prism-analysis

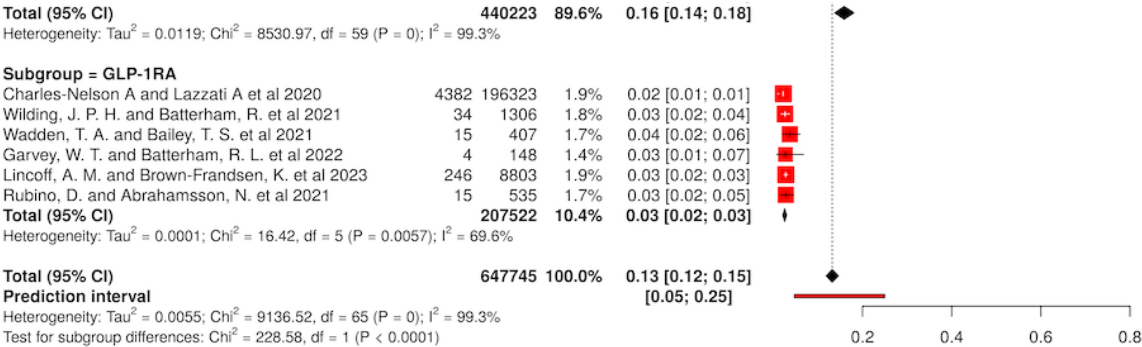


Results 1.:

1. MBS arm:



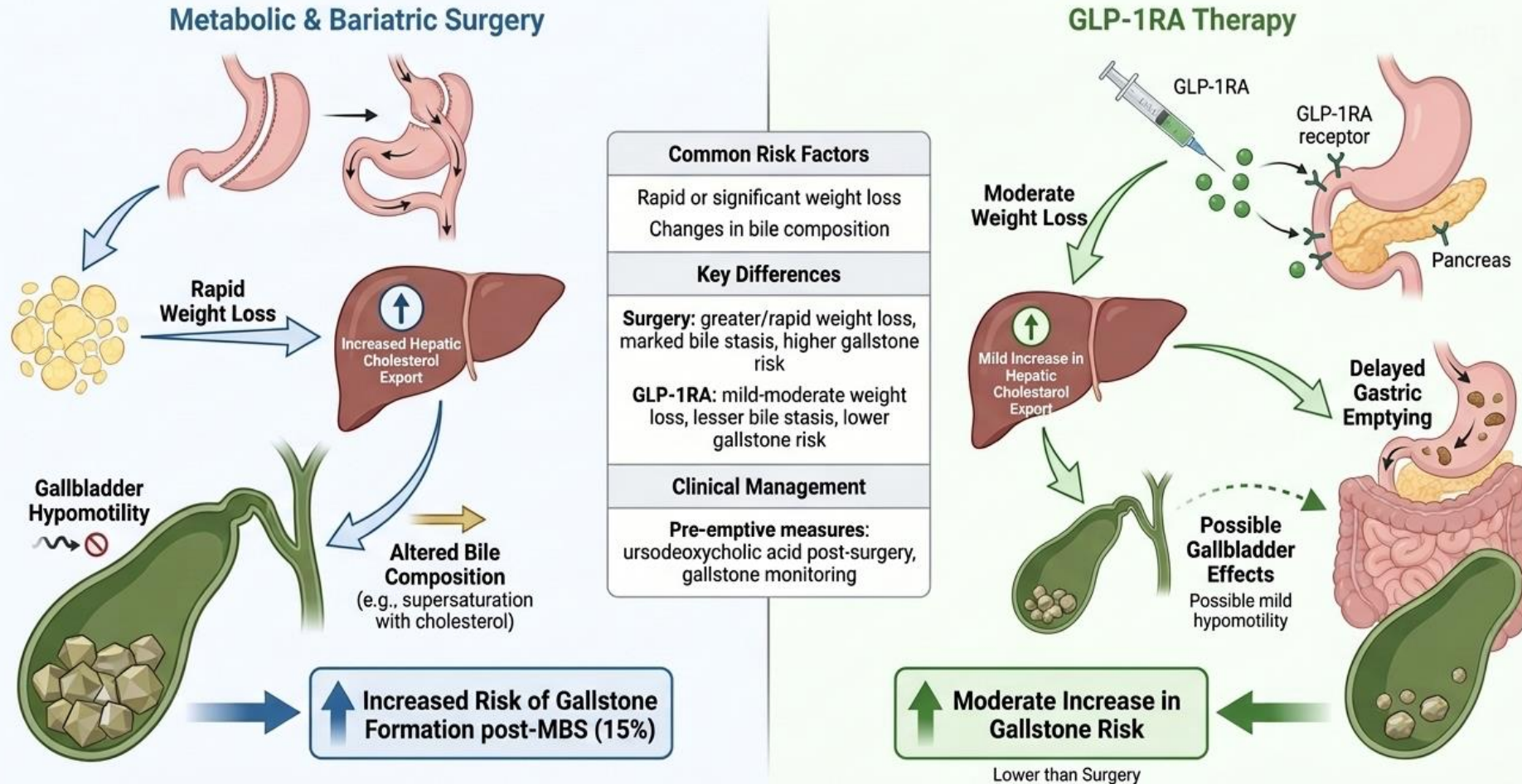
Results 2:



Conclusion

Comparison of Gallstone Formation After Metabolic- and Bariatric Surgery Versus GLP-1RA Therapy

■ Bariatric Surgery ■ GLP-1RA Therapy



- Gallstone formation following MBS or GLP-1RA therapy remains a significant medium- and long-term postoperative complication. These findings highlight the continued need for clear guidance on postoperative gallstone surveillance and prevention strategies in individuals undergoing MBS.



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