A detailed, colorful illustration of a city square, likely in Europe. In the center is a large, ornate fountain with a tall column topped by a statue. The square is surrounded by multi-story buildings with classical architectural features. People are depicted walking around the fountain and on the streets. The scene is set under a bright, clear sky.

# Risk–benefit balance of simultaneous Gastric Bypass or Sleeve gastrectomy and concomitant cholecystectomy: A comprehensive nationwide cohort of 289.627 patients

**JACQMIN G.**, MARCINIAK C., LENNE X., BRUANDET A., HAMROUN A.,  
GENIN M., BAUD G., THEIS D., PATTOU F., CAIAZZO R.

Lille University Hospital

# Background

## Gallstones in obesity and weight loss

Serge Erlinger

European Journal of Gastroenterology & Hepatology 2000, 12:1347–1352

The prevalence of cholesterol gallstones is increased in obese persons. The risk is especially high in those with the highest body mass index (relative risk 5–6). Weight loss further increases the risk of gallstones: the prevalence of new gallstones reaches 10–12% after 8–16 weeks of low-calorie diet and more than 30% within 12–18 months after gastric by-pass surgery. About one-third of the stones are symptomatic. The increased prevalence of stones is mostly

## Gallstone Formation During Weight-Reduction Dieting

Rodger A. Liddle, MD; Ruth B. Goldstein, MD; Joan Saxton, MD

Arch Intern Med—Vol 149, August 1989

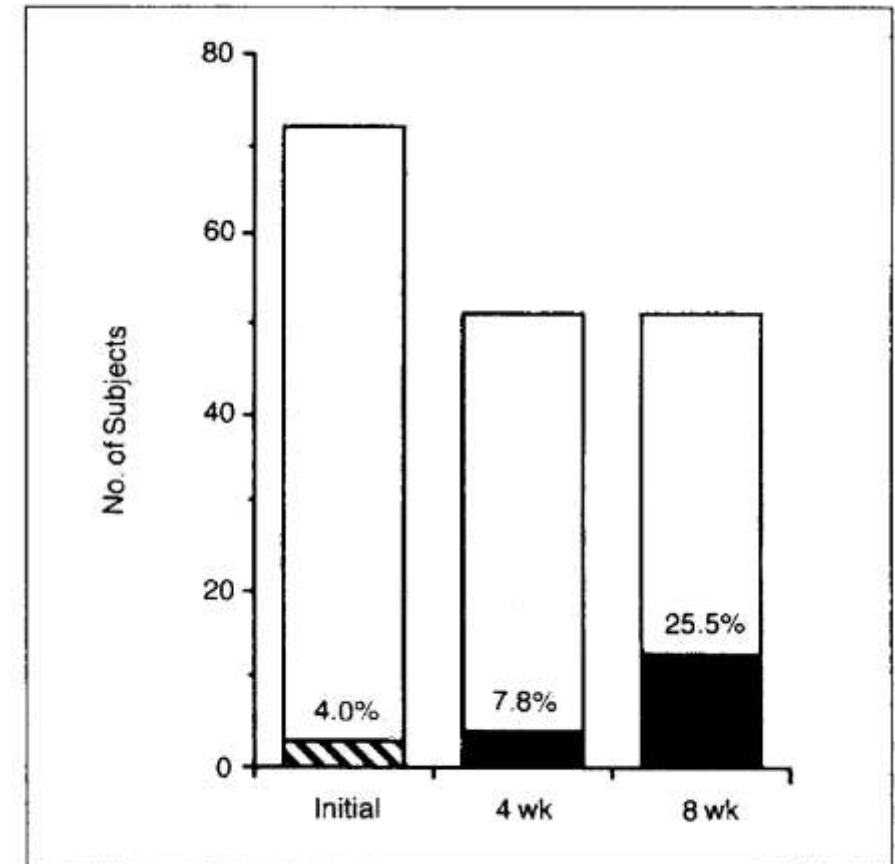


Fig 1.—Gallstone formation in relation to duration of dieting.

# Background

## Are Concomitant Operations During Bariatric Surgery Safe? An Analysis of the MBSAQIP Database

Benjamin Clapp<sup>1</sup>  • Isaac Lee<sup>1</sup> • Evan Liggett<sup>1</sup> • Michael Cutshall<sup>1</sup> • Bryson Tudor<sup>1</sup> • Grishma Pradhan<sup>1</sup> • Katherine Aguirre<sup>1</sup> • Alan Tyroch<sup>1</sup>

**VS**

Original article

Management of gallstone disease prior to and after metabolic surgery: a single-center observational study

Amanda S. Dirnberger<sup>a</sup>, Romano Schneider, Dr. med.<sup>a</sup>, Marc Slawik, Dr. med.<sup>b</sup>,  
Katja Linke, Dr. med.<sup>a</sup>, Marko Kraljević, Dr. med.<sup>a</sup>, Bettina Wölnerhanssen, P.D. Dr. med.<sup>c</sup>,  
Ralph Peterli, Dr. med.<sup>a,\*</sup>



# Background

Original article

## 2022 American Society for Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO): Indications for Metabolic and Bariatric Surgery

Dan Eisenberg, M.D.<sup>a,\*</sup>, Scott A. Shikora, M.D.<sup>b</sup>, Edo Aarts, M.D., Ph.D.<sup>c</sup>,  
Ali Aminian, M.D.<sup>d</sup>, Luigi Angrisani, M.D.<sup>e</sup>, Ricardo V. Cohen, M.D., Ph.D.<sup>f</sup>,  
Maurizio De Luca, M.D.<sup>g</sup>, Silvia L. Faria, Ph.D.<sup>h</sup>, Kasey P. S. Goodpaster, Ph.D.<sup>d</sup>,  
Ashraf Haddad, M.D.<sup>i</sup>, Jacques M. Himpens, M.D., Ph.D.<sup>j</sup>, Lilian Kow, B.M.B.S., Ph.D.<sup>k</sup>,  
Marina Kurian, M.D.<sup>l</sup>, Ken Loi, M.B.B.S., B.Sc. (Med)<sup>m</sup>,  
Kamal Mahawar, M.B.B.S., M.Sc.<sup>n</sup>, Abdelrahman Nimeri, M.D., M.B.B.Ch.<sup>o</sup>,  
Mary O’Kane, M.Sc., R.D.<sup>p</sup>, Pavlos K. Papasavas, M.D.<sup>q</sup>, Jaime Ponce, M.D.<sup>r</sup>,  
Janey S. A. Pratt, M.D.<sup>a,s</sup>, Ann M. Rogers, M.D.<sup>t</sup>, Kimberley E. Steele, M.D., Ph.D.<sup>u</sup>,  
Michel Suter, M.D.<sup>v,w</sup>, Shanu N. Kothari, M.D.<sup>x</sup>

**Extremes of age**

**MBS in the high-risk patient**

**Criteria for surgery**

**Bridge to other treatment**

**Outcomes**

**No recommendations regarding concomitant  
cholecystectomy**

# Methods



289.627 bariatric surgery procedures  
between 2013 and 2020

Concomitant  
cholecystectomy  
n=9.323

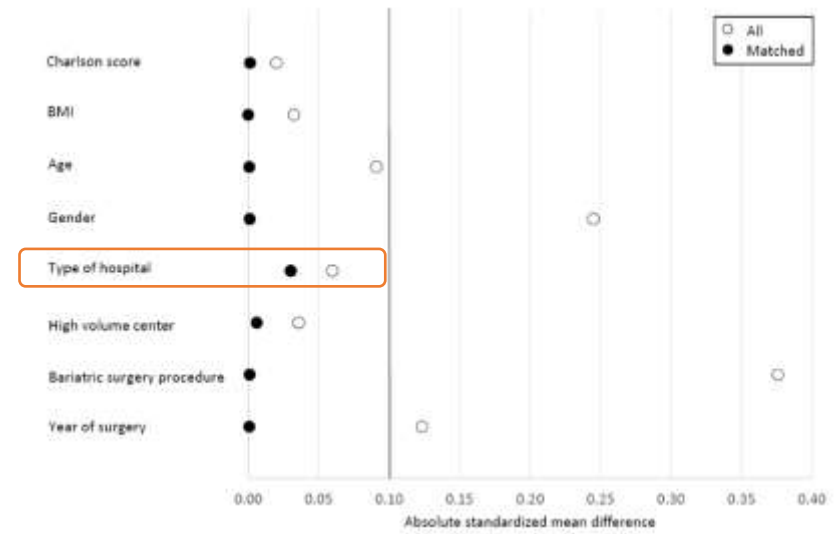
No concomitant  
cholecystectomy  
n=280.304

Aim 1

Propensity score matching 1:1  
(age, procedure, centre, BMI, Charlson index,...)

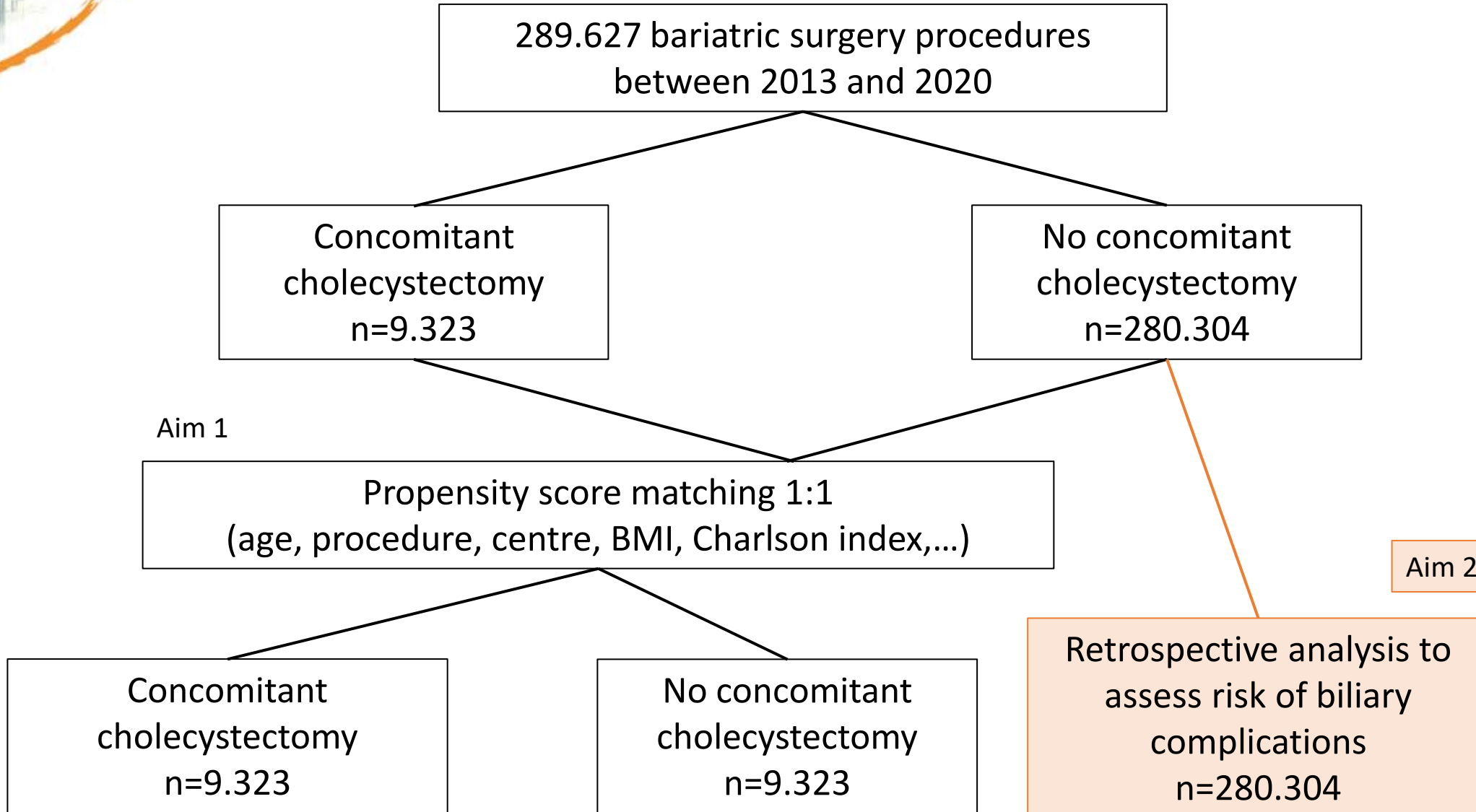
Concomitant  
cholecystectomy  
n=9.323

No concomitant  
cholecystectomy  
n=9.323

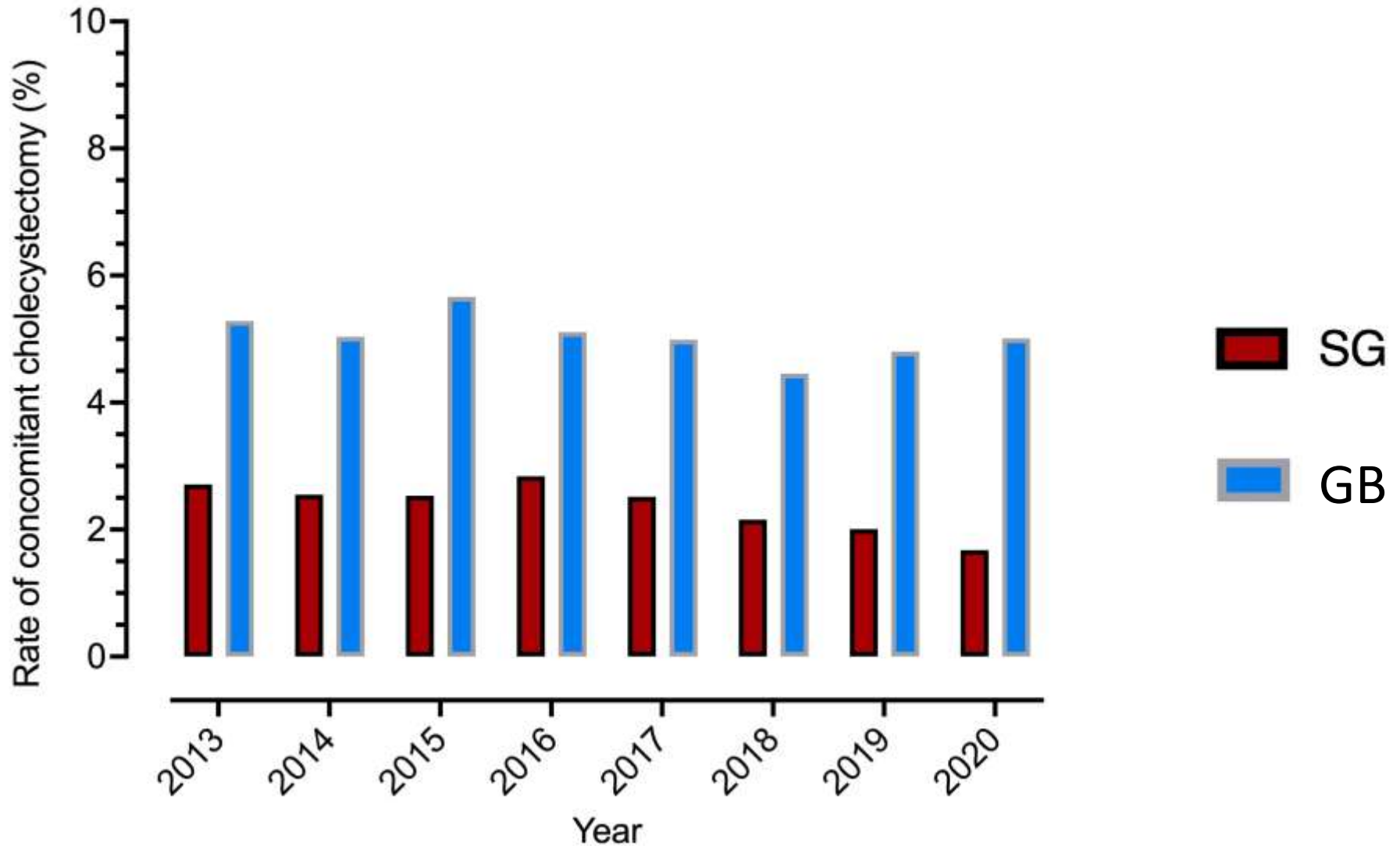


Nearest Neighbor Matching Method

# Methods



# Results



# Results

## 90-day post-op complications

	MBS n=9,323			MBS + CC n=9,323		<i>p-value</i>
<b>All types of complication n(%)</b>	<b>601</b>	<b>6.5%</b>	<b>+ 1.7%</b>	<b>768</b>	<b>8.2%</b>	<b>p&lt;0.001</b>
Death	5	0.1%		7	0.1%	p = 0.564
ICU stay	240	2.6%		312	3.3%	p < 0.001
Peritonitis	123	1.3%		149	1.6%	p = 0.112
Bleeding	138	1.5%		207	2.2%	p < 0.001
Biliary fistula	2	0.0%		27	0.3%	p < 0.001
Occlusion	20	0.2%		23	0.2%	p = 0.647
7-day reintervention	159	1.7%		244	2.6%	p < 0.001



# Results

## 90-day post-op complications

	MBS n=9,323		MBS + CC n=9,323		<i>p-value</i>
<b>All types of complication n(%)</b>	<b>601</b>	<b>6.5%</b>	<b>768</b>	<b>8.2%</b>	<b>p&lt;0.001</b>
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# Results

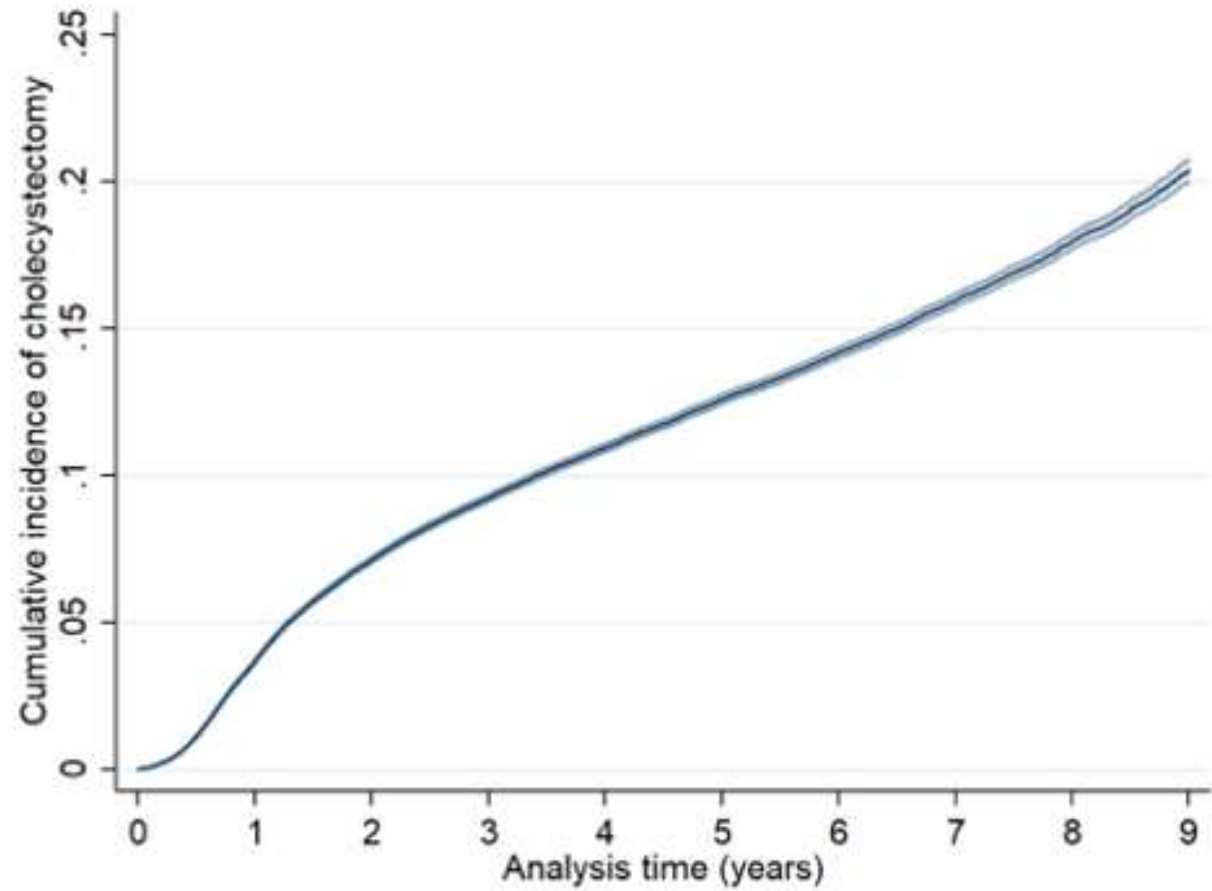
## 90-day post-op complications

	NO		YES	
	n		n	%
Symptomatic cholelithiasis	6 790		621	8.4%
Acute Cholecystitis	308		28	8.3%
Prophylactic	1.326		119	8.2%
MBS only	8.722		601	6.4%
<b>Total</b>	<b>17.146</b>		<b>1.369</b>	<b>7.4%</b>

*p=0.011*

*p<0.001*

# Results

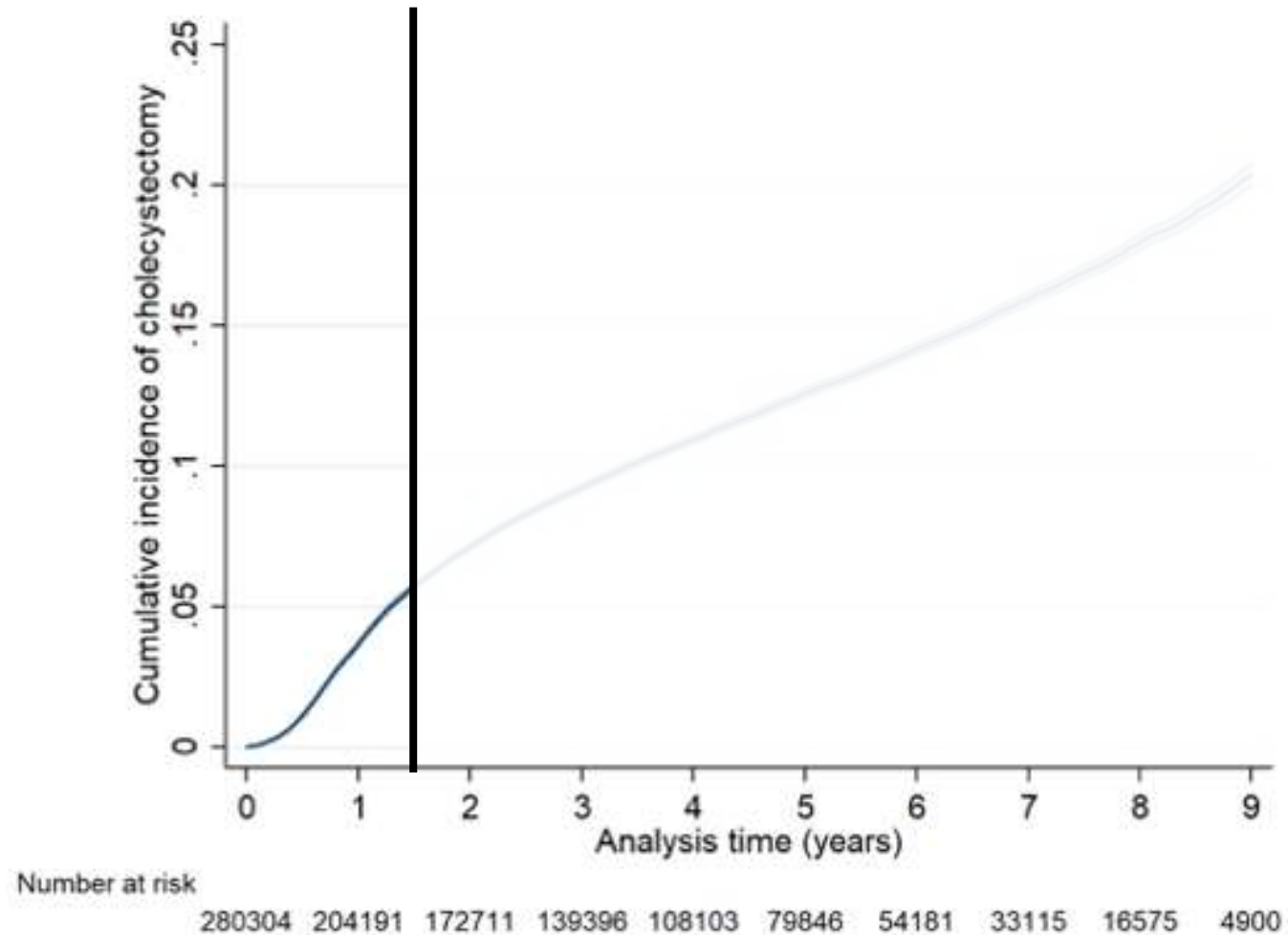


Number at risk

280304 204191 172711 139396 108103 79846 54181 33115 16575 4900

# Results

## Weight Loss

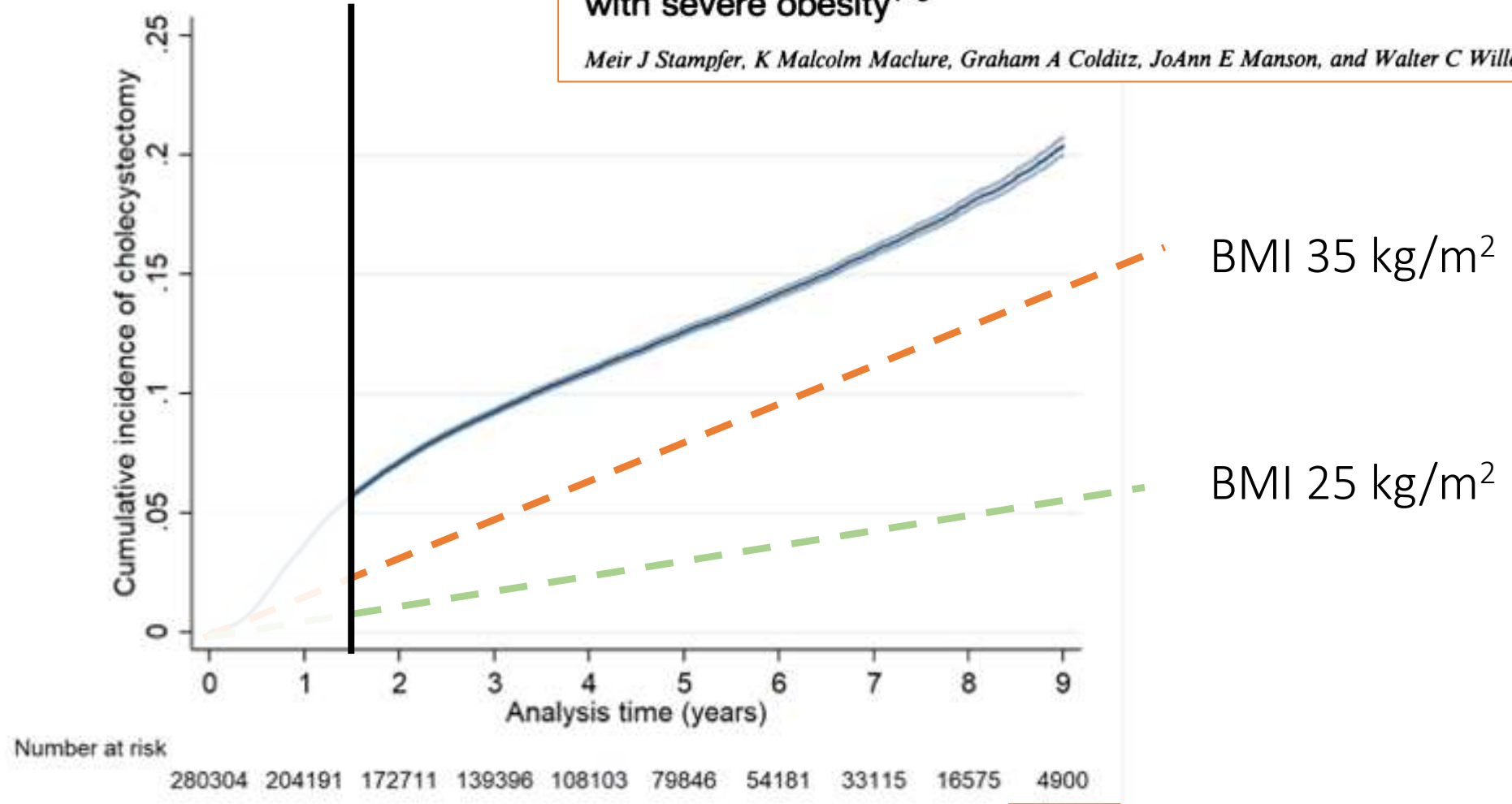


Symptomatic cholelithiasis	82.9%
Acute cholecystitis	12.2%
Main bile duct lithiasis <i>including sepsis 2.6%</i>	5.0%
Pancreatitis	1.9%

# Results

## Risk of symptomatic gallstones in women with severe obesity<sup>1-3</sup>

*Meir J Stampfer, K Malcolm Maclure, Graham A Colditz, JoAnn E Manson, and Walter C Willett*





# Conclusions

- More complications after MBS w/ cholecystectomy
- Few biliary complications in the long term
- No data support concomitant cholecystectomy



## Surgeons

François Pattou  
Robert Caiazzo  
Grégory Baud  
Camille Marciniak  
Vincent Vangelder  
Mathilde Gobert  
Mikael Chetboun  
Toni El Soueidi  
Franklin Atontsa  
Walid Ezzedine  
Geoffrey Jacqmin

## Nutritionists

Hélène Hoth Guechot  
Naïma Oukhouya Daoud  
Hélène Verkindt  
Clotilde Vincent

## Dieticians

Laurence Cachera  
Fiona Dumur  
Cécile Ingelaere

## Psychologists

Karima Benaisa  
Margot Rousselle  
Clémence Suissa  
Justine Van de Maele

## Teachers in adapted physical activity

Elodie Guilbert  
Léa Cousin

## Nurses

Sylvie Magrit  
Mathieu Pluvinage  
Corinne Boucaut

Isabelle Telle  
Hafida Ghedbane  
Nathalie Menu  
Nadjet Derni  
Halima Rabhioui

## Assistant workers

Magalie Roussel  
Julie Delay  
Béatrice De Croock

## Secretaries

Anne-Sophie Bertin  
Anastasia Hoziaux  
Jennifer Jubeaux  
Ilona Pillot  
Sylvie Cleret  
Sandrine Houze