

EASY-TO-USE AI CALCULATOR PREDICTING 5Y WEIGHT TRAJECTORIES AFTER BARIATRIC SURGERY: A SOPHIA STUDY



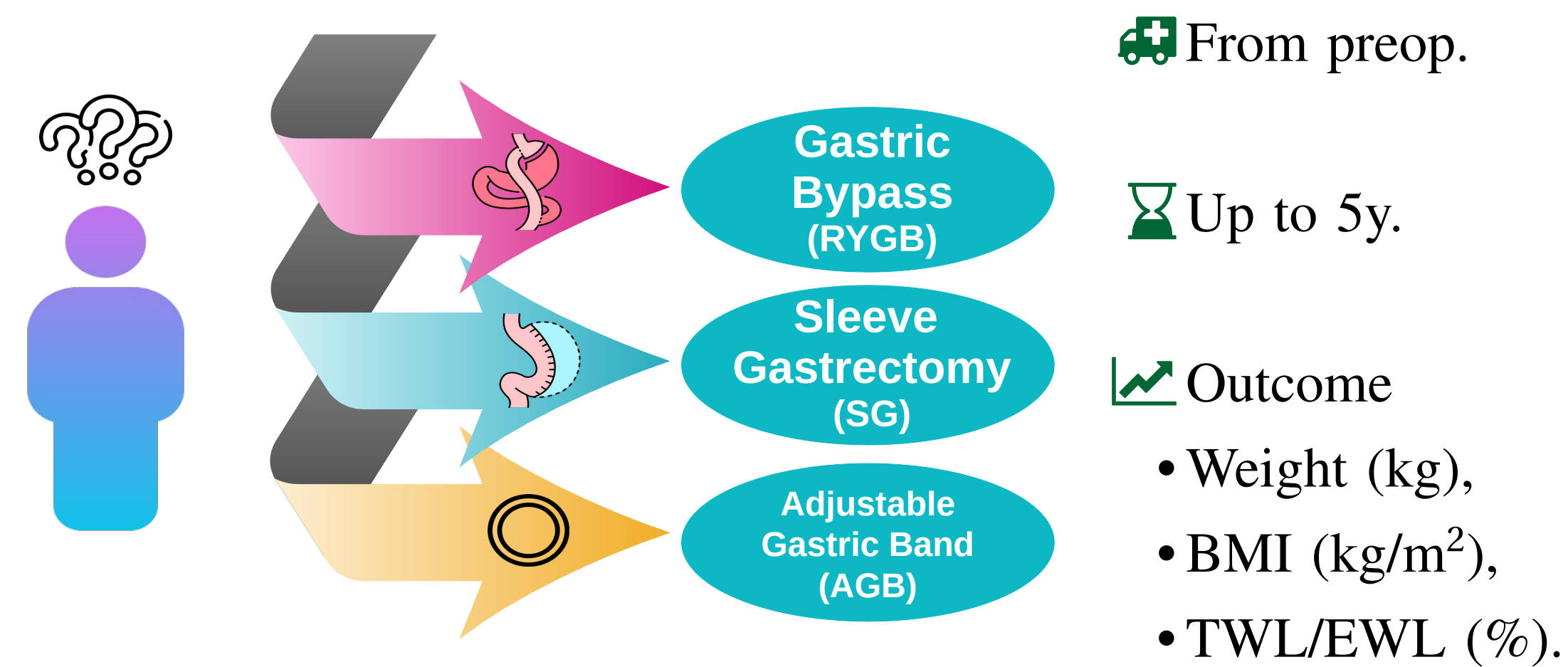
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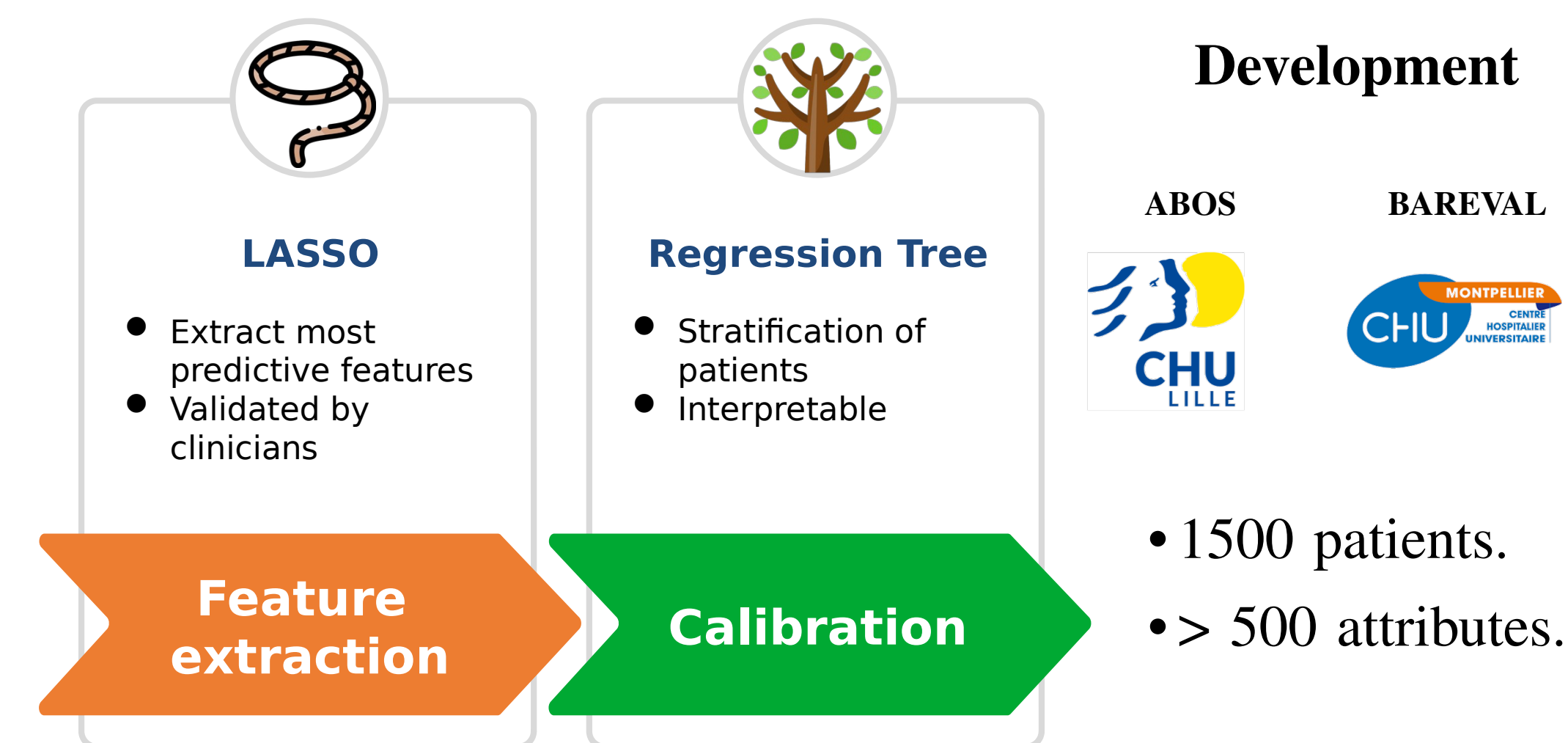
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Goal: predict the outcome of surgery



Machine learning model



An international study

Validation: 8 cohorts + 2 RCT studies, 10,000 patients, 3 continents.

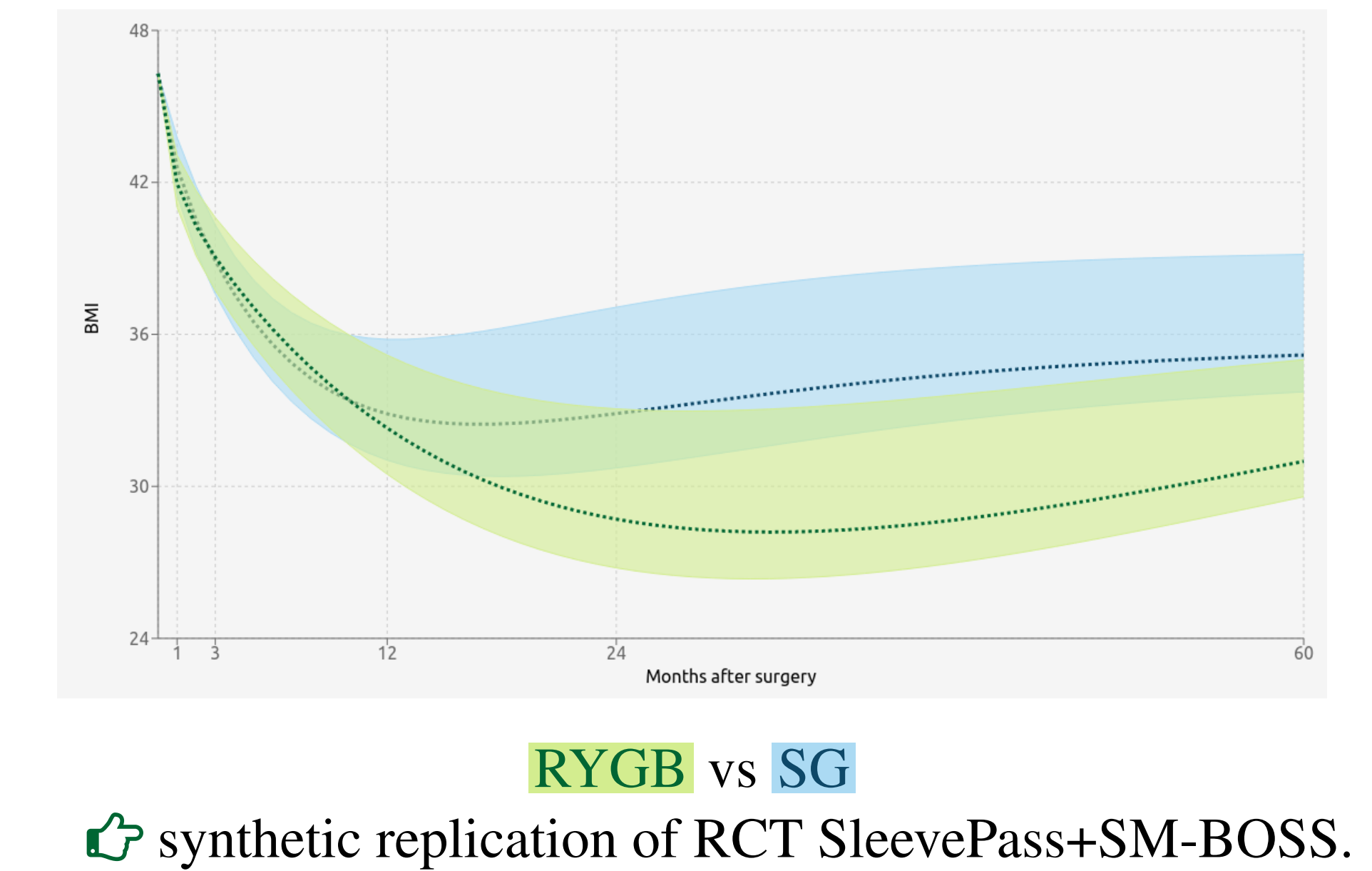


Results

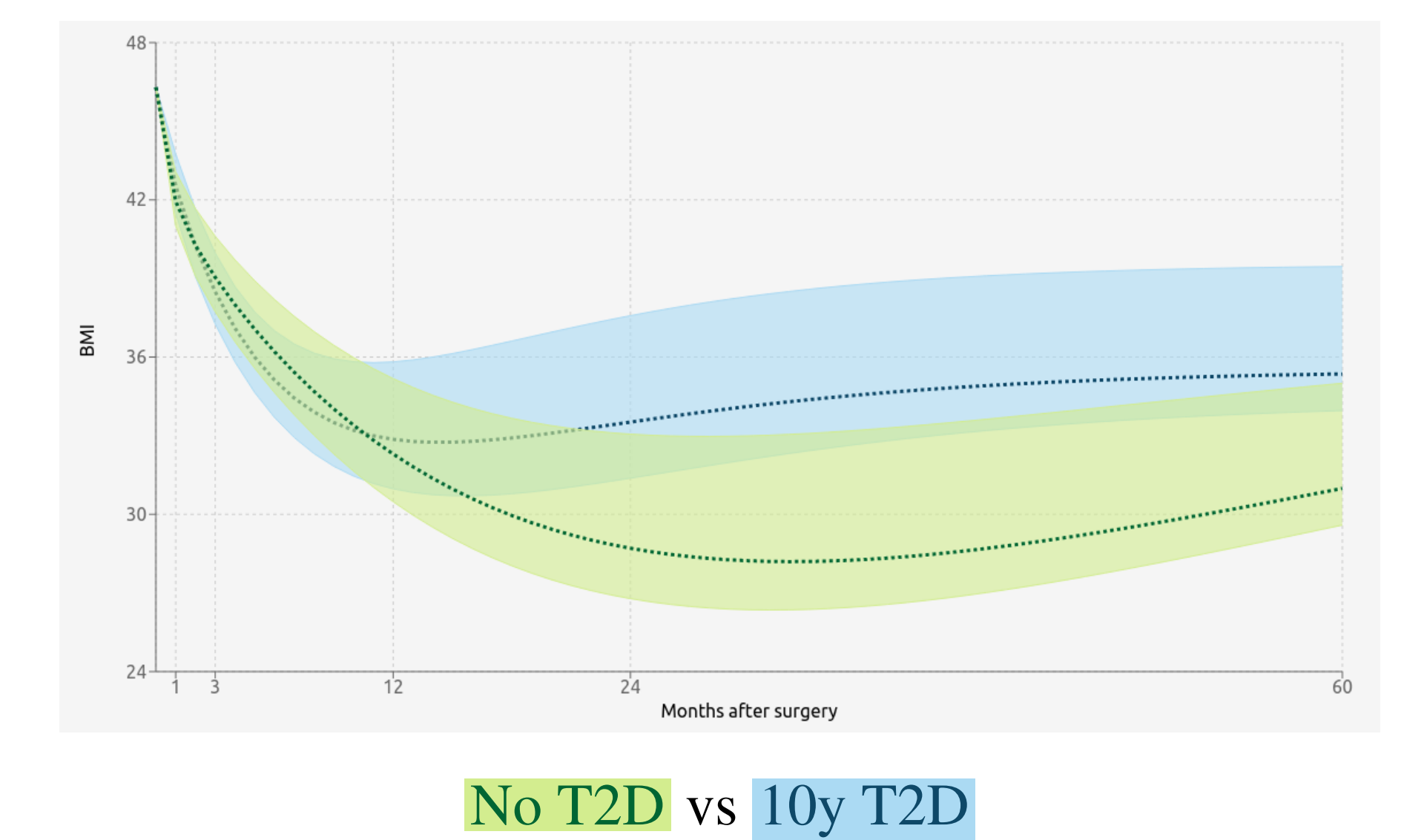
7 (simple) attributes are predictive of post-surgery weight loss:

- Weight (preop),
 - Height,
 - Age,
 - Type of intervention,
 - Type II diabetes (T2D),
 - Duration of T2D,
 - Smoking.
- Lower weight loss with
 - Age,
 - SG (after 1y),
 - T2D,
 - Longer (more severe) T2D.

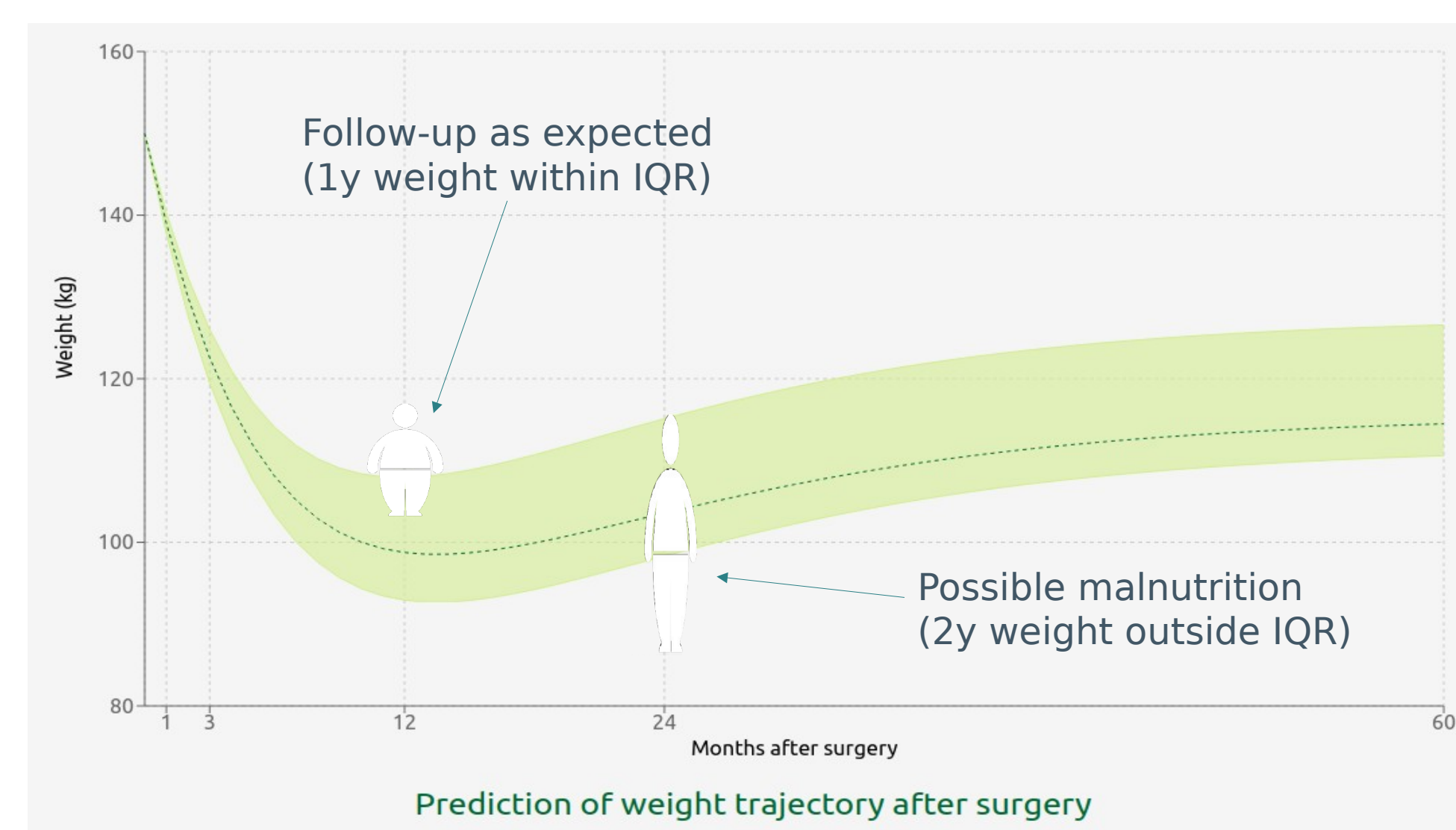
Impact of RYGB vs SG



Impact of T2D



A companion tool for patients and care providers



Bariatric Weight Trajectory Prediction



<https://bwtp.univ-lille.fr>

- Individualized trajectory (dotted line),
- "Green zone": where the majority of patients are (IQR),
- Preop: visualize expected weight loss,
- Postop: flag complications (patient out of green zone).

Validation

