



# Obesity Services

## Luton & Dunstable Hospital

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- Tier 1 service
  - Registries at GP services/Health Promotion
- Tier 2 service
  - Role of commercial weight loss programmes
- Tier 3 service
  - ?Hospital based / Community based
- Tier 4 service and Surgery
  - Surgical/Medical      NHS ENGLAND FUNDED



# Diabetes and Obesity

- Short-term: Bariatric / metabolic surgery is able to achieve improved glycemic control of Type 2 diabetes in selected obese patients (BMI>35).
  - Benefits for up to 2 years now shown in RCTs and up to 5 years in matched cohort studies with large groups of patients
- Long-term: Durability of this effect has yet to be fully characterized & potential benefits have yet to be definitively proven in routine clinical practice.
  - Exception: Swedish Obesity Subjects study\* – 15+ year evidence suggests CV benefit, T2DM prevention & prolonged glycemic control

\* Sjostrom, L et al. Bariatric Surgery and Long-term Cardiovascular Events. JAMA 2012; 307(1):56-65  
Carlsson, L et al, Bariatric Surgery and Prevention of Type 2 Diabetes in Swedish Obese Subjects. NEJM 2012; 367:695-704. Ref



# Obesity and Diabetese

Bariatric / metabolic surgery can achieve better control of Type 2 diabetes with much less medication in select obese patients (BMI>35)

- Focus on those patients who are at highest risk of a CV event:

- Younger (under 60)

- Treated less than 10 years

- Difficulty maintaining glycemic control with pharmacological agents.

- Having at least one other CV risk factor in addition to T2DM, e.g. elevated insulin, hypertension and/or dyslipidemia.

- Difficulty maintaining acceptable weight (almost all T2DM patients).

- Surgery is a therapeutic intervention, not just for severely obese patients.

- Mode of action of bariatric surgery is metabolically analogous to many T2DM medications with positive impact on GLP-1 & insulin sensitivity.



# Obesity and surgery

High

## Quality (Level I & II-1,2) Studies on Bariatric / Metabolic Surgery in Diabetic Patients

<u>Investigator</u>	<u>Study Type</u>	<u># Diabetic Patients</u>	<u>Primary Endpoint</u>	<u>Study Duration</u>
<a href="#">Carlsson</a>	Non-randomized, prospective, controlled	3429 pts, 2 arms (1658 surgery)	Rate of incident type 2 diabetes mellitus	15 years
<a href="#">STAMPEDE (Schauer)*</a>	RCT, single center	150 pts, 3 arms	HbA1c $\leq$ 6 with or w/o meds	Year 1 of 5-year study
<a href="#">Mingrone</a>	RCT, single center	60 pts, 3 arms	HbA1c $\leq$ 6.5 without meds	2 years
<a href="#">Buchwald*</a>	Systematic Review & Meta-Analysis	135,000 pts, 621 studies, 888 arms	Effect of bariatric surgery on Type 2 diabetes	N/A
<a href="#">Klein*</a>	Matched Cohort, Claims data	1600 pts, 2 arms	Economic impact & clinical benefits of bariatric surgery	3 years
<a href="#">AHRQ (Segal)*</a>	Matched Cohort, Claims data	8400 pts, 2 arms (2100 surgery)	Impact of surgery to reduce utilization of CV meds	Year 1 of 3-year study
<a href="#">Bolen*</a>	Matched Cohort, Claims data	14,000 pts, 2 arms (6300 surgery)	% Obesity-related co-morbidities between groups	5 years
<a href="#">Cohen</a>	Non-randomized, prospective	66 pts, 1 arm	Safety and % of patients experiencing diabetes remission	5 years (median)





# Obesity and Surgery

- Surgery for Diabetes (T2DM)
  - Ileal interposition with Sleeve gastrectomy
  - May become a therapeutic option in future for selected patients
  - QOF
    - Diabetes
    - CV disease inc Hypertension
    - Cancer

Thank You