Unmet Need for Bariatric Surgery

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In Ireland, fewer than 1/100,000 population publicly funded surgeries
Medical Matters: Suspension of surgery for obesity the worst type of HSE 'slash and burn' care

They have delivered a death sentence to my patients. They are playing with people's lives." It's not often you will hear a hospital consultant utter words such as these.
Aim

To estimate the number of people potentially eligible for bariatric surgery in Ireland based on established clinical criteria

To refine the number by identifying those with high morbidity, mortality and healthcare cost, that respond best to bariatric surgery
Participants completed a computer-assisted personal interview which included questions on self-report doctor diagnosis of chronic conditions.

Trained nurses objectively measured participants’ weight and height. These measures were used to calculate BMI.
Eligibility criteria

Criteria 1:
BMI ≥40kg/m² or
BMI ≥35kg/m² and type 2 diabetes OR hypertension OR sleep apnoea OR MI

Criteria 2:
BMI ≥35kg/m², type 2 diabetes and elevated urine albumin creatinine ratio OR retinopathy OR neuropathy OR MI OR peripheral vascular disease
Statistical analysis

- The number of participants meeting the eligibility criteria for each analysis were expressed as a percentage with corresponding 95% confidence intervals, using Poisson regression.

- Prevalence estimates were applied to the most recent Irish census figures (2011) to estimate absolute numbers meeting these criteria.

- Based on evidence from the UK national registry of bariatric surgical patients, a diabetes remission rate of 65% was applied to model the number of people with type 2 diabetes and microvascular complications (criteria 2) with potential remission of diabetes following surgery.
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<tr>
<th>Condition</th>
<th>N</th>
<th>% (95% CI)</th>
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<tbody>
<tr>
<td>BMI ≥40kg/m²</td>
<td>145</td>
<td>2.66 (2.25, 3.13)</td>
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<tr>
<td>BMI ≥35kg/m² and:</td>
<td></td>
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<tr>
<td>Type 2 diabetes</td>
<td>112</td>
<td>2.06 (1.70, 2.49)</td>
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<tr>
<td>Hypertension</td>
<td>336</td>
<td>6.08 (5.43, 6.79)</td>
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<tr>
<td>Previous MI</td>
<td>37</td>
<td>0.67 (0.48, 0.94)</td>
</tr>
<tr>
<td>Sleep apnoea</td>
<td>119</td>
<td>2.19 (1.81, 2.65)</td>
</tr>
<tr>
<td>Any</td>
<td>444</td>
<td>7.97 (7.23, 8.78)</td>
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112 (2.06%) participants had a BMI ≥35kg/m² and type 2 diabetes

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<tr>
<th>Condition</th>
<th>N</th>
<th>% (95% CI)</th>
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<tbody>
<tr>
<td>Previous MI</td>
<td>15</td>
<td>0.29 (0.17, 0.50)</td>
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<tr>
<td>Protein in urine</td>
<td>14</td>
<td>0.25 (0.15, 0.41)</td>
</tr>
<tr>
<td>Retinopathy</td>
<td>17</td>
<td>0.36 (0.22, 0.58)</td>
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<tr>
<td>Neuropathy</td>
<td>21</td>
<td>0.39 (0.25, 0.60)</td>
</tr>
<tr>
<td>Peripheral vascular disease</td>
<td>10</td>
<td>0.19 (0.10, 0.35)</td>
</tr>
<tr>
<td>Any</td>
<td>50</td>
<td>0.97 (0.73, 1.28)</td>
</tr>
</tbody>
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Eligible population

The number of people aged 50 years or older in Ireland, in 2011, with potential indication for bariatric surgery under *criteria 1* was:

92,573 (95% CI: 83,978–101,981)

The number of people aged 50 years or older in Ireland, in 2011, with potential indication for bariatric surgery under *criteria 2* was:

11,231 (95% CI: 8,471 – 14,890)

7,301 patients achieving good glycaemic control, without requiring medication
Conclusion

A substantial proportion of older Irish adults are potentially eligible for bariatric surgery

With an estimated 1/100,000 population publically funded surgeries taking place annually, our findings indicate that current public service provision of bariatric surgery in Ireland meets much less than 0.1% of the need

A strategy to develop and expand the provision of bariatric care is urgently needed
Implications for policy

• Urgent need for the provision of clinical and cost-effective interventions to treat people with severe obesity

• One strategy to limit the budget impact is to focus on the 0.97% of patients, eligible under criteria two, that have very large and immediate impacts on their health and healthcare cost

• The provision of bariatric surgery to those in greatest need thus has the potential to improve both patient outcomes and reduce direct healthcare expenditure quickly
Acknowledgements

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Professor RoseAnne Kenny
The Irish Longitudinal Study on Ageing

HRB Research Leader Award
References


Health Service Utilisation and Related Costs Associated with Diabetes

Attendance at health services in previous 12 months

Those with diabetes reported an average of 5.8 GP visits in the past 12 months compared to 3.8 visits in those without diabetes.
Health Service Utilisation and Related Costs Associated with Diabetes

- Diabetes diagnosis in males independently associated with an additional 1.70 GP visits per annum, and 1.14 visits in females.
- Diabetes was independently associated with a 57% increase in hospital admissions among males and a 48% increase in females.

The total incremental costs for the additional health service use associated with diabetes was an estimated €68,911,819 for a 12-month period.