

Optimising Obstetric Care in High BMI Patients - Should We Offer Elective Caesarean Sections Based on BMI?

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Introduction

Obesity in the obstetric population is increasing. Obese patients pose obstetric and anaesthetic challenges, contributing to maternal and foetal morbidity and mortality [1]. Our maternity department is increasingly busy, with a birth rate of 4000/year. More women with high BMIs are booking, and increasingly require involvement of the anaesthetic team, especially out-of-hours, when potentially less-experienced staff are on call. Along with our obstetric colleagues, we want to ensure that we are offering all patients the best care possible.

Methods

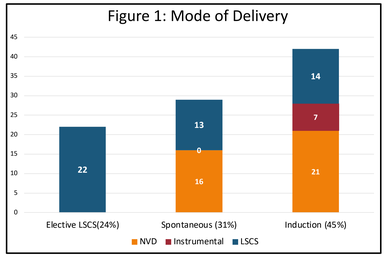
- Retrospective data collection over a 12 month period (March 2020 – Feb 2021) including all **pregnant** women booking into maternity services at Whiston with a **booking BMI >40.**
- Data collected using electronic records - Maternity Medway and EDMS
  - Demographics - Booking BMI, parity
  - Antenatal care – Obstetric clinic, Anaesthetic clinic
  - Labour - spontaneous vs IOL, length/indication of induction
  - Outcome - mode of delivery, complications

Results

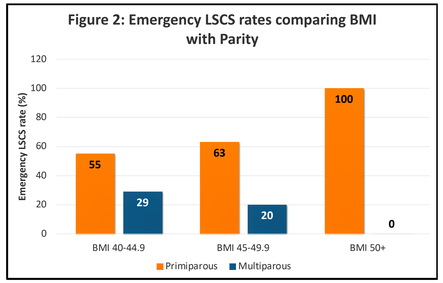
- In total, 141 women met our criteria
- 93 live births
  - Patients were excluded if lost to follow-up, pregnancy continuing or was lost
- BMIs ranged from 40 to 58.8

Results

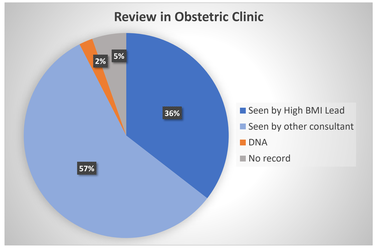
- Of the 93 live births;
  - 24% underwent elective lower segment caesarean section (LSCS)
  - 45% underwent induction of labour
  - 31% laboured spontaneously

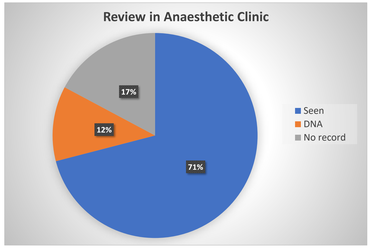


- The emergency LSCS rate was 38% - with 85% of them out-of-hours
- The eLSCS rate did not increase with BMI
  - 41% with BMI 40-44.9
  - 39% with BMI 45-49.5
  - 29% with BMI >50
    - Numbers were small in higher BMI categories (only eight women had a booking BMI > 50)



- A trend was seen with parity, BMI and elective LSCS rate;
  - Primiparous women were more likely to have a LSCS with increasing BMI
  - Multiparous women had a much lower LSCS rate
  - In the BMI >50 group, all primiparous women underwent a LSCS, whereas all multiparous women had a vaginal delivery





Discussion

- The Royal Colleges of Anaesthetists (RCOA) and Obstetricians and Gynaecologists (RCOG) recommend that woman with a BMI >40 should receive specialised antenatal care.
  - We found pleasingly high levels of consultant-led clinics in both specialties.
- The RCOA recommends that an anaesthetist of at least ST6 grade should be involved in the operative delivery of these high-risk patients [2] . Due to frequent out-of-hours emergency LSCSs, this is often not the case.
- With higher emergency LSCS rates in primiparous women with high BMIs (100% when BMI>50), perhaps this group should be offered elective LSCS to ensure the recommended safe care. Our obstetricians are reviewing the "High BMI Pathway". This, along with altering the timing of induction-of-labour, may improve patient care by reducing the number of out-of-hours emergencies.

References

1. Denison FC, Adela NR, Keag O et el, on behalf of the Royal College of Obstetricians and Gynaecologists. Care of Women with Obesity in Pregnancy. Green-top Guideline No. 72. BJOG 2018
2. Hoque N. And Stocks G. Anaesthetic care for women who are obese during pregnancy. Raising the Standards: RCOA Quality Improvement Compendium. Royal College of Anaesthetists. 2020.