to deliver is challenged by raised body mass index (BMI). Conversion to GA during CS is challenging and potentially distressing for the mother. The study aims were to quantify how surgical time (ST) and anaesthesia time (AT), at CS, vary by BMI.

**Methods:** A cross-sectional, retrospective review of electronic patient records (EPR) and theatre database. Women delivering in NHS Lothian between 1 Jan 2011 and 31 Dec 2019 were identified (n = 83,713). Data collected included mode of delivery, BMI and where applicable urgency of CS, ST, AT and mode of anaesthesia (GA, spinal, epidural top-up or combined spinal-epidural (CSE)). Missing data were excluded.

**Results:** Of 81,929 women, 29.8% delivered by CS. In BMI < 40 kg/m² (n = 20,999), 47% had CS compared with 29% of controls (P < 0.001). Emergency CS occurred in 516 (24.6%) of BMI > 40 kg/m² compared with 13,839 (17.3%) of controls (P < 0.001). Data were available for 20,989 singleton CS, 900 (4%) with BMI > 40 kg/m². AT and ST both increased with BMI (Kruskal-Wallis test: AT χ²(3) = 256.4, P < 0.001; ST χ²(3) = 294.7, P < 0.001). 10% of BMI > 40 kg/m² and 8.2% controls had GA. Of these, more occurred following regional or attempted regional in BMI > 40 kg/m² compared with 13,839 (17.3%) of controls (P < 0.001). When GA was used for emergency CS, mean AT in BMI > 40 kg/m² was 22.3 min vs. 16.8 min in controls. In BMI > 40 kg/m², AT for epidural and GA were similar (25.3 vs. 22.3 min).

**Discussion:** Approximately 50% of BMI > 40 kg/m² women delivered by CS; 25% had an emergency CS. AT and ST increase with BMI. Senior multidisciplinary involvement is required.

**References**

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**Table:** Anaesthetic and surgical time and BMI

| BMI kg/m² | Elective CS (n=8158) | Emergency CS (n=12 823) |
|-----------|----------------------|------------------------|
|           | n | mean AT (min) | mean ST (min) | n | mean AT (min) | mean ST (min) |
| <40       | 7779 | 36.2 | 45.8 | 12 342 | 27.3 | 44.3 |
| 40-44     | 263 | 48.9 | 55.0 | 333 | 32.5 | 49.9 |
| 45-49     | 107 | 54.2 | 56.7 | 105 | 36.1 | 53.1 |
| ≥50       | 49 | 70.3 | 62.8 | 43 | 39.3 | 62.4 |

**Table:** Comparison between most and least deprived areas

| SIMD quintile | Positive SARS-CoV-2 test n=97 | Admitted hospital with COVID-19 n=43 | Admitted Critical Care with Covid-19 n=8 |
|---------------|-------------------------------|-------------------------------------|----------------------------------------|
| 1 (Most deprived) | 40 (41.2%) | 22 (51.2%) | 6 (75%) |
| 5 (Least deprived) | 14 (14.4%) | 7 (16.2%) | 1 (12.5%) |

**Discussion:** In this cohort of obstetric patients, mothers from socioeconomically disadvantaged areas accounted for a higher proportion of SARS-CoV-2 positive cases (and hospital / critical care admissions) than those from more affluent areas. This is, to our knowledge, the first study to investigate this association in obstetric patients. The relationship demonstrated between ethnicity, deprivation and SARS-CoV-2 requires further investigation and may have implications for future resource allocation and service planning.

**References**

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P.1 Deprivation and SARS-CoV-2 in obstetric patients

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P.2 Complaints analysis in obstetric anaesthesia: Can we learn from Scottish ombudsman enquiries?

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