

Going Viral – Enhanced Recovery during a Global Pandemic

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Introduction

The Enhanced Recovery after Obstetric Surgery in Scotland (EROSS) project aims to reduce variation in care for women undergoing planned caesarean delivery (CD) and optimise patient experience, facilitating timely discharge from hospital [1]. In the 4 years since its introduction, compliance with specific bundles of care has improved with day 1 discharge increasing from 5% to 32% Scotland-wide [2].

The ongoing coronavirus pandemic presents significant challenges to maintaining service provision. The “first wave” of the pandemic saw a mostly consultant delivered service. Antenatal education was paused, and visitors were limited. We aimed to assess the impact of the pandemic on adherence to the EROSS bundles and discharge rates.

Methods

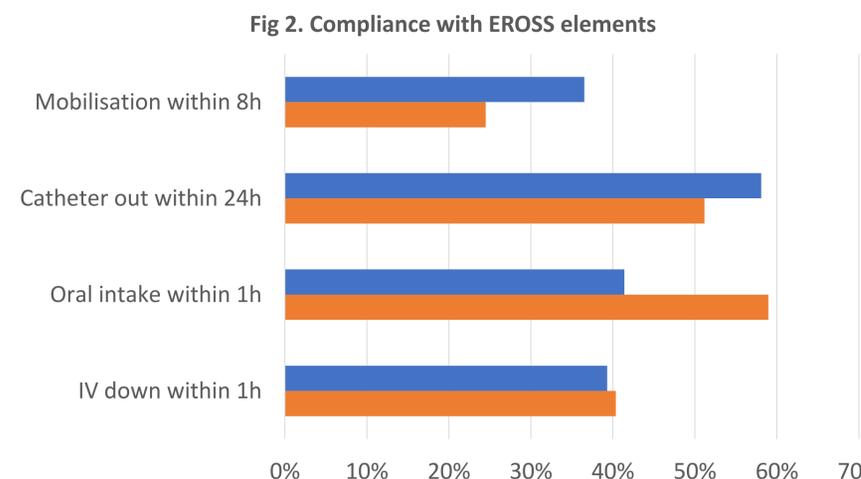
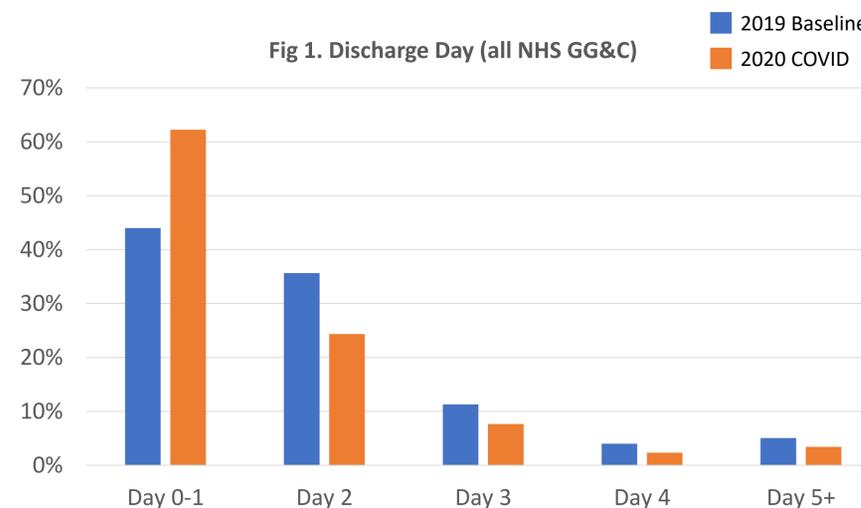
Caldicott approval was obtained to review data regarding planned CD across three maternity units in NHS Greater Glasgow & Clyde (NHSGGC) over two time periods: 18th March - 14th July 2019 (“baseline”) and 16th March – 12th July 2020 (“COVID”). Data were extracted from electronic patient records (Badgernet) and cross-referenced with theatres data (Opera). Patient characteristics, EROSS bundle elements and postoperative length of stay (LOS) – defined as interval between leaving theatre and discharge home – were compared. Data were analysed using Microsoft Excel.

Results

A total of 1306 planned CDs were reviewed. Patient characteristics were similar (table 1). There were gaps in recorded data on bundle compliance, particularly in the COVID cohort. Where recorded, compliance was variable. Length of stay was recorded in all cases - median length of stay was reduced in 2020, and day 1 discharge rates increased significantly.

	2019 Baseline	2020 COVID
Characteristics		
Number of planned CD cases	575	731
Age in years at delivery, mean (SD)	32.37 (5.4)	32.55 (5.0)
Parity, mean (SD)	2.17 (1.0)	2.23 (1.0)
Gestation in weeks, mean (SD)	38.51 (1.1)	38.48 (1.2)
BMI at booking kg/m ² , mean (SD)	28.04 (8.8)	27.90 (6.4)
Compliance with EROSS postoperative bundles of care (% achieved)		
IV fluids stopped within 1 hour	39.3	40.4
Oral intake within 1 hour	41.4	59.0
Mobilisation within 8 hours	36.5	24.5
Urinary catheter out within 24 hours	58.1	51.2
Postoperative Length of Stay (LOS)		
Median postoperative LOS, hours [IQR]*	44.4 [25.8]	29.0 [22.7]
Patients discharged home day 1, %*	44	62

Table 1: Patient characteristics, bundle compliance and discharge rates. * = p < 0.001



Discussion

Despite the challenges posed by the coronavirus pandemic, a planned caesarean delivery service was successfully maintained in NHS GGC – with an increase in the number of cases in 2020. Continuing the trend established over the preceding 4 years, median length of stay was reduced. Day 1 discharges were significantly increased despite similar bundle compliance.

Are these changes a natural continuation of the embedded EROSS pathway, or have the perceived barriers to discharge (e.g. limited antenatal education, staffing, and bundle compliance) been superseded by the concern of exposure to coronavirus? Further qualitative research with staff and patient surveys may provide greater insight.

References

- Wilson RD, Caughey AB, Wood SL, Macones GA, et al. Guidelines for Antenatal and Preoperative care in Cesarean Delivery: Enhanced Recovery After Surgery Society Recommendations (Part 1). *Am J Obstet Gynecol.* 2018 Dec;219(6):523.e1-523.e15.
- EROSS database Unpublished data (accessed 3rd November 2020)