

Impact of the COVID-19 pandemic on obstetric anaesthesia: a service evaluation

A.A. Rimmer, E. Thomas, O.D. Thomas, D. Helme, J. Tozer
Anaesthetic Department, Royal Gwent Hospital, Newport, UK

Introduction

The first wave of the COVID-19 pandemic, between March and May 2020, affected provision of anaesthetic services across the country. At its peak, critical care capacity exceeded 300% at Royal Gwent Hospital (RGH). Anaesthetic rotas were upscaled, trainees worked a 1 in 5 rota, and there was 24-hour resident consultant anaesthetist cover. An obstetric COVID-19 contingency plan was introduced from 15 March 2020. We explored the impact of the pandemic on the provision of obstetric anaesthesia in RGH[1].

		1 March – 31 May 2019		1 March – 31 May 2020	
Total deliveries		711		614	
Unassisted deliveries (% deliveries)		425	(59.8%)	381	(62.1%)
Instrumental deliveries (% deliveries)		70	(9.8%)	50	(8.1%)
CD (% deliveries)		216	(30.4%)	183	(29.8%)
Anaesthetic technique for CD	RA technique only (%CD)	198	(91.7%)	174	(95.1%)
	Conversion to GA (%CD)	7	(3.2%)	1	(0.5%)
	GA (%CD)	11	(5.1%)	8	(4.4%)
Epidurals (% deliveries)		229	(32.2%)	189	(30.7%)
PDPH (% epidruals)		3	(1.3%)	2	(1.1%)
HDU admission (% deliveries)		58	(8.2%)	46	(7.5%)
PPH > 1,500ml (% deliveries)		37	(5.2%)	24	(3.9%)
SCBU admission (% deliveries)		65	(9.1%)	94	(15.3%)
% follow up		88.6%		79%	

Table 1: Results for the measures of demand and quality used to compare the provision of anaesthetic services between 2019 and 2020.

CD – caesarean deliveries, RA – regional anaesthesia, general anaesthesia, PDPH – post-dural puncture headache, HDU – high dependency unit, PPH – post-partum haemorrhage, SCBU – Special Care Baby Unit.

Methods

We compared the demand and quality of care provided between March and May of 2019 and 2020. Measures of demand used were: total umber of deliveries, caesarean deliveries (CD), epidurals and non-CD theatre interventions. Measures of quality used were: rate of post-dural puncture headache (PDPH), anaesthetic technique for CD, number of post-partum haemorrhages (PPH) >1,500ml, rate of obstetric high dependency unit (HDU) admissions, special care baby unit (SCBU) admissions and anaesthetic follow up. Sources of data included the local obstetric anaesthetic database and diary, PDPH follow up record, delivery unit admission record and birth register.

Results

There was a reduction in workload, particularly in the earlier weeks of the pandemic, compared to 2019. Rates of successful regional anaesthesia (RA) for operative delivery were higher and HDU admissions were lower. In 2020 a lower percentage of women received follow up after anaesthetic intervention. See results in Table 1.

Discussion

There was a reduction in the number of deliveries in 2020, most elective CDs occurred in another hospital within the health board. The measures used suggest high quality care was maintained at RGH during the first wave of the pandemic; the CD rate under RA, and PDPH rate were improved, and the rate of PPH > 1,500ml and obstetric HDU admissions were reduced. Fewer women received anaesthetic follow-up, which could be improved through post-discharge telephone review. Since the first wave, obstetric services across the health board have been centralised. We plan to compare data in this new setting during the current COVID-19 wave.

References

1. Royal College of Anaesthetists. Guidelines for the Provision of Anaesthetic Services 2020. https://www.rcoa.ac.uk/safety-standards-quality/guidance-resources/guidelines-provision-anaesthetic-services