Reaudit of management of glycaemic control in diabetic women undergoing elective caesarean section: still room for improvement

F Taylor, L Yarlett, SE Harries, S Bell
University Hospital of Wales, Cardiff, UK

Introduction

Following a change in national diabetic guidance[1, 2], local audit performed in 2019 identified several areas of improvement which were incorporated into a revised care pathway for elective caesarean (ELCS) in 2020. A summary of the key points for gestational diabetes (GDM) management is shown in Figure 1.

Shortly after this was introduced, the COVID-19 pandemic led to telephone, rather than face to face pre-assessment. We therefore reaudited perioperative diabetic management to assess the impact of both the pathway and the change in preassessment.

Method

Following local audit registration, retrospective notes review of all diabetic mothers having ELCS (22/11/21-24/12/21) was performed and results compared to the previous audit (2019) and national recommendations[1,2].

Gestational Diabetes pathway

Preoperative advice
No insulin or oral hypoglycaemics to be given, can drink water only until transferred into theatre (no Lucozade).

Blood glucose monitoring (BM)
Check BM on arrival to hospital and if between 4-8mmol/L proceed with ELCS. Continue hourly blood glucose monitoring before and during ELCS (half hourly if GA) and maintain BM 4–8 mmol/L.

Recovery
No need for diabetic medication. Monitor BM before and 1 hr after meals for 24 hrs.

Figure 1: Key points from 'Management of Well Controlled Diabetic Women for Elective Caesarean Section'

Results

Notes were available for all 10 women having ELCS in 2021 and compared to 10 women in 2019.

In 2021, all women had GDM. Treatment included diet control (3), metformin alone (5) or insulin and metformin (2). In 2019, 8 women had GDM and 2 were Type 1 diabetics. Treatment included diet control (3), metformin alone (2), insulin alone (1) and dual insulin and metformin (4).

The revised care pathway advised variable rate insulin infusion (VRII) for all diabetics with blood glucose >7mmol/L. In 2021, no women required a VRII compared to two in 2019.

In both audits, all women were admitted on the day of surgery and had ELSC under spinal anaesthesia. A comparison of the audit results in 2019 and 2021 are shown in figures 2, 3 and 4.

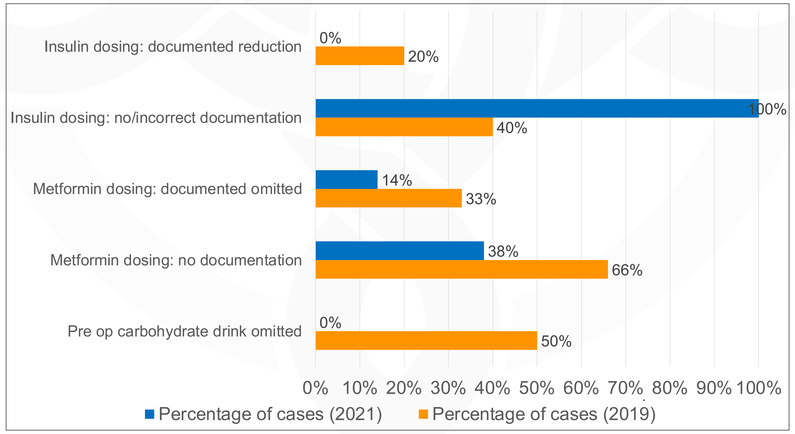


Figure 1: Preoperative advice

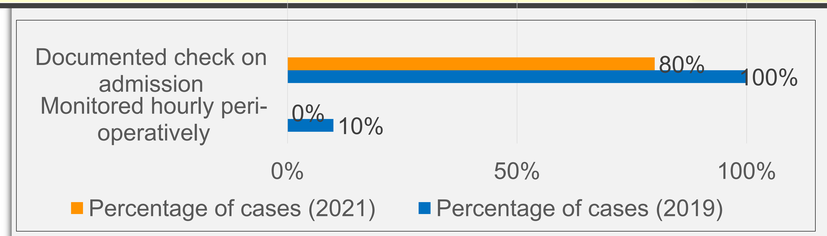


Figure 2: Monitoring of blood glucose

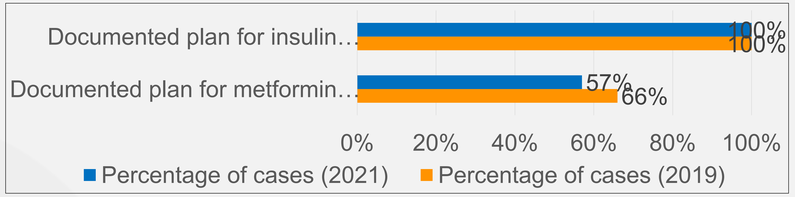


Figure 3: Post partum plan

Discussion

Despite a revised care pathway, perioperative management of the diabetic women having ELCS did not improve, although no woman had a documented blood glucose >7mmol/L.

The impact of pre-operative telephone consultation rather than a face to face anaesthetic pre- assessment and discussion, and changes in staffing are likely to have contributed to this.

The importance of reviewing current working practices to assess the impact of the pandemic on delivery of perioperative obstetric care cannot be underestimated.

References
1. *Guideline 3: Diabetes in Pregnancy - Management of diabetes and its complications.* **NICE.** February 2015.
2. *Management of glycaemic control in pregnant women with diabetes on obstetric wards and delivery units.* **Joint British Diabetes Societies.** May 2017.

Contact Information
For more information contact
fmtaylor@doctors.org.uk