

A re-audit on the postnatal readmissions in morbidly obese women

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Background

The risk of unplanned postnatal readmissions increases as BMI increases, which is costly and burdensome for women, families, and the maternity service in general. One-tenth of morbidly obese (BMI of 40 or more) women who gave birth at Princess Alexandra Hospital (PAH) revisited the hospital with wound infection following caesareans.

Aim: To examine the rate of and reasons for postnatal readmissions among this group of women after local initiatives have taken place at PAH maternity since the first audit.

Method

A quality improvement (QI) project was launched since the first audit was completed in February 2022.
A series of initiatives were undertaken: 1) staff education was arranged in wound management and the importance of applying PICO dressing and non-staple suture; 2) department guideline was revised to reflect NICE recommendations [NG192] on wound care after caesarean birth; 3) Monocryl 3-0 suture was made more available on the labour ward theatre.
Electronic clinical records of all eligible women were reviewed. All women were followed up-to 6 weeks after delivery. The outcomes were 1) readmission - an unplanned overnight admission, and 2) revisit - an emergency attendance to Emergency Department, Gynaecology Ambulatory Unit or the Labour Ward.

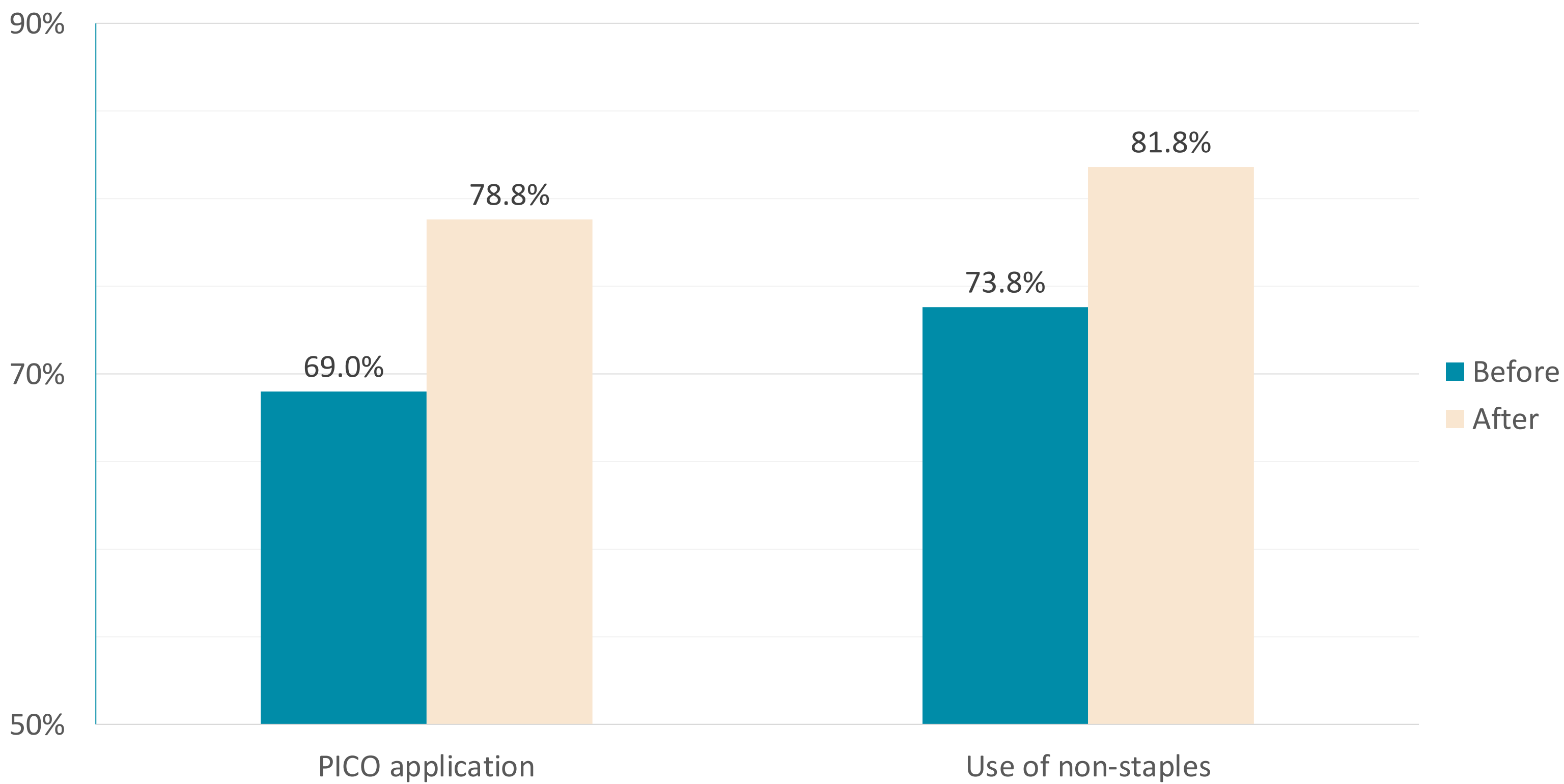
Table 1 Characteristics of women identified in this re-audit cycle

	Parameters	N (%)
Maternal age	All (mean±SD)	30.5±4.8
	21-30	37 (59.7%)
	31-40	23 (37.1%)
	>=41	2 (3.2%)
Booking BMI (kg/m²)	All (mean±SD)	43.7 ±3.5
	>=40	46 (74.2%)
	>=45	12 (19.3%)
	>=50	4 (6.5%)
Ethnicity	White	59 (95.2%)
	Mixed	2 (3.2%)
	Other	1 (1.6%)
Smoking	Current smoker	7 (11.3%)
	Ex-smoker	25 (40.3%)
	Never smoked	30 (48.4%)

Results

- A total of 62 women were included in this re-audit of which 59 (95.2%) were white. The mean age (SD) was 30.5±4.8 years, and the mean BMI (SD) was 43.7±3.5. Notably, 33 (53.2%) women included had a caesarean birth.
- Only one (1.6%) woman was readmitted after an elective caesarean section due to disruption of wound. Two women revisited PAH postnatally for raised BP and severe depression.
- In those who had a caesarean birth, PICO dressing was applied in 26 (78.8%) women and the non-staple suture was used in 27 (81.8%) women, demonstrating an improvement from the last audit (69.0% and 73.8%, respectively).

Figure 1 The rate of using PICO dressing and non-staples before and after the QI initiatives



Conclusion

- The rate of postnatal readmission in morbidly obese women at PAH was consistent with the previous audit (1.6% versus 1.4%) and remained lower than the level reported by the National Maternity and Perinatal Audit (4.9%).
- Through our PDSA cycle to implement a package of initiatives in wound care after caesareans, improvements were demonstrated in the use of both PICO dressing and non-staple sutures.**