

Background

- A single dose of intravenous antibiotic after assisted vaginal deliveries (AVD) reduces the risk of:
 - Endometritis
 - Perineal pain, infection and wound breakdown (1,2)
- To avoid these complications the RCOG recommends that **ALL patients who have an assisted vaginal birth should be offered a single dose of prophylactic antibiotics after delivery.**

Objectives

Our audit aimed to:

- Establish whether our local practice is in line with RCOG
- Devise methods to improve compliance with guidance

Design and Method

- We conducted a retrospective audit of AVD carried out in Doncaster and Bassetlaw Teaching Hospitals.
- We reviewed the intrapartum and postpartum online case notes for women over a 6 week period between **08/08/2022 and 19/09/2022.**
- We determined:
 - Women who had AVD
 - Cases in which antibiotics were prescribing post AVD
 - The type of antibiotics used
 - Location of the delivery
 - Postnatal complications

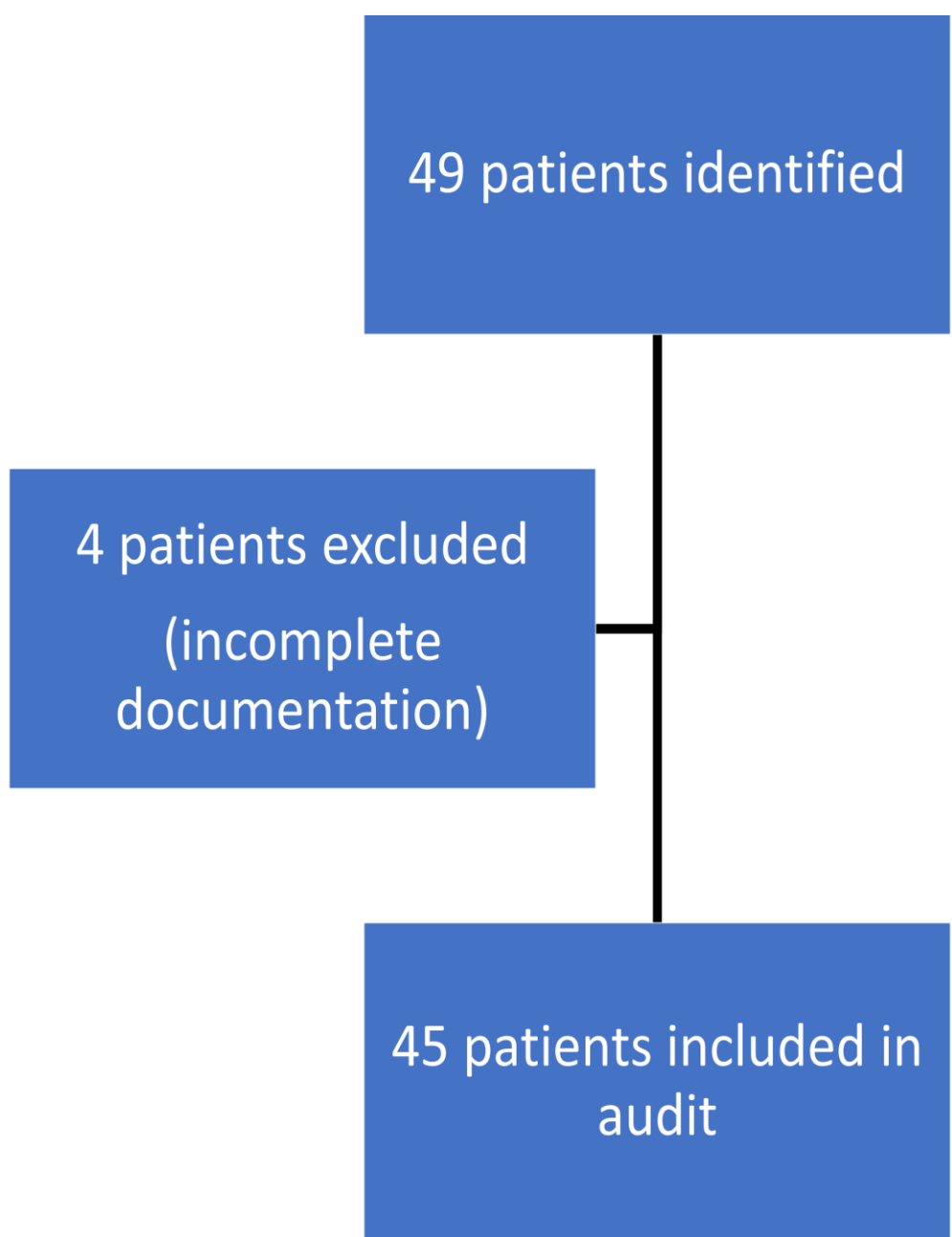


Figure 1. Patient selection criteria.

Results

- 28 women (62%) delivered in the larger Doncaster Royal Infirmary (Fig 2).

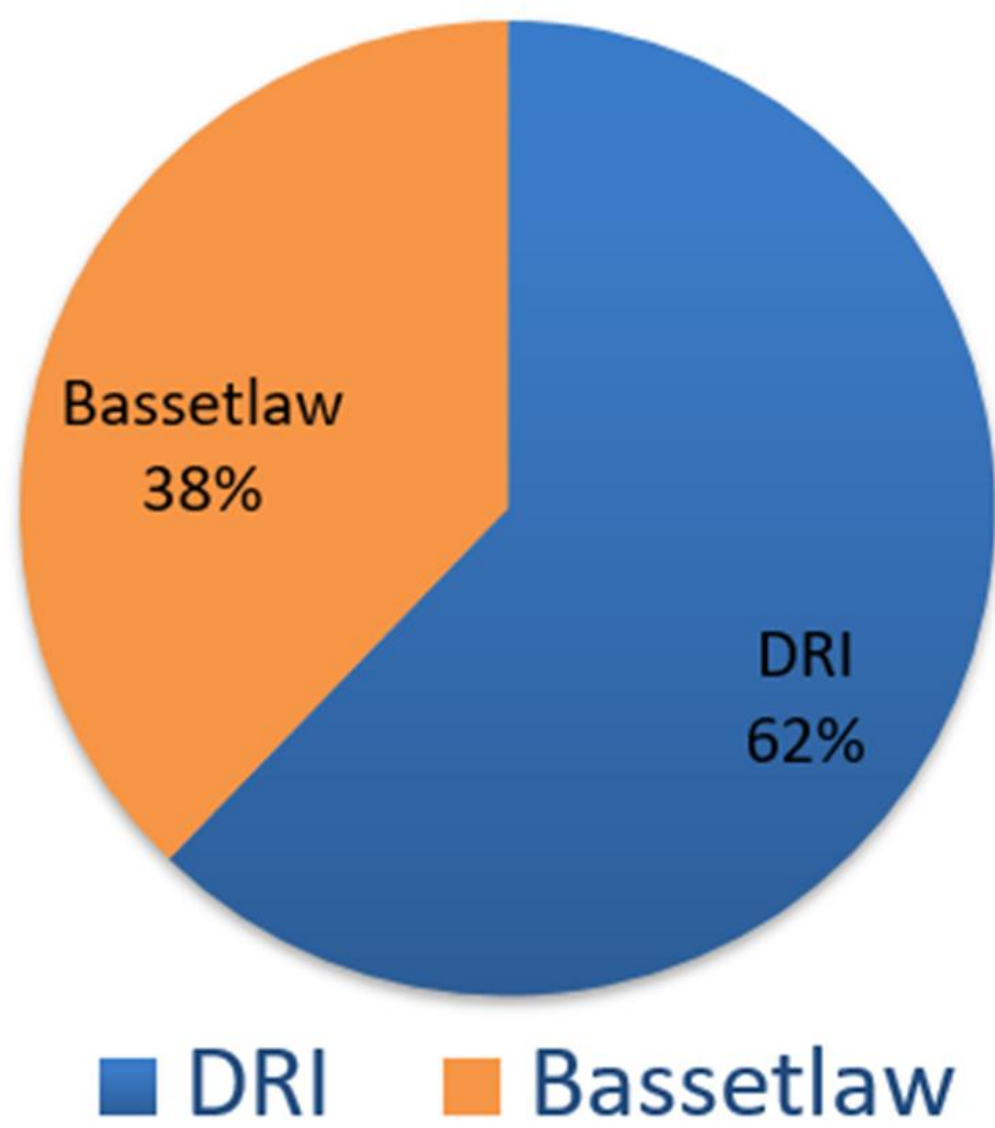


Figure 2. AVD by site

- Across both sites, **only 36%** of patients received the recommended antibiotic dose following AVD.
- 18%** of AVD in Bassetlaw Hospital were prescribed antibiotics with 67% of the doses given in theatre (Fig 3).

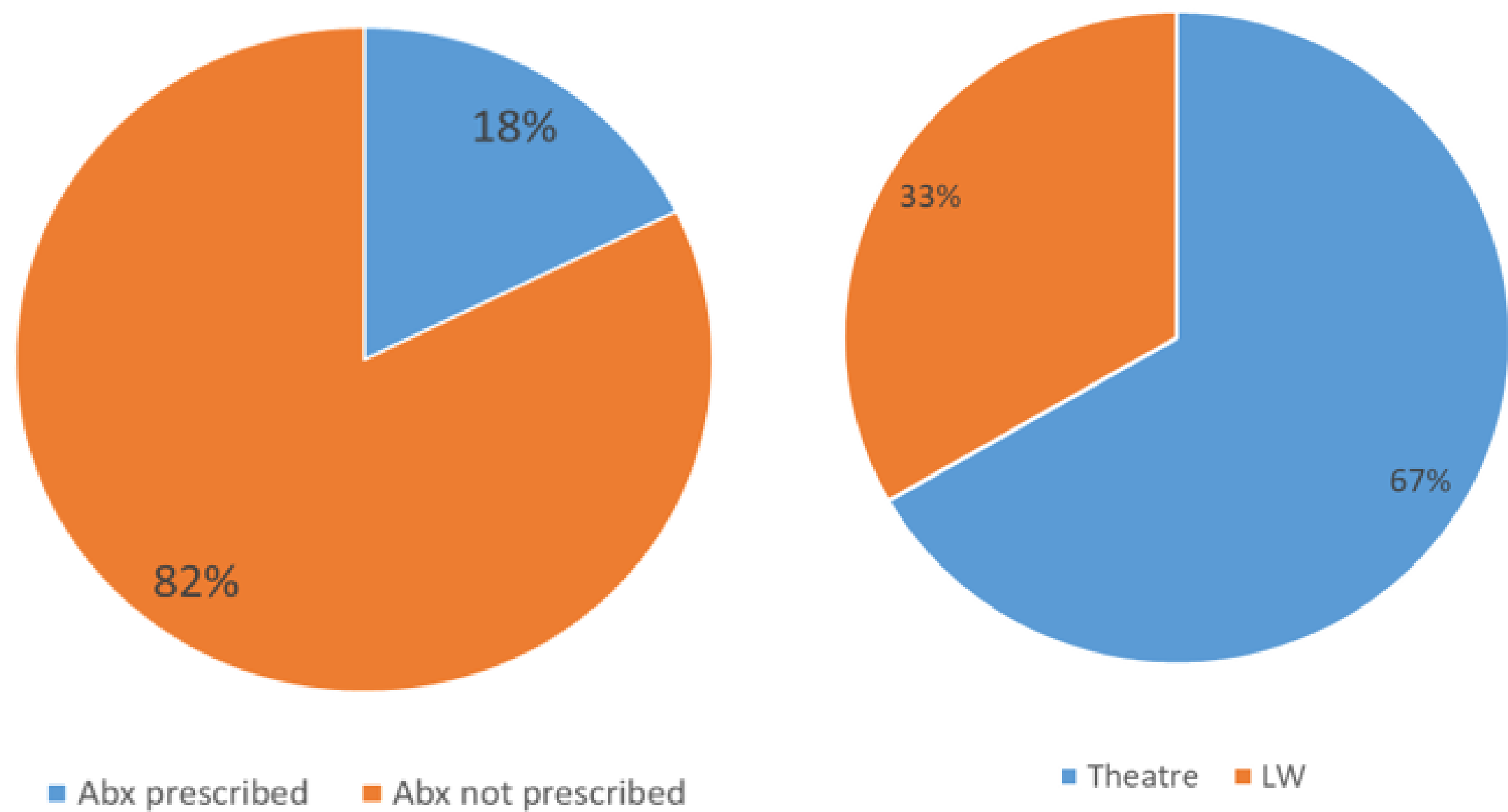


Figure 3. Percentage of women who had AVD in Bassetlaw Hospital who had antibiotics prescribed and the place of delivery.

- 46%** of women who had AVD in Doncaster Royal Infirmary were prescribed antibiotics. Of these women, 69% had the doses given on labour ward (Fig 4).

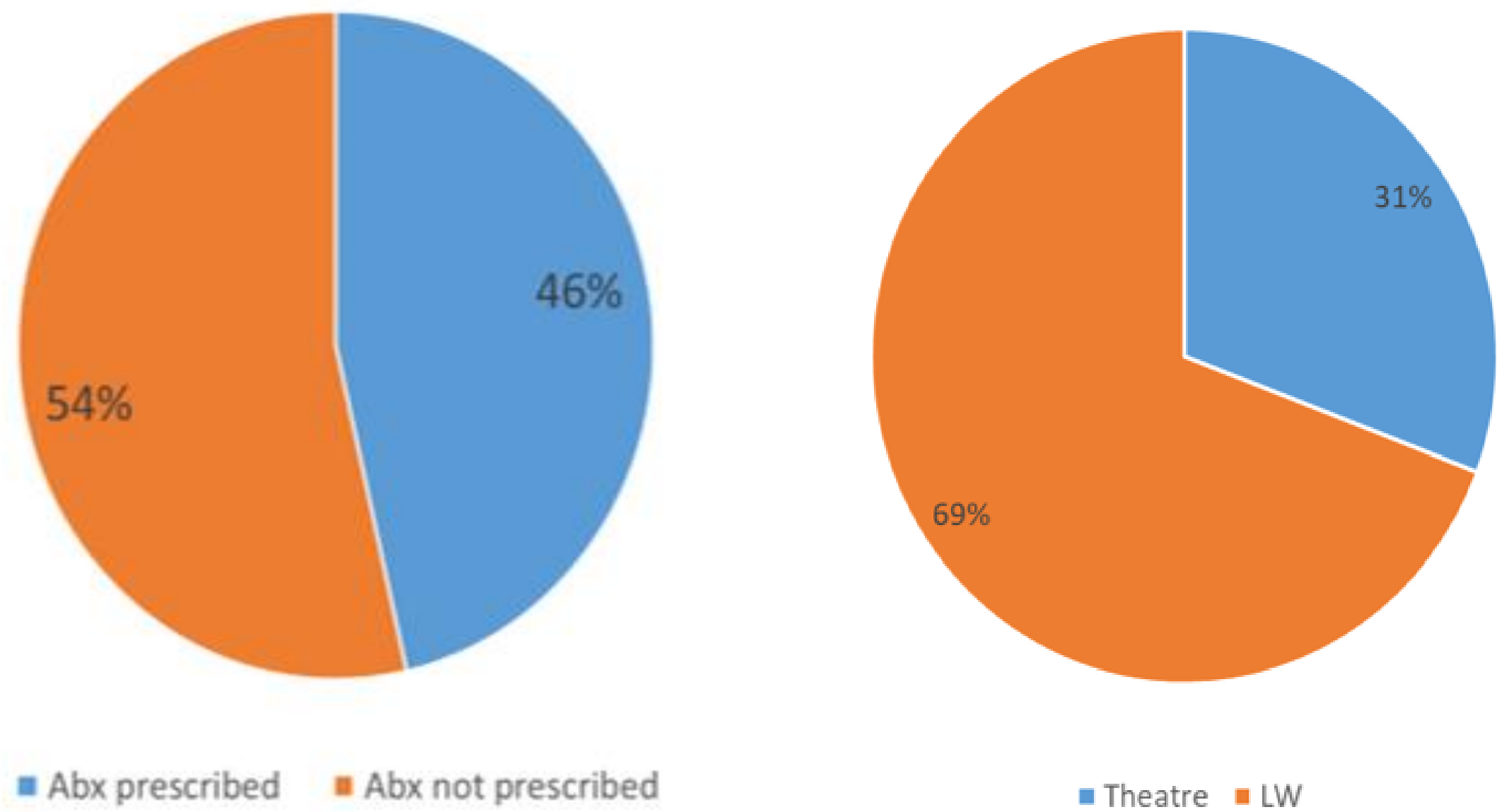


Figure 4. Percentage of women who had AVD in Doncaster Royal who had antibiotics prescribed and the place of delivery.

- There were no postnatal readmissions in the group of patients who received the recommended single dose antibiotic following AVD.
- 14%** of patients who did not receive antibiotics following AVD had a readmission for puerperium infection and required antibiotics (Fig. 5).

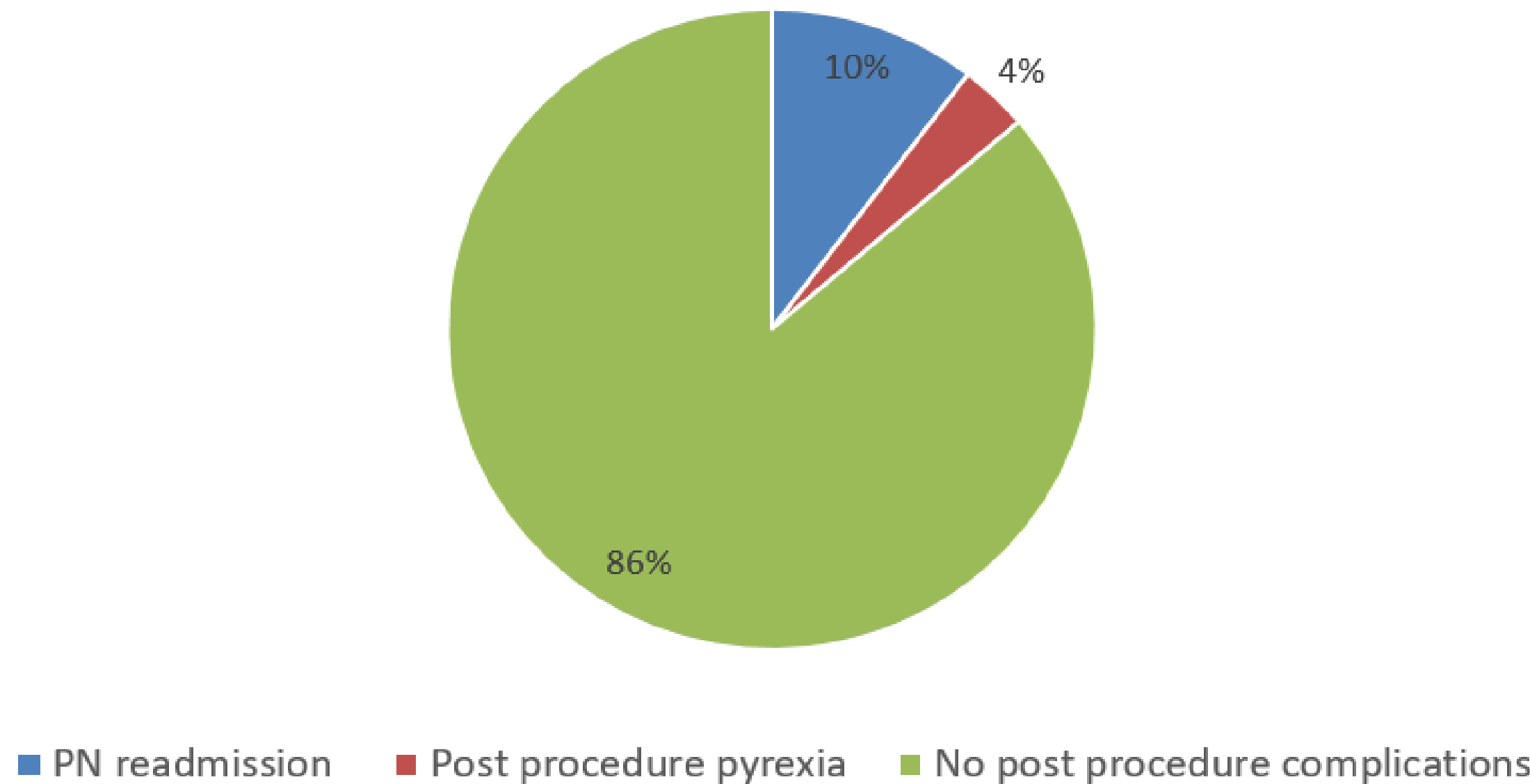


Figure 5. Percentage of postnatal complications in patients who did not receive antibiotics following AVD.

Discussion

- Our audit highlighted that **clinical practice in our region is not meeting the RCOG standard.**
- This is leading to an **increase in postnatal readmissions and poorer outcomes** for women who did not receive antibiotics following AVD.
- An MDT approach to prescribing antibiotics post AVD is crucial to improve knowledge and create uniformity of practice within our unit.

Next Steps

- Education of all staff members (midwives, obstetricians, anaesthetists).
- Prescribing posters for both labour wards and theatres (Fig. 6).
- Update departmental guidelines.
- Re-audit.

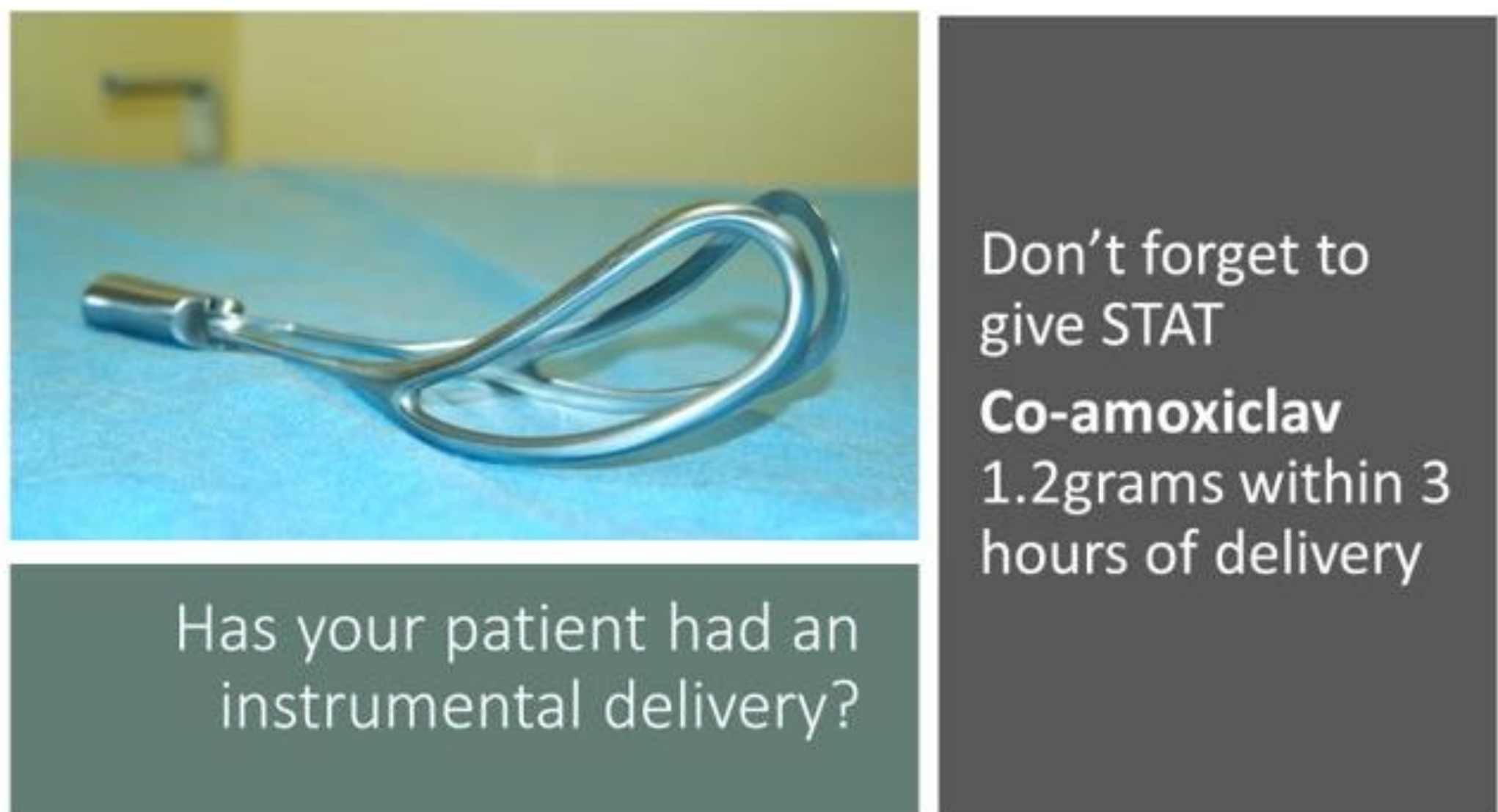


Figure 6. Prescribing poster for maternity units.

References

- Murphy DJ, Strachan BK, Bahl R, on behalf of the Royal College of Obstetricians and Gynaecologists. Assisted Vaginal Birth. BJOG 2020; 127: e70-e112.
- Knight M, Chiochia V, Partlett C, Rivero-Arias O, Hua X, Hinshaw K, et al. Prophylactic antibiotics in the prevention of infection after operative vaginal delivery (ANODE): a multicentre randomised controlled trial. Lancet2019; 393: 2395-403.