

Objective

The use of prophylactic antibiotics following operative vaginal deliveries (OVD) has been shown to significantly reduce the risk of maternal infection (1,2). The aim of this closed-loop audit was to assess the use of prophylactic antibiotics in OVD at Aberdeen Maternity Hospital against RCOG Green-top guidelines(3). These guidelines recommend Co-amoxiclav (clindamycin and gentamycin if penicillin allergic) should be given within 6-hours of delivery.

Design

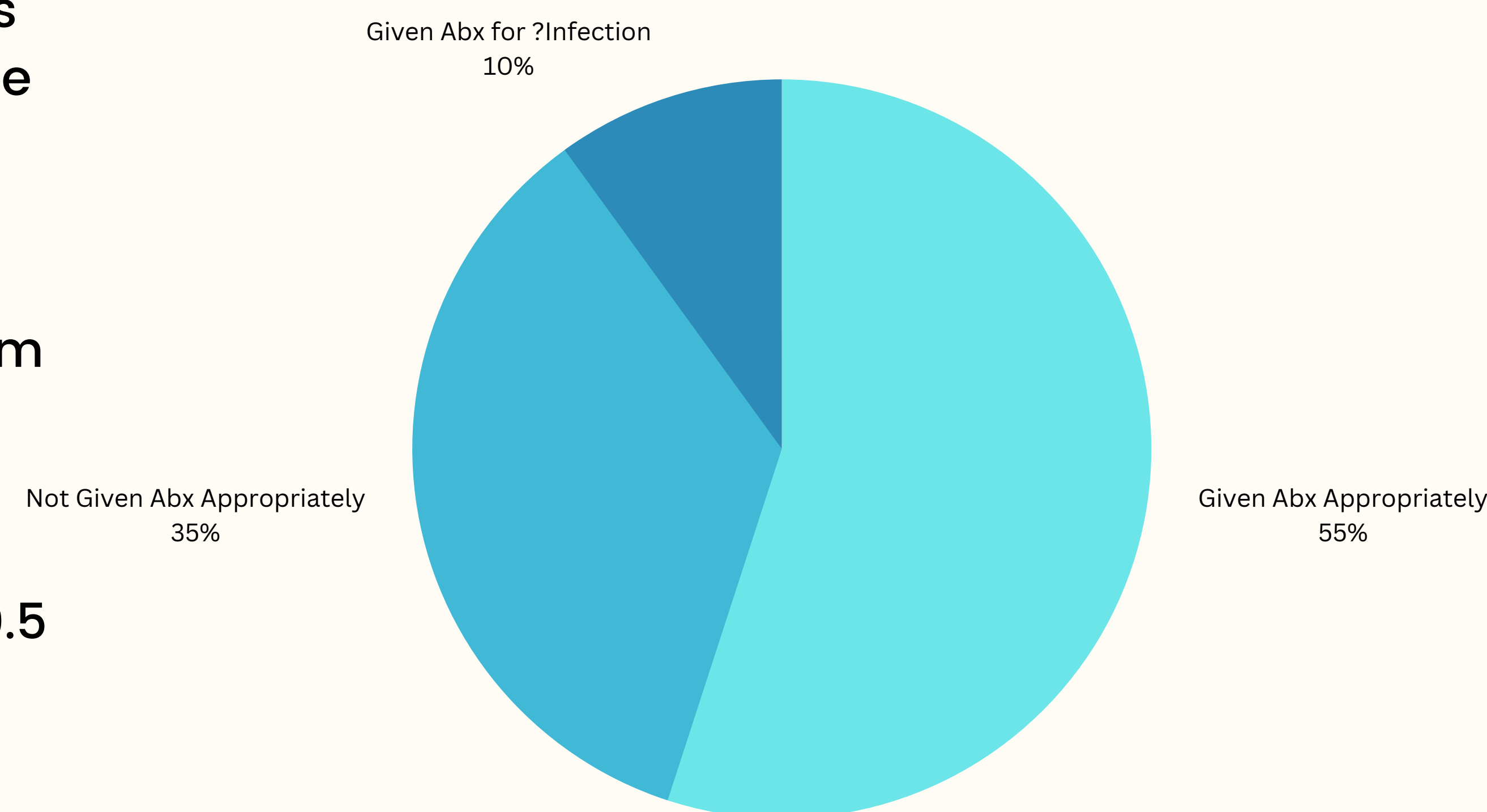
This was a retrospective audit. OVDs occurring within a three-month period were identified and compared to RCOG Green-top Guideline No. 26. Following educational intervention, a further three-month period was reaudited.

Method

Data was collected using BadgerNet to identify all OVD occurring between 01/10/21-31/12/21. Electronic and physical notes were then reviewed. After analysis of the first loop, results were presented in a departmental quality improvement meeting, and an educational poster was displayed within the Labour Ward. Subsequently, data was collected for OVD occurring between 01/04/22-30/06/22. Also collated were ethnicity, parity and maternal age.

Cycle One

- 111 women were identified
- 61 women were given antibiotics in accordance with the guidance (55.0%)
- 39 women were not given antibiotics (35.0%)
- 11 women were given intrapartum antibiotics or had an indication for ongoing antibiotics postnatally (10.0%)
- The mean maternal age was 30.5 years (95% CI [29.6, 31.4])
- 87.4% (97 women) were nulliparous.



Intervention

ANTIBIOTICS AFTER OPERATIVE VAGINAL BIRTHS

New NICE Accredited Guidelines From RCOG



ALL women should be given antibiotics following a forceps or ventouse delivery

- IV Co-Amoxiclav 1.2mg**
✳ If penicillin allergy - IV Clindamycin 900mg + IV Gentamycin 5mg/kg
- Single Dose**
- Within 6 Hours of Birth**



RCOG Green Top Guidance

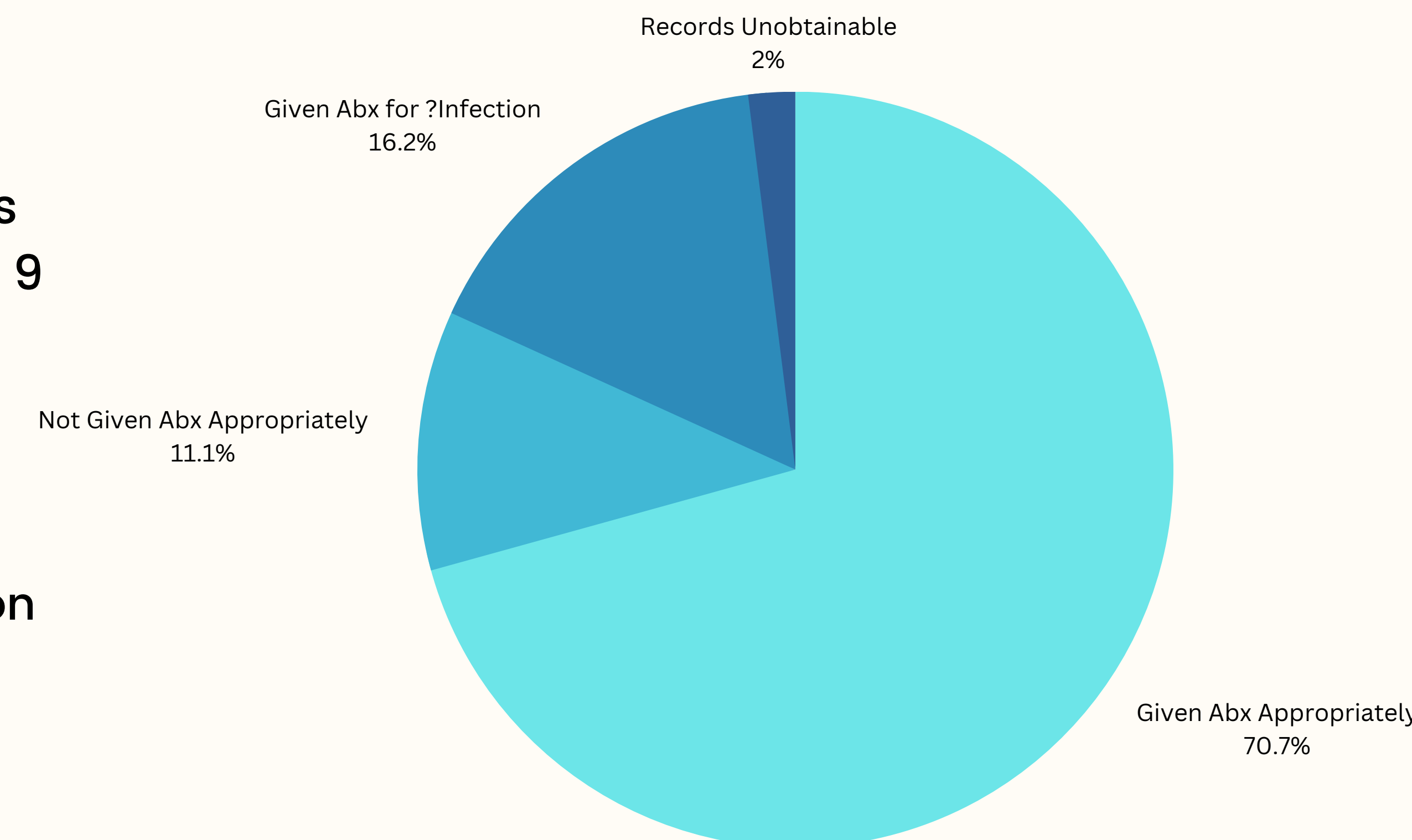
"A single prophylactic dose of intravenous amoxicillin and clavulanic acid should be recommended following assisted vaginal birth as it significantly reduces confirmed or suspected maternal infection compared to placebo"



REFERENCES
RCOG GREEN TOP GUIDANCE NO. 26 - MURPHY DJ, STRACHAN BK, Bahl R, on behalf of the Royal College of Obstetricians Gynaecologists. Assisted Vaginal Birth. BJOG 2020;127:e70-e112. Available at: <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2819%2930773-1> [Accessed 11 January 2022].
3. RCOG Green-top Guidance No. 26 - : Murphy DJ, Strachan BK, Bahl R, on behalf of the Royal College of Obstetricians Gynaecologists. Assisted Vaginal Birth. BJOG 2020;127:e70-e112. Available at <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2819%2930773-1> [Accessed 11 January 2022].

Cycle Two

- 97 women were identified
- 70 of these women were given antibiotics in accordance with the guidance (72.2%)
- 11 women were not given antibiotics appropriately (11.3%). This included 9 who did not receive antibiotics, 1 given clindamycin only and 1 who received antibiotics 12-hours postnatally
- 16 remaining women had an indication for intrapartum antibiotics (16.5%)
- Mean maternal age was 30.6 years (95% CI [29.6, 31.7])
- 80.4% (78 women) were nulliparous.



Conclusions

- Administration of prophylactic antibiotics following OVD improved by 17.2% following intervention
- Despite this, the reaudit identified 11 women not treated in accordance with current guidance
- This shows continuing room for improvement
- Further intervention and a third audit cycle may be beneficial to ensure all women meet best practice guidelines.

"Administration of prophylactic antibiotics following OVD improved by 17.2%"

Limitations

- 1.The variability of medication recording. Some were recorded on BadgerNet, some on the anaesthetic record and some on paper drug kardexes
- 2.This study was limited to births at Aberden Maternity Hospital only

Recomendations

1. Update to local NHSG guidelines
- 2.Implementation of BadgerNet "reminder" while inputing birth details

Acknowledgments

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References

f1.Mohamed-Ahmed, O., Hinshaw, K. and Knight, M., 2019. Operative vaginal delivery and post-partum infection. Best Practice & Research Clinical Obstetrics & Gynaecology, 56, pp.93-106. 2. 14.ANODE Study – Knight, M., Chiocchia, V., Partlett, C., Rivero-Arias, O., Hua, X., Hinshaw, K., Tuffnell, D., Linsell, L. and Juszczak, E., 2020. Prophylactic Antibiotics in the Prevention of Infection After Operative Vaginal Delivery (ANODE): A Multicenter Randomized Controlled Trial. Obstetric Anesthesia Digest, [online] 40(1), pp.27-28. Available at: <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2819%2930773-1> [Accessed 11 January 2022]. 3. 1.RCOG Green-top Guidance No. 26 - : Murphy DJ, Strachan BK, Bahl R, on behalf of the Royal College of Obstetricians Gynaecologists. Assisted Vaginal Birth. BJOG 2020;127:e70-e112. Available at <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2819%2930773-1> [Accessed 11 January 2022].