Utilisation of antibiotics, aperients, analgesia and pelvic floor exercises post-perineal tear at WDHS(2016-'19)

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Introduction: Perineal tears occur in 75-85% of vaginal births potentially causing significant morbidity (1).

Guidelines suggest antibiotics, aperients, patient specific analgesia and physiotherapy to reduce morbidity (2,3).

Timely assessment, repair and rehabilitation is pertinent in rural/remote localities, with morbidity improved by access to appropriate specialists(4,5).

Aim: Assess the utilisation of antibiotics aperients, analgesia and pelvic floor exercises post perineal tear at Western District Health Service (WDHS) locations from 2016-19

Methods: Ethics approval was obtained from Southwest Health Care (SWHC ref 2021 14).Retrospective patient data from 2016-19 inclusive was obtained from health information services at Hamilton Base Hospital and deidentified by the student researcher. Exclusion criteria: Multiple pregnancy, caesarean section, no perineal tear sustained.

Statistical analysis: Stata (V14.2). Descriptive statistics was used for patient demographics. Wilcoxon-rank sum (Mann-Whitney) tests used for all other non-normative data ($p<0.05$). Grade 3a-c tears were grouped for analysis.

Results: Demographics

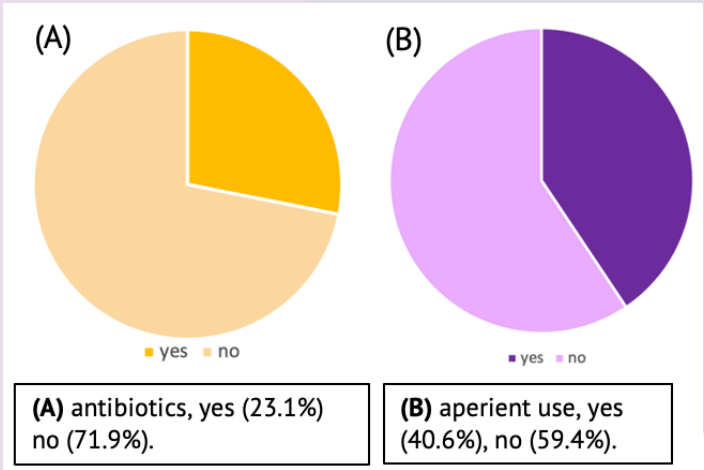
605 births from 2016-19 (372 vaginal, 136 met inclusion criteria, 8 excluded due to incomplete data). Average age 29.5years (±5.18),gravidity 2.46 (±1.85) and parity 1.9 (±1.32)

Tear factors *Protective factors:* BMI >30kg/m^2 (r=-0.2105), head circumference <33cm (r=-0.2417) *Predictive factors:* Non OA presentation, prolonged second stage (r=0.3548)

	Antibiotics (%)		Aperients (%)		Analgesia (%)		Physio (%)	
Tear #	Yes	No	Yes	No	Yes	No	Yes	No
1	24.3	75.7	29.7	70.3	91.89	8.11	43.2	56.8
2	24.7	75.3	42.3	57.6	97.6	2.35	54.1	45.9
3	100	0	100	0	100	0	80	20
4	100	0	0	100	100	0	100	0
Total (%)	28.1	71.9	40.6	59.7	96.1	3.91	52.3	47.6

Antibiotics More severe perineal tear was correlated with increasing antibiotic use (r=0.0207, p=0.0705)

Aperients More severe perineal tearing increasing the use of aperients (p=0.0346). No difference between aperient type

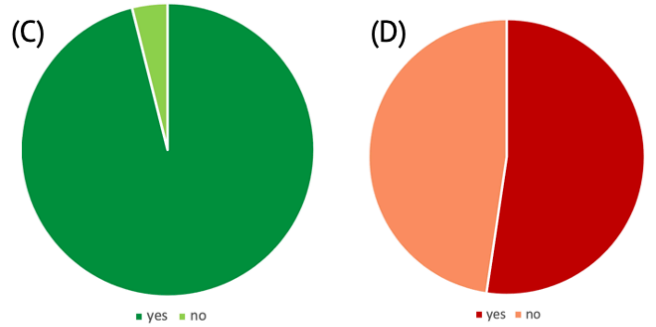


(A) antibiotics, yes (23.1%) no (71.9%).

(B) aperient use, yes (40.6%), no (59.4%).

Analgesia More severe perineal tears were significantly associated with opioid analgesia (p=0.0109) with no difference in perineal pain between groups (p=0.8047).

Pelvic floor exercises Physiotherapy referral was used as a surrogate marker for pelvic floor exercises. More severe perineal tear trended toward increased rate of physiotherapy referral (p=0.09)



(C) Analgesia, yes (96.1%), no (3.9%).

(D) Physiotherapy referral, yes (52.3%), no (47.6%)

Discussion/conclusion This is the first audit run at WDHS analysing these variables. The ANODE trial supported the use of a prophylactic amoxiclav postpartum, reducing endometritis risk(6). Physiotherapy intervention may reduce postpartum urinary incontinence and pelvic organ prolapse (7). Aperients and analgesia remain patient specific. A weakness of this audit include physiotherapy referral as a surrogate marker for pelvic floor exercises. Antibiotics, aperients, patient specific analgesia and physiotherapy referral are appropriately utilised at WDHS but should be offered irrespective of tear grade/birth mode. Future research will focus on long term outcomes (e.g.: pelvic organ prolapse, incontinence) following post-partum interventions.

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