

Delivery-associated Anal Sphincter Lacerations: Is this Event Coded Accurately? **L. Brubaker for the Pelvic Floor Disorders Network**

Objectives: To determine whether hospital discharge coding accurately records anal sphincter lacerations at vaginal delivery.

Methods: In this IRB-approved study, obstetric patients were recruited into one of three groups for an NIH-sponsored trial to evaluate the relationship between childbirth and pelvic symptoms (CAPS). The group of primary interest was women with anal sphincter laceration at vaginal delivery. The two comparison groups were cesarean delivery without labor, and vaginal delivery without anal sphincter laceration. In this sub-analysis, hospital discharge codes were collected from nine institutions and compared to the clinical record indicating anal sphincter laceration at delivery. The clinical record was used as the gold standard, since this is the source document for hospital discharge coding. The error rate was defined as the proportion of hospital discharge codes that did not capture the occurrence of anal sphincter laceration as reflected in the clinical record.

Results: Three hundred deliveries were reviewed across nine institutions. The error rate ranged from 0% to 62%, with an average of 24%.

Institution	A	B	C	D	E	F	G	H	I
Error Rate (%)	0	12.5	14.9	17.7	17.9	26.7	27.2	48.6	62
Number of Cases	36	40	101	62	28	15	33	35	42

The error rate was not associated with the number of deliveries at each institution, or the number of hospital discharge codes for each individual. The number of discharge codes ranged from 2.9 to 7.8 for women with anal sphincter laceration, compared to 2.5 to 7.2 for women without anal sphincter laceration. Only two patients without anal sphincter laceration were incorrectly coded as having an anal sphincter laceration, one from each control group.

Conclusions: The event of anal sphincter laceration is not accurately captured in hospital discharge codes, overall substantially underestimating delivery-associated anal sphincter lacerations as a maternal morbidity. We recommend against using hospital discharge coding as a source of estimates for delivery-associated anal sphincter lacerations. A complete assessment of maternal morbidity appears to require direct review of the delivery records, rather than using discharge coding as a proxy.

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