HIGHLIGHTS

Prenatal alcohol use and fetal alcohol spectrum disorder

Alcohol use in pregnancy is one of the leading preventable causes of developmental delays and birth defects in children in North America. In this population-based study, Bryanton and colleagues analyzed meconium samples for fatty acid ethyl esters, collected from 93% of neonates (n = 1307) born in Prince Edward Island or Halifax, Nova Scotia, to mothers from PEI, from November 2010 to November 2011. Positive results for the presence of fatty acid ethyl esters, indicative of heavy prenatal alcohol exposure during the last two trimesters of pregnancy, were found in 3.1% of samples collected within 24 hours after birth (see Table opposite). Samples collected after 24 hours after birth have a 20% to 30% false-positive risk because of endogenous ethanol production in the neonatal gut by postnatal bacterial colonization. Because not all neonates exposed to heavy prenatal alcohol in utero will exhibit fetal alcohol spectrum disorder, the authors estimate that fetal alcohol spectrum disorder will develop in 16 to 22 babies (1.3%) born during that year in PEI. ***CMAJ Open* 2014; 2:E121-E126**

Table: Results of meconium FAEE analysis (n = 1271 samples analyzed)

Time of sample collection	Negative result: FAEE level 0–2.00 nmol/g	Positive result: FAEE level > 2.00 nmol/g
≤ 24 h after birth	1057	39
25–48 h after birth	66	12
> 48 h after birth	17	1
Unknown	75	4
Total	1215	56

Note: FAEEs = fatty acid ethyl esters.

Trends in the management of breast cancer surgery

Major changes in the management of invasive breast cancer have occurred over the past 3 decades, including increased use of breast-conserving surgery, contralateral prophylactic mastectomy and immediate reconstructive surgery. In this analysis of hospital and day surgery data from the Canadian Institute for Health Information, Wagar and colleagues looked at the initial surgical procedure and subsequent procedures within 1 year for 57 840 women who had undergone surgery for breast cancer between 2007/08 and 2009/10. The overall crude mastectomy rate for women with unilateral invasive breast cancer was 39%. However, there were substantial provincial differences in surgical care for this group, with adjusted mastectomy rates from 26% to 69%, depending on the province (see Table opposite). The rate of re-excision for women who had breast-conserving surgery as their index procedure was 23%; again the rate and type of re-excision procedure varied by province. Canada trailed the United States in immediate reconstructive surgery (7% in Canada compared with an estimated 24% in the US). A better understanding of these differences would help inform potential quality initiatives, say the authors. ***CMAJ Open* 2014;2: E102-E108**

Table: Mastectomy and breast-conserving surgery among women with unilateral invasive breast cancer, index versus final procedure in Canada (n = 56 892), by province, 2007/08 to 2009/10

Procedure	No. of women (unless otherwise stated)										
	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL	Canada
Final procedure											
Breast-conserving surgery	4 040	2 204	592	1 282	13 413	10 979	719	794	100	277	34 439
Mastectomy	3 433	2 767	1 094	721	8 045	3 951	639	977	141	609	22 453
Total	7 473	4 971	1 686	2 003	21 458	14 930	1 358	1 771	241	886	56 892
Mastectomy rate	46%	56%	65%	36%	37%	26%	47%	55%	59%	69%	39%

CMAJ 2014. DOI 10.1503/cmaj.140842