

HIGHLIGHTS

Proton pump inhibitors and risk of acute kidney injury

Although widely perceived as safe, proton pump inhibitors have been increasingly suspected of causing acute interstitial nephritis, particularly among older patients. In this population-based cohort study, the authors looked at the risk of acute kidney injury and acute interstitial nephritis in Ontario residents aged 66 years and older. Compared with matched controls, the rates of acute kidney injury (hazard ratio [HR] 2.52, 95% confidence interval [CI] 2.27–2.79) and acute interstitial nephritis (HR 3.00, 95% CI 1.47–6.14) were higher among patients given proton pump inhibitors (Figure 1). The authors conclude that clinicians should maintain a high index of suspicion for acute interstitial nephritis among patients taking proton pump inhibitors who present with a decline in renal function, particularly at the outset of treatment, and suggest that physicians discourage indiscriminate use of these drugs. They acknowledge, however, that the association may be overstated, as only a small proportion of patients in the study were readmitted with the same diagnosis after being rechallenged with a proton pump inhibitor. *CMAJ Open* 2015;3:E166-171

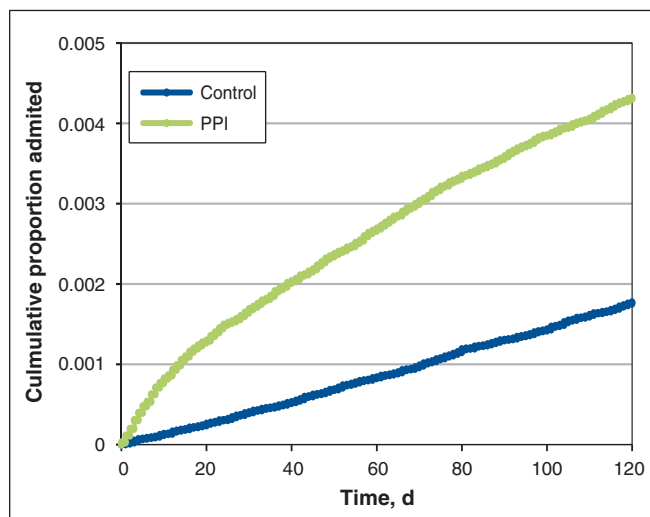


Figure 1: Kaplan–Meier curves for admission to hospital with acute kidney injury, by group.

Maternal and newborn outcomes after a prior cesarean birth

As cesarean birth rates continue to rise, more women are faced with the option of planning a vaginal or repeating cesarean delivery after a previous cesarean birth. The authors wondered whether maternal and perinatal outcomes in this situation would differ if the woman had also had a prior vaginal birth. They conducted a retrospective cohort study involving 33 812 women with singleton term births and prior cesarean section over an eight-year period in British Columbia. The composite risk for life-threatening maternal outcomes was higher among women planning vaginal compared with cesarean birth, both with and without a prior vaginal birth (relative risk [RR] 2.06, 95% confidence interval [CI] 1.20–3.52, and 2.52, 95% CI 2.04–3.11, respectively.) However, non-life threatening maternal outcomes were decreased among women planning vaginal birth if they had at least 1 prior vaginal delivery (RR 0.51, 95% CI 0.33–0.77), and absolute differences were small. The pattern was similar for newborn outcomes (Table 1). The authors conclude that these data offer women and their health care providers the opportunity to consider risk profiles separately for women who have and have not had a prior vaginal delivery. *CMAJ Open* 2015;3:E158-165

Table 1: Neonatal outcomes after 1–2 previous cesarean sections, by number of previous vaginal births*

Neonatal outcome	No. previous vaginal delivery; RR (95% CI)	
	None	≥ 1
Life-threatening or death		
Admission to neonatal intensive care nursery†	1.54 (1.04–2.26)	0.45 (0.17–1.20)
Ventilation required	1.40 (0.79–2.47)	0.45 (0.15–1.40)
Apgar score of ≤ 3 at 5 min	8.85 (2.89–27.14)	—
≥ 1 life-threatening outcome	1.65 (1.20–2.26)	0.57 (0.26–1.26)
Non-life threatening		
Admission to observation nursery‡	0.84 (0.73–0.97)	0.52 (0.39–0.69)
> 24 h of oxygen required	0.63 (0.43–0.94)	0.35 (0.15–0.79)
Apgar score of 4–6 at 5 min	4.9 (3.41–7.05)	2.7 (1.05–6.95)
≥ 1 non-life threatening outcome	1.02 (0.90–1.16)	0.67 (0.52–0.86)

Note: CI = confidence interval, RR = relative risk.

*Excludes infants with congenital anomalies.

†Baby had high acuity or was at risk of high acuity, and required multispecialty care.

‡Baby required increased observation and acute management.