## **Online Appendix 1.** Survey questions for canadian critical care pharmacists about medication errors and adverse drug events

- 1. Name of institution (without identifying respondents)
- 2. Type of institution
  - Academic hospital
  - Community hospital, teaching
  - Community hospital, non-teaching
- 3. Type of ICU in which you spend most of your time (choose one)
  - Mixed medical/surgical
  - Medical
  - Surgical
  - Coronary
  - Neonatal
  - Cardiothoracic
  - Pediatric
  - Neurologic
  - Trauma
  - Burns
- 4. How many funded ICU beds are there in the ICU in which you work?
  - 1 10
  - 11–20
  - 21–30
- 5. Does your ICU have a pharmacist who is familiar with the ICU patients' conditions, and who reviews the patients' drug therapy with the ICU team at least 5 days a week, during day time hours? Yes/No
- 6. Does your hospital have computerized physician order entry? Yes/No
- 7. Does the software include decision support? Yes/No
- 8. Does your ICU have a process for tracking medication errors and adverse drug events? Yes/No
- Please identify the locations where the process for tracking medication errors is implemented.
  - The process is specific to the ICU that I spend the most of my time in.
  - This process is used in more than one area of the hospital.
  - This process is used throughout the majority of the hospital.
  - Other (please specify)
- 10. Please identify which of the following processes your ICU uses for identifying medication errors
  - Voluntary reporting of medication errors, non-anonymous
  - Direct observation of medication errors (i.e., ordering and/ or administration)

- Voluntary reporting of medication errors, anonymous
- Chart reviews to identify medication errors
- · Computerized system to identify medication errors
- Trigger tool (a list of prompts used in focused chart review to identify medication errors and adverse drug events)
- Tracking pharmacist interventions as a marker of medication errors and potential adverse drug events
- Other (please specify)
- 11. If voluntary reporting of medication errors is used, please specify which means
  - Paper reports
  - Intranet
  - Phone calls
  - Web-based or internet based
  - Email
  - Other (please specify)
- 12. Please specify the Web-based or internet based system
  - Netsafe
  - Meditech-EMR
  - Risk MonitorPro
  - Unknown
- 13. If a trigger tool is used by your ICU, please identify which of the following are used as the trigger signals
  - Voluntarily reported medication errors
  - Abnormal drug levels (e.g., digoxin level > 2.6 nmol/L)
  - Antidotes (e.g., vitamin K, naloxone)
  - Allergy medications (e.g., diphenhydramine, corticosteroids)
  - Abnormal laboratory values (e.g., INR > 6, serum glucose < 3 mmol/l)
  - Abrupt medication stop
  - Abnormal electrolyte concentrations
  - Antidiarrheals or *Clostridium difficile* positive stool
  - Abnormal physiologic responses (BP, HR)
  - Other (please specify)
- 14. Have you implemented any actions as a result of your process for measuring medication errors and/or adverse drug events? Yes/No
- 15. What actions have you implemented?
- 16. Would you like a summary of the results of the survey?

BP = blood pressure, HR = heart rate, ICU = intensive care unit, INR = international normalized ratio.

Supplementary data for Louie K, Wilmer A, Wong H, Grubisic M, Ayas N, Dodek P. Medication error reporting systems: a survey of Canadian intensive care units. *Can J Hosp Pharm* 2010;63(1):20-24.