Critical Care FAQs

1. **Q:** What is the data collection for?
   **A:** The primary purpose of the data collection is to guide quality improvement towards evidence-based practice in critically ill patients in intensive care units across BC.

2. **Q:** When should we start collecting the data?
   **A:** Data collection should start as soon as sites are able to collect it. The Ministry of Health requires all sites to be collecting glycemic control data before March 31, 2013.

3. **Q:** My site uses the BC ICU Database to collect data for quality improvement. How do we use it to collect data for Clinical Care Management?
   **A:** For sites currently on the BC ICU Database, the mortality measure is already being collected. The BC ICU Database is currently being modified to include data entry screens for blood glucose and time inputs. These inputs will serve to collect data for the hyperglycemic index metric as well as the hypoglycemic event metric. Each site can then extract their reports to submit to the CCM Steering Committee. For more information, contact your BC ICU Database central administrator.

4. **Q:** My site is not part of the BC ICU Database. How do we collect and submit data for Clinical Care Management?
   **A:** The easiest way for sites to collect and report on glycemic control metrics for Clinical Care Management is to enter the data into the BC ICU Database. If your ICU is currently not contributing data to this database, you can join and use it solely for Clinical Care Management reporting without having to collect the other parts of the minimum dataset. All sites need to collect blood glucose/time values from lab and point-of-care testing, hypoglycemic events, and mortality information (which includes data needed to calculate APACHE IV scores). There are several benefits for using the BC ICU Database for this purpose:

   1. It will save you the steps necessary to statistically calculate the hyperglycemic index. This index is calculated within the BC ICU Database platform.
   2. It will prevent you from having to create your own data entry spreadsheets containing the information required to calculate APACHE IV scores. These scores are calculated for you within the BC ICU Database.
   3. It will ease the process for generating quarterly reports to send to the CCM Steering Committee.
   4. It may improve the validity and reliability of the data you are collecting by using a standardized process for data collection.
   5. It will provide your ICU with an opportunity to be part of a large data collection system for continuous quality improvement in critically ill patients. You can use this data for local improvements within your own ICU, or collaborate with the BC Critical Care Working Group to share and analyze data at a provincial level.
5. Q: My site does not have the resources to hire data collectors in ICU. How do we collect data for Clinical Care Management?
   A: By joining and contributing data to the BC ICU Database, ICUs in our province have been able to use this data to realize significant cost savings through quality improvement projects that result in a decreased length of stay, less ventilator days, efficiency in resource utilization, and prevention of adverse events. Savings from these improvements could be reallocated towards data collection. Other ICUs have been able to find creative ways to hire data collectors; for example, by utilizing critical care nurses who are on duty-to-accommodate programs, or incorporating data collection into the daily work environment.

6. Q: Is every hospital collecting this data?
   A: British Columbia has 29 adult Intensive Care Units. All adult ICU’s will be collecting data for quality improvement in glycemic control.

7. Q: Does this improvement effort include pediatric patients? Why not?
   A: No. The body of medical evidence does not support glycemic control in critically ill pediatric patients. Attempting to control glucose may lead to harm in this population.

8. Q: Are we collecting data on every patient on insulin infusions?
   A: No. A sampling strategy has been developed, based on the minimum number of patients needed to be able to detect an improvement over time at each site. In some cases, particularly in smaller ICU’s, this may require sampling all patients on insulin infusion.

9. Q: Why use glycemic index as a method of analysis for glucose control?
   A: Calculating the glycemic index provides us with a metric for time and magnitude of glucose measurements that occur over the hyperglycemic threshold. This quantifies the value and length of time the patient remained in a hyperglycemic state; both are variables that can be detrimental to critically ill patients.

10. Q: Point-of-care blood glucose testing is not as accurate as lab testing. Why are you collecting data from both?
    A: Both measurements are used to guide clinical decision-making, and are therefore accurate enough to guide quality improvement. Use of both data sources is in keeping with well-known large clinical trials.

11. Q: My site already collects and sends glucose data to the International Nutrition Survey. Are you duplicating these efforts?
    A: The International Nutrition Survey looks at best nutrition practices in critically ill patients. Their purpose and clinical practice guidelines are in alignment with CCM. They require a single morning glucose value, and sites collect data for a short period of time. CCM builds on this by giving sites a more detailed picture of blood glucose control for patients on insulin throughout the year and over the entire duration of their ICU stay. Glucose values collected for CCM can be used to submit to the INS. Participating in both improvement initiatives is a great way to work towards excellence in nutrition practices and glycemic control.
12. Q: What if my ICU does not have an insulin protocol?
   A: Check our resource page for protocols used at other local institutions. With your multidisciplinary ICU team, select and adapt one to best fit your local context. Analyze your data and revise your protocol if necessary.

13. Q: What if I’m not confident that the data collected is accurate?
   A: As critical care units are collecting their own data, this issue is best addressed within your internal team. Quality improvement methodology can be used to improve accuracy of your data collection. Contact us for details.