

An Evidence-Based Implementation Strategy to Improve Clinical Practice in Alberta Hospitals

Presented by:
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Background

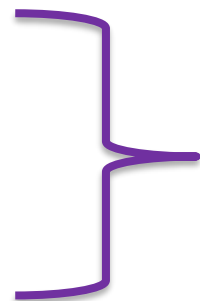


Background



Knowledge
Translation
Platform

Consultation
Support
Training



Knowledge synthesis
Knowledge translation
Implementation science

Background



Diabetes, Obesity
& Nutrition Strategic
Clinical Network™



Improved
Glycemic
Management
in Hospital

Initial Priority

BBIT

Basal Bolus Insulin Therapy

The Evidence (and the issue)

Can J Diabetes 37 (2013) S77–S81



Contents lists available at SciVerse ScienceDirect

Canadian Journal of Diabetes

journal homepage:
www.canadianjournalofdiabetes.com

 Canadian
Diabetes
Association



Clinical Practice Guidelines

In-hospital Management of Diabetes

Canadian Diabetes Association Clinical Practice Guidelines Expert Committee

The initial draft of this chapter was prepared by Robyn Houlden MD, FRCPC, Sara Capes MD, FRCPC, Maureen Clement MD, CCFP, David Miller MD, FRCPC

KEY MESSAGES

- Hyperglycemia is common in hospitalized patients, even in those without a previous history of diabetes, and is associated with increased in-hospital complications, length of hospital stay and mortality.
- Insulin is the most appropriate agent for effectively controlling glycemia in-hospital. A proactive approach to management using scheduled basal, bolus and correction (supplemental) insulin is the preferred method. The use of sliding-scale insulin (SSI), which treats hyperglycemia after it has occurred, should be discouraged.
- For the majority of noncritically ill patients treated with insulin, preprandial blood glucose (BG) targets should be 5.0 to 8.0 mmol/L, in conjunction with random BG values <10.0 mmol/L, as long as these targets can be safely achieved. For critically ill patients, BG levels should be maintained between 8.0 and 10.0 mmol/L.

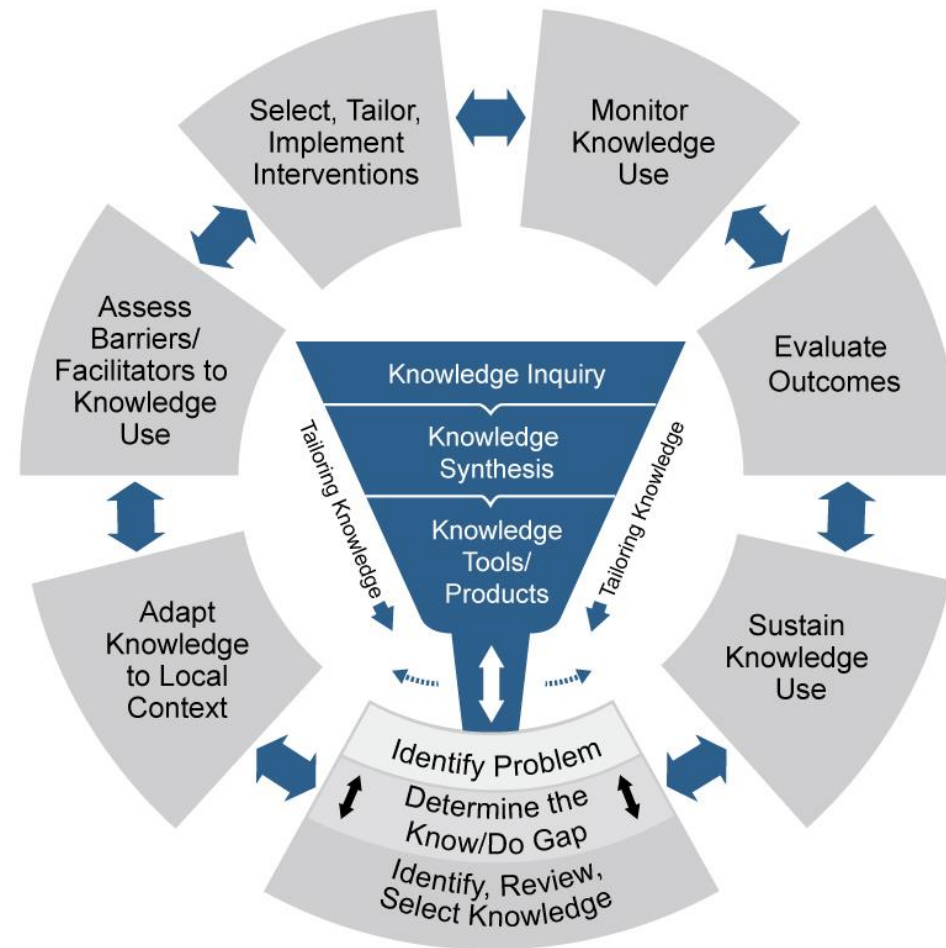
management is rarely the primary focus of care. Therefore, glycemic control and other diabetes care issues are often not adequately addressed (4).

Diagnosis of Diabetes and Hyperglycemia in the Hospital Setting

A history of diabetes should be elicited in all patients admitted to hospital and, if present, should be clearly identified on the medical record. In view of the high prevalence of inpatient hyperglycemia with associated poor outcomes, an admission BG measurement should be considered for all patients even in the absence of a prior diagnosis of diabetes (1). In-hospital hypergly-

Moving Evidence into Practice

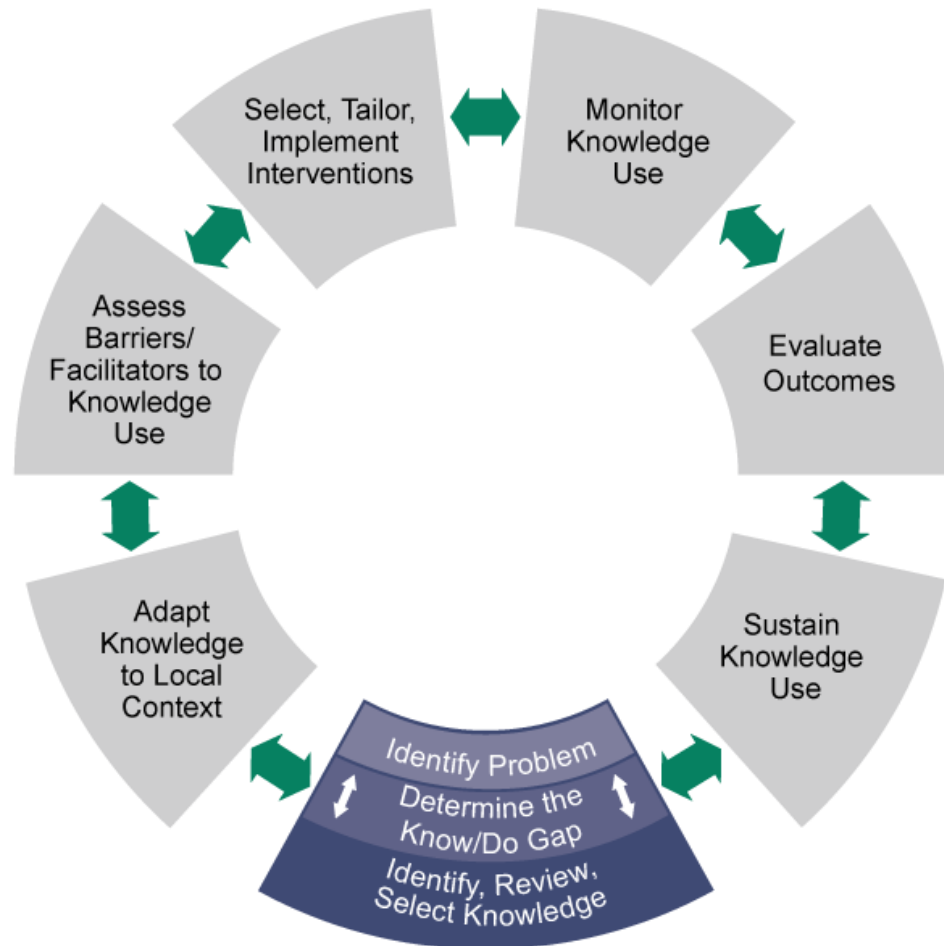
The Knowledge to Action Cycle



(Graham et al., 2006)

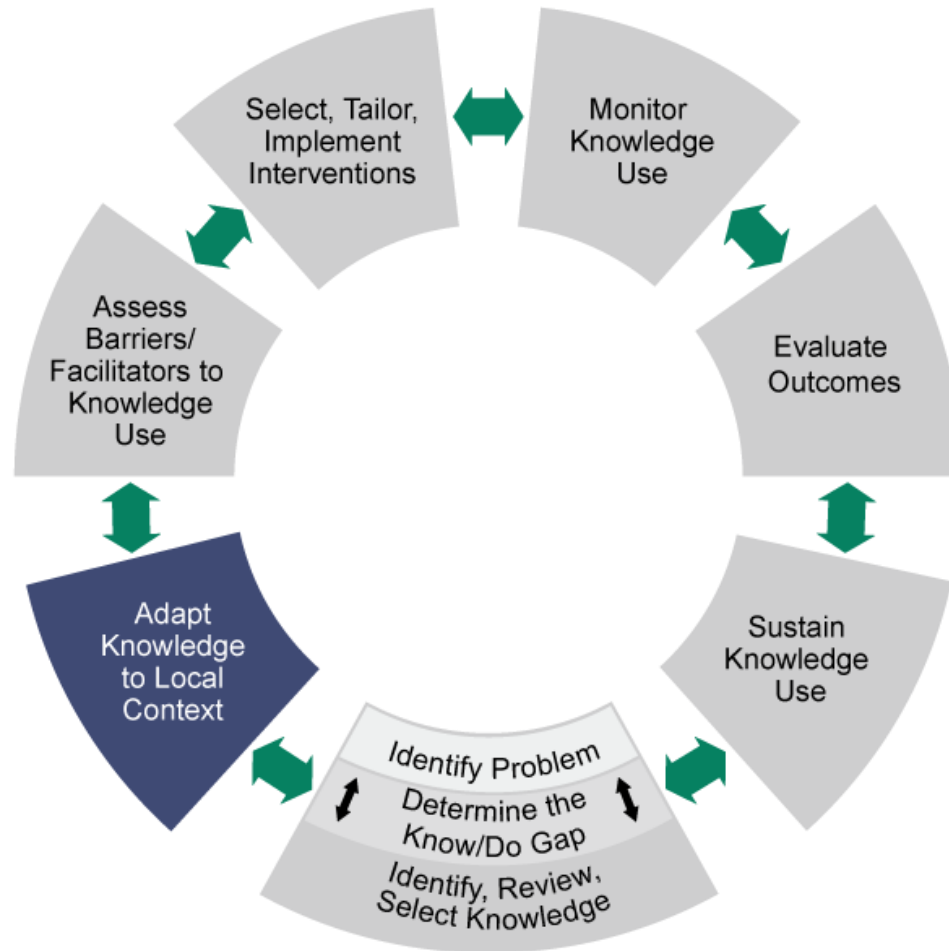
Adapted from: Straus SE et al. Practicing Knowledge Translation Course.
Knowledge Translation Program, St. Michael's Hospital, Toronto, Ontario, 2015.

Identifying knowledge-to-action gaps



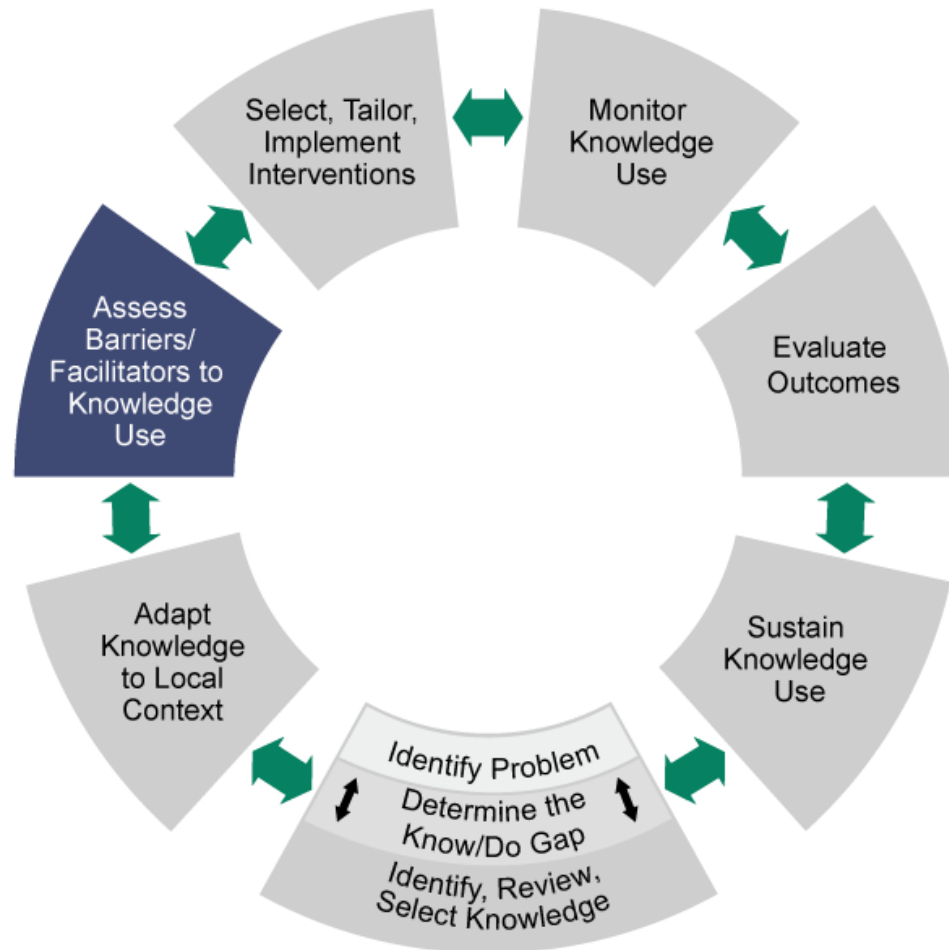
Practice \neq Evidence

Adapting knowledge to local context



- Electronic and paper BBIT order sets
- Clinical decision support tools
- Educational material

Barriers to use of electronic order set



- Main Themes:
 - Education
 - Information Technology / User interface
 - Organizational
 - Workflow
 - Perceived outcomes



Knowledge
Translation
Platform

Knowledge Translation and Implementation Science Services

We Provide:

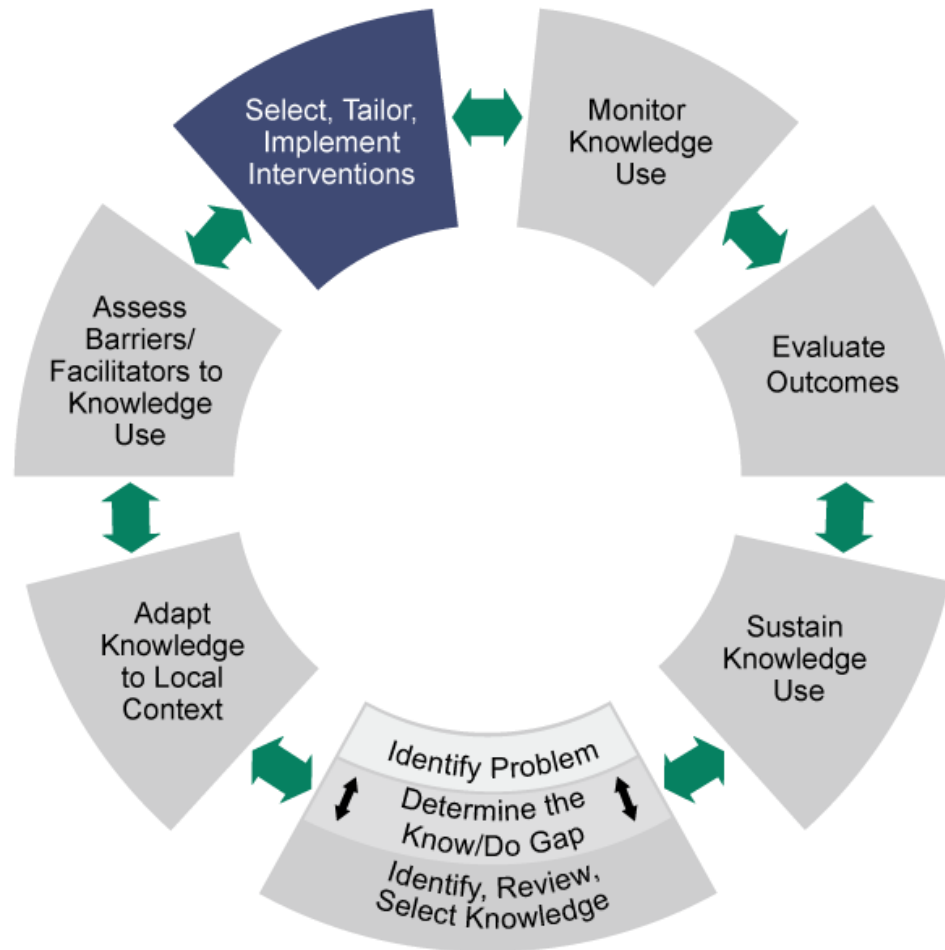
- Assistance identifying appropriate KT implementation strategies, including an assessment of barriers and facilitators to implementation

Assessing Context for Knowledge Use

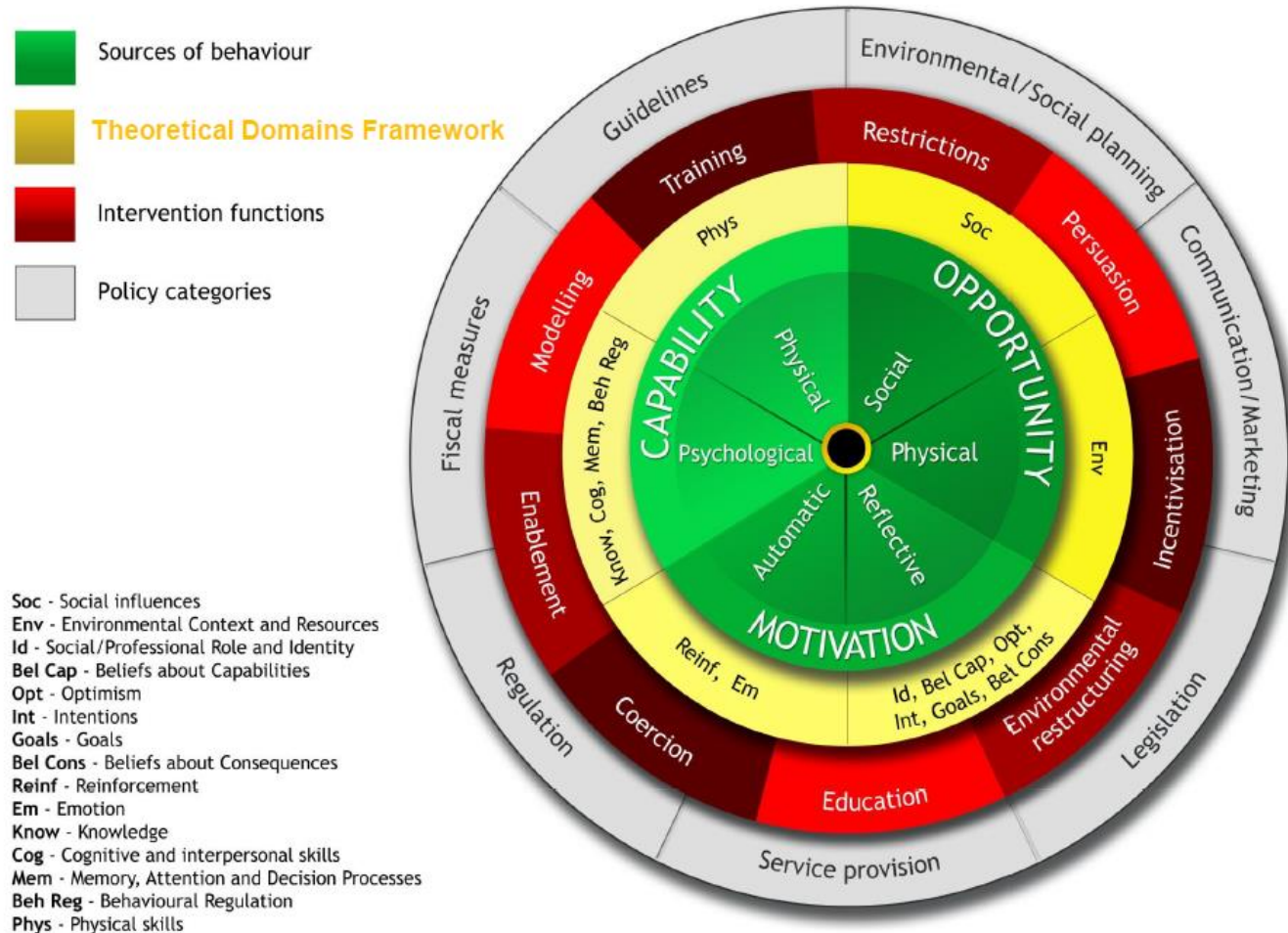


- Key Barriers:
 - Culture
 - Awareness & Capability
 - System & Resource
 - Patient

Tailoring implementation strategies

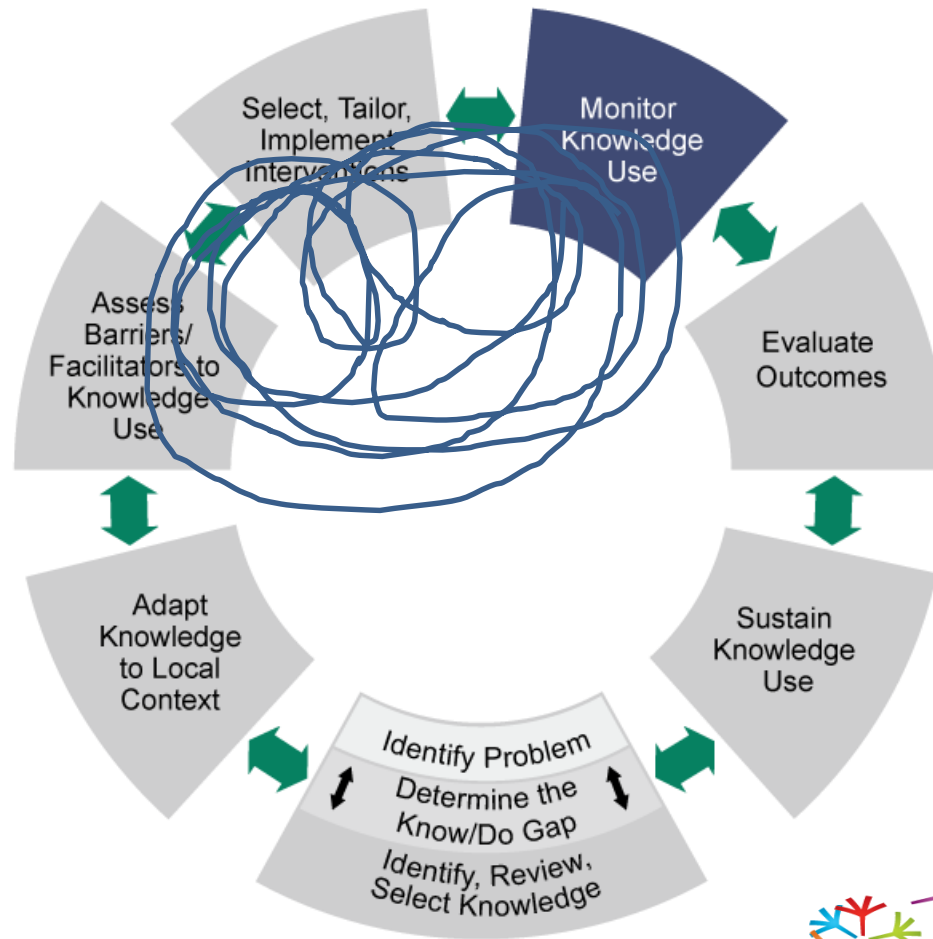


Using Theory to Develop a KT Toolkit



	Barriers	Implementation Strategies
Capability	Lack of knowledge of protocol	Provincial Basal Bolus Insulin Therapy Adult Inpatient Order Set; Multidisciplinary Continuing Education; Multidisciplinary Champions; Interactive website (www.bbit.ca); Systemic Supports
	Fear of hypoglycemia	Multidisciplinary Continuing Education; Data Audit; Multidisciplinary Champions; Policy
Opportunity	Lack of notification of change in patients' blood glucose status	Communication Plan; Reminders; Policy
Motivation	Perceived workload	Data Audit; Communication Plan
	Believed to be inappropriate for certain patients or circumstances	Data Audit; Multidisciplinary Champions; Blood glucose and insulin administration record/Diabetes Report Card

Monitoring



Evaluation

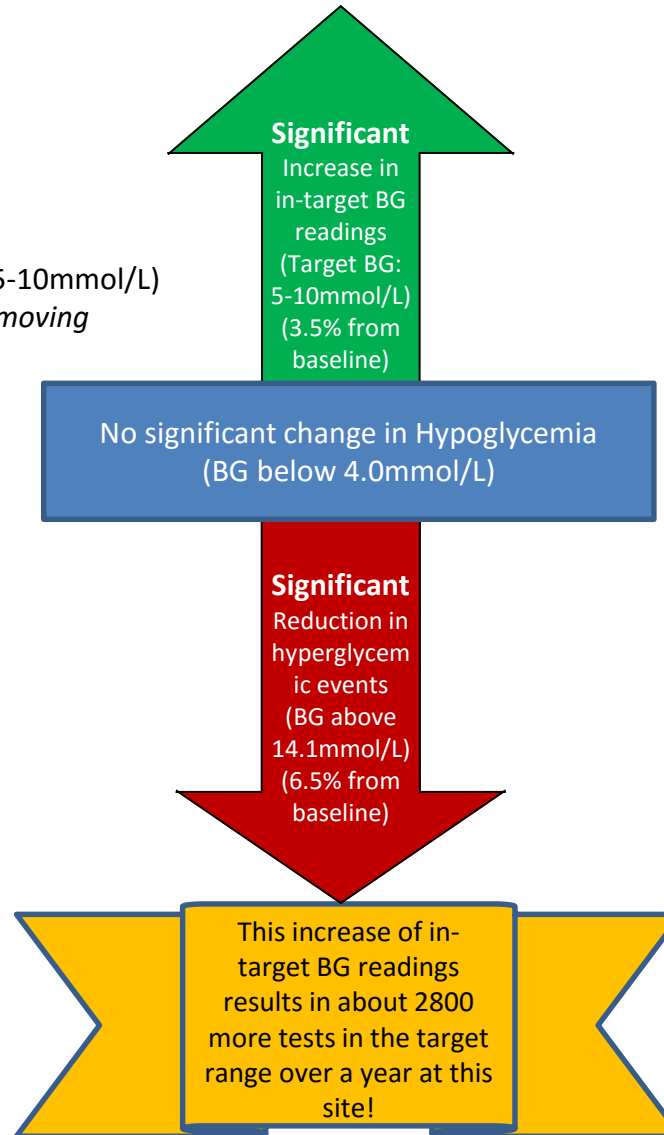
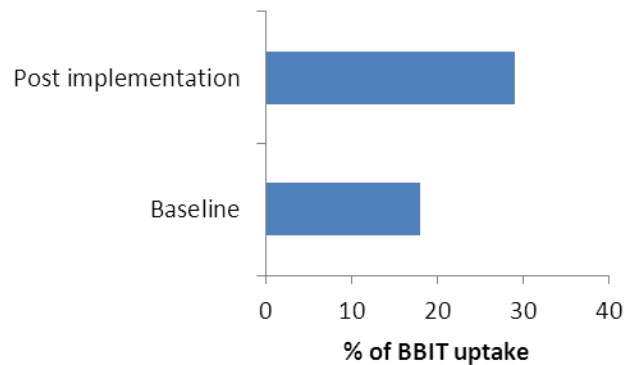


Project Update: Improved Glycemic Management and use of BBIT

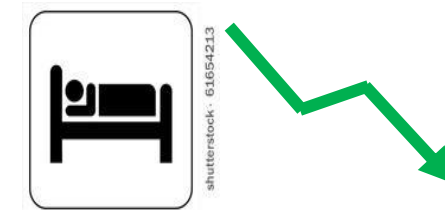


To improve target BG levels (5-10mmol/L) using knowledge translation (*moving research into clinical practice*)

Use of BBIT at Chinook Hospital



Looking at Length of Stay



Trend towards a shorter Length of Stay if BBIT is prescribed over SSI when BG levels are **above target** (10mmol/L) on admission

Sustainability



www.BBIT.ca

www.kttoolkit.ca

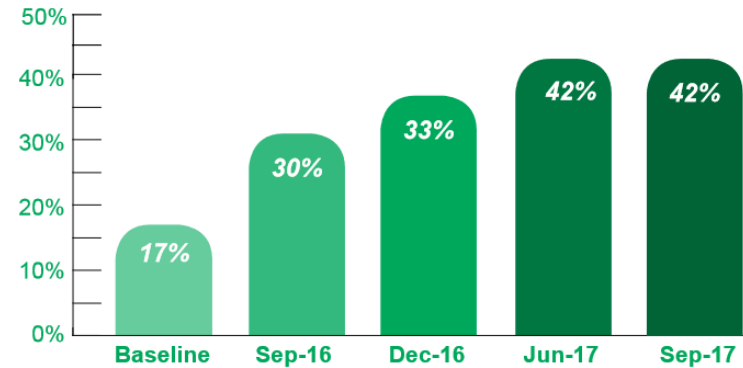
Sustainability



CHINOOK REGIONAL HOSPITAL IMPLEMENTATION PERIOD: APR 2016-SEP 2017

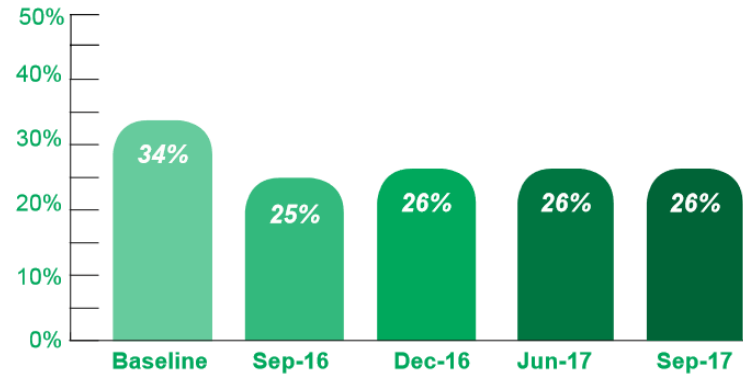
BBIT ORDERING IS UP

Chinook Regional Hospital has seen a significant absolute 25% increase in BBIT ordering during the implementation period.



HYPERGLYCEMIA IS DOWN

Chinook Regional Hospital has seen a significant absolute 8% decrease in patient days with a hyperglycemic event (blood glucose above 14.0 mmol/L) during the implementation period.



Lessons Learned

- Engagement at all stages (and levels) is important
- Using theory to design strategies improved success
- Implementation is not a linear, one-time process

Acknowledgements

- Karmon Helmle MD, MSc
 - Physician Champion of the DON SCN In-Patient Glycemic Management Initiative
 - Clinical Assistant Professor, University of Calgary
 - Endocrinologist, Alberta Health Services
- Julie McKeen MD
 - Medical Lead of the DON SCN In-Patient Glycemic Management Initiative
 - Clinical Assistant Professor, University of Calgary
- Leta Philp RN, BScN, CDE
 - Clinical Practice Lead, DON SCN Improved Glycemic Management In-hospital Initiative
- Naomi Popeski PhD
 - Assistant Scientific Director, DON SCN
- Chinook Regional Hospital

Comments? Questions?

