

V Fistulas
Btlwik



Knowledge Translation in Critical Care Nutrition

The right treatment

The right intensity (dose/duration)

The right timing

The right patient

The right setting

With the right outcome!

Hospital

Doctors



Nurse

Dietitian

ICU management

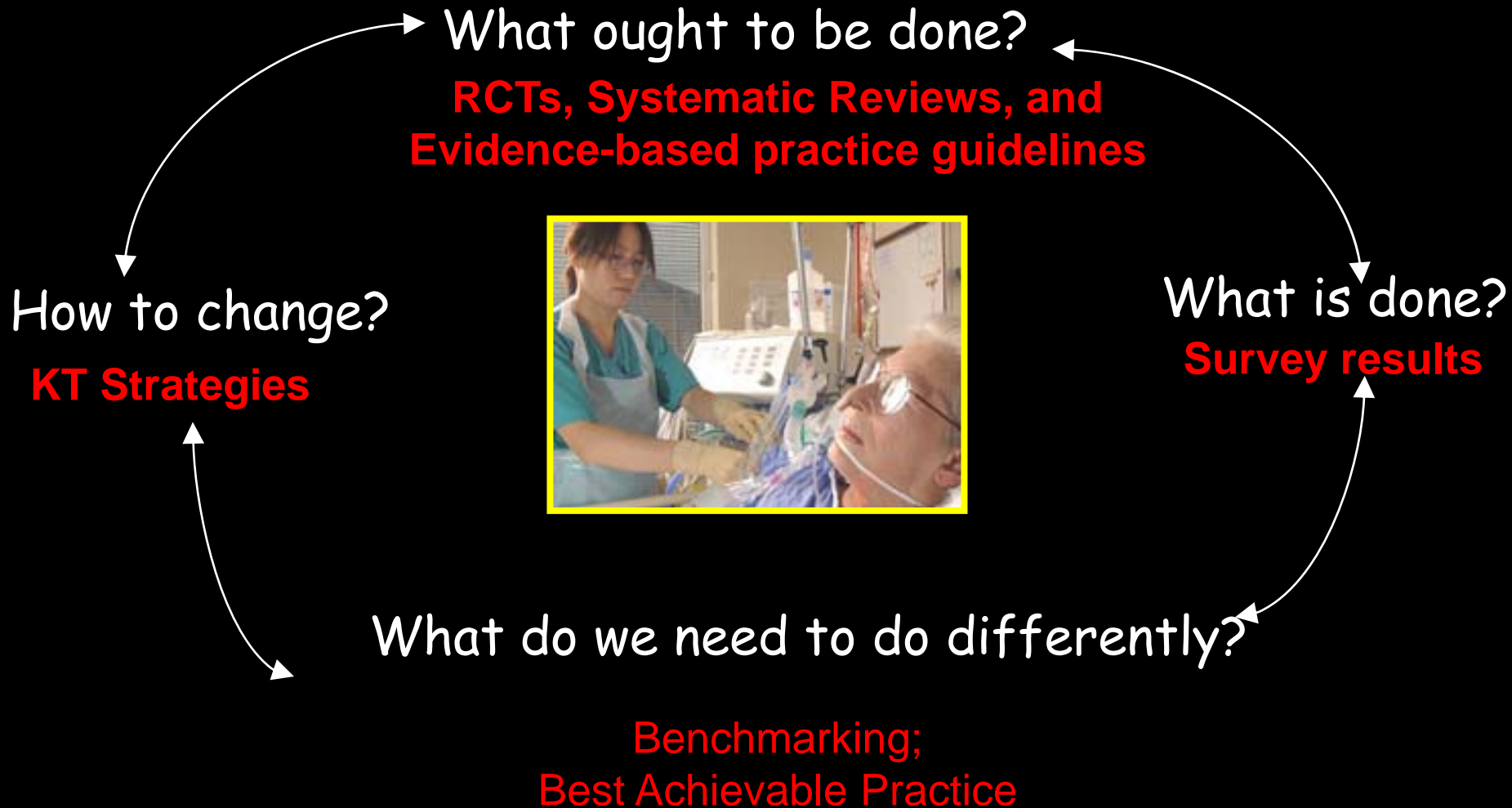
Information Overload



Impractical for individual clinicians to assimilate massive amounts of information to make unaided judgments about complex decisions



Achieving Best Practice: Quality Improvement



How to change?

CPGs to bedside

Guidelines



Bedside

**Dissemination and
Implementation Strategies**

Implementation of CPGs

A Cluster randomized control trial comparing 2 methods of dissemination of Canadian CPGs



R

Passive

Meetings and
hard copy

Active

Interactive Workshops
Web based tools and
training

Funded by Canadian Intensive Care Foundation

Cluster Randomized Control Trial

Hypothesis

Multifaceted dissemination strategy would result in improved nutrition support practices compared to passive approach

Primary Endpoint

Nutritional adequacy

Secondary Endpoint

compliance with guideline recommendations

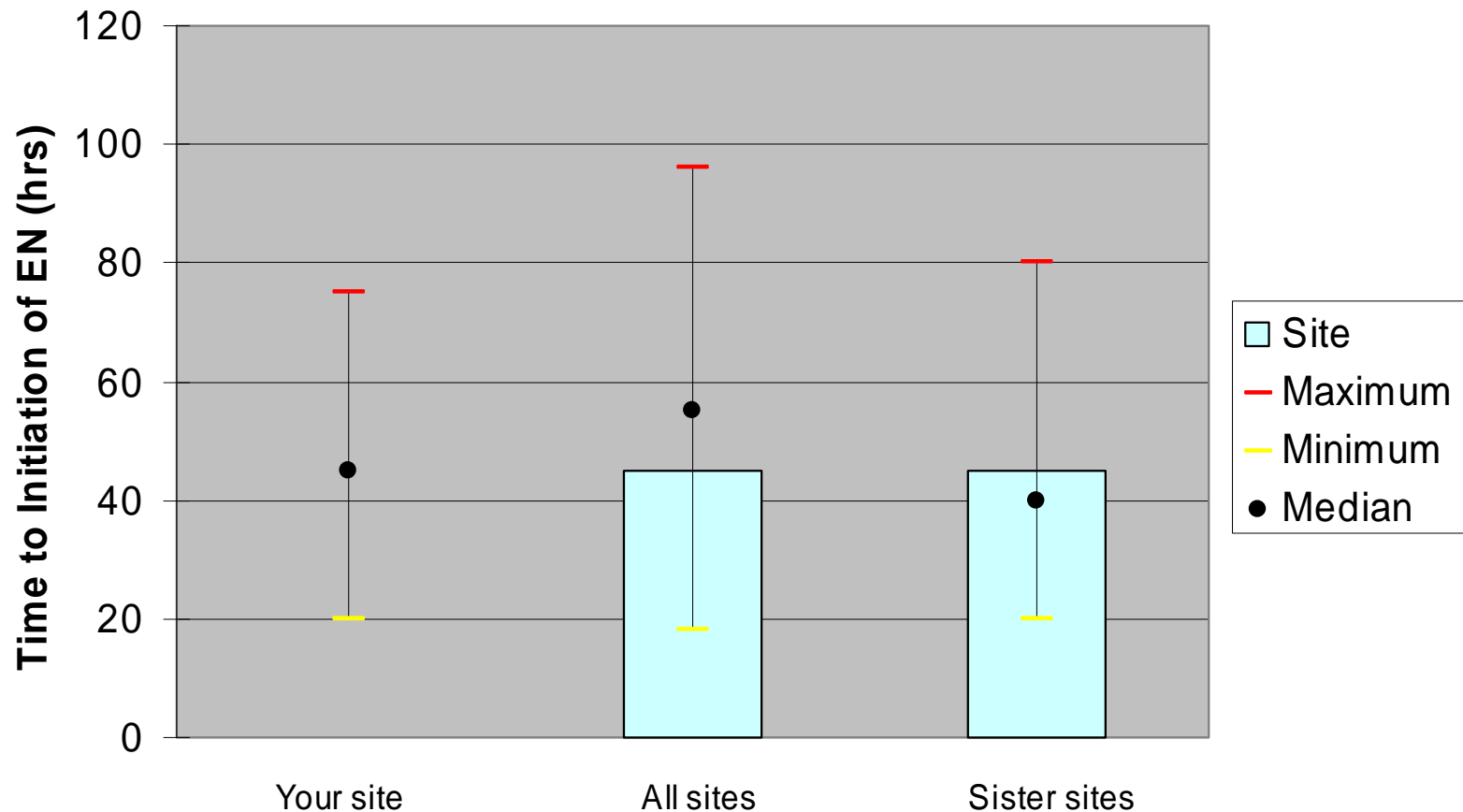
hospital mortality and length of stay

Cluster Randomized Control Trial

- Passive Strategies
 - copy of published Canadian CPGs
 - presented at national meetings
- Active Strategies
 - as above plus
 - dietitians positioned as local opinion leaders
 - web-based tools including bench-marked site reports
 - interactive workshops with small group problem solving
 - training on rapid cycle change
 - educational reminders (manuals, posters, pocket cards)
 - academic detailing by phone

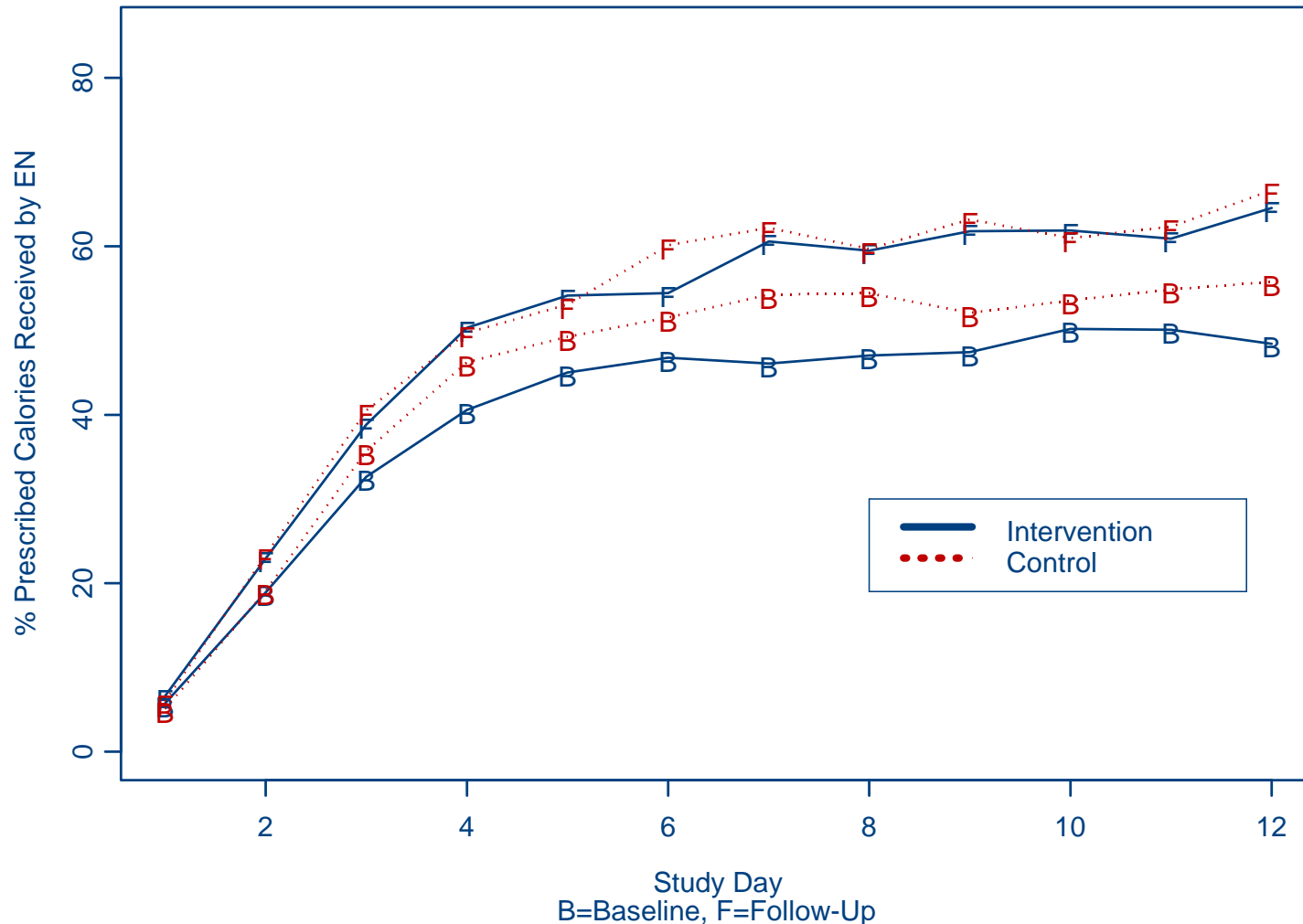
Early vs Delayed Nutrition Intake

- Recommendations: Based on 8 level 2 studies, we recommend early enteral nutrition (within 24-48 hrs following resuscitation) in critically ill patients.



Dissemination of the Canadian clinical practice guidelines for nutrition support: Results of a cluster randomized controlled trial

Minto K. Jain, MD, MHPE, FRCSC, FACS; Daren Heyland, MD, FRCPC; Rupinder Dhaliwal, BSc, RD; Andrew G. Day, MSc; John Drover, MD, FRCSC, FACS; Laurie Keefe, BA, RD; Mark Gelula, PHD



No difference between groups

Overall change from baseline = 7.2%

($p < 0.001$)



Moving Forward: QI

- Changing nutrition practice is complex
- Need to identify barriers and enablers to changing practice
- Need to understand factors associated with guideline implementation and adherence



Guideline Implementation

- Secondary Analysis of Canadian Nutrition Survey 2004 dataset
- Multiple case study
 - 4 case ICU sites
 - 28 Semi-structured key informant interviews



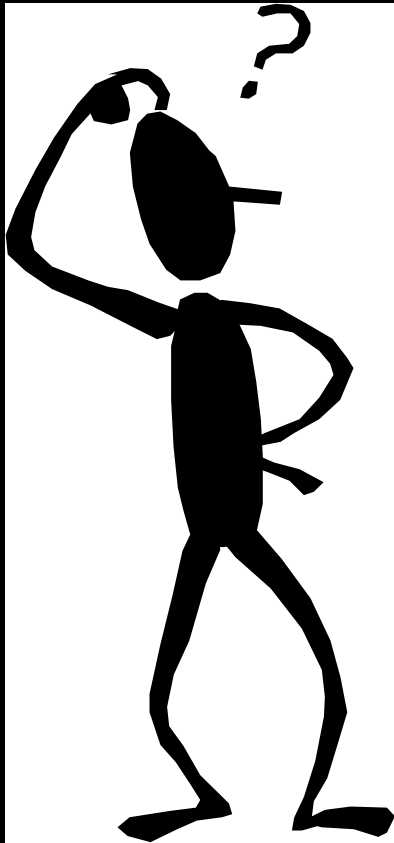
Results: Barriers

- Resistance to change
- Patients clinical condition
- Lack of awareness
- Information overload
- Weak evidence
- Resource constraints
- Slow administrative process
- Impractical / Complex
- Nursing workload
- Limited critical care experience

Results: Enablers

- Agreement of the attending physician & ICU team
- Part of routine practice
- Dietitian / Opinion leader
- Access / Visibility
- Easy to follow and perform
- Provision of education
- Open discussion





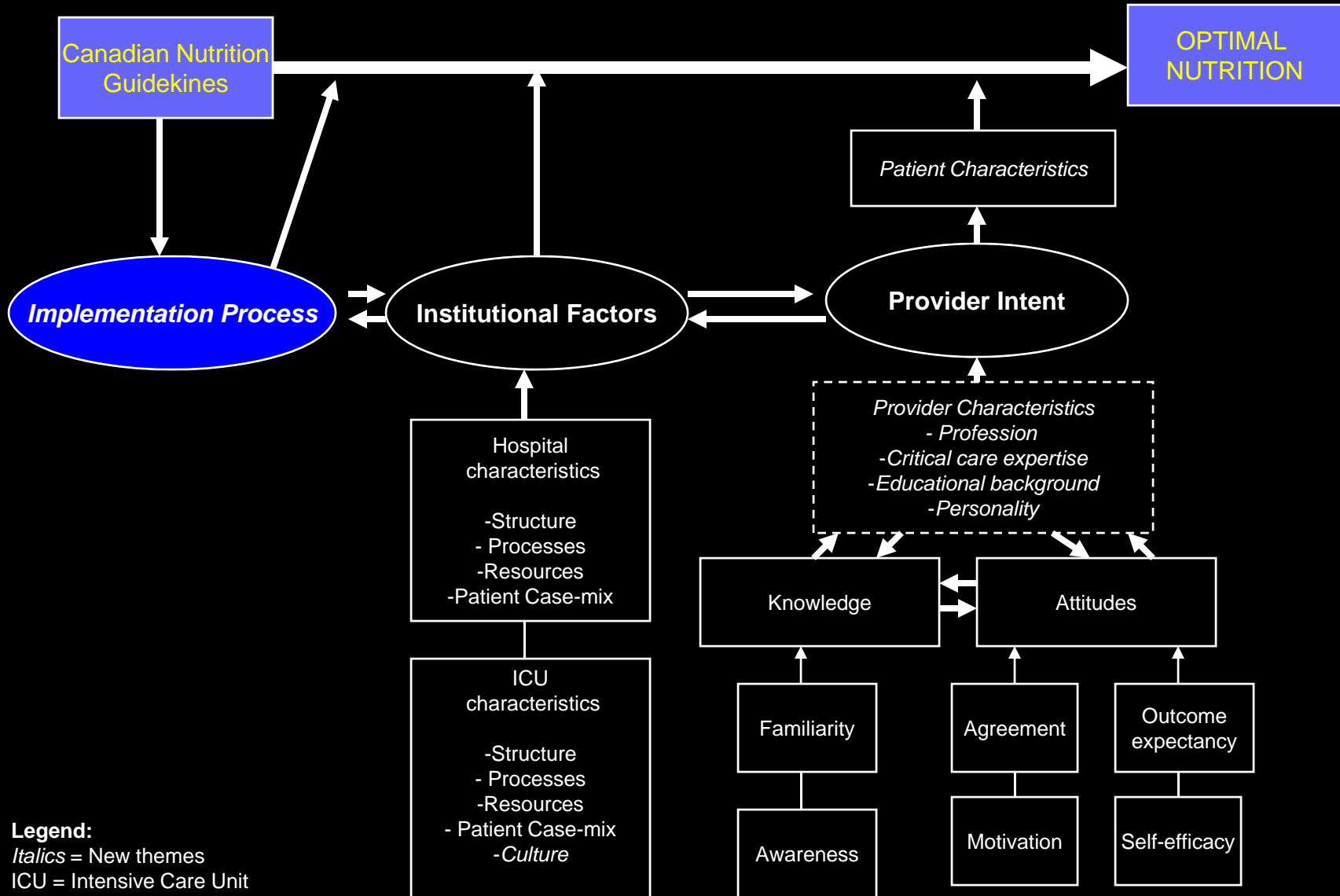
What works best at your site?

(barriers and enablers will vary site to site)

What is already working well at your site?

(strengths and weakness are different across sites)

Framework for Adherence to CPGs in the ICU





What is “knowledge translation”?

- **Knowledge translation research (KT Science)** is about:
 - Studying the determinants of knowledge use and effective methods of promoting the uptake of knowledge
- **Knowledge translation (KT)** is about:
 - Making users aware of knowledge and facilitating their use of it to improve health and health care systems
 - Closing the gap between what we know and what we do (the know-do gap)
 - Moving knowledge into action





Critical Care Nutrition

Home

About Critical Care Nutrition

Nutrition CPGs

International Survey

REDOXS Study

Tools and Training Kit

Recent Publications

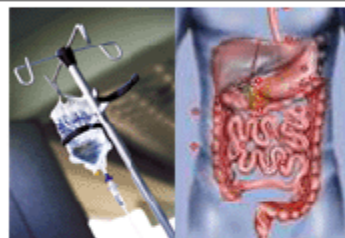
Research

Presentations

Upcoming Conferences

Related Links

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What we offer?

We are dedicated to the improvement in nutrition therapies in intensive care units across the world.

We bring to you...

Register Now for International Survey January 2007:

You are invited to illuminate gaps in your current practice by participating in an online survey of nutrition therapy in the critically ill ([Details](#), [Register](#))

- The latest evidence based recommendations for nutrition therapies in the ICU ([here](#))
- Tools to assist in implementing the evidence from the Clinical Practice Guidelines ([here](#))

And much more...

NEWSROOM

REDOXS[®] Study now
CIHR funded

▶ [Read more](#)

International Survey

▶ [Read more](#)

Update on CPGs

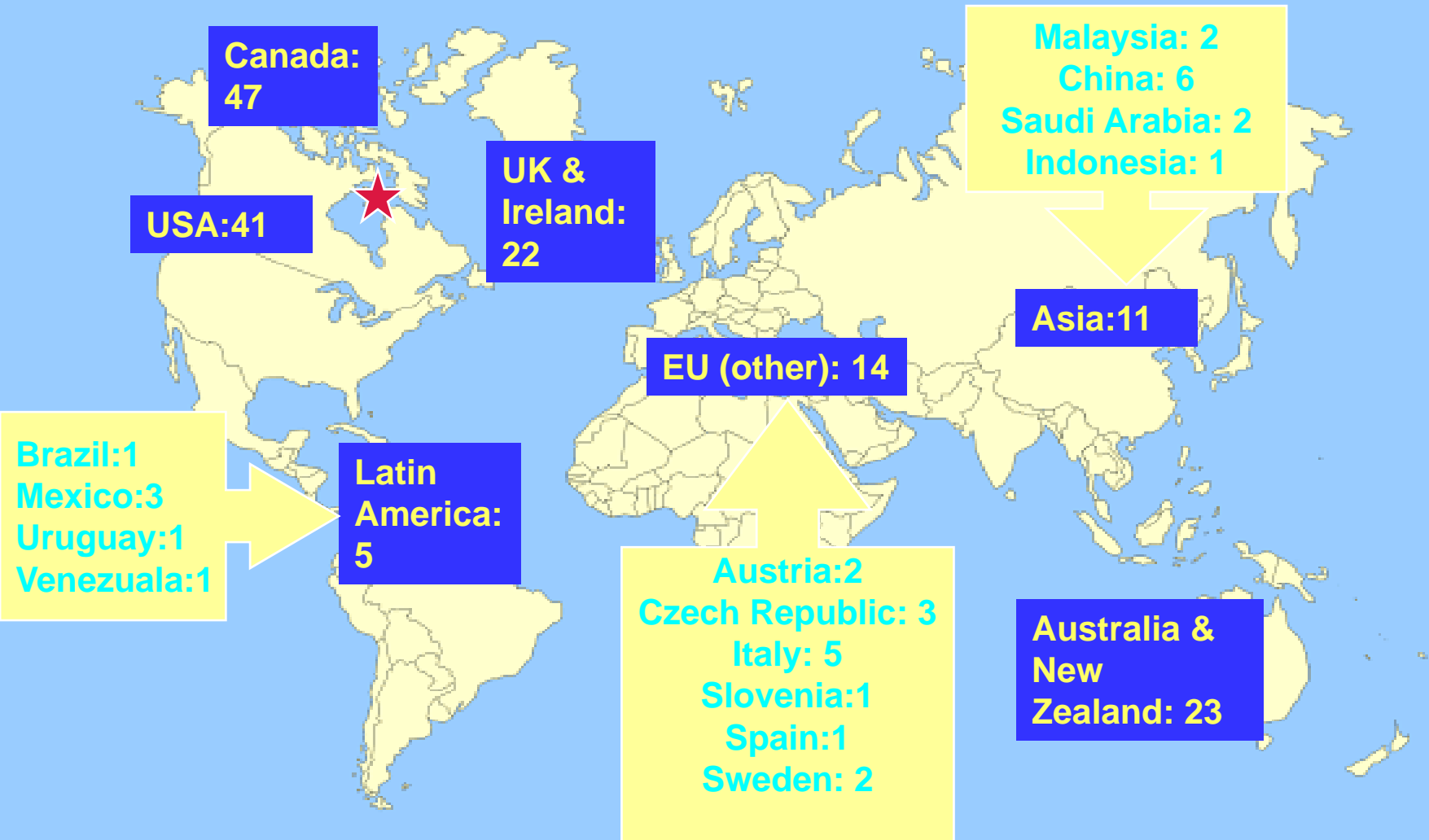
▶ [Read more](#)

JPEN Article: CPGs for
Nutrition in the
Mechanically Ventilated

▶ [Read more](#)

International Practice Audits: Who participated?

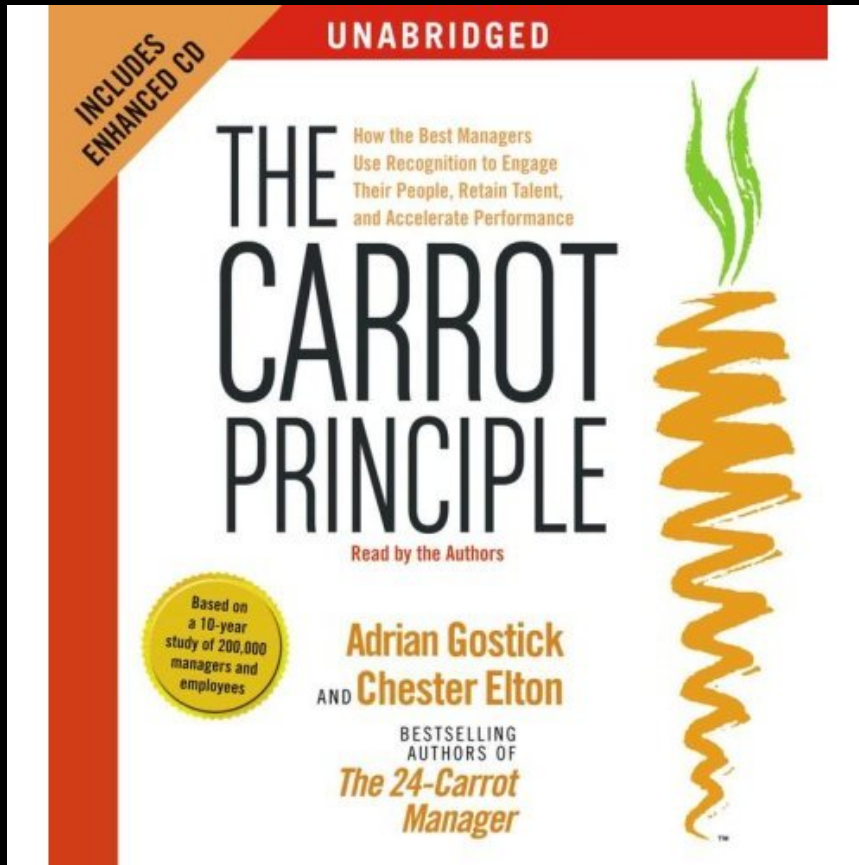
165 ICUs



**Creating a Culture of Clinical
Excellence in Critical Care
Nutrition:**

The 2008 'Best of the Best' Award

Recognition and Reward



Recognition a powerful motivator of human performance

Best of the Best



Lyn Gillanders, Senior Clinical Dietitian and her ICU colleagues at the Department of Critical Care Medicine, Auckland City Hospital being presented with the Best of the Best Award by the Hospital Medical Director.



Two broad types of KT at CIHR

End-of-grant KT

- The researcher develops and implements a plan for making knowledge users aware of the knowledge generated through a research project

Integrated KT

- Research approaches that engage potential knowledge users as partners in the research process
- Requires a collaborative or participatory approach to research that is action oriented and is solutions and impact focused
- For example, the knowledge user partner helps to define the research question and is involved in interpreting and applying the findings

REducing Deaths from OXidative Stress: The REDOXS study

A multicenter randomized trial of
glutamine and antioxidant supplementation
in critical illness

From the CIHR RCT Application

How will the results of this trial be used?

...If the trial is positive, the results will be used to inform the clinical practice of nutrition support around the world. We have already initiated a process of synthesizing (in the form of evidence-based clinical practice guidelines [\[i\]](#)) and disseminating best practice ideas (in the form of web-based repository of tools and information [see www.criticalcarenutrition.com]). These national initiatives were essential, preparatory steps to harmonize the practice of nutrition support in Canada. We have just completed a cluster randomized trial of different guideline dissemination strategies in 59 ICUs across Canada ([\[ii\]](#)) and all participating sites have worked actively to implement our clinical practice guidelines. The results of the REDOXS© study will feed directly into our active national nutrition guidelines and dissemination strategies.

[\[i\]](#) Heyland DK, Dhaliwal R, Drover JW, Gramlich L, Dodek P, for the Guidelines Committee. Canadian clinical practice guidelines for nutrition support in the adult critically ill patient. JPEN 2003;27:355-373.

[\[ii\]](#) Heyland DK, Jain M, Dhaliwal R, Day A, Keefe L, Drover J. Dissemination of the Canadian Clinical Practice Guidelines for nutrition support: Results of a cluster randomized controlled trial. Crit Care Med 2006 (in press).

From the CIHR EOL Grant Application

12.0 DISSEMINATION OF RESULTS

We plan to disseminate the results of our work by presenting at major scientific meetings and through publications in peer-reviewed journals. To reach a larger audience interested in EOL care, we will share the results of our work with other CIHR-sponsored New Emerging Teams conducting research in EOL care, Health Canada's Secretariat of Palliative and End of life Care, and other researchers in the community via the Canadian Virtual Hospice and our own CARENET website ([i]). To reach a larger audience interested in critical care, we will distribute the results through the CCCS and CCCTG memberships and communication channels. We anticipate that this work, like our former studies on EOL (2,13) will attract the attention of local and national media. Further knowledge translation will include preparation of lay summaries of our findings for posting on the public CARENET and CCCTG websites, publishing them in hospital newsletters, and providing them to seniors' organizations.

[i] www.thecarenet.ca last visited September 1 2008.



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