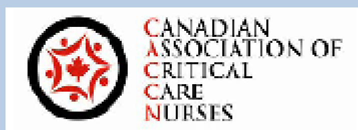
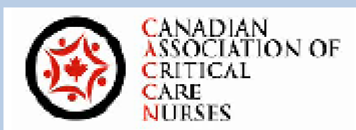


Dynamics 2013

Reduction in Vent Days after Adopting a New Sedation Scale and an Intense Education Effort Emphasizing Lighter Sedation Goals

Richard D. Simpson RN, CCRN
Critical Care Educator
Vascular Access Nurse
Rome Memorial Hospital
Rome, NY

Gubbins, Rachael BS, RN, CCRN; Rice, Barbara RN; Carissimo-Harris, Amy MS, RN; Diehl, Jayne, RN; Luley, Eileen RRT; Carleo, Carolyn Data Specialist



Dynamics 2013

Getting People to Follow the "Crazy Lady"

Richard D. Simpson RN, CCRN
Critical Care Educator
Vascular Access
Rome Memorial Hospital
Rome, NY

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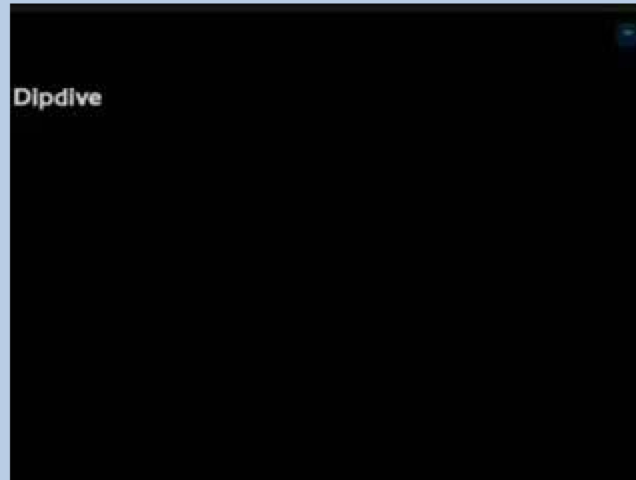

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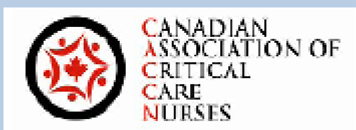
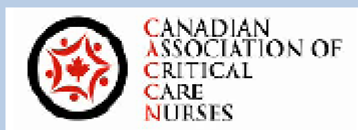


Dynamics 2013

Richard D. Simpson RN, CCRN

My disclosures:



Dynamics 2013

Industry conflicts - I freely admit:

I know some drug and equipment reps.

I have had a beer or two with some of them.

AND

I have taken advantage of their marketing methods to score free meals and pens.

Dynamics 2013

Richard D. Simpson RN, CCRN
Member AACN, SCCM, AVA, and CACCN
Critical care nurse for 34 years

That makes me an

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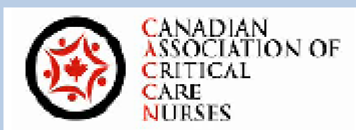


Dynamics 2013

When I started there were no IV pumps

No BP machines

No one was allowed to have a PVC

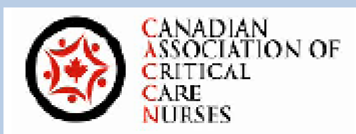
We enthusiastically milked chest tubes

We drew our own ABG's

Set-up our own vents and made our own ordered changes

If you worked nights you were expected to practice medicine

And generally used stone knives and bear skins



Dynamics 2013

So – change is generally a good thing.

However; there does exist - - - -

The “Enemy of Change”

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Dynamics 2013

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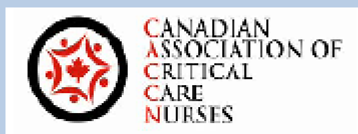
Dynamics 2013

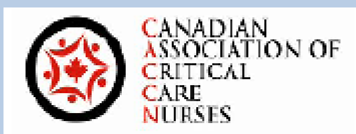


Dynamics 2013

Rome Memorial Hospital
Rome N.Y.

We are a 104 acute bed community, non-teaching hospital with an 8 bed medical-surgical ICU, and a predominately private practice medical staff.

Our case load is mostly respiratory failure, pneumonia, COPD, and sepsis.

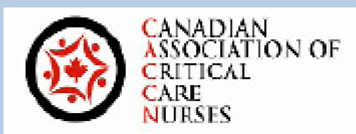


Dynamics 2013

This was a nursing driven performance improvement project to institute best practice in the sedation of mechanically ventilated patients.

Like many smaller hospitals, the impetus for change in our facility usually starts with the nursing staff.

Our medical staff took no initiative on this issue but agreed with our approach when consulted for their approval.



Dynamics 2013

We had already adopted a “Vent Bundle” (in 2003) that included:

- HOB elevated 30 degrees
- sedation titrated to a sedation scale
- daily sedation vacation
- daily weaning assessment
- GI stress prophylaxis
- DVT prophylaxis
- pain control
- **multidisciplinary daily rounds**

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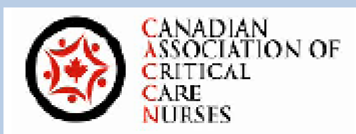

Dynamics 2013

Results:

A 28% reduction in vent days/patient over an 18 month period in 2003 and 2004.

Before - 8.12 vent days/pt
After - 5.82 vent days/pt

This was published as an abstract in Critical Care Medicine in December 2006

Vent days/pt stayed constant for the next several years.

Hurray! It worked!

Critical Care Medicine, December 2006, Vol. 34, No. 12 (Suppl.), A154

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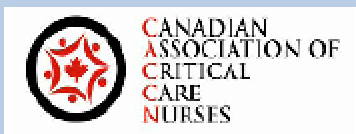


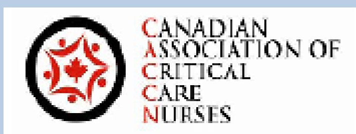
Dynamics 2013

Starting in early 2000’s, the critical care literature began to emphasize the importance of lighter sedation for ventilator patients.

And more recently – Delirium, IAW and Progressive Mobility

New standards for sedation and analgesia were published in January of this year.

Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit ; Juliana Barr, MD, FCCM et al; American College of Critical Care Medicine Task Force; Critical Care Medicine, January 2013 • Volume 41 • Number 1



Dynamics 2013

There was a perception amongst our ICU nursing leadership that our vented patients were sedated too deeply.

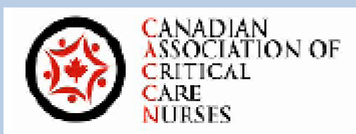
Our physicians, when asked, basically said "Yep, they are".

Also, we wanted to begin a Progressive Mobility plan.

But - our Physical Therapists insisted that they could not work with our patients – "call us when he's extubated".

Why?

It was really a sedation issue.



Dynamics 2013

20 years ago our patients were awake.

They got prn doses of valium or morphine

But they were interactive

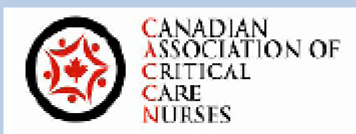
Then along came the “milk of amnesia” - propofol

Dynamics 2013

So we entered the age of the always calm and relaxed and quiet and undemanding and unmoving mechanically ventilated patient.

In other words - unconsciousness.

Why?



Dynamics 2013

Nursing is a caring profession

What could be kinder than sparing the patient the unpleasantness of mechanical ventilation?

Propofol infusion made it easy to sedate the patient deeply and wake them up quickly.

Dynamics 2013

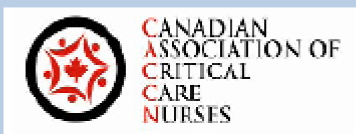
BUT –

Propofol has no analgesic properties

An unconscious patient can’t interact with his/her environment or caregivers

Coma masks delirium

Immobility is bad

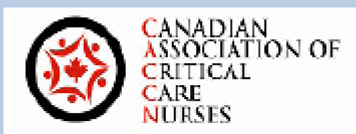


Dynamics 2013

So – do we go back to prn sedation with benzodiazepines?

Benzos increase the incidence of delirium and are not recommended.

The New Practice Guidelines for Pain, Agitation, and Delirium; Richard R. Riker, MD, and Gilles L. Fraser, PharmD; AJCC AMERICAN JOURNAL OF CRITICAL CARE, March 2013, Volume 22, No. 2

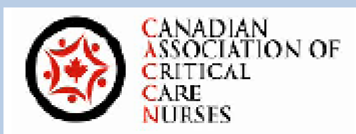


Dynamics 2013

We felt the answer was to change the paradigm.

Convince the critical care nurses that lighter is better

Give them the tools to accomplish lighter sedation



Dynamics 2013

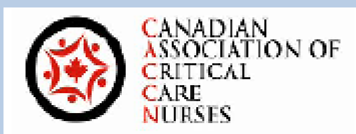
Step one – adopt a different sedation scale.

We were using Ramsey, which just isn't precise enough.

The Ramsay Sedation Scale
Awake Levels
Level
1 - Patient anxious, restless, or both.
2 - Patient cooperative, oriented and tranquil
3 - Patient responds to commands only.

Asleep Levels
Level
4 - Asleep but responds briskly to light glabellar tap or loud auditory stimulus.
5 - Asleep with sluggish response to light glabellar tap or loud auditory stimulus.
6 - Patient asleep with no response to stimuli.

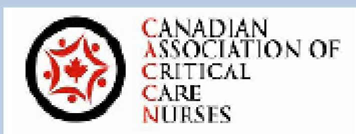
How to use the Ramsay Score to Assess the Level of ICU Sedation, Michael A. E. Ramsay M.D.
http://5jsnacc.umin.ac.jp



Dynamics 2013

A team of ICU staff nurses and managers reviewed the literature and chose the Richmond Agitation and Sedation Scale.

Much more precise and better defined.



Dynamics 2013

The Richmond Agitation and Sedation Scale: The RASS

+4 Combative Overtly combative, violent, immediate danger to staff

+3 Very agitated Pulls or removes tube(s) or catheter(s); aggressive

+2 Agitated Frequent non-purposeful movement, fights ventilator

+1 Restless Anxious but movements not aggressive vigorous

0 Alert and calm

-1 Drowsy Not fully alert, but has sustained eye-opening/eye contact) to *voice* ***(>10 seconds)***

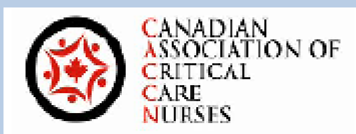
-2 Light sedation Briefly awakens with eye contact to *voice* ***(<10 seconds)***

-3 Moderate sedation Movement or eye opening to *voice* ***(but no eye contact)***

-4 Deep sedation No response to voice, but movement or eye opening to *physical stimulation*

-5 Unarousable No response to *voice or physical stimulation*

Sessler CN, et al. *AJRCCM 2002; 166:1338-1344*



Dynamics 2013

Ventilator order set was revised.

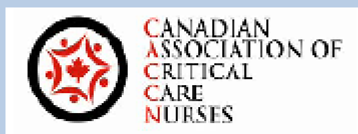
Patients were to be sedated to RASS level 0 to -1 unless otherwise ordered by the physician.

Critical Care Medical Staff was consulted and approved the changes

So……..a plan was born!

Initially there was a great deal of skepticism.

Even managers stated that it was going to be a real adjustment for them to accept that less is better.



Dynamics 2013

Now we all know that no Critical Care Nurses are ever:

Stubborn

Self-confident

Independent minded

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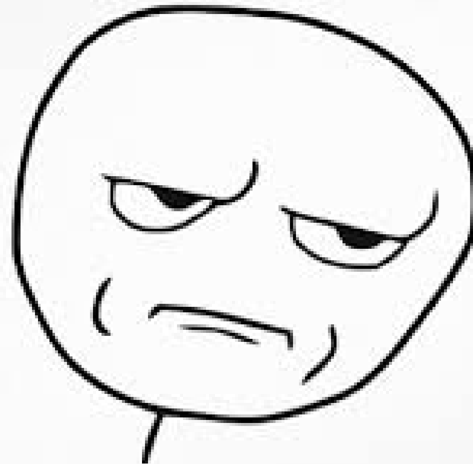
Dynamics 2013



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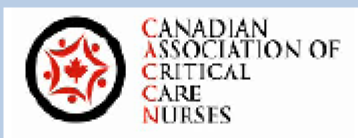

Dynamics 2013

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Dynamics 2013

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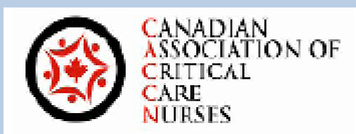
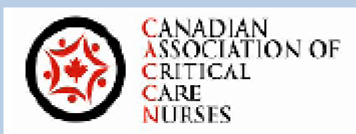


Dynamics 2013

So………….how do you convince the ICU RNs that “less is better”?

How do you change the paradigm?

How do you get them to “follow the crazy lady”?

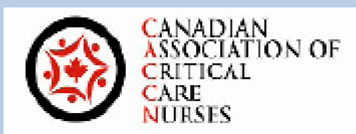


Dynamics 2013

The Plan – educate with evidence, enthusiasm, and follow-up in order to get buy-in and compliance:

A multipart education effort using several methods.

The education plan required that the ICU managers commit to giving staff the opportunity to participate.



Dynamics 2013

First …….. show them the expert evidence.

We used video for a video generation.

DVDs of presentations by three nationally known expert physicians from SCCM's National Congress.

These were made available on one of the unit's computers.
Extra copies were available to take home.

Viewing all three was made mandatory.

Dynamics 2013

Second: mandatory ½ hour class room session. This required multiple sessions on all shifts.

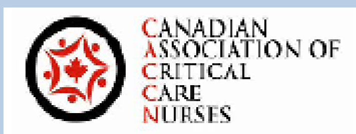
Take the class to the staff.

We educated with enthusiasm – to convince and persuade as well as to teach new techniques and concepts.

Dynamics 2013

We taught how to do the RASS properly. (Teach them the steps)

Look
-then-
Speak
-then-
Touch



Dynamics 2013

Very important point - Sedation is not restorative sleep – it is coma.

Most important point – RASS level zero - “awake and calm” - is the perfect sedation level.

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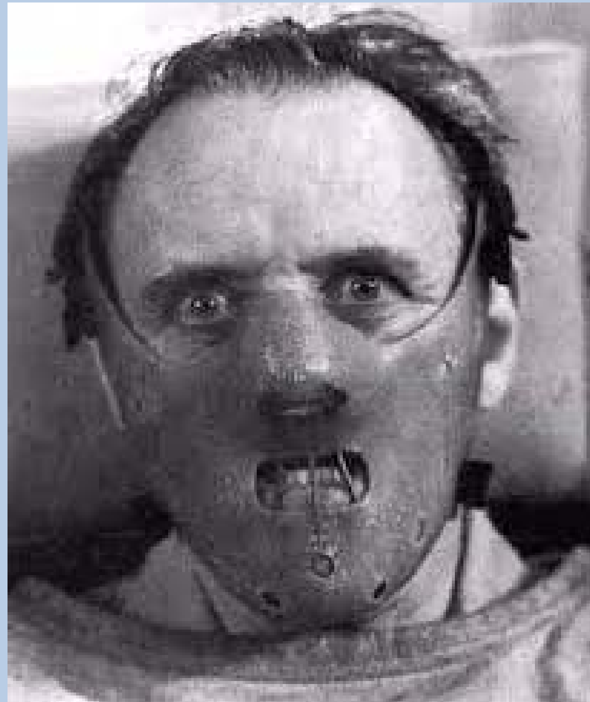

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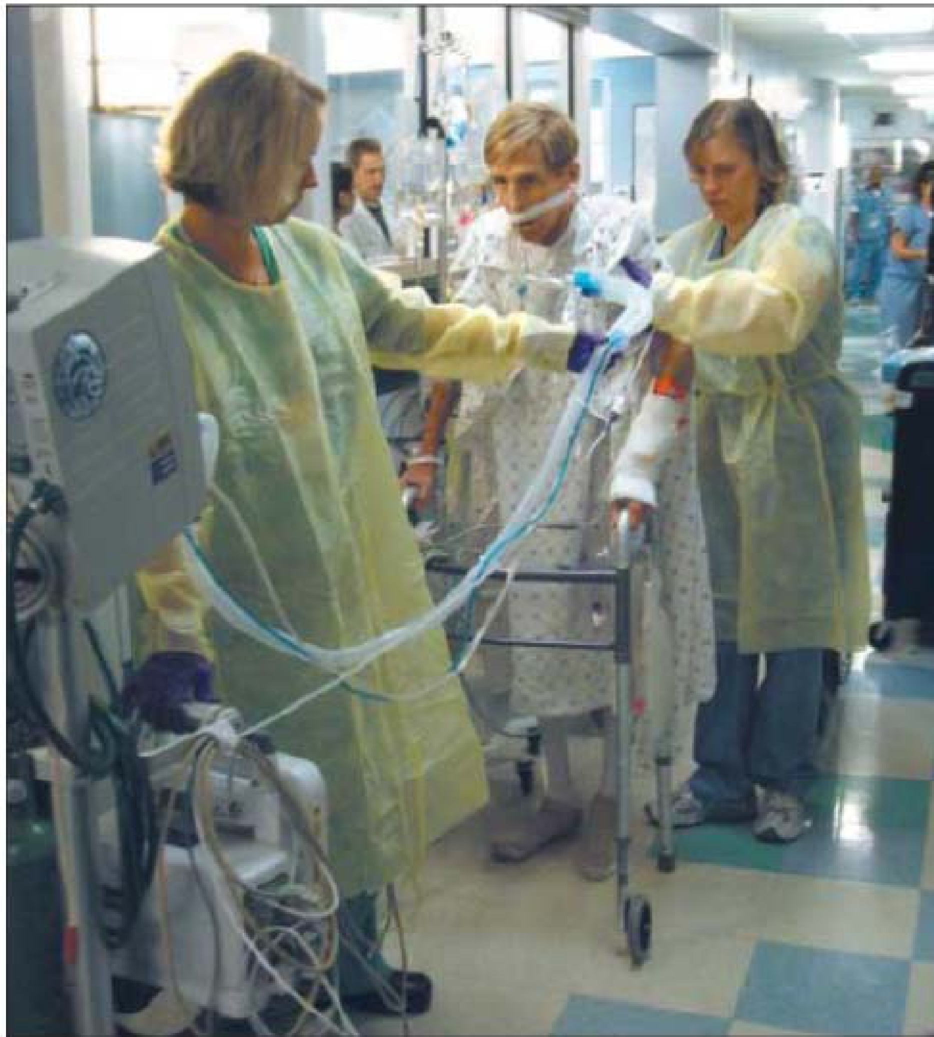
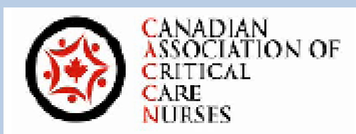


Mr E, a 56-year-old man with severe chronic obstructive pulmonary disease and acute renal failure, ambulating on day 4 after admission to the medical intensive care unit while receiving mechanical ventilation via an oral endotracheal tube.

Needham DM. *JAMA* 2008



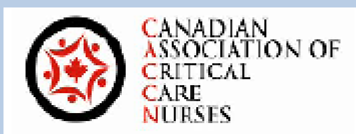
Dynamics 2013

If the patient is at RASS 0 when the sedation is turned off. Why turn it back on?

If the patient is a little bit restless with the sedation off – analgesia first.

There is always some discomfort when intubated.

It seems like our motto is – “A tube in every orifice and when we run out of openings we create more.”



Dynamics 2013

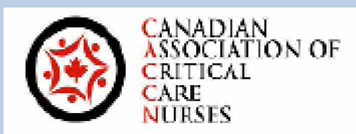
But – if “no sedation” is best, provide some mental stimulation.

Give the patient his/her glasses, hearing aides.

Give the patient the TV remote.

Encourage visitors.

Talk to them.



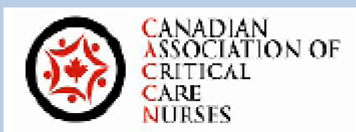
Dynamics 2013

Third – a mandatory Self-Learning Module

This explained the whole project in writing and included the revised policy, the revised order set, and documentation examples.

Put it all together.

Included a quiz at the end.



Dynamics 2013

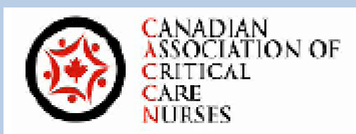
The education process took 3 months.

On January 1, 2010 we initiated the new process.

We reinforced the new rules every week day morning during rounds and checked each patient's RASS level. – THIS WAS A KEY ELEMENT.

Initial compliance was pretty good.

Night shift required some reinforcement and re-education on the difference between sleep and sedation.



Dynamics 2013

This was the only change we made to the care of ventilator patients.

We continued to use the same sedating agent – propofol.

We continued routine daily “sedation vacation”.

We had the same physicians.

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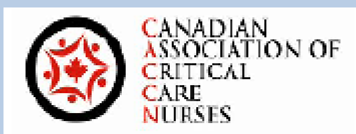


Dynamics 2013

Results -

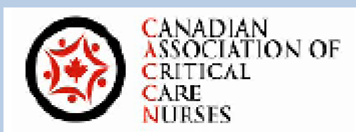
2005 to 2009 – 5.55 vent days/pt

For the 12 months January thru December: 2010 – 4.5 vent days/pt
1 full day reduction (18.9%)

Results sustained: 2011 – 4.21 vent days/pt

Dynamics 2013

And in 2013 we started Progressive Mobility

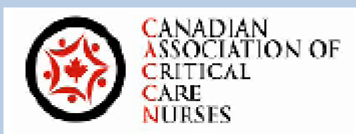


Dynamics 2013

We are a small hospital

Our numbers are too small to be statistically significant or to draw any conclusions for larger populations.

BUT - It was definitely significant for us.



Dynamics 2013

So - -

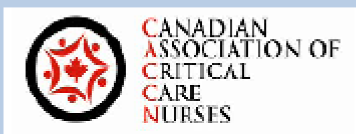
Show ‘em the evidence and the experts

Teach them dance – repeatedly, with entusiasm and using multiple modalities.

Let them fly – but verify (daily rounds).

Dynamics 2013

Thank you CACCN!



Dynamics 2013

Questions? (please be merciful)

rsimpson@romehospital.org
1-315-338-7237

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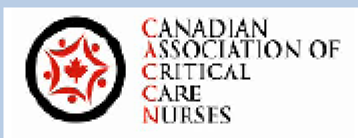
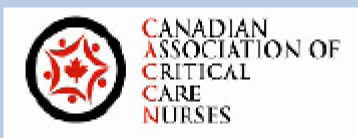


Dynamics 2013



Dynamics 2013