



## THE ABC's OF BUNDLES

**Bundle:** "A collection of things or quantity of material tied or wrapped up together"; **Bundle up:** "to dress warmly or snugly"

In recent years, it seems we have become obsessed with "**bundles**".... sepsis bundles, central line bundles, VAP bundles, and on and on!

The interest in 'care bundles' originated in the late 1990s, as the waves of goal-directed therapy and evidence-based medicine crested the shores of the medical world. A care bundle is "a group of three to five evidence-based interventions which, when performed together, have a better outcome than if performed individually" (Horner & Bellamy, 2012). Care bundles have evolved to become a measurement of the minimum standard of care, and useful

tools for the improvement of the care we deliver.

About 10 years ago, Safer Healthcare Now! introduced the first bundles into our critical care units, those designed to help prevent Ventilator Associated Pneumonia (VAP) and Central Line Associated Bloodstream Infections (CLABSI). Since that time, the "bundle approach" to VAP and CLI prevention has become the standard of care, both within our units locally, and globally.

Currently, the Society of Critical Care Medicine (SCCM) and Vanderbilt University promote the use of **the 'ABCDE' Bundle**, designed to reduce the long-term sequelae of critical illness. Within our ICUs, we have adopted the ABCDEF Bundle, and are at various stages of implementation of the six components.

### Some examples of our ABCDEF "Wins" ...We:

Implemented a validated pain assessment tool: Jan 2017 Chart Audits of Nsg Notes = 75% compliance

Have a validated sedation assessment tool (RASS) well embedded into our practice: Jan 2017 Chart Audits of Nsg Notes = 85% compliance

Talk 'RASS' on daily Rounds! DaRT Data (Oct – Dec 2016): for 346 daily rounds on 3A, RASS was discussed 89% of the time

Eliminated the use of benzodiazepines for routine ICU sedation

Made the Delirium assessment a standard of care: Jan 2017 Chart Audits: "was CAM-ICU completed in past 12 hrs?" 100% both units!

Talk about delirium assessment on Rounds: DaRT Data Oct – Dec 2016: 90% of the time!

Understand our delirium incidence: unit Charge Nurses collect daily information about the number of CAM-ICU+ patients. 2016 avg. rate of CAM-ICU+ was 30% for both units

Have successfully implemented a Mobility Program – the #1 strategy to mitigate delirium

Have open visiting hours for families in ICU

Generated an *Information for Families* booklet designed by the interdisciplinary team, and vetted by our community Quality member; it has also been translated into French

Have Family Surveys available in the Family Waiting Rooms

Have a Community/Family Representative on our Quality Team

### Areas of Future Improvements

Strengthen our 'treat pain first, sedate next' approach

Ensure we titrate to goal: Patient-Oriented Goal-Directed approach

Improve physician documentation of goal RASS (Jan 2017 Chart Audits 50%)

New Nursing Notes being designed that support such initiatives as sedating to target, pain and delirium assessment, sleep hygiene and early mobility

Implement a protocolized approach to SAT / SBT – coming soon!

Ensure consistent achievement of evening mobility goals.

Continue to consistently integrate family presence into bedside Rounds. Does it happen at your bedside?

Ensure families have an opportunity to complete the *Get to Know Me Tool*

## WE'VE TURNED 10!!!

This is our TENTH issue! Want to see all our past editions? All issues are posted on the Department of Critical Care website, just follow this link:

<https://medicine.dal.ca/departments/departments/sites/critical-care/patient-care/quality-assurance.html>

<b>A</b>	-Assess, Prevent and Manage Pain	<b>D</b>	-Delirium: Assess, Prevent and Manage
<b>B</b>	-Both Spontaneous Awakening Trials and Spontaneous Breathing Trials	<b>E</b>	-Early Mobility and Exercise
<b>C</b>	-Choice of Analgesia and Sedation	<b>F</b>	-Family Engagement

Recently, the journal *Resuscitation* published a joint statement update to the targeted temperature management (TTM) guidelines: **Canadian Guidelines for the use of targeted temperature management (therapeutic hypothermia) after cardiac arrest: A joint statement from The Canadian Critical Care Society (CCCS), Canadian Neurocritical Care Society (CNCCS), and the Canadian Critical Care Trials Group (CCCTG)** (Howes D., et al. [2016] *Resuscitation* 98: 48–63). Even more recently, the Canadian Cardiovascular Society, The Canadian Cardiovascular Critical Care Society and the Canadian Society of Interventional Cardiology issued a joint position statement, which included updated recommendations for TTM (**Optimal Care of the Post-Arrest Patient**, Wong et al., [2017] *Canadian Journal of Cardiology* 33: 1-16).

Targeted Temperature Management (TTM) is the preferred term for what is commonly referred to as therapeutic (or protective) hypothermia - a crucial therapeutic option for management post-cardiac arrest. TTH involves maintaining a specific body temperature for a specific period of time post-arrest in order to protect the brain and improve neurologic recovery and hence, outcomes. Both updates were generated using GRADE methodology and incorporating new trial data following the previous guidelines.

A **brief summary of take-home points / highlights** from both updates follows (for the sake of brevity, *unless otherwise indicated*, the recommendations below are of a HIGH quality of evidence or STRONG strength of recommendation; **for further details, please refer to the original articles**):



## • CONTRAINDICATIONS:

- **ABSOLUTE:** Uncontrolled bleeding and refractory shock are absolute contraindications. Hypotension is not an absolute contraindication; aggressive resuscitation with the aim of improving MAP and perfusion are recommended.
- **RELATIVE:** Severe infection is a relative contraindication.
- **NOT contraindicated:** advanced age, the need for urgent coronary intervention.

• **HOW COLD?** Here in lies the rub! The *Resuscitation* article advocates a target temperature between 32 °C and 34 °C. The *CJC* article advocates 33-36 °C. Each society reference the same literature and in particular a large, recent RCT that prompted rethinking of temperature targets (Nielsen et al., 2013), with each group placing emphasis on different values (strength of research vs strength of recommendation), hence the disparity. For details please see the original guidelines.

- **WHY?** For neuro-protection in eligible adult patients after resuscitation from cardiac arrest.
- **ELIGIBLE RHYTHMS?** Ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT), i.e., “shockable rhythms”. There are also a conditional recommendations based on very low quality evidence for PEA and asystole, in both guidelines.
- **WHO?** Those suffering cardiac arrest both in- and out-of-hospital; with a cardiac arrest of known or unknown cardiac cause. There are also conditional recommendations based on low quality evidence for cardiac arrest of unknown cause.
- **LEVEL OF CONSCIOUSNESS?** Patients who are comatose and do not respond to verbal commands after cardiac arrest should be considered for TTM.

In light of these new Guideline statements, we have taken the opportunity to work with our colleagues in Cardiology, and update our PPO for TTM. The PPO is currently going through the organizational processes for approval. Some notable changes to this PPO include:

- Two target ranges options, based on two sets of Guidelines;
- Clearer emphasis on treatment of shivering;
- Notes regarding: contacting Cardiology to discuss revascularization options; neurologic assessment; and consideration of organ donation.

## TB TESTING!

- The Public Health Agency of Canada guidelines require Health Care Personnel that are involved in high-risk activities have annual **TB TESTING**; high risk procedures include those done to induce coughing, e.g. Suctioning. SO! there will be a TB Testing Blitz in April and May for staff of 3A and 5.2.
- More information regarding logistics will be available soon, the highlights are: 1. Staff will have TST (Two-Step Tuberculin) administered by a NSHA Occupational Health Nurse (OHN), and given a form for follow-up; 2. The staff member then has two options: (a) Book an appointment with the OHN to have the test read; OR (b) Ask one of our Staff Intensivists (not a resident) to read the test (as outlined on the form).

**FURTHER INSTRUCTIONS AVAILABLE ON THE FORM!**

# Leadership Corner with Dr. Tobias Witter

In January 2017, I began my role as Interim Head of the Department of Critical Care, having taken over the role from my esteemed colleague, Dr Ward Patrick. These are exciting times, and I have a lot of plans for the department. However, I would first like to off a profound **THANK YOU** to Ward, who served as the Head of Critical Care for over a decade, and who ushered us from Division to Departmental status. I would like to continue to lead this department in Ward's spirit of collaborative and patient-centered care. As we do in our clinical units, I want like to generate and foster a robust culture of transparency and accountability within our department over the next couple of months. I would also like to strengthen our collaboration with our two closest centers, the IWK and Dartmouth General Hospital, in order to deepen not just our professional relationship but our educational and research links as well. To meet these lofty goals, we all need to work together as part of the Critical Care team; I know I can count on you as we work together toward these milestones.

*"I think a hero is any person  
really intent on making this a  
better place for all people."*

~Maya Angelou~



## Research Update from Tamara!

As the new Research Coordinator for Critical Care I have had a lot to learn about the role, but more importantly, I have come to appreciate the importance of the entire team. I want to thank both the 3A and 5.2 teams for welcoming me to this role, and I want to recognize some specific contributions:

**Cecille Ferguson:** Cecille was the nurse looking after a young patient diagnosed with severe illness, whose parents were concerned about adding "one more thing" to a child who was very ill. They were given time to decide about enrolling him in a research study, then sought Cecille's opinion. Cecille's supportive advocacy as someone who directly cared for their child helped this family with their decision. Nurses have specialized knowledge and a unique bond with families, which puts them in a position of leadership. Even lending an ear can be a great way to support research in our units!



**Lucie Appleby:** DEPPART deals with a sensitive subject, but it allows families to take something positive (contribution to a greater good), from something negative (withdrawal of life support). After a discussion with Lucie, it was clear she had a firm understanding of the study. Her patient was eventually enrolled in DEPPART, but her effective communication was key to the family's experience. Good communication resulted in the family being approached in a well organized manner, and ensured the setup/monitoring of the patient was as minimally disruptive as possible.

**Kerri Webster-McIsaac:** Screening for patients can be time consuming, and having two sites can make screening extra challenging. As a charge nurse at the VG, Kerri's help in identifying potential patients, not only saves time, but ensures all patients get a fair chance, and that resources can be utilized effectively. Screening cannot be successful, without charge nurses embracing the importance of research.

Please check your emails and the Research Boards for details. Moving forward we hope to disseminate the results of some of our past projects.

Current studies are **PROSPECT**, **DEPPART**, and **BALANCE**. See enrollment numbers below!

### December 21, 2016 to March 9, 2017 STATS:

Total Patients Screened: **146**

Total Eligible: **12**

PROSPECT Enrollment (HI/VG): **8**

DEPPART Enrollment (HI): **1**

SPRINT Enrollment (VG): **1**





## Upcoming Events & Conferences:

### ● **Critical Care Rounds** @ 1200-1300, Rm 378 Bethune, VG

M&M Rounds: Dr. Jack Rasmussen – Tuesday April 18<sup>th</sup>

Grand Rounds: Dr. Janice Chisholm – Tuesday May 2<sup>nd</sup>

“Competency By Design – Assessments”

Research Rounds: Critical Care Trainees – Tuesday May 9<sup>th</sup>

M&M Rounds: Dr. Emily Rowsell – Tuesday May 16<sup>th</sup>

Bioethics: Dr. Edmund Tan – Tuesday May 23<sup>rd</sup>

“Shared Critical Care Decision Making”

M&M Rounds: Dr. Janice Chisholm – Tuesday May 30<sup>th</sup>

Grand Rounds: Dr. Ward Patrick – Tuesday June 6<sup>th</sup> (TBA)

M&M Rounds: Dr. Jack Rasmussen – Tuesday June 13<sup>th</sup>

### ● **Blood and Beyond 2017**

April 29<sup>th</sup> & 30<sup>th</sup> 2017

The Prince George Hotel, Halifax, NS

Register at <http://nsanesthesia.ca/s/blood-and-beyond>

### **MEDICATION SAFETY TIP!**

#### **Did you know?**

Alterations to any Pre-Printed Orders (PPOs) are unacceptable by policy for patient safety reasons (Policy MM 15-002). If alterations to standard PPOs are required, the orders are to be written on a standard order sheet. A PPO with alterations to the standard PPO components is a No-Go!

*“She believed she could, so she did.”*

*–Author Unknown*



## Do you know about our ‘Clinical Ethics Consultation’ Service?

The NSHA Central Zone Ethics Support (CZES) team can help you sort through the tough ethical questions and issues that arise during the provision of care to both patients and their families. Challenging circumstances are

frequent in the Critical Care setting, where tensions run high and the perspectives, attitudes and values of the involved parties may differ. Conflicts may arise between patients and their families, between patients/families and their health care providers, and among individual members of the multidisciplinary health care team.

Any member of the team can request a clinical ethics consultation, by simply calling **473-1564**. The confidential ethics consultation request line is monitored twice daily on weekdays. If you need ethics support after hours, on weekends or holidays, contact the Admin Coordinator (page 2607).

In addition to case-specific consultations, the ethics support is available through CZES for ethics education, e.g., health care team sessions on a particular ethics-related topic, and assistance with health policy development and review.

## Welcome!

Critical Care is happy to welcome **Janet Gallant** to her new role as the Program Manager of Legacy of Life and Critical Care Organ Donation. Janet is a registered nurse by background and comes to Critical Care from the Research Department where she led many initiatives and roll-outs throughout the province. We are excited to have Janet in this new role!

## Changes to our Critical Care Family: Welcomes! & Thank You's!

We have had some new hires and additions to our ICU family since our last issue. **WELCOME!**

- **5.2 and 3A** are pleased to welcome and congratulate, the following candidates from the Critical Care Transition Program and CCNP: Brittany Belzevick and Kayla Withrow to 5.2, and Jennifer Hartley and Dennis Trainor to 3A.

With the coming of new staff we have seen some amazing members of our family leave. A BIG thank you for your dedication and hard work! You will be missed!!

- **5.2 Goodbyes:** With a sad heart 5.2 says good-bye to our beloved social worker, Colleen Barron. Colleen has taken an assignment at Hants; we wish Colleen the best!
- **3A Goodbyes:** Amanda Greer, RN
- **RT Goodbyes:** Marlene Noble retired April 1<sup>st</sup>



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