

### APPHON/ROHPPA NEWSLETTER

Atlantic Provinces Pediatric Hematology/Oncology Network Réseau d'Oncologie et Hématologie Pédiatrique des Provinces Atlantiques

> Board Executive: Chair - Dr. Lynette Bowes Vice Chair - Mickey Daye Secretary/Treasurer - TBA

#### **Our Vision**

To facilitate access for Atlantic province children and youth to comprehensive, current, effective, evidence-based hematologic/oncologic treatment delivered as close to home as safely feasible

#### Summer 2017

#### 2017 APPHON/ROHPPA Conference

Mark your calendars. The 2017 Conference will be held on November 16<sup>th</sup>-18<sup>th</sup>. The theme will be Supportive Care. November 16<sup>th</sup> will be a half day hematology workshop and the 17<sup>th</sup>/18<sup>th</sup> will be the annual hematology/oncology conference.

#### **IWK Pharmacy Request**

In order to facilitate chemotherapy orders sent to regional hospitals in a more timely manner please fax a copy of the bloodwork and height and weight to both the nursing staff (as currently done) AND to the clinical pharmacists at Fax 902-470-6701

#### <u>Guideline Review</u>

Thank you to everyone who reviewed the mucositis, constipation and diarrhea guidelines. We have taken all of the feedback into account and will be releasing the updated guidelines shortly.

#### New IWK Manager of Hematology/Oncology, Nephrology & Palliative Care

Krista Rigby has accepted the position of Director, Community and Population Oncology with the Nova Scotia Cancer Care Program.

Elizabeth Schurman BScN, RN, MN is now the manager of Hematology/ Oncology, Nephrology & Palliative Care at the IWK Health Centre. Her contact information is:

Tel 902-470-6378 | Cell 902-229-8739 elizabeth.schurman@iwk.nshealth.ca

#### National Kids Cancer Ride Sept 6-23, 2017

The IWK's, Dr. Bruce Crooks will be participating in the National Kids Cancer Ride September 6-23, 2017. If you would like to donate, please go to <a href="http://nationalkidscancerride.com/ride/2015-national-riders/bruce-crooks/">http://nationalkidscancerride.com/ride/2015-national-riders/bruce-crooks/</a>

#### **Volunteer Opportunity**

IWK Health Centre Pediatric Hematology/Oncology Interdisciplinary Council (HOIC) is recruiting a volunteer community partner

#### What is HOIC?

HOIC or Hematology Oncology Interdisciplinary Council is the operations committee for the IWK's pediatric Hematology/Oncology/Brain Tumor service. Its membership includes nurses, doctors, administrators, allied health team members, community partners, and patient/family partners.

#### What is the purpose of HOIC?

The purpose of HOIC is to consider the views of all members of the health team, as well as that of the child and family to make recommendations and/or decisions that are in line with the IWK strategic plan. This includes consultation, recommendations, decisions, and communications within the pediatric hematology/oncology/brain tumour service. We also link with community, national and international partners.

## What is a Community Partner? A community partner is a

representative from the Maritime provinces who is involved with the care/support of the pediatric hematology/oncology/brain tumour

patients & families. The role of the community partner is to provide a community perspective. Your input will help effect change and inform decision making within the pediatric hematology/oncology/brain tumour service.

#### What would I be committing to?

Currently, we are recruiting one community partner to join our committee. The term is 2 years. Meetings are held monthly on the first Tuesday of each month from 8:00-9:30 am. We meet 10-11 times per year. A minimum of 60% attendance is expected for all members. Members can join in person or via phone or other technology. It may be possible to use other conferencing technology as well.

#### What are the qualifications?

Any professional involved in the care of current or past pediatric hematology/oncology/brain tumour patients & families is welcome. This can be within the health network or community groups involved in care/support.

# Where can I get further information/How do I apply? Please contact Annette Flanders (Chairperson of HOIC) at 902-470-2789,

toll-free at 1-888-470-8888 ask for extension 2789 or by email annette.flanders@iwk.nshealth.ca.

#### **STAT Lactate Levels**

As most of you are aware, we are now asking for STAT lactate levels on our Treat Promptly cards and orders. Please see the following letter for an explanation by Dr. Gavin Morrison, Chief, Department of Pediatric Critical Care, IWK Health Centre.



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July 27, 2017

Dear Conrad,

As you correctly state in your letter, it is the opinion and advice of the Paediatric Intensive Care team (IWK) that the measurement of serum lactate, performed in patients at risk of, or, displaying signs of, systemic infection, is valuable in determining patient outcome and guiding therapy. Specifically, we believe that a raised serum lactate (> 4.0 mmol/L) can indicate occult sepsis<sup>1,2</sup>. Further, we also recommend the serial measurement of serum lactate levels as a means to indicate the efficacy of therapy i.e. a rapid clearance of lactate indicates improved outcome<sup>3</sup>.

The utility of serum lactate levels in predicting the clinical outcome of patients with sepsis has been repeatedly, if not uniformly, reported <sup>3,4,5</sup>. Schlapbach et al demonstrated that the risk of death in sepsis is increased for even minor elevations in lactate level above normal (> 2.0 mmol/L). Even a cursory perusal of the literature, pertaining to the prognostic value of serum lactate, will quickly indicate that it is a useful adjunct in identifying a risk of poor outcome in both adults and children and can often do so at the earliest stages of the patient's engagement with clinical services. <sup>6,7,8</sup>.

Conrad Fernandez MD, FRCPC

July 27, 2017

Page 2

The second issue you raise concerns the clinical value and reliability of measuring serum lactate

in venous blood. While the method of collection may contribute to artefactual elevation in the

lactate value (and this has been a source of skepticism as to the value of venous lactate

measurement), under most circumstances, this is not sufficient to negate the value of the raised

serum lactate in a clinically unwell patient at risk of deterioration. In the recent study by Scott et

al<sup>2</sup>, a venous lactate level > 4 mmol/L, measured at time of initial ER improved identification of

patients at risk of sepsis related mortality. Our own experience with venous lactate has meant that

we do not ignore venous lactate levels of > 3-4 mmol/L in patients at risk of sepsis.

I therefore recommend the use of serum lactate levels to identify sepsis patients at increased risk

of adverse outcomes. There is no marker that is 100% reliable in identifying severe sepsis,

however, there is sufficient data to suggest that serum lactate levels increase the recognition of

those with the potential for deterioration. For the sake of brevity, the literature cited in selective; a

deeper investigation should rapidly convince the researcher than this investigation has value.

Serum lactate levels are routinely drawn in the ICU and I believe it is capable of providing

information about the physiological state of the patient beyond that possible with the assessment

of "vital signs"

Regards,

Gavin Morrison, Chief,

Department of Paediatric Critical Care



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- 1. <u>Howell MD</u>, <u>Donnino M</u>, <u>Clardy P</u>, <u>Talmor D</u>, <u>Shapiro NI</u>. Occult hypoperfusion and mortality in patients with suspected infection. <u>Intensive Care Med</u>, 2007;33 (11):1892-1899.
- Scott HF, Brou L, Deakyne SJ, Kempe A, Fairclough DL, Bajaj L. Association Between Early Lactate Levels and 30-Day Mortality in Clinically Suspected Sepsis in Children. JAMA Pediatr. 2017;171(3):249-255.
- 3. Choudhary R, Sitaraman S, Choudhary A. Lactate clearance as the predictor of outcome in pediatric septic shock. J Emerg Trauma Shock. 2017;10 (2):55-59.
- 4. <u>Scott HF, Donoghue AJ, Gaieski DF, Marchese RF, Mistry RD</u>. The utility of early lactate testing in undifferentiated pediatric systemic inflammatory response syndrome. <u>Acad Emerg Med.</u> 2012; 19(11):1276-1280.
- 5. Schlapbach LJ, MacLaren G, Festa M, Alexander J, Erickson S, Beca J, Slater A, Schibler A, Pilcher D, Millar J, Straney L on behalf of the Australian & New Zealand Intensive Care Society (ANZICS) Centre for Outcomes & Resource Evaluation (CORE) and Australian & New Zealand Intensive Care Society (ANZICS) Paediatric Study Group. Prediction of pediatric sepsis mortality within 1 h of intensive care admission. Intensive Care Med 2017; 43:1085–1096.
- 6. Oedorf K, Day DE, Lior Y, et al. Serum Lactate Predicts Adverse Outcomes in Emergency Department Patients With and Without Infection. West J Emerg Med. 2017;18 (2):258-266.
- 7. Jansen TC, van Bommel J, Mulder PG, Rommes JH, Schieveld SJ, Bakker J. The prognostic value of blood lactate levels relative to that of vital signs in the pre-hospital setting: a pilot study. Crit Care. 2008;12 (6):R160.
- 8. <u>Choudhary R, Sitaraman S, Choudhary A</u>. Lactate clearance as the predictor of outcome in pediatric septic shock. <u>J Emerg Trauma Shock</u>. 2017;10:55-59.