

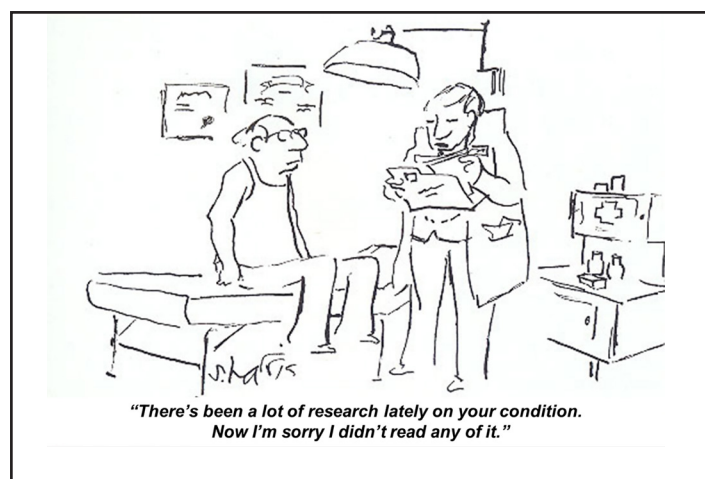
# The Canadian Cardiac Chronicle

Volume 23, Issue No. 1

## Back to School: But the Learning Never Stops

The return to school is typically marked by the end of summer and the beginning of autumn. However, in the world of clinical cardiovascular-related research, the associated cycle of investigation, new learnings, and medical education is a continuous one.

Together with my Canadian VIGOUR Centre (CVC) colleagues, we have recently returned home from an exciting European Society of Cardiology annual scientific congress that revealed new strategies and treatments, several of them practice-changing. Further, the CVC strengthened, and made plans to extend, our national and international collaborations with both old and new friends.



As the cartoon suggests, we as healthcare providers are immersed in a constant battle to keep "up to date" in order to best serve our patients. However, it's not enough to simply read the new medical literature; we need to also critically appraise what we've heard and seen, determine whether it applies to our patients and healthcare settings, and then practically implement what we've learned.

To assist with this daunting task of knowledge translation, the CVC's Founding Director Dr. Paul Armstrong established a seminal satellite symposium as part of the Canadian Cardiovascular Society's (CCS) annual scientific Congress (CCC) in 1994.

Over the past 24 years, the "Beyond 2000" (B2K) symposium has been among the best-attended sessions during the CCC and has drawn rave reviews from participants for its cutting-edge delivery of "what you need to know" about cardiovascular disease (CVD) by national and international experts. Perhaps the most popular parts of the symposium have been the case presentations by front-line cardiologists, the lively faculty panel discussions, and the question and answer (Q&A) opportunities provided as part of this highly interactive learning experience.

Dr. Armstrong has handed over the reigns to Dr. Justin Ezekowitz and me over the past couple of years, and we have extended our partnership with the CCS to make B2K not only a "stand alone" satellite symposium, but an integral part of the Congress itself. Further, B2K has now become a formal part of the CVC's mandate, consistent with our vision to not only generate, but also translate and disseminate, knowledge on novel diagnostics and therapeutic strategies in CV medicine acquired through collaborative research. To that end, additional "Beyond 2000" information can be found on the [CVC B2K website](#).

Further, following our 2018 symposium, we embarked upon a new, CCS-accredited webinar series: "B2K18 – Bridging Knowledge to Patient Care". Five topics (lipid-modifying therapy post-acute coronary syndrome [ACS]; oral anticoagulation in patients with coronary artery disease; oral antiplatelet therapy post-ACS; the heart failure-diabetes-renal axis; and diabetes and CVD) were covered in 2018-19 as we revisited some of the key presentations made during

B2K18, provided some relevant trial updates in the context of case presentations, and offered an interactive Q&A opportunity. These webinars are available on the CVC website [B2K Webinar Series](#).

Together with our Planning Committee colleagues (Drs. Heather Ross, Robert Welsh, and David Bewick), Dr. Ezekowitz and I have been busy organizing B2K19: New Concepts in ACS, Atrial Fibrillation, Heart Failure, and Diabetes which will take place during the CCS Congress. We are excited to have an outstanding faculty and, in recognition of this quarter-of-a-century B2K session, we have a new logo (Please see insert).

In honour of this milestone and to acknowledge Dr.

Armstrong's outstanding leadership in research and education, Dr. Warren Cantor - co-chair of the CCS Guidelines on acute management of ST-segment elevation myocardial infarction - will kick off the symposium with the **Paul W. Armstrong B2K Keynote Presentation**.

Hoping to see you in Montreal on Saturday, October 26th!



**Shaun Goodman**  
CVC Co-Director

## HEART-FID



We have recently reached two major milestones – global enrollment has reached 1000 subjects and Canada has enrolled 100 subjects! Your dedication to the trial is not going unnoticed. We appreciate the effort each site is putting forward in order to ensure trial success. Keep up your efforts!

[Congratulations to our top three Canadian sites!](#)

- **Dr. Shekhar Pandey, Stephanie Buck, and Patrick Toth** – Cambridge Cardiac Care Centre (Cambridge, ON)
- **Dr. Amit Khosla and Tracy Cleveland** – Surrey Memorial Hospital – Cardiology Clinical Trials (Surrey, BC)
- **Dr. Elizabeth Swiggum and Sarah Nelson** – Victoria Heart Institute (Victoria, BC)

### Trial Reminders:

#### 6 Minute Walk Test

A new 6MWT form was recently released. Please review

the document with your team. Important reminders about the 6MWT:


- the course should remain consistent throughout the trial in location and length
- the test should only be conducted by blinded staff
- it is acceptable if the test is completed outside of the visit window

### Data Entry

All sites are excellent at keeping their data up to date. Thank you! We would like to encourage you to continue regularly logging into RAVE to ensure there are no new open queries. We will continue working closely with each site to ensure Canada's data is as clean as possible.

If you are interested in further information regarding this trial, please contact Clinical Trial Project Lead Courtney Gubbels at 1-800-707-9098, ext 2 or via email at [courtney.gubbels@ualberta.ca](mailto:courtney.gubbels@ualberta.ca), or Regulatory Specialist Kate Dawson, 1-800-707-9098, ext 8 or via email at [kedawson@ualberta.ca](mailto:kedawson@ualberta.ca).

Sponsored by American Regent, HEART-FID is a Randomized, Double-Blind, Placebo-Controlled Study to Investigate the Efficacy and Safety of Injectafer® (Ferric Carboxymaltose) as Treatment for Heart Failure With Iron Deficiency



**ClinicalTrials.gov Identifier: NCT03037931**

## AEGIS-II

The enrollment phase of AEGIS-II is very much in full swing! In Canada, we have all 30 of our active sites enrolling patients, which is a very exciting milestone. Enrollment numbers have been exceeding projections not only in Canada, but globally as well.

We are encouraged by our sites' consistent enthusiasm and dedication to continually screen and work hard to find the right patients to enroll. As patients are enrolled, we will be sending out reminders to enter the Screening/Visit 1 data within 48 hours.

[Congratulations to the top three enrolling sites in Canada!](#)

- **Dr. Kevin Baine and Norma Hogg** - University of Alberta Hospital/Mazankowski Heart Institute (Edmonton, AB)
- **Dr. Josep Rodes-Cabau and Karine Maheux** - IUCPQ (Quebec City, QC)
- **Dr. Warren Cantor and Kim Robbins** - York PCI Group Inc. (Southlake, ON)

The local and central labwork requirements for infusion eligibility must be adhered to at all times. If these labs are not done or the values do not meet eligibility parameters prior to randomization and/or infusion, this is a major protocol deviation. It also very important that there is documented PI assessment of these labs PRIOR to an infusion occurring. Please carefully review the Protocol, and the Infusion Dosing Eligibility Cards for guidance. Your


CVC team is always available for questions or clarifications as well.

The required time window for eCRF data entry is within 2 days of each visit, or within 24 hours for all endpoints and serious adverse events. Please be mindful that if an endpoint also qualifies as an SAE, it must be reported as **both** within the appropriate sections of the eCRF. Please ensure that you continue to enter data and answer open queries in a timely manner. Thank you to all of the sites that have worked hard to keep their data consistently clean!

We encourage all site staff to be diligent with completing any new training modules in a timely manner, and it is particularly important that training be current prior to each onsite monitoring visit.

If you are interested in further information regarding this trial, please contact Clinical Trial Project Lead, Lyndsey Garritty at 1-800-707-9098, ext 4 or via email at [lyndsey.garritty@ualberta.ca](mailto:lyndsey.garritty@ualberta.ca), or Senior Regulatory Specialist Kalli Renner, 1-800-707-9098 ext 6 or via email at [kalli@ualberta.ca](mailto:kalli@ualberta.ca).

Sponsored by CSL Behring LLC, this is a Phase 3, Multicentre, Double-blind, Randomized, Placebo-controlled, Parallel-group Study to Investigate the Efficacy and Safety of CSL112 in Subjects with Acute Coronary Syndrome.



**ClinicalTrials.gov Identifier: NCT03473223**

## MAP-AHF




The MRI Assessment of Pulmonary Edema in Acute Heart Failure study is a single-centre project taking place at the University of Alberta Hospital/Mazankowski Alberta Heart Institute in collaboration with the Peter S. Allen MR Research Centre.

The MAP-AHF study will determine the changes in *Lung Water Density* (i.e., quantification of pulmonary edema on MRI) over the course of hospitalization and treatment of Acute Heart Failure, as well as explore whether *Lung Water*

*Density* is predictive of long term outcomes in the Acute HF population. Currently, this study is in its startup phase and we anticipate Dr. Richard Thompson and his team will enroll their first patient soon.

If you are interested in further information about the MAP-AHF study, please contact the Clinical Trial Project Lead, Karin Kushniruk, at 1-800-707- 9098, ext. 7 or [karin.kushniruk@ualberta.ca](mailto:karin.kushniruk@ualberta.ca).

**MAP - AHF**



Sponsored by: Canadian Institutes of Health Research MAP-AHF will examine the changes in lung water density over the course of treatment in patients hospitalized for acute heart failure, and will explore whether changes in lung water levels can predict long term outcomes.

**ClinicalTrials.gov Identifier: NCT03999138**



## SODIUM-HF



The SODIUM-HF Operations Team is pleased to share that the study is nearing the 75% enrollment milestone! We encourage all sites to continue to enroll at least one patient/month in the home stretch!

If you have any suggestions, concerns or questions regarding increasing enrolment at your site, please reach out to Melisa Spaling (contact info below).

### Regional Enrollment Summary:

- **Canada:** 470+ patients
- **Latin America:** 160+ patients
- **Australia & New Zealand:** ~90 patients

A special thank you to our Core Lab Personnel and all site personnel for responding to queries in a timely manner over the past weeks; this enabled the data to be as clean and up-to-date as possible for the upcoming data review. We appreciate your hard work and continued dedication to the SODIUM-HF trial!

### Reminder - Dietitians:


Please remember to clarify as many details as possible with your study participants when reviewing their Food Records. Common Food Record queries include:

- the amount of any fluids consumed per day (including water)

- if any table salt was used and, if yes, the amount added
- cooking methods/preparation (e.g., boiled, fried, roasted, etc.)

Please continue to submit source documents and Food Records (or Food Recalls, where applicable) to [sodcore@ualberta.ca](mailto:sodcore@ualberta.ca) as soon as possible after the visit. This enables timely analysis by the Core Lab and blinded event adjudication by the CEC. The date Food Records are sent to CVC should be entered into REDCap for internal verification purposes. For general study updates and news, follow us on Twitter [@sodiumhf](https://twitter.com/sodiumhf).

If you are interested in receiving more information about the SODIUM-HF trial, please contact the Clinical Trials Project Lead, Melisa Spaling, via email at [mvspaling@ualberta.ca](mailto:mvspaling@ualberta.ca) or 1-800-707-9098, ext 1. You may also contact the SODIUM-HF trial Regulatory Specialist, Kate Dawson, via email at [kedawson@ualberta.ca](mailto:kedawson@ualberta.ca) or 1-800-707-9098, ext 8.

**SODIUM-HF** 

Funded by the Canadian Institute of Health Research (CIHR) and University Hospital Foundation, SODIUM-HF is a multicenter, randomized, open-label Study Of Dietary Intervention Under 100 MMOL in Heart Failure.

*ClinicalTrials.gov Identifier: NCT02012179*

## FEAST-HF

Recruitment into the FEAST-HF pilot is nearly complete here at the University of Alberta. We look forward to learning more about the potential health benefits of dietary fiber supplementation as well as new avenues for treatment and future research for patients with heart failure.

If you are interested in further information about the FEAST-HF trial, please contact the Clinical Trial Project

Lead, Karin Kushniruk, at 1-800-707- 9098, ext. 7 or [karin.kushniruk@ualberta.ca](mailto:karin.kushniruk@ualberta.ca).

Sponsored by University Hospital Foundation, FEAST-HF trial will explore the potential beneficial effects of dietary fiber supplementation, compared with placebo, in patients with Heart Failure

*ClinicalTrials.gov Identifier: NCT03409926*

## STREAM-2

A special acknowledgement to our local Canadian site who continues to lead the way as the highest enrolling site in this trial! Congratulations on this impressive achievement. Sites continue to enroll globally with July 2019 being the highest enrolling month so far. We encourage our Canadian site to keep up their search for potential subjects.

If you are interested in further information regarding this trial, please contact Clinical Trial Project Lead

Courtney Gubbels at 1-800-707-9098, ext 2 or via email at [courtney.gubbels@ualberta.ca](mailto:courtney.gubbels@ualberta.ca).

Sponsored by Leuven Research & Development (LRD) at University of Leuven, Belgium, STREAM-2 is a Phase 4 trial on Strategic Reperfusion in elderly patients Early After Myocardial Infarction



*ClinicalTrials.gov Identifier: NCT02777580*

## News



We are pleased to announce that **Dr. Padma Kaul** has taken on a new role as a **CVC Co-Director**.

We are introducing a new leadership model that will involve a partnership between the two current Co-Directors, Dr. Justin Ezekowitz (leading CVC's relationships with the Faculty of Medicine & Dentistry and the University at large, the Mazankowski Alberta Heart Institute and Alberta Health Services) and Dr. Shaun Goodman (leading the CVC in managing external academic research organizations and University of Toronto partnerships and continuing medical education) with a third Co-Director, Dr. Padma Kaul (leading data science, including machine learning, artificial intelligence, population health, and real world evidence research at the CVC). The three Co-Directors will continue to work closely with the Founding Director, Dr. Paul Armstrong, to fulfil the shared responsibilities of leading the CVC.



Congratulations to CVC Co-Director **Dr. Justin Ezekowitz** on his new appointment as the **Faculty of Medicine & Dentistry's Director of Cardiovascular Research** for a two year term, which commenced on August 15, 2019.

Along with his role as Co-Director of the CVC, Dr. Ezekowitz is a professor of medicine in the Division of Cardiology and a cardiologist at the University of Alberta Hospital and Mazankowski Alberta Heart Institute. He focuses his research and clinical work on heart failure. Dr. Ezekowitz is involved in numerous clinical trials in heart failure as the principal investigator, and is part of the steering committees for multicentre international trials. Other initiatives of Dr. Ezekowitz involve work with population health, registry-data and advanced data analytics around health system change and disease risk. In the position of Director, Cardiovascular Research, in partnership with Alberta Health Services, Dr. Ezekowitz will lead work to increase integration and collaboration in cardiovascular research in Edmonton and Northern Alberta.

## New Staff



**Dan Wales, CRA**

**Dan S Wales** will be contracting with the CVC as a Senior Clinical Research Associate. He has been involved in clinical research since 1996 and has worked on many indications and all phases (I-IV) of clinical trial development. His experience encompasses a wide variety of knowledge and techniques. He is well versed in electronic eCRFs and has worked in many different systems. Mainly working as a field monitor, he has completed hundreds of site evaluations, initiations, and closeout visits as well as close to 4000 on site and remote monitoring visits. Dan can be contacted at 647-993-6194 or via email at [dwales@ualberta.ca](mailto:dwales@ualberta.ca).



## New Office Location



  
**We Moved!**

**The CVC's offices  
are now located at:**

**4-120 Katz Group Centre for  
Pharmacy and Health Research  
University of Alberta  
Edmonton, AB T6G 2E1**

## Publications

Armstrong PW, Naylor CD [Counteracting health misinformation: A role for medical journals?](#) *JAMA* 2019;321:1863-1864

Bainey KR, Durham D, Zheng Y, Westerhout CM, Kaul P, Welsh RC [Utilization and costs of noninvasive cardiac tests after acute coronary syndromes: Insights from the Alberta COAPT study.](#) *CJC Open* 2019;1:76-83.

Baran DA, Grines CL, Bailey S, Burkhoff D, Hall SA, Henry TD, Hollenberg SM, Kapur NK, O'Neill W, Ornato JP, Stelling K, Thiele H, van Diepen S, Naidu SS [SCAI clinical expert consensus statement on the classification of cardiogenic shock: This document was endorsed by the American College of Cardiology \(ACC\), the American Heart Association \(AHA\), the Society of Critical Care Medicine \(SCCM\), and the Society of Thoracic Surgeons \(STS\) in April 2019.](#) *Catheter Cardiovasc Interv.* 2019;94:29-37

Beique LC, Ezekowitz JA, O'Meara E, McDonald M, Koshman SL [2017 Guidelines for the management of heart failure by pharmacists](#) *Canadian Pharmacists Journal/Revue Des Pharmaciens Du Canada.* 2019. doi:10.1177/1715163519853307

Berg DD, Bohula EA, van Diepen S, Katz JN, Alviar CL, Baird-Zars VM, Barnett CF, Barsness GW, Burke JA, Cremer PC, Cruz J, Daniels LB, DeFilippis AP, Haleem A, Hollenberg SM, Horowitz JM, Keller N, Kontos MC, Lawler PR, Menon V, Metkus TS, Ng J, Orgel R, Overgaard CB, Park J-G, Phreaner N, Roswell RO, Schulman SP, Snell RJ, Solomon MA, Ternus B, Tymchak W, Vikram F, Morrow DA [Epidemiology of shock in contemporary cardiac intensive care units.](#) *Circ Cardiovasc Qual Outcomes* 2019;12:e005618

Berwanger O, Lopes RD, Moia DDF, Fonseca FA, Jiang L, Goodman SG, Nicholls SJ, Parkhomenko A, Averkov O, Tajer C, Malaga G, Saraiva JFK, Guimaraes HP, de Barros E Silva PGM, Damiani LP, Santos RHN, Paisani DM, Miranda TA, Valeis N, Piegas LS, Granger CB, White HD, Nicolau JC [Ticagrelor versus clopidogrel in patients with STEMI treated with fibrinolytic therapy: TREAT Trial.](#) *J Am Coll Cardiol.* 2019;73:2819-2828

Bohula EA, Katz JN, van Diepen S, Alviar CL, Baird-Zars VM, Park JG, Barnett CF, Bhattal G, Barsness GW, Burke JA, Cremer PC, Cruz J, Daniels LB, DeFilippis A, Granger CB, Hollenberg S, Horowitz JM, Keller N, Kontos MC, Lawler PR, Menon V, Metkus TS, Ng J, Orgel R, Overgaard CB, Phreaner N, Roswell RO, Schulman SP, Snell RJ, Solomon MA, Ternus B, Tymchak W, Vikram F, Morrow DA [Critical Care Cardiology Trials Network Demographics, care patterns, and outcomes of patients admitted to cardiac intensive care units: The critical care cardiology trials network prospective North American Multicenter Registry of Cardiac Critical Illness.](#) *JAMA Cardiol.* 2019 doi: 10.1001

Brusca SB, Barnett C, Barnhart BJ, Weng W, Morrow DA, Soble JS, Katz JN, Wiley BM, van Diepen S, Gomez AD, Solomon MA [Role of critical care medicine training in the cardiovascular intensive care unit: Survey responses from dual certified critical care cardiologists.](#) *J Am Heart Assoc.* 2019;8:e01172

Butler J, Lam CSP, Anstrom KJ, Ezekowitz J, Hernandez AF, O'Connor CM, Pieske B, Ponikowski P, Shah SJ, Solomon SD, Voors AA, Wu Y, Carvalho F, Bamber L, Blaustein RO, Roessig L, Armstrong PW [Rationale and design of the VITALITY-HFpEF Trial.](#) *Circ Heart Fail.* 2019;12:e005998.

## Publications Continued

Duncan A, Moat N, Simonato M, de Weger A, Kempfert J, Eggebrecht H, Walton A, Hellig F, Kornowski R, Spargias K, Mendiz O, Makkar R, Guerrero M, Rihal C, George I, Don C, Iadanza A, Bapat V, Welsh R, Wijeyesundera HC, Wood D, Sathananthan J, Danenberg H, Maisano F, Garcia S, Gafoor S, Nombela-Franco L, Cobiella J, Dvir D [Outcomes following transcatheter aortic valve replacement for degenerative stentless versus stented bioprostheses.](#) *JACC Cardiovasc Interv.* 2019;12:1256-1263

Ezekowitz JA [Creating order out of chaos: quality of care in heart failure.](#) *Heart* 2019;105:429-430

Ghimire A, Fine N, Ezekowitz JA, Howlett J, Youngson E, McAlister FA [Frequency, predictors, and prognosis of ejection fraction improvement in heart failure: an echocardiogram-based registry study.](#) *Eur Heart J.* 2019;40:2110-2117

Gong IY, Tan NS, Ali SH, Lebovic G, Mamdani M, Goodman SG, Ko DT, Laupacis A, Yan AT [Temporal trends of women enrollment in major cardiovascular randomized clinical trials.](#) *Can J Cardiol.* 2019;35:653-660

Grodin JL, Liebo MJ, Butler J, Metra M, Felker GM, Hernandez AF, Voors AA, McMurray JJ, Armstrong PW, O'Connor C, Starling RC, Troughton RW, Wilson Tang WH [Prognostic implications of changes in amino-terminal pro-B-type natriuretic peptide in acute decompensated heart failure: Insights from ASCEND-HF.](#) *J Card Fail.* 2019 pii: S1071-9164(18)30979-5

Grunau B, Kawano T, Scheuermeyer FX, Drennan I, Fordyce CB, van Diepen S, Reynolds J, Lin S, Christenson J [The Association of the average epinephrine dosing interval and survival with favorable neurologic status at hospital discharge in out-of-hospital cardiac arrest.](#) *Ann Emerg Med.* 2019 pii: S0196-0644(19)30354-3

Hohnloser SH, Fudim M, Alexander JH, Wojdyla DM, Ezekowitz JA, Hanna M, Atar D, Hijazi Z, Bahit MC, Al-Khatib SM, Lopez-Sendon JL, Wallentin L, Granger CB, Lopes RD [Efficacy and safety of apixaban versus warfarin in patients with atrial fibrillation and extremes in body weight.](#) *Circulation* 2019;139:2292-2300

Goldfarb M, van Diepen S, Liszkowski M, Jentzer JC, Pedraza I, Cercek B [Noncardiovascular disease and critical care delivery in a contemporary cardiac and medical intensive care unit.](#) *J Intensive Care Med.* 2019;34:537-543

Hong Y, Graham MM, Rosychuk RJ, Southern D, McMurtry MS [The effects of acute atmospheric pressure changes on the occurrence of ST-elevation myocardial infarction: A case-Crossover study.](#) *Can J Cardiol.* 2019;35:753-760

Jentzer JC, van Diepen S, Barsness GW, Katz JN, Wiley BM, Bennett CE, Mankad SV, Sinak LJ, Best PJ, Herrmann J, Jaffe AS, Murphy JG, Morrow DA, Wright RS, Bell MR, Anavekar NS [Changes in comorbidities, diagnoses, therapies and outcomes in a contemporary cardiac intensive care unit population.](#) *Am Heart J.* 2019;215:12-19

Kaul P, Alexander KP, Ohman EM, Savu A, Roe MT, Goodman SG, Fox KA, White HD, Prabhakaran D, Hochman JS, Clemmensen P, Armstrong PW [Sex and prognostic significance of self-reported frailty in non-ST-segment elevation acute coronary syndromes: Insights from the TRILOGY ACS trial.](#) *Can J Cardiol.* 2019;35:430-437

Martow E, Sandhu R [When is syncope arrhythmic?](#) *Med Clin North Am.* 2019;103:793-807

McAlister FA, Youngson E, Jacka M, Graham M, Conen D, Chan M, Szczeklik W, Alonso-Coello P, Devereaux PJ; vascular events in non-cardiac surgery patients cohort evaluation (VISION) investigators [A comparison of four risk models for the prediction of cardiovascular complications in patients with a history of atrial fibrillation undergoing non-cardiac surgery.](#) *Anaesthesia.* 2019. doi: 10.1111/anae.14777

McAlister FA [Improving outcomes for heart failure patients after discharge: Mind the gap.](#) *J Card Fail.* 2019;25:340-342

McAlister FA, Yan L, Roos LL, Lix LM. [Parental atrial fibrillation and stroke or atrial fibrillation in young adults.](#) *Stroke.* 2019;STROKEAHA119025124

Mehta SR, Wood DA, Meeks B, Storey RF, Mehran R, Bainey KR, Nguyen H, Bangdiwala SI, Cairns JA; COMPLETE Trial Steering Committee and Investigators [Design and rationale of the COMPLETE trial: A randomized, comparative effectiveness study of complete versus culprit-only percutaneous coronary intervention to treat multivessel coronary artery disease in patients presenting with ST-segment elevation myocardial infarction.](#) *Am Heart J.* 2019;215:157-166

Miller PE, van Diepen S, Ahmad T [Acute decompensated heart failure complicated by respiratory failure.](#) *Circ Heart Fail.* 2019;12:e006013

Narasimhan S, Shanks M, Meyer S, Tyrrell B, Taylor D, Welsh RC [Success begins with failure: An alternative approach in transfemoral transcatheter aortic valve replacement using an antegrade wire crossing technique.](#) *CJC Open.* 2019;1: 150-152.

Norris CM, Tannenbaum C, Pilote L, Wong G, Cantor WJ, McMurtry MS [Systematic incorporation of sex-specific information into clinical practice guidelines for the management of ST-segment-elevation myocardial infarction: Feasibility and outcomes.](#) *J Am Heart Assoc.* 2019;8:e011597

Pereira NL, So D, Bae JH, Chavez I, Jeong MH, Kim SW, Madan M, Graham J, O'Coilain F, Pauley N, Lennon RJ, Bailey K, Hasan A, Baudhuin LM, Bell MR, Lerman A, Goodman S, Mathew V, Farkouh M, Rihal CS [International survey of patients undergoing percutaneous coronary intervention and their attitudes toward pharmacogenetic testing](#) *Pharmacogenet Genomics.* 2019;29:76-83

Pereira NL, Rihal CS, So DYF, Rosenberg Y, Lennon RJ, Mathew V, Goodman SG, Weinshilboum RM, Wang L, Baudhuin LM, Lerman A, Hasan A, Iturriaga E, Fu YP, Geller N, Bailey K, Farkouh ME [Clopidogrel pharmacogenetics.](#) *Circ Cardiovasc Interv.* 2019 Apr;12:e007811

Povsic TJ, Ohman EM, Roe MT, White J, Rockhold FW, Montalescot G, Cornel JH, Nicolau JC, Steg PG, James S, Bode C, Welsh RC, Plotnikov AN, Mundl H, Gibson CM [P2Y12 inhibitor switching in response to routine notification of CYP2C19 clopidogrel metabolizer status following acute coronary syndromes.](#) *JAMA Cardiol.* 2019;4:680-684

Ray KK, Colhoun HM, Szarek M, Baccara-Dinet M, Bhatt DL, Bittner VA, Budaj AJ, Diaz R, Goodman SG, Hanotin C, Harrington RA, Jukema JW, Loizeau V, Lopes RD, Moryusef A, Murin J, Pordy R, Ristic AD, Roe MT, Tuñón J, White HD, Zeiher AM, Schwartz GG, Steg PG; ODYSSEY OUTCOMES Committees and Investigators. [Effects of alirocumab on cardiovascular and metabolic outcomes after acute coronary syndrome in patients with or without diabetes: a prespecified analysis of the ODYSSEY OUTCOMES randomised controlled trial.](#) *Lancet Diabetes Endocrinol.* 2019;7:618-628





## Publications Continued

Samsky MD, Ambrosy AP, Youngson E, Liang L, Kaul P, Hernandez AF, Peterson ED, McAlister FA [Trends in readmissions and length of stay for patients hospitalized with heart failure in Canada and the United States](#). *JAMA Cardiol*. 2019;4:444-453

Sandhu RK, Sheldon RS [Are cardiac biomarkers the key to solving the syncope mystery?](#) *Circulation*. 2019;139:2419-2421

Sepehrvand N, Alemayehu W, Rowe BH, McAlister FA, van Diepen S, Stickland M, Ezekowitz JA [High vs. low oxygen therapy in patients with acute heart failure: HiLo-HF pilot trial](#). *ESC Heart Fail*. 2019;6:667-677

Sepehrvand N, Alemayehu W, Dyck GJB, Dyck JRB, Anderson T, Howlett J, Paterson I, McAlister FA, Ezekowitz JA [External validation of the H2F-PEF model in diagnosing patients with heart failure and preserved ejection fraction](#). *Circulation*. 2019;139:2377-2379

Sepehrvand N, Youngson E, Bakal JA, McAlister FA, Rowe BH, Ezekowitz JA [External validation and refinement of emergency heart failure mortality risk grade risk model in patients with heart failure in the emergency department](#). *CJC Open*. 2019;1:123-130

Shahid A, Patel VB, Morton JS, Stenson TH, Davidge ST, Oudit GY, McMurtry MS [Low altitude simulation without hypoxia improves left ventricular function after myocardial infarction by reducing ventricular afterload](#). *PLoS One*. 2019;14:e0215814

Sharma A, Hagström E, Wojdyla DM, Neely ML, Harrington RA, Wallentin L, Alexander JH, Goodman SG, Lopes RD; Apixaban for Prevention of Acute Ischemic Safety Events APPRAISE-2 Steering Committee and Investigators [Clinical consequences of bleeding among individuals with a recent acute coronary syndrome: Insights from the APPRAISE-2 trial](#). *Am Heart J*. 2019;215:106-113

Tran DT, Barake W, Galbraith D, Norris C, Knudtson ML, Kaul P, McAlister FA, Sandhu RK [Total and cause-specific mortality after percutaneous coronary intervention: Observations from the Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease Registry](#). *CJC Open* 2019;1:182-189

Triploskiadis F, Butler J, Abboud FM, Armstrong PW, Adamopoulos S, Atherton JJ, Backs J, Bauersachs J, Burkhoff D, Bonow RO, Chopra VK, de Boer RA, de Windt L, Hamdani N, Hasenfuss G, Heymans S, Hulot JS, Konstam M, Lee RT, Linke WA, Lunde IG, Lyon AR, Maack C, Mann DL, Mebazaa A, Mentz RJ, Nihoyannopoulos P, Papp Z, Parissis J, Pedrazzini T, Rosano G, Rouleau J, Seferovic PM, Shah AM, Starling RC, Tocchetti CG, Trochu JN, Thum T, Zannad F, Brutsaert DL, Segers VF, De Keulenaer GW [The continuous heart failure spectrum: moving beyond an ejection fraction classification](#). *Eur Heart J*. 2019;40:2155-2163

van Diepen S, Thiele H [An overview of international cardiogenic shock guidelines and application in clinical practice](#). *Curr Opin Crit Care*. 2019;25:365-370

van Diepen S, Tran DT, Ezekowitz JA, Schnell G, Wiley BM, Morrow DA, McAlister FA, Kaul P [Incremental costs of high intensive care utilization in patients hospitalised with heart failure](#). *Eur Heart J Acute Cardiovasc Care* 2019

van Diepen S [Commentary: More evidence for 24-7 intensivist cardiac surgical intensive care unit coverage](#). *J Thorac Cardiovasc Surg*. 2019. pii: S0022-5223(19)30746-9

van Diepen S, Katz JN, Morrow DA [Will cardiac intensive care unit admissions warrant appropriate use criteria in the future?](#) *Circulation* 019;140:267-269

van Diepen S, Thiele H [An overview of international cardiogenic shock guidelines and application in clinical practice](#). *Curr Opin Crit Care* 2019;25:365-370

van Diepen S, Mehta RH, Leimberger JD, Goodman SG, Frenes S, Jankowich R, Heringlake M, Anstrom KJ, Levy JH, Luber J, Nagpal AD, Duncan AE, Argenziano M, Toller W, Teoh K, Knight JD, Lopes RD, Cowper PA, Mark DB, Alexander JH [Levosimendan in patients with reduced left ventricular function undergoing isolated coronary or valve surgery](#). *J Thorac Cardiovasc Surg*. 2019 pii: S0022-5223(19)31278-4

White HD, Steg PG, Szarek M, Bhatt DL, Bittner VA, Diaz R, Edelberg JM, Erglis A, Goodman SG, Hanotin C, Harrington RA, Jukema JW, Lopes RD, Mahaffey KW, Moryusef A, Porody R, Roe MT, Sritara P, Tricoci P, Zeiher AM, Schwartz GG. [Effects of alirocumab on types of myocardial infarction: insights from the ODYSSEY OUTCOMES trial](#). *Eur Heart J*. 2019. pii: ehz299

Yousefian P, Shin S, Mousavi AS, Kim C-S, Finegan B, McMurtry MS, Mukkamala R, Jang D-G, Kwon U, Kim YH, Hahn J-O. [Physiological association between limb Ballistocardiogram and arterial blood pressure waveforms: A mathematical model-based analysis](#). *Sci Rep*. 2019;9:5146



Visit the [publication archive](#) on our website for a comprehensive list of the CVC's publications.

## About the Chronicle

This newsletter is published periodically as a service to Canadian investigational sites. The purpose is to provide information of interest to individuals involved in cardiovascular clinical trials managed by the Canadian VIGOUR Centre, University of Alberta in Edmonton, Alberta, Canada.



Canadian **VIGOUR** Centre  
Bridging Hearts and Minds

**Address for Inquiries:**  
4-120 Katz Group Centre for Pharmacy and Health Research, University of Alberta  
Edmonton, AB, Canada, T6G 2E1  
Phone: 1-800-707-9098 Fax: 780-492-0613

[www.thecvc.ca](http://www.thecvc.ca)  [@CVC\\_UAlberta](https://twitter.com/CVC_UAlberta)

### CVC gratefully acknowledges our sponsors and the funding support provided by:

American Regent  
Canadian Institute of Health Research  
CSL Behring LLC

Leuven Research and Development  
University Hospital Foundation

Chronicle Editorial Board		
Paul W. Armstrong	Shaun Goodman	Ellen Pyear
Kate Dawson	Courtney Gubbels	Kris Reay
Justin Ezekowitz	Karin Kushniruk	Kalli Renner
Lyndsey Garritty	Jodi Parrotta	Melisa Spaling
		Tracy Temple