

# FACTS & ARTIFACTS 2018



## Save The Date

NEXT SCTA AGM & EDUCATION SESSIONS **MAY 5, 2018** (SASKATOON CITY HOSPITAL)

**SOCIAL GATHERING TO FOLLOW IN EVENING. DETAILS TBA.**

Do more than belong: participate.  
Do more than care: help.  
Do more than believe: practice.  
Do more than be fair: be kind.  
Do more than forgive: forget.  
Do more than dream: work.

-William Arthur Ward

VISIT [WWW.SCTA.CA](http://WWW.SCTA.CA) FOR INFORMATION ABOUT ORDERING BROCHURES.

## SCTA President's Report

I am honoured to represent our members as the SCTA President. To those who are new to our profession I welcome you and encourage you and all members to never lose the passion to LEARN. In our profession there are always new and interesting advancements in the field of cardiology. SCTA has a Facebook page and I encourage members to share their stories and ideas in regards to best practice which may prompt our profession and improve our effectiveness in the health care system.

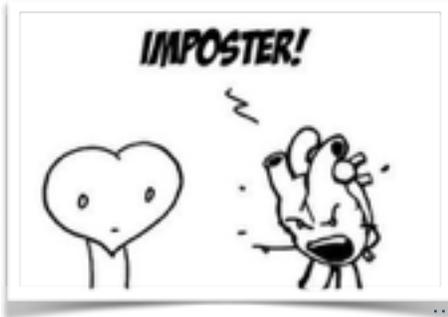
Thanks to the 2017 AGM & Education Session planning team. I hope everyone that attended enjoyed the speaker and topics. Please share your suggestion for future topics and speakers with any of the executive members.

Cardio Tech Day Feb 14th was celebrated in a big way in Saskatoon, Regina and Moose Jaw. Thanks to all those members who participated and showed pride in their profession. It was truly a great team building experience and advertised to other health care professionals and the public who we are! Please check out our SCTA website for important information, pay dues online and check your CEU status!

Thanks to Oksana Czaikowski for the great job on Facts and Artifacts. Hope more of our members will make submissions with interesting cases or things happening in their work place. Don't forget the draw for \$1500.00 to attend CCC in Toronto. Our SCTA Policy Manual has been updated and will be on the website soon.

Elections for SCTA Executive 2017-2019 took place at the AGM. Thanks to outgoing executive members for your input and volunteering for your profession. Special thanks to Crystal Shendaruk who has done a great job maintaining the SCTA and CSCT website and for representing our province as the Provincial Director over the past 4 years. She has been a great resource and dedicated individual we are all proud of her and her achievements as she takes on her new role as CSCT President.





## SCTA Board of Directors

**President** - Lynn Zinger  
sctaexecutive50@gmail.com

**Vice President** - Nicole Schreiner  
sctaexecutive50@gmail.com

**Director** - Andrea Gross  
sctaexecutive50@gmail.com

**Treasurer** - Patricia C. Budnick  
sctaexecutive50@gmail.com

**Registrar** - Carla Regush  
sctaexecutive50@gmail.com

**PEC** - Oksana Czaikowski  
oksanaczaikowski587@gmail.com

**Secretary** - Janelle Beaudry  
sctaexecutive50@gmail.com

**CEU Coordinator** - April Forrest  
sctaceucoord@gmail.com

**SCTA WEBSITE** - please inform your managers to submit job postings so they can be posted both provincially and nationally. Also submit educational or fund raising events to our executive at [SCTA50@gmail.com](mailto:SCTA50@gmail.com)

It's never too late to become involved do what you can when you can. Please contact any SCTA Executive members with your thoughts or concerns regarding our profession.

Warm regards,  
Lynn Zinger

## Provincial Education Coordinator Report

Happy New Year, SCTA Members!

I am very honoured to start a new triennium as the SCTA Education Director. At this time there are 9 Student members registered with the association. This past September we had 2 students write the CSCT exam, both which were successful, Congratulations!

On April 6th, 2018 there will be an Education Session for students as well for techs who wish to attend (opportunity for CEUs). Topics to be covered will be ECG interpretation, Basic Pacemaker Interpretation as well as a period to answer any exam related questions. There will be a small registration fee to ensure attendance. If you are interested in attending feel free to contact me via email. Looking forward to a great year.

SCTA Education Director,  
Oksana Czaikowski



## SCTA Annual Education Sessions

The SCTA Executive is looking for members to let us know what topics and/or speakers you would like to see at our Annual Education Sessions and AGM. Members could also present their case studies or a research paper. It would be great to have 4-5 members, each presenting a 10 minute case.

Members will receive 3 CEUs for preparing and or presenting a case and 1 CEU for preparing for each case providing input.

## SCTA Northern Education Fund

Throughout 2017 the Northern Fund was happy to provide funding for educational causes. We are also excited to have increased our year-end balance by over \$500! The majority of the increase came from the Cardiology Technologist who continue to teach on behalf of the association.

Starting balance 2016: **\$5194.78**  
Finishing balance 2017: **\$5713.87**  
Tracy Boyko - NEF representative



## SCTA Registrar's Report

Hello Members,

Just a friendly reminder that our annual membership dues deadline is December 31. On January 1, the online membership renewal option will not be available. Members will have to contact the SCTA registrar for arrangements to mail a cheque or money order for their membership dues plus late fees.

Members are reminded to keep their SCTA profiles up-to-date with any email, address changes, etc.

Members Report: As of March 1, 2018

**102** Active Members  
**7** Inactive Members  
**1** CSCT Life Member  
**9** Students  
 Total Members: **119**

Respectfully Submitted,  
*Carla Regush*  
 SCTA Registrar



## SCTA Southern Education Fund

2017 at a glance

- The South Saskatchewan Education Fund continues to offer funding to its southern members
- SCTA made a generous donation to a fundraiser in conjunction with Cardiology Technologist Day
- Fitness gift basket fundraiser raised **\$1555.00** thanks to Regina, Moose Jaw and Yorkton Hospitals
- Deposits in 2017 topped **\$1555.00**
- Leaving a balance of **\$3945.62** as of December 31, 2017

*Looking ahead to 2018*

I am looking forward to another year of helping our association contribute to furthering the education of our members!

*Kristin Mitchell*  
 Treasurer, Southern Sask Education Fund

## Treasurers Report

The SCTA bank account balance as of Dec 31, 2017 is \$33,403.25. This does not include the 2018 Membership fees that were paid before this date.

We had a few issues with Members paying dues under other people's email addresses. This did lead to a bit of confusion on our part, but we will be working on a solution for next year

SCTA financial statement, balance sheet and Director list will be submitted to the Saskatchewan Corporate Registry once they are reviewed by two SCTA Members of good standing. The deadline for filing these submissions is May 31, 2018.

I hope to see everyone at the AGM on May 5 this year. We are hoping to make it another interesting and educational event.

*Patty Budnick*  
 SCTA Treasurer

## SCTA CEU Coordinator Report

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Hello Members,

The current CEU triennium is from Jan 2017 to Dec 2019. All members must obtain 30 CEU's per triennium. Thank you to everyone that has been sending in their CEU material on a regular basis.

I would like to once again bring to your attention the new CEU guidelines set out by the CSCT. They have changed and there is more specific criteria for obtaining CEU's. One example is TLR (a transfer, lift repositioning course). This is a requirement for some jobs in Saskatchewan, but it is not a requirement for being a Cardiology Technologist, therefore it is not eligible anymore. Also remember that there needs to be documentation of all CEU's being submitted.

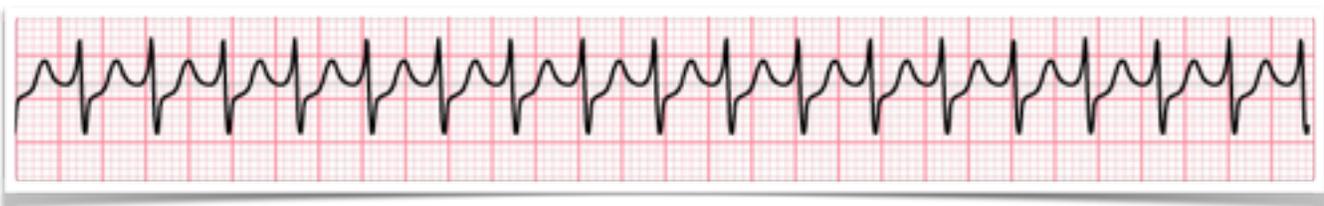
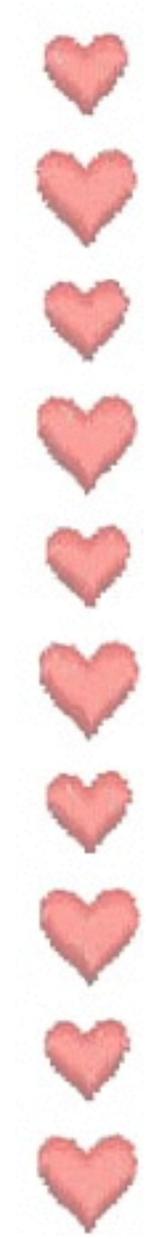
Please review the guidelines carefully before submitting or contact me with any questions.

As we are nearing the halfway mark of this triennium I encourage all members to send in the CEU's that they currently have to get an idea of what will be needed to complete the triennium.

CEU submission forms can be printed from our website [scta.ca](http://scta.ca). They can be emailed to me with your documentation to [sctaceucoord@gmail.com](mailto:sctaceucoord@gmail.com). Or mailed to me: 115 Bolton Way, Saskatoon, SK, S7T 0B2

As a friendly reminder CEU credits may only be awarded with appropriate documentation. Please refer to attached CEU document if unsure.

*April Forrest*  
CEU Coordinator



# CSCT Continuing Education Units (CEU) Standards

## **Academic Training – Pertaining to CSCT / CMA Cardiology Technology programs**

Successfully completing the CSCT Certification exam	30 CEU's
Successfully completing: Cardiac Rhythm Management and Devices, IBHRE, Electrophysiology, CVT, CCI, ARDMS, CARDUP, BRETC, BRPT	15 CEU's
Successfully passing CSCT reinstatement exam	10 CEU's

## **Continuing Education & Training - Pertaining to attendance of cardiac conferences, seminars and workshops, supplementary education, research, lecture, presentation, courses and training.**

Publishing cardiology paper, article, abstract	Primary author 30 CEU's Co-author 25 CEU's
Clinical Preceptors	1 CEU per 8 hours / max 5 per year
CCC Attendance	5 CEU's per day / max 15 per year
Cardiology related research projects	5 CEU's for research & 1 CEU for presenting
Provincial Education Day	5 CEU's
Internet studies, readings, videos, television programs, Cardiology related articles and journals	2 CEU's (include brief summary)
Conferences and seminars	1 CEU per 1 hour/max 5 per day
Cardiology rounds	1 CEU per 1 hour/max 5 per day
Public Education Event	1 CEU per 1 hour/max 5 per day
CSCT website based case studies - submissions	1 CEU per study
CPR / BCLS / ACLS / First Aid / BLS / HCP / AED	1 CEU per hr / max 5 CEU's
ACLS, PALS, NRP	1 CEU per hour

## **Professional Services - Pertaining to national and provincial board committee membership participation, attendance and representation in all aspects.**

CSCT Board of Directors membership / meetings	max 5 per year
Provincial Executive Committee membership / meetings	1 CEU per hr – max 5 per year
CSCT Ad Hoc Committee / Committee Chairs	2 CEU per committee
Attendance of Provincial AGM / CSCT AGM	5 CEU's
CSCT BOD approved surveys/ projects / NOCP surveys	5 CEU's per survey
Report for provincial / national newsletter	2 CEU's
Cardiology Exam invigilator – school exams, i.e. BCIT, Stenberg programs	1 CEU per exam

**\*\*\*Members who have not completed and submitted their CEU's to their provincial CEU Coordinator before the end of each triennium will be fined \$100.**

Coordinator before the end of each triennium will be fined \$100.

\*\*\*Members who have not completed and submitted their CEU's to their provincial CEU

Cardiology Exam invigilator – school exams, i.e. BCIT	1 CEU per exam
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## SCTA Director's Report

Hello Members,

Hope everyone is having a great year so far! This has been my first year as the SCTA Director and it has been an honor to represent our province with the CSCT. Here is a brief overview what the CSCT has been working on:

- The new CSCT CEU standards were put in place and are now being used by every province.
- The CSCT reinstatement policy has been put in place for those members who have become lapsed in either their CEUs or membership dues. This policy explains the process to follow to become in good standing again.
- Exam fees have remained at \$600.00 per attempt.
- The NOCP has now been updated to the 2014 NOCP which can be found on the CSCT website, the most notable change is the addition of section 1.7 Electrophysiology. This has also been reflected on the national certification exam.
- At the 2017 CSCT AGM in Vancouver BC, Crystal Shendaruk was elected in as a director at large. She was then appointed as the CSCT President at the post AGM. Also, at the post AGM Brenda Wall was appointed Vice President, Gretchen Dunn was appointed at Secretary, and Cheryl West was appointed as registrar.
- The 2018 Canadian Cardiovascular Congress (CCC) will be held in Toronto Ontario October 20th to October 23rd, 2018. The CSCT AGM will be held on Saturday October 20th as well as the CSCT members dinner for all of those that have pre-registered for the event with their full CCC registration. The CSCT education day will be held on Sunday October 21st with topics TBA.
- The positions of Education Director and director at large with the intention of appointment to treasurer will be up for election at this years AGM.

I hope to see everyone at the SCTA AGM and education sessions which will be held on May 5th, 2018 in Saskatoon. It is a great opportunity to connect with each other, learn and earn CEUs!

Thank you,

*Andrea Gross, RCT*  
*SCTA Director*



## CANADIAN SOCIETY OF CARDIOLOGY TECHNOLOGISTS REINSTATEMENT POLICY

The Canadian Society of Cardiology Technologists is responsible for setting entry to practice requirements for, Registered Cardiology Technologists (RCT), as outlined in the National Occupational Competency Profile (NOCP) recognized by the Canadian Medical Association (CMA).

A Member “Not in Good Standing” is a Registered Member (except a Life member) that has not completed one or more of the following:

- 1 Not maintained annual dues and/ or paid any applicable fees
2. Not maintained the required 30 CEUs per triennium

A Member “Not in Good Standing” applying for reinstatement must complete requirements as outlined below:

### **First triennium up to the end of 3 consecutive years:**

- ☀ Pay all membership back dues and applicable fees at current rate.
- ☀ Submit the required CEU’s for the triennium (total of 30)
- ☀ Confirmation of membership status from CSCT Registrar
- ☀ Administration fee of \$100.00 (Administration fee will stay in respective province)
- ☀ Provide required documentation such as Legal, Medical or other.
- ☀ Second triennium (beginning of the fourth up to the end of 6 consecutive years.
- ☀ Assessed on an individual basis by a membership panel
- ☀ Pay all membership back dues and applicable fees at current rate.
- ☀ Pay an Administration fee of \$200.00 (Administration fee will stay in respective province)
- ❖ **Challenge and pass the CSCT Certification exam OR**
- ❖ **Complete Practical Skills Checklists for ECG, ETT and Holter as per the NOCP**
- ☀ Confirmation of membership status from CSCT Registrar
- ☀ Provide required documentation such as Legal, Medical or other.

### **Beyond 6 years. Assessed on an individual basis by a membership panel**

- ☹ Pay all membership back dues and applicable fees at current rate.
- ☹ Provide confirmation of membership status from CSCT Registrar
- ☹ Provide a Letter from the current supervisor(s) confirming employment status in the field of cardiology.
- ☹ Challenge and pass CSCT Certification Exam
- ☹ Provide required documentation such as Legal, Medical or other
- ☹ Pay an Administration fee of \$200.00 (Administration fee will stay in respective Province)

*To start the reinstatement process, please contact your provincial association.*

# TECH CORNER

## *Brugada Syndrome*

*Brugada Syndrome* is a genetic disease that is characterized by abnormal ECG findings and an increased risk of sudden cardiac death. Inheritable arrhythmia syndrome with autosomal dominant inheritance. (If one of the two parents is affected, each child (both males and females) has a 50% chance of inheriting the disease.)

A small risk of sudden death exists in patients with *Brugada Syndrome*, and there may be a very small risk in asymptomatic patients with a type 1 ECG (Brugada ECG, not Syndrome) 2, Spanish cardiologists Pedro and Josep Brugada who described in 1992 a landmark publication continue to conduct research in the syndrome that has been named after them.

*Brugada Syndrome* is much more common in men and many do not have symptoms, so they're unaware of their condition. A telltale abnormality is type 1 Brugada ECG pattern. Brugada syndrome is treatable with preventive measures such as avoiding aggravating medications, reducing fever and, when applicable an implantable cardioverter-defibrillator (ICD).

### **Risk factors for Brugada syndrome include:**

- Family history of *Brugada Syndrome*. If other family members are diagnosed there is an increased risk. Genetic testing is often performed in patients with a type 1 Brugada ECG, primarily for use in screening family members. The yield of genetic testing is only 25%.
- Being male. Adult men are more frequently diagnosed than are women. In young children and adolescents, boys and girls are diagnosed at about the same rate.
- Race. Brugada syndrome occurs more frequently in Asians than in other races.
- Fever. While a fever doesn't cause *Brugada Syndrome*, fever can irritate the heart and stimulate a Brugada-triggered faint or sudden cardiac arrest, especially in children.

Complications of *Brugada Syndrome* require emergency medical care.

### **They include:**

- Sudden cardiac arrest (SCA). The arrhythmias usually occur in patients between 30 and 40 years of age and often during rest or while sleeping (high vagal tone).
- If witnessed SCA administering CPR and an external shock from an AED can improve the chances of survival until emergency personnel arrive.
- Fainting (syncope). Patients diagnosed with *Brugada Syndrome* must seek emergency medical attention if this should occur.

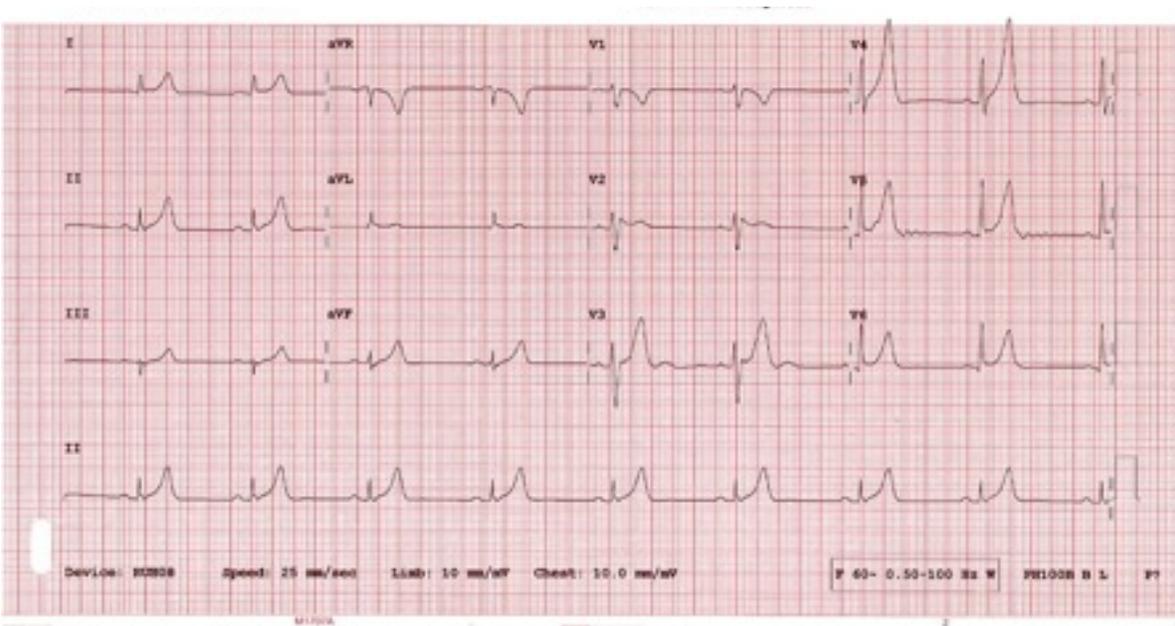
## Diagnosis

The term "*Brugada Syndrome*" is used when the *Brugada ECG* is accompanied by symptoms of syncope or cardiac arrest. The majority of patients present with the incidental finding of a *Brugada ECG*. The *Brugada pattern* is present in 3 out of 1000 persons. The vast majority of patients with the *Brugada ECG* will not have any symptoms related to it. There are three types of *Brugada ECG* (Figure). The pattern of clinical concern is the type 1 pattern, which is present in only one out of every 6000 persons. The most common is the type 2 pattern (81% of cases)<sup>1</sup>.

In a patient with suspected *Brugada Syndrome*, a procainamide (sodium-channel blocker) challenge may be administered. The purpose of a procainamide challenge is to unmask ECG abnormalities consistent with *Brugada Syndrome*. Registered Cardiology Technologists may be requested to perform ECGs during this procedure.

The procedure is performed in a critical care environment such as a Coronary Care Unit, under the care of a cardiologist and registered nurse. The role of the Registered Cardiology Technologist is to perform ECGs on the patient at set intervals determined by the procainamide challenge protocol.

Once all lines are in place and the patient is resting comfortably, the RCT performs a baseline standard 12-



ECG 1 - Baseline - Standard

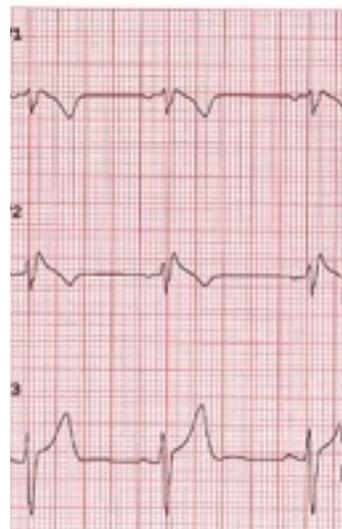


Procainamide is administered to the patient at a rate specific to their body weight. ECGs are performed five minutes post-infusion until the test is completed. The cardiologist reviews the ECGs for the changes consistent with Brugada Syndrome. *A test is considered to be positive if there is an increase of ST elevation > 1mm in leads V1 and V2.*

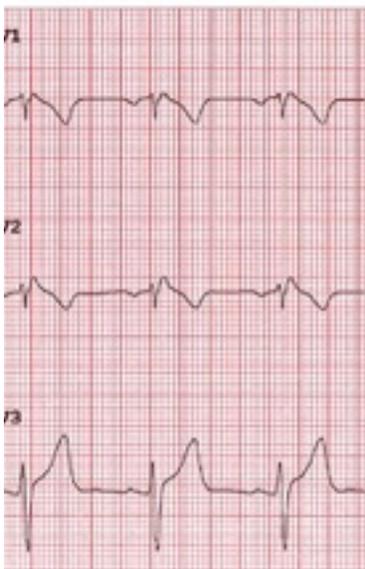
ECG 2 - Baseline - Modified (V1 and V2 in third intercostal space)



ECG 3 - 5 minutes Post-Infusion - Standard Placement



ECG 4 - 5 minutes Post-Infusion - Modified Placement



ECG 5 - 5 minutes Post-Infusion - Modified Placement II (V1 and V2 in second intercostal space)

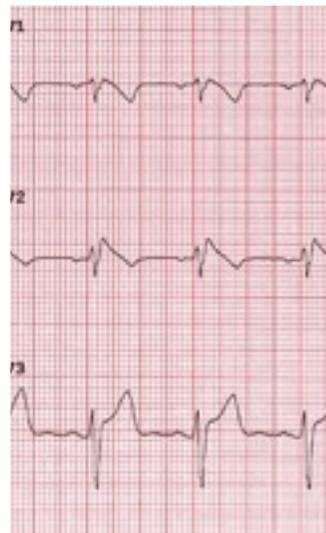
A third ECG was requested with V1 and V2 in the second intercostal space, but, in this particular patient, the pattern was no more pronounced than in the third intercostal space.



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ECG 6 - 10 minutes Post-Infusion - Standard Placement - Note ST Elevation in V2

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ECG 7 - 10 minutes Post-Infusion - Modified Placement

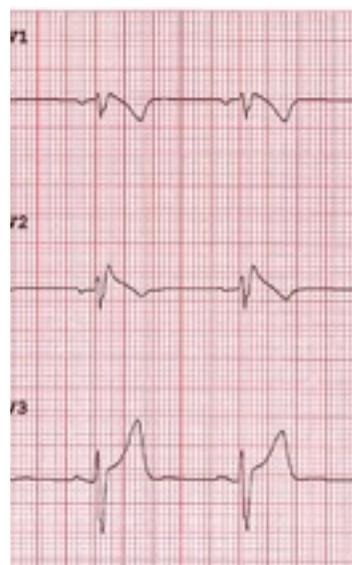
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ECG 8 - Completion (20 minutes Post-infusion) - Standard Placement

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ECG 9 - Completion (20 minutes Post-infusion) - Modified Placement

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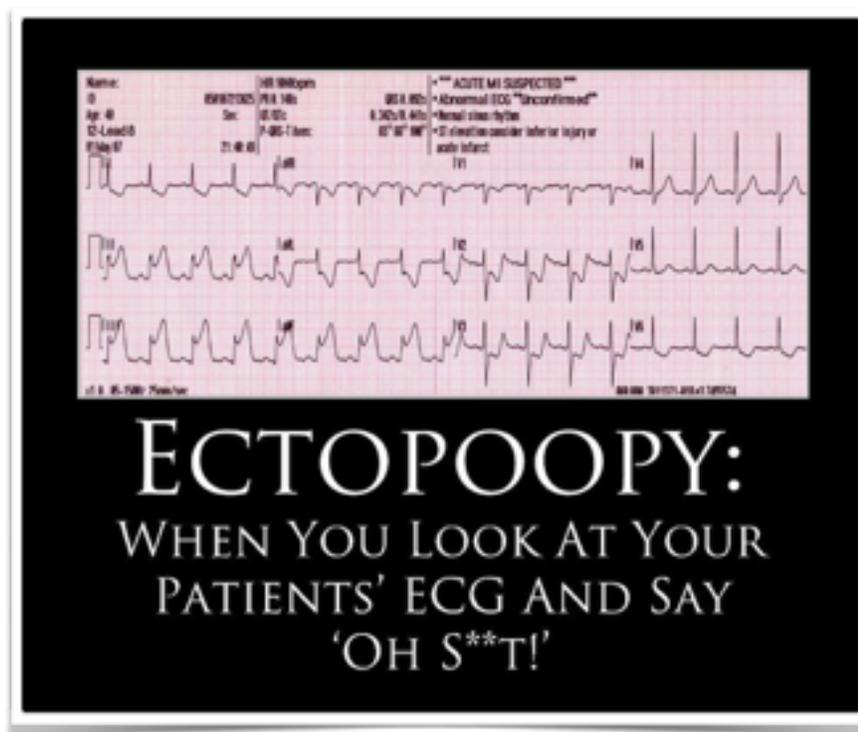
## Treatment

- Symptomatic patients who have experienced a cardiac arrest or syncope often undergo implantation of an **ICD**.
- An asymptomatic patient who shows both spontaneous and/or drug-induced type I ECG should discuss the small risk with their electrophysiologist to determine what is best for them.

## References

1. Gallagher MM, Forleo GB, Behr ER, et al. Prevalence and significance of Brugada-type ECG in 12,012 apparently healthy European subjects. *Int J Cardiol* 2008;130:44-8.
2. Probst V, Veltmann C, Eckardt L, et al. Long-term prognosis of patients diagnosed with Brugada syndrome: Results from the FINGER Brugada Syndrome Registry. *Circulation* 2010;121:635-43.
3. Veltmann C, Schimpf R, Echternach C, et al. A prospective study on spontaneous fluctuations between diagnostic and nondiagnostic ECGs in Brugada syndrome: implications for correct phenotyping and risk stratification. *Eur Heart J* 2006;27:2544-52.
4. Antzelevitch C, Brugada P, Borggrefe M, et al. Brugada syndrome: report of the second consensus conference. *Heart*

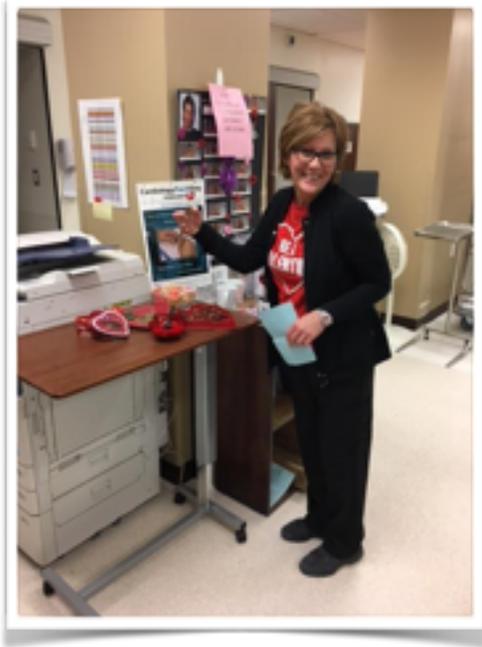
*Tech Corner submitted by:  
Danielle Velazquez & Lynn Zinger*



## CARDIOLOGY TECHNOLOGISTS DAY 2018

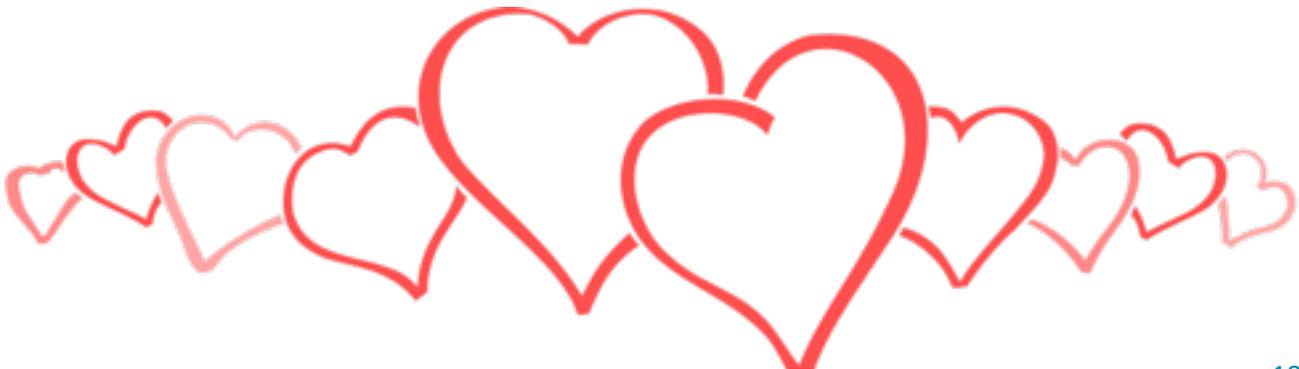
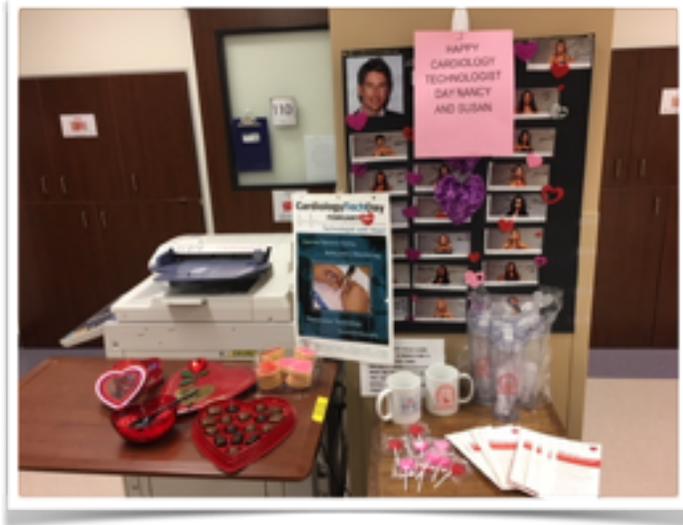
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*Cardiology Technologist Day is celebrated annually on February 14<sup>th</sup> to highlight the important role of our profession in the diagnosis and treatment of heart disease across Canada. Draw attention to the important the work we do in providing excellence in patient care and safety. Use social media. Be proud of your profession; let others know what you do!*



In **Moose Jaw** Susan and Nancy had a successful day celebrating Cardiology Technologist Day! They had very positive feedback from a display they set up in the front entrance of the hospital. They had a draw, entered by 118 people, to win various prizes that were donated by a local business.

*“We do our best and are very proud to promote our profession and educate people of our role as a health care provider. We look forward to seeing you in May for Education Day.”*



This year, in **Regina**, for Cardiology Tech Day we did a few things different. I wrote an Elink article that was sent out to the Regina Area prior to Feb 14<sup>th</sup> to advertise the day and our profession, we also handed out cards signed by the Cardio-Neuro Staff and cookie boxes to units in the hospitals and we did a draw amongst the Cardiology Tech staff. In order to get your name in the draw each tech had to pick an ECG rhythm related topic (ex. Afib, Brugada, LBBB) and submit an ECG example of it as well as information about the topic. It could have been in the form of a link to a good credible website, something that they wrote themselves or a research article. One of our techs then compiled it onto our shared drive for everyone to access! This was very well received and now we have a good resource for our techs! - Kristin

[Home](#) / [e-link](#) / Cardiology Technologist Day celebrates healthy hearts



## February 8, 2018

e-link is an online, weekly newsletter for Regina and area employees, physicians and volunteers of the Saskatchewan Health Authority.

# Cardiology Technologist Day celebrates healthy hearts

Cardiology Technologist Day is celebrated annually on Feb.14, also Valentine's Day, to highlight the important role of our profession in the diagnosis and treatment of heart arrhythmias and heart disease.



Jocelyn de Hoop, Registered Cardiology Technologist, enjoys all aspects of patient care, including the everyday interactions she has with her patients and their families.



CONTINUED ...

Cardiology technologists are a specialized group of healthcare professionals who work in hospitals and clinics and are a major asset to healthcare teams across the province.

As a Registered Cardiology Technologist, Jocelyn de Hoop obtained her diploma by completing her practical training. She then wrote the Canadian Society of Cardiology Technologists National Exam in 2016.

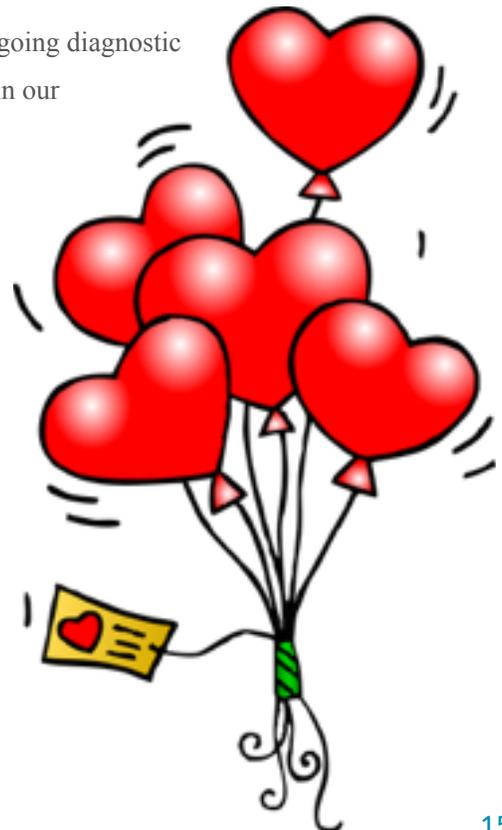


Cardiology technologists perform a variety of non-invasive cardiac diagnostic tests. These include performing and interpreting electrocardiograms (ECGs), Holter Monitors (monitors for arrhythmias), exercise stress testing and blood pressure monitoring as well as assisting with pacemaker programming and cardiac device monitoring.

These diagnostic tests are necessary to monitor and assess your heart's performance. Additionally, cardiology technologists must continue their education and training to keep up with changing technologies. Cardiology technologists also educate other hospital staff on current technology and the corresponding procedures.

Cardiology technologists take time to ensure patients are at ease when undergoing diagnostic testing and other heart procedures and our patients will always have a place in our hearts.

**IF YOUR HOSPITAL IS  
INTERESTED IN PROMOTING  
OUR PROFESSION NEXT YEAR  
PLEASE CONTACT SCTA  
EXECUTIVE!**





Cardiology Technologist Day was celebrated at all 3 **Saskatoon** hospitals February 14th, 2018. At RUH our department was decorated and SCTA brochures "What is a Cardiology Technologist?" were handed out.. From 1100 - 1400 hours there was a display of heart shaped cookies which the techs decorated with ECG rhythms and raffle tickets to win a Healthy Living Basket. The raffle items included: Fitbit Charge 2, Wicked audio Bluetooth headphones, Everest Resistance Band, Skipping rope, Yoga mat, P28 strawberries and cream protein pancake mix, Salted Caramel and Chocolate Maple Pretzel protein peanut butter, Hercs nutrition shaker cup, A variety of protein cookies, protein bars and protein almonds, sugar free gummies, Lindor chocolates, a swell water bottle and a 3 month membership to Motion Fitness. Tickets were \$2 each or 3 for \$5. In total there was over \$600 raised!

Lunch was also provided by the Northern Education fund. It was a fun day which allowed us to show off our profession and be proud to be Cardiology Technologists!

Decorations, cookies and raffle items were bought with the \$500 from the SCTA.

T-shirts were also made, which staff members wore throughout the day!

