Dear colleagues and friends,

As we are a few months into 2021, I want to take a moment to thank all of you for your continued support of American College of Clinical Engineering. Many of you support ACCE by participating in different committees and leadership positions, while others support us by being members and by volunteering to speak and share their experiences. And others, continue to support us by sponsoring different activities. We are a professional organization made up of volunteers, so without your help we wouldn’t be able to continue advancing and advocating for the profession of Clinical Engineering.

It has been over a year since this pandemic started and it has been a very different and difficult year for all of us. It has also been a difficult year for ACCE. With many events being canceled due to the pandemic, we had to make last minute decisions to ensure we could continue to provide the quality education and events that have become a trademark of ACCE. In addition, we had to scramble to find enough sponsors for online events. These sponsors are crucial in helping us keep the membership costs low (they are the lowest in the industry), and that allows us to reach more members. I want to thank both the Education Committee, for putting together an excellent webinar series which attracted sponsors, and all our sponsors, for helping ACCE stay afloat during such a difficult time. Thanks to these efforts, and thanks to Suly, our secretariat, ACCE is doing as well as any other year financially and we are looking forward to having in-person events in the near future.

While I say that – we are currently canceling different ACCE Events (ACCE Symposium, ACCE Reception, and different Board Meetings) at AAMI Exchange 2021. We polled our different Committees and Board, and we found that they either wouldn’t want to fly or weren’t allowed to fly by their respective organizations. In addition, we want to ensure that we stay the course with the pandemic recovery and follow CDC recommendations. As an engineering organization that works in healthcare, we want to do our bit to see this pandemic stopped – and not gathering in large groups is part of that. We hope we can meet soon, face to face, when it is safe to do so!

As you know, ACCE has been one of the main supporters for The Right to Repair. The Right to Repair has been affecting many hospitals during the time of this pandemic; many manufacturers haven’t been able to send their technicians to hospitals to repair/PM equipment and our hospitals technicians weren’t qualified to service these devices because manufacturers wouldn’t provide training. We continue to believe that The Right to Repair our equipment, is a basic right that all clinical engineering professionals should have. Due to our continued efforts, there have been many bills introduced throughout the country. In 2021, seven additional states have introduced Right to Repair legislation, and there are now 33 bills in 21 states. While these bills are still in the works, this is a major accomplishment for us, and a big win for the profession. We couldn’t do this without your support.

(Continued on page 2)
President’s Message

(Continued from page 1)

Thank you for all you do to support healthcare, and for your continued contribution to the clinical engineering profession!

Ilir Kullolli, President
American College of Clinical Engineering
President@accenet.org

The ACCE Board and Committee Chairs

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ACCE Membership Renewal

Thank you for being an ACCE member!

If you have not yet renewed for 2021, renewal is due now! To renew your 2021 membership online with PayPal, please click here or go to https://accenet.org/Members/Pages/default.aspx?from=login .

To renew by postal mail, please remit your renewal check to:
ACCE 19825 N Cove Road, #175 Cornelius, NC 28031
If you need an e-invoice, please contact ACCE Secretariat at secretariat@accenet.org

Volunteers Wanted!

If you would you like to volunteer for ACCE, please complete this volunteer survey.

Volunteers are needed to write ACCE News articles, participate on a variety of important committees and assist in various other roles.
Body of Knowledge (BOK)/CE Certification Promotion Committee Update

The committee has now completed all the changes to the BOK survey format for 2021 and the final version of the BOK survey is now ready for release. Thanks to the subgroup including Katherine Navarro, Bhaskar Iduri, Parisa Bahrami, Rehman Syed, Alan Lipschultz, and Chris Riha for their valuable input and comments.

A summarized PowerPoint version of the committee report on “Certification in Clinical Engineering” was completed and will be forwarded to the Board of Directors for comment. Once the report recommendations are approved by the Board, the committee will develop a work plan around the report recommendations for the remainder of 2021 and reaching forward into 2022. Special thanks to University of Ottawa Clinical Engineering Intern Kajal Madhusudan for her support in preparing the final report and the summary slide deck.

Based on the recent CMBES Webinar: CCE Certification in Canada, a recommendation by ACCE was put forward to develop a similar CCE Certification webinar for an audience in the US and outside of the US/Canada. Katherine Navarro, Bhaskar Iduri, and Kim Greenwood proceeded to work with this recommendation and are organizing a presentation on CCE certification in US in the next few months. They have been working on getting a member of a current CCE board of examiners as part of the presentation. This action also ties into the summary recommendations of the committee report on “Certification in Clinical Engineering”.

Complimentary Webinar! Certification in Clinical Engineering (CCE)

- The purpose of CE certification is to promote healthcare delivery improvement through the certification and continuing assessment of competency of professionals who support and advance patient care by applying engineering and management skills to healthcare technology.
- This webinar will provide an outline of Clinical Engineering Certification examination process, requirements, preparation, and how to maintain active certification.

Pre-register today.

[QR Code for Webinar]

COMPLIMENTARY WEBINAR
Thursday, April 15, 2021
12 pm - 1 pm (EDT)

Certification in Clinical Engineering (CCE)

Bhaskar Iduri, MS, CCE, CHTM - Committee Chair
biduri@renovo1.com

Kim Greenwood, MASc., P.Eng, CCE, FEIC, FCMBES - Committee Board of Directors Rep.
greenwood@cheo.on.ca
As more and more medical devices are connected to the Electronic Health Record (EHR) and healthcare software applications it is imperative that Clinical Engineers be familiar with a large variety of healthcare IT information including IT terms and healthcare IT standards.

Sample questions:

1. For an IT network connected device, which of the following are always UNIQUE worldwide:
   a. AE Title
   b. DHCP IP address
   c. Static IP address
   d. Host name
   e. MAC address

Correct Answer: e

Explanation: The MAC (media access control) address is a unique address assigned to a device’s network interface controller (NIC) for use as a network address in IT communication. This use is common in most IEEE 802 standards-based networking technologies, including Ethernet, Wi-Fi, and Bluetooth. Medical devices with network connectivity capability each have a unique MAC address contained in their network controller.

DHCP assigned IP addresses are assigned by a DHCP controller and may or may not be unique IP addresses depending on the address scope used. The same is true for static IP addresses; some address scopes are unique, whereas others (e.g., 10.x.y.z) are re-usable, non-internet-routable addresses that are NOT unique.

AE Titles are used in DICOM and are locally unique, but the same AE Title may be in use on a different network. Similarly, the Host Name for a computer device is locally unique, but the same name may be in use on a different network.

2. Which of the following standards is focused on medical images:
   a. HL-7
   b. DICOM
   c. IHE
   d. FHIR

Correct answer: b. DICOM

DICOM (Digital Imaging and Communications in Medicine) is the standard for the communication and management of medical imaging information and related data. DICOM is most commonly used for storing and transmitting medical images enabling the integration of medical imaging devices such as X-ray machines, ultrasound machines, CT and MRI scanners, and their associated servers and workstations connecting to PACS (picture archiving and communication systems) from multiple manufacturers. DICOM has been widely adopted by hospitals and clinics. DICOM files can be exchanged between two entities that are capable of receiving images and patient data in DICOM format. Manufacturers provide DICOM Conformance Statements which state which DICOM classes each device supports. The standard includes a file format definition and a network communications protocol that uses TCP/IP to communicate between systems.

HL-7 provides a framework and a large series of standards for the exchange, integration, sharing, and retrieval of electronic health information. These standards define how information is packaged and communicated from one system to another, setting the language, structure and data types required for seamless integration between systems regardless of who has manufactured them. HL-7 is primarily a text based standard and does not typically deal with medical images.

The FHIR (Fast Healthcare Interoperability Resources) set of standards is a new series from the HL-7 organization that defines how healthcare information can be exchanged between different computer systems regardless of how it is stored in those systems. HL-7 developers and its healthcare users required a new, faster, easier, and improved method to facilitate the exchange of the rapidly growing amount of healthcare data. This growth in the availability of new health data, along with the progressing “app” economy, created the need for clinicians and consumers to be able to share data in a lightweight, real-time fashion using modern internet technologies and standards. FHIR is based on internet standards widely used by a variety of industries. FHIR uses the REST approach, which describes how individual packets of information can be shared easily. By adopting existing standards and technologies already familiar to software developers, FHIR significantly lowers the barriers of entry for new software developers to write modern software to support patient care.

(Continued on page 10)
Hello from your engineering friends at ECRI, where we’re 3 weeks into a new name for our department, Device Evaluation! Our staff, formerly known as Health Devices Group, may be missing the opportunity to hand out new business cards, but are still able to enjoy the thrill of a new email signature line in a socially distant manner.

As we’ve been reflecting on a year of quarantines, social distancing, and masking up, ECRI’s been looking to the future for our members and trying to think through what comes next as the weather warms up and more people are vaccinated. Here’s what we’re focused on this month:

1. **Moving from Response to Recovery**- The availability of vaccines gives hope that the COVID-19 pandemic’s end is in sight. While the general public anticipates a “return to normal,” our hospital friends can expect to face a challenging operational transition. For the second time in less than a year, to maintain operational efficiencies, healthcare organizations will need to adjust care processes, reallocate staff and resources, and make supply chain adjustments—all of which must be timed just-right to coordinate with COVID-19 case projections and public health policy changes. This year, we’re expecting an influx of patients seeking care they’ve been putting off, COVID-19 survivors with ‘long COVID’ chronic and late disease effects, on top of the still significant levels of acute COVID-19 cases in many areas. For more trending and forecasting of what the rest of this year might look like, check out our white paper, When “Normal” Might Happen: Post-COVID-19 Transition Forecasting and Its Implications for Healthcare Organizations” at https://d84vr9971zpyz.cloudfront.net/p/pdf/covid-19-resource-center/covid-19-clinical-care/covid-resource_returntonormal_v2.pdf.

2. **Managing EUA devices**- While FDA’s use of Emergency Use Authorization has expanded access to many devices over the course of the COVID-19 public health emergency, this access comes with two significant management challenges. First, these devices are authorized only for the duration of the pertinent EUA. When the health emergency ends or FDA revokes an EUA—which can happen at any time—EUA devices revert to unapproved status. At that time, the legal protections that support the use of EUA devices on new patients are terminated. Second, EUA devices may not be as safe or effective as devices that have been through FDA’s normal clearance process. FDA can issue an EUA if it determines that the device may be effective for the specified use, and if it judges that the benefits of the product outweigh the known and potential risks of the product. But this is a lower standard for checking safety and effectiveness than FDA uses for its normal process. Thus, EUA device users must be mindful of the potential for problems. Healthcare facilities that use EUA devices face a complex challenge: They must manage inventories of EUA devices and their documentation, monitor each device’s status daily to determine whether the EUA remains active and unchanged, and determine what to do with these devices once the EUA ends.

Find our guidance to help healthcare facilities complete each of these steps in our Top Ten Hazards coverage at https://www.ecri.org/2021-top-10-health-technology-hazards-executive-brief

3. **It’s not just the EUA…** Caregivers are getting creative- In response to equipment shortages and emergent clinical needs, we’ve been seeing providers making the choice to modify or repurpose a medical device, workflow, or system. Infusion pumps and ventilators have been placed outside patient rooms, increased attention to pathogen transmission risks has driven increased cleaning and disinfection, and reports of challenges and problems are rolling in to ECRI’s Patient Safety Organization. However well-intended, such improvisation may lead to serious safety and regulatory compliance issues and should be identified and discussed with the clinicians involved as well as Risk Management and Legal groups to make sure everyone’s on the same page. ECRI PSO called out this practice in its recently launched Top Ten Patient Safety Concerns for 2021, and you can find our advice and guidance at https://www.ecri.org/top-10-patient-safety-concerns-2021.

I hope we’re able to connect in person this year! But, in the meantime, wash your hands, watch out for EUA devices and creative users, and, as always, tell us what you’re seeing.

Erin Sparnon
Senior Engineering Manager, Device Evaluation, ECRI
esparrnon@ecri.org
International Committee Report

The International Committee (IC) held its second 2021 regular bimonthly meeting on March 19, 2021. Our guest speaker at this meeting was Jonathan Gaev, Business Line Manager, Biomedical Benchmark, for ECRI. He provided an overall description of the activities that ECRI is carrying out in different regions of the world, including the distribution of information on medical device testing, benchmarking, safety alerts and equipment planning. He also discussed the testing laboratory that ECRI established in Malaysia for devices not yet approved by FDA for marketing in the USA. We discussed potential opportunities for ACCE to assist ECRI in contacting native manufacturers and local CE professionals who can assist ECRI in reviewing their device test results, as well as providing better insight into what ECRI can do to help them overcome their local challenges. We also asked Jonathan to help us identifying CE associations in foreign countries where we are not yet aware of their existence or have appropriate contacts, so we can reach out to expand our international outreach.

IC is happy to report that the nominations of the two 2021 ACCE international awards that it submitted to the Advocacy Committee have been approved and confirmed by the ACCE Board. The first one is the nomination of Mery Vidal of Peru to the Antonio Hernandez International Clinical Engineering Award, while the second is the nomination of the Associazione Italiana Ingegneri Clinici (AIIC) for the ACCE/HTF International Organization Award.

Since our last report (Jan-Feb 2021) the IC has completed the negotiation of another collaboration and mutual assistance agreement. This one was established with the Ghana Society of Biomedical Engineers (GSBE). This new agreement has been submitted to ACCE Board for review and approval.

For the rest of this year, IC will continue to seek collaboration agreement opportunities with other national organizations. As mentioned in the prior report, the progress continues to be challenging due to the COVID-19 pandemic still prevalent in most parts of the world and the slow progress of vaccination. Most of CE professionals are still under extreme pressure to keep essential equipment available for patient care and do not have time to work on collaborations with other groups or countries.

Also severely impacted by the pandemic are the national and regional conferences that IC members were planning to attend in person. The travel restrictions are likely to persist until the middle of 2022. Therefore, IC members have decided to intensify the offer of webinars and other interactions via the Internet. One such event (with the Argentinean association SABI) is scheduled for March 26, 2021. Additional virtual events are being negotiated.

Binseng Wang, IC Chair
International.chair@accenet.org

IHE Connectathon 2021

The 2021 Connectathon was a challenge this year due to Covid-19 limitations. Rather than a Face to Face event, this year’s Connectathon went virtual. This raised a number of challenges, most of which IHE was able to manage.

As with past Connectathons, Devices (formerly PCD) had our full complement of test monitors, who evaluated messages for basic IHE conformance.

The only major setback was a limited number of companies participating versus face to face Connectathons. This year’s Devices participants were Baxter, Capsule, Epic, Fresenius, GE, Innovision, Mindray, Philips and Tiger Connect. Many companies didn’t participate because the lack of face-to-face networking negated a lot of the side benefits of participating. This time we tested 41 actors for 88 tests, down from almost 400 tests in 2020. We still tested most of the Device Profiles, such as Device Event Coms, Alert Coms Mgmt, Med Equip Mgmt Dev Mgmt Coms, Inf Pump Event Coms, and Pump Inf Verification.

Since we weren’t able to meet face-to-face, IHE came up with solutions for the virtual event.

First, vendors provided their IP addresses to IHE, who then ‘white listed’ those ports. With that in place, IHE used a commercial internet chat software package to facilitate communications. It offset many of the non face-to-face limitations. It definitely helped the Devices monitors with the multiple participant testing. Rather than going from table to table while a test was running, the participants were able to display their screens for us live. We also had a few live waveform tests and the same method worked, which was to look at the message running, then look at the waveform being reproduced at the receiver.

We also defined test evaluation protocols for the different reviews. Most tests continued using the standard method of submitting a test for review via the default software, Gazelle. For multiple user tests and waveform tests, we asked the participants to start the tests then notify a monitor via the IRC program when they were running and ready for evaluation. This enabled us to emulate ‘live’ testing pretty effectively during the virtual CN.

This year’s Connectathon had a lot of challenges, but with the incredible cooperation of everyone involved, we still had a successful event.

A final note – this is my final official Connectathon. I am retiring July 1. Having said that, I’ll still remain active in IHE for a while, in a less official way, still providing Clinical Engineering input.

Paul Sherman
paulrsherman@acce.org
Rachel Zhang conferred with the 2020 Ontario Professional Engineers Young Engineer Award

An Ottawa, Canada ACCE member, Rachel Yin Yu Zhang was chosen as the recipient of the 2020 Engineering Medal for Outstanding Young Engineer Award by the Professional Engineers Ontario. The Engineering Medal – Young Engineer Award recognizes outstanding young Ontario engineers, who have made exceptional achievements in their chosen fields and have demonstrated excellence, not only in their career, but also in community and professional participation. Professional Engineers Ontario is the self-regulatory body that governs Ontario’s 85,000 professional engineers, and sets standards for and regulates engineering practice in the province.

Rachel has worked as a Clinical Engineer at the Children’s Hospital of Eastern Ontario (CHEO) for the last nine years. Ms. Zhang was a key contributor in the development of the Ontario standardized level III neonatal transport incubator over the last eight years. This complex system is essentially an air and ground certified mobile neonatal transport system with the latest medical technology onboard. The standardized system has become the Ontario standard for critically ill neonatal transport in Ontario, Canada.

Rachel has collaborated on a number of peer reviewed publications over the last decade including articles published in the Journal of Clinical Engineering and Biomedical Instrumentation and Technology. She has presented her work at several national and international conferences including the World Congress in Prague in 2018. She was co-chair of the Clinical Engineering stream at the CMBEC 2013 and the chair of local arrangements at the CMBEC 2019 for the Canadian Medical and Biological Engineering Society (CMBES) national annual conference. Rachel was a key contributor to CHEO Clinical Engineering’s successful 2016 bid for the International Federation of Medical and Biological Engineering (IFBME) Clinical Engineering Division CED Teamwork Award. She is a graduate of the University of Toronto in Engineering Science program and presently completing a Master of Engineering degree in Biomedical Engineering (Clinical Engineering Stream) at Carleton University.

For more information on this award please check this link:
2020 Ontario Professional Engineers Awards recipients | Professional Engineers Ontario (peo.on.ca)

Kim J. Greenwood, MASc., P.Eng, CCE, FEIC, FCMBES
greenwood@cheo.on.ca

Healthcare Technology Foundation Report

HTF Announces Affiliation with Global Clinical Engineering Alliance

HTF is proud to announce that we have entered discussions with the Global Clinical Engineering Alliance (GCEA) to review opportunities for affiliation and alignment. The GCEA, a 501c3 organization, is composed of clinical engineering groups from around the globe. HTF believes working with GCEA will allow it to expand its contribution and impact world-wide. HTF looks forward to continuing work with ACCE in its expanded capacity.

HTF Future Projects

Have a great idea to share? Please let us know if you have any suggestions on projects for HTF that will meet our mission.

Be sure to visit the HTF website, www.thehtf.org to see our programs and resources. While you are there, feel free to hit the DONATE NOW button. We will accept them anytime and they are always tax deductible!

Elliot B. Sloane, PhD, CCE, FACCE, FAIMBE, FHIMSS
President HTF
president@thehtf.org

Jennifer C. Ott, MSBME, CCE, FACCE
Secretary HTF
secretary@thehtf.org
BMET Apprenticeship Program Greenlit by US Department of Labor

The US Department of Labor (DoL) has approved the creation of a modern apprenticeship program for prospective biomedical equipment technicians (BMET). The new program, launched by the Association for the Advancement of Medical Instrumentation (AAMI), replaces a decades-old curriculum, and is designed to streamline the accreditation process while introducing modern information technology know-how early in a technician’s career.

Gaining recognition as a Registered Apprenticeship Program (RAP) with the DoL is an important step because it allows the program to exist on a national scale, while matching employers and apprentices locally. This can help maintain workplace retention rates of up to 94 percent, explained Maggie Berkey, CBET, a senior BMET for Common Spirit Health and a member of AAMI’s Technology Management Council, who co-designed the new apprenticeship program.

“The idea is to take individuals practically right off the street, near wherever positions need filling, and train them on the job. They learn from other BMETs with 20 or 30 years of experience while getting valuable hands-on experience, and by the time they’re done training, they’re ready to go on call,” she said. “They already know the policies and safety procedures of the facility they worked at. They know the equipment and customers, and they’ve had those critical interactions that you can’t train for with a textbook!”

The program consists of 4,000 to 6,000 hours of paid, on-the-job training in safety, electronics, anatomy, information technology, and more. Apprentices will study and acquire AAMI’s premiere CABT certification for professionals entering the BMET field, a certification in IT Fundamentals, and finally become a Certified Biomedical Equipment Technician.

“With the certification being built right in, you know that this person has at least this minimum knowledge base, that they’re teachable, and they have a broad understanding of what their job is and what their responsibilities are,” Berkey added. “It sets a bar of excellence for our industry, and that’s what we all want!”

For trainees that already have some of the required training completed, an employer can fast track the apprenticeship. Program graduates earn a certificate from AAMI and the DoL, asserting that their training meets a national standard of excellence. Employers cover the expense of training and certification with support from the DoL. In-turn, participating organizations are offered state tax credits for taking on apprentices. The National Apprenticeship Act of 2021, recently passed by the U.S. House of Representatives, may also provide support as soon as early 2022.

This makes participating “a no-brainer” for organizations looking to fill a BMET position, as it saves them the money and time that is normally sunk into an uncertain recruitment process, said Danielle McGearry, AAMI’s vice president of Healthcare Technology Management.

“Across the U.S., we’re seeing job openings for BMETs not getting filled for eight or nine months at a time, and colleges are being forced to drop their BMET programs due to budgetary constraints,” McGearry said. “This exacerbates a problem that healthcare technology management has been facing for the last ten years: a training gap between the county’s most senior and soon to be retiring BMETs and the next generation of HTM professionals.”

It has been estimated that more than half the existing BMET workforce is over the age of 50. When experienced BMETs retire, they become unavailable to train the next generation of technicians. AAMI’s entry-level CABT certification was an important step towards addressing this problem. The HTM Training Guide for BMET Students, Interns, and Volunteers, was then released to help guide in-house training and student programs. The apprenticeship program is yet another step towards a more secure future for hospitals and industry.

The new AAMI program replaces a four-year BMET RAP that was established in the 1990s. Aside from boasting a shorter term, the program has been overhauled to cover new subject matter necessary for modern medical device management. For example, the program now requires trainees to undergo 700 to 1,100 hours of information technology training – an essential focus for workplaces where software, cybersecurity, and even machine learning is prevalent.

“The program is an open door, offering a great career with no student debt,” added Berkey. “Success will be seeing more positions getting filled more quickly, and not just by warm bodies, but by people ready to do the job safely and effectively!”
IFMBE-CED Update

2021 IFMBE CED Webinar Series
Two 90-minute webinars covering Women in Clinical Engineering/Health Technology were held on March 24 & 25: Women Shaping the Health Tech World and Women Addressing Today’s HT Challenges.

Find presentations and YouTube Playlist videos here: https://ced.ifmbe.org/resources/courses/gurupcategs.html

Global Clinical Engineering Journal- Volume 4 Issue 1 Now Available!

Are you practicing Clinical Engineering or Technology Management? Then you must read the last issue just published from Global Clinical Engineering Journal; Volume 4, Issue 1.

This is an exciting moment for any journal, but so much more for members of the Global CE profession around the world!

We are happy to invite you to visit the flipping pdf of Global CE journal's newest Issue here and also visit it on the Journal website here.

This issue includes:
1. Editor’s corner
2. A multi-platform information management system of total life cycle for medical equipment
3. Evaluation and optimization of CES performances: application of Pareto principle to KPIs
4. Lean and Computerized Management System for Non-Hospital Owned Medical Equipment in Hospital
5. Quality assessment of emergency corrective maintenance of critical care ventilators within the context of COVID-19 in Sao Paulo, Brazil
6. Book Review

4th International Clinical Engineering and Health Technology Management Congress

Registration is now open for the 4th International Clinical Engineering and Health Technology Management Congress, taking place in Lake Buena Vista, Florida, USA, 28 –29 September 2021. Co-organized by the Clinical Engineering Division of IFMBE and AAMI, this year’s Congress will focus on clinical engineering through an international lens, bringing together leading experts from across the globe.

Congress Venue & Hotel Reservations

Disney’s Coronado Springs Resort in Lake Buena Vista, Florida, USA, a newly re-imagined resort which celebrates the unique blend of Spanish, Mexican and Southwest American cultures. This beautiful lakeside oasis offers classic influences, Disney touches and modern comforts to energize and inspire as you delight in an array of new features, eateries and enhancements.

COVID-19 Safety at ICEHTMC

Thank you for supporting AAMI and IFMBE Clinical Engineering Division as we continue to plan the 4th International Clinical Engineering and Health Technology Management Congress through uncertain times. We remain optimistic for an in-person meeting that is a safe experience for all; the health of all who attend is our top priority.

We will continue to monitor the ongoing COVID-19 pandemic at both the global and local levels and follow recommendations from the local public health department, Centers for Disease Control & Prevention (CDC), and the World Health Organization (WHO).

As the Congress is being held at a Walt Disney World® property, they are providing the most up-to-date information on safety protocols and procedures onsite.

Hoping to see everyone safe and healthy in September!

Tom Judd, FMBE CED Chair
ejudd.tom@gmail.com
CCE Prep: IT and Medical Device Connectivity

(Continued from page 4)

3. In the HL-7 message fragment below, what is the patient’s oxygen saturation (SpO2):

MHS[&~&][ORU^R01][HP119344188055806][P.2.3][PIID][1899146][~^Girl][19570101]U
PV[\][NICU^575701&0.0 OBR][20071026163800
OBX[0002-4bb8^SpO2^MDIL][0.93][004-0220^%^MDIL][F
OBX[0002-5000^Resp^MDIL][28][004-0ae0^rpm^MDIL][F
OBX[NM0002-4182^HR^MDIL][180][0004-0aa0^bpm^MDIL][F
OBX[NM0002-4822^Pulse^MDIL][181][0004-0aa0^bpm^MDIL][F

a. 99%
b. 93%
c. 28%
d. 82%
e. None of the above

Correct answer: b

This HL-7 message fragment shows the following for a girl in bed 5757-01 in the NICU at 4:38PM on Oct 26, 2007: SpO2 is 93%, respiration rate is 28 respirations per minute, heart rate is 180 beats per minute, and pulse rate is 181 beats per minute.

References:

https://www.hl7.org/implement/standards/
https://www.dicomstandard.org/
https://accenet.org/Mall/Pages/EducationalOfferings.aspx

Ted Cohen
tedcohen@pacbell.net

(Continued from page 4)
Welcome New Members!

We welcome our newest members, approved by Membership Committee, and supported by the Board of Directors:

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Job Title</th>
<th>Organization</th>
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<tr>
<td>Johnny Hogg</td>
<td>Institutional/Individual</td>
<td>Sr. Manager</td>
<td>Banner Health</td>
<td>AZ/USA</td>
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<td>Institutional/Associate</td>
<td>Clinical Engineering Supervisor</td>
<td>Univ. of Michigan</td>
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<td>Director, Clinical Engineering</td>
<td>Intermountain Healthcare</td>
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<td>Vice President Services</td>
<td>Crothall Healthcare</td>
<td>PA/USA</td>
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<td>Brian Hayes</td>
<td>Corporate/Associate</td>
<td>Manager, Biomedical Engineering</td>
<td>ABM</td>
<td>RI/USA</td>
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</tbody>
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Congratulations goes to the following members who were upgraded to Individual Level:

<table>
<thead>
<tr>
<th>Name</th>
<th>Job Title</th>
<th>Organization</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmad Ateyat</td>
<td>Clinical Engineer</td>
<td>BIDMC</td>
<td>MA/USA</td>
</tr>
<tr>
<td>Tony Cody</td>
<td>TM/ENTECH Director</td>
<td>Banner Health</td>
<td>AZ/USA</td>
</tr>
</tbody>
</table>
The 2020-2021 Education Webinar series continued with an additional session on March 11th with panelists Nader Ham-moud and Corey Chow who discussed the challenges with changing from a Biomed environment to a CE-IT. During the presentation, they discussed the differences between traditional Biomed and IT cultures. As Nader comes from a biomed background and Corey from IT, their candid discussion around perspectives on their colleagues and how to improve collaboration provided insights that many can use in their daily work. The approach of examining common stereotypes for IT and Biomed teams, displayed that both teams have many opportunities for improved communication to improve relations. One attendee summarized the session perfectly: Your presentation today is spot on. Well Done! The way you articulated the similarities and differences is not well understood by many departments especially if they are not partnering with each other today.

The February 11th session had been rescheduled to March 30th.

Don’t miss the upcoming Educational webinars for the months of March, April and May:

Complimentary Webinar to ACCE members

Topic: The Joint Commission 2021 Updates

Date/Time: Tuesday, March 30, 12pm - 1pm (EDT)

Herman A. McKenzie, MBA, CHSP
Director, Department of Engineering

Sponsored by Sodexo Quality of Life Services

Join Herman McKenzie on March 30 when he will discuss: 1- Overview of standards for medical equipment; 2- Leading way to Zero; 3- Frequently asked (public health emergency) questions from clinical engineers/ healthcare technology managers.

Registration link

(Continued on page 13)
Join Todd Cooper on this session when he will present on how to realize the promise of “plug-and-trust” medical device interoperability and provide a brief recounting of ACCE’s role in advancing standards-based device integration from the creation of IHE PCD in 2005 to the present, including current changes (such as the 2nd edition to 80001-1). It then looks at the reality of medical device interoperability (MDI) at the acute care bedside, especially for clinical engineers, and explains how current efforts underway will address many of the fundamental issues that have prevented realizing the 40+ years of promised benefits from true plug-and-trust MDI. Registration Form

Join Kelly Proctor, Director of Operations DNV-GL, on Thursday, April 22, to discuss: 1- DNV GL survey activities and team make up; 2- The integration of ISO and the COPs in the development of the NIAHO® Reqs; 3- The NIAHO® PE.7 Medical Equipment Requirements; and 4- Common deficiencies cited on surveys pertaining to Medical Equipment Management. Registration link
Join Ryan Motl on 05/13 when he will be discussing how the onset of COVID 19 brought many challenges to Healthcare Delivery Organizations. While the Clinical Practice worked feverishly to plan and provide care, access to additional respiratory and monitoring equipment became essential. However, behind the scenes, supply chain disruptions and equipment shortages were wreaking havoc on the medical equipment industry and suppliers. Mayo Clinic HTM was at the center of many efforts to maximize the use of existing equipment, leverage the marketplace to purchase equipment, and use our enterprise-level data and staffing footprint to assist the Practice in achieving their goals. This webinar will discuss:

- Equipment purchasing and distribution
- Retrofitting and re-purposing of existing equipment
- Collaboration with Supply Chain, Clinical Practice, and external partners to remove impediments to care
- Development of new data integrations to provide real time C-Suite access to HTM based data
- Benefits of fleet standardization and a holistic approach to equipment lifecycle management.

Registration form

Eric Aring & Danielle Cowgill
Education Committee co-chairs
educationchair@accenet.org

Suly Chi
Webinar coordinator
Secretariat@accenet.org
2021 Clinical Engineering Certification Renewals (Applications due by June 30th):

The 2021 Handbook for Renewal of Certification in Clinical Engineering (CCE) and the CCE Renewal Application is available on ACCE website. As a reminder, individuals actively certified in clinical engineering that choose to maintain this active certification and continue to be listed as certified in clinical engineering must submit a renewal application every three (3) years and pay a renewal fee of $150. It is the responsibility of each certified individual to keep track of their certification expiration and renewal date, which can be also be found on the ACCE website. The 2021 CCE Renewal Application Deadline is June 30. All actively certified individuals with a Renewal Expiration Date of June 30, 2021, must complete the 2021 CCE Renewal Application form and submit it electronically to the Healthcare Technology Certification Commission via email at: certification@accenet.org. Late submissions will not be accepted and will result in loss of active certification in clinical engineering.

2021 Clinical Engineering Certification Change to Retired and Emeritus Status:

The 2021 Handbook and Application for Retired and Emeritus Status Change is available on the ACCE website. The retired status (CCE-R) is for any actively certified individual who has decided to leave active employment in the clinical engineering field but wishes to maintain their certification in clinical engineering. Any actively certified individuals with a Renewal Expiration Date of June 30, 2021, that wish to change their certification status to retired must submit the 2021 Application for Retired and Emeritus Status Change to the Healthcare Technology Certification Commission via email at: certification@accenet.org, along with a one-time payment of $100, by June 30th. Requests to change to retired status after the individual’s Renewal Expiration Date will not be accepted. The emeritus status (CCE-E) is for any individual that has been actively certified in clinical engineering who has decided to retire from full-time employment in the clinical engineering field and has met qualifications for lifetime achievement including having at least thirty (30) total years of actively working in the clinical engineering field, or at least fifteen (15) years of continuous active certification in clinical engineering. It is important to note that individuals seeking emeritus status do not need to be actively certified in clinical engineering to apply for this certification status; however, they must meet the aforementioned qualifications and have previously been actively certified in clinical engineering. Qualifying individuals seeking emeritus status in clinical engineering can submit a one-time Application for Retire and Emeritus Status Change at any time to the Commission and there are no fees required to maintain this lifelong status.

Ricardo Silva, CCE
HTCC Chair
certificationchair@accenet.org

Visit ACCE’s channel on YouTube

Click here
Member Career Transitions

Welcome to our ACCE News feature celebrating job-related transitions for ACCE members. Please contact Suly Chi, ACCE Secretariat (secretariat@accenet.org), if you would like to be included in an upcoming issue or if you have a suggestion for another member who should be included.

Clarice M. L. Holden

New Title: Chief Biomedical Engineer

New Organization: Veterans Integrated Service Network (VISN) 17

Responsibilities: Mrs. Holden is responsible for providing strategic direction and clinical engineering support for 7 healthcare systems within the VISN, including Dallas, San Antonio, Temple, Amarillo, Harlingen, El Paso and Big Spring. She intends to build upon the legacy of the former Chief VISN Biomedical Engineer, and assist each site in achieving clinical engineering excellence.

2021 Board Election
Call for Nomination of Candidates

- President
- President-Elect
- Vice-President
- Treasurer

Per ACCE Bylaws: The Nominating Committee will confirm that any person nominated by you is eligible for office, and is willing to serve if elected, to attend Board meetings regularly and to be an active member of the Board. Upon confirmation, the Nominating Committee will consider this person for the nomination.

Click here to propose your candidates.

There will be four open positions for the 2021-2022 Board election. Note: The Secretary and all Member at large's positions are not open for the 2021 election, as these officers will be serving the 2nd year of their term.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>15 March 2021-17 April 2021</td>
<td><strong>2021 Election- Nomination period</strong></td>
</tr>
<tr>
<td>30 March 2021</td>
<td><strong>The Joint Commission Update. Sponsored by SODEXO.</strong></td>
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<tr>
<td>12:00 PM-1:00 PM</td>
<td>The Joint Commission Update, 2021.</td>
</tr>
<tr>
<td></td>
<td><strong>Location:</strong> Online</td>
</tr>
<tr>
<td></td>
<td><strong>Faculty:</strong> Herman A. McKenzie, MBA, CHSP. Moderator: Binseng Wang</td>
</tr>
<tr>
<td></td>
<td><a href="#">Registration link</a></td>
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<tr>
<td>02 April 2021</td>
<td><strong>Last day for Early Bird Discounted Rates registration for AAMI Exchange 21</strong></td>
</tr>
<tr>
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<td>Register by April 2 and save</td>
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<tr>
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<td><a href="#">Click here for more info and to register</a></td>
</tr>
<tr>
<td>08 April 2021</td>
<td><strong>Device Integration: Journey to Realizing Plug-and-Trust Interoperability</strong></td>
</tr>
<tr>
<td>12:00 PM-1:00 PM</td>
<td>This session provides a brief recounting of ACCE’s role in advancing standards-based device integration from the creation of IHE PCD in 2005 to the present, including current changes (such as the 2nd edition to 80001-1). It then looks at the reality of medical device interoperability (MDI) at the acute care bedside, especially for clinical engineers, and explains how current efforts underway will address many of the fundamental issues that have prevented realizing the 40+ years of promised benefits from true plug-and-trust MDI.</td>
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<td></td>
<td><strong>Location:</strong> Online</td>
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<tr>
<td></td>
<td><strong>Faculty:</strong> Todd Cooper, <strong>Moderator:</strong> Martin Poulin</td>
</tr>
<tr>
<td></td>
<td><a href="#">For more information and to register, click here</a></td>
</tr>
<tr>
<td>15 April 2021</td>
<td><strong>Complimentary Webinar! Certification in Clinical Engineering (CCE)</strong></td>
</tr>
<tr>
<td>12:00 PM-1:00 PM</td>
<td>• Purpose of CE certification is to promote healthcare delivery improvement through the certification and continuing assessment of competency of professionals who support and advance patient care by applying engineering and management skills to healthcare technology.</td>
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<td>• This webinar will provide an outline of Clinical Engineering Certification examination process, requirements, preparation and how to maintain active certification.</td>
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<td><a href="#">Pre-register today</a></td>
</tr>
<tr>
<td>22 April 2021</td>
<td><strong>Members Complimentary Webinar: DNVGL Healthcare Secrets to Success. Sponsored by Crothall Healthcare</strong></td>
</tr>
<tr>
<td>12:00 PM-1:00 PM</td>
<td>This presentation will give the attendee basic knowledge on how the DNV survey process works, including changes in the survey process due to the current pandemic. The presentation will also cover what NIAHO is and how it is applied as well as what ISO 9001 is and a basic overview of the ISO 9001 Quality Management System. Attendees will also receive information on the DNV Medical Equipment requirements and how they are surveyed. Additionally, Kelly will cover the top 5 Medical Equipment findings and how to avoid a non-conformity with them.</td>
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<td><strong>Location:</strong> Online</td>
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<tr>
<td></td>
<td><strong>Faculty:</strong> Kelly Proctor, <strong>Director of Operations, DNV</strong></td>
</tr>
<tr>
<td></td>
<td><a href="#">Registration link</a></td>
</tr>
<tr>
<td>13 May 2021</td>
<td><strong>Leveraging Enterprise Equipment Strategies to Provide Excellence in Patient Care during COVID 19</strong></td>
</tr>
<tr>
<td>12:00 PM-1:00 PM</td>
<td>This webinar will discuss: - Equipment purchasing and distribution - Retrofitting and re-purposing of existing equipment - Collaboration with Supply Chain, Clinical Practice, and external partners to remove impediments to care - Development of new data integrations to provide real-time C-Suite access to HTM based data - Benefits of fleet standardization and a holistic approach to equipment lifecycle management</td>
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<td><strong>Location:</strong> Online</td>
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<td><strong>Faculty:</strong> Ryan Motl, MBA/Mayo Clinic</td>
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