



The Caribbean Association of Medical Technologists (CASMET)

For Laboratory Professionals

Journal November 2019 Volume 6 Issue 2



**"A RED AFFAIR, TEN YEARS
LATER"**



Anguilla



Aruba



Antigua and
Barbuda



Bahamas



Barbados



Belize



Bermuda



Bon Aire



British Virgin
Islands



The Cayman
Islands



Curacao



Dominica



Saint
Eustatius



Grenada



Guyana



Haiti



Jamaica



Martinique/
Guadeloupe



Monserrat



St Kitts and
Nevis



St Lucia



St Maarten



St Vincent
and the
Grenadines



Suriname



Trinidad and
Tobago



Turks and
Caicos



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"In the middle of every difficulty lies opportunity." – Albert Einstein

Editor's Message

- "A Red Affair, Ten Years Later"

By Richard Singh

Greetings All Medical Laboratory Professionals, family, friends and well-wishers of the CASMET family. Welcome to this CASMET Journal Volume 6, Issue 2 entitled "*A Red Affair, Ten Years Later.*" Our previous issue explored '*colors of the Caribbean,*' but in this issue, we are exploring a red affair. Special thanks to Harry, Rixon, Deidra and Amit, whose presence on 4th of July gave



birth to this theme. Why Red you may ask? In South Africa red is associated with mourning and so that portion of their flag represents the sacrifices made by ancestors in their struggle for independence. In Chinese culture, red is traditionally worn on the New Year and represents Celebration, believed to bring luck, prosperity, happiness and long life. In Indian culture Red is the



most powerful color as it has many significant meanings, amongst a few, representing fire, fear, wealth, seduction, love and beauty. It also represents a very important time in someone's personal life. Married women wear a red powder, also known as 'sindoor,' along their hairline as identification of being married.[6] Though our islands may have ancestral roots linked to these places, our celebration of red is symbolic of another

reason in this journal. A Red affair pays tribute to our host country of CASMET's Biennial General Meeting & Scientific Symposium 2019, the twin island republic of Trinidad & Tobago.

In this issue, the theme 'A Red Affair, ten years Later,' is symbolic of hosting the BGM ten years ago in 2009 and this year in 2019. The journal is designed into three sub-sections to represent three



national prides of this country. While enjoying the content that we have to offer, it will also give an insight about facts of the host country. The first section of the Journal is dedicated to the National flower of Trinidad & Tobago, the Chaconia Flower. The Chaconia also known as the 'wild poinsettia' or 'the pride of Trinidad & Tobago,' was named after the last Spanish Governor of Trinidad & Tobago, Governor Don Jose Maria Chacon.[7] It is known for its beautiful appearance of long, vermillion arrangement of petals. Just as the flower is the pride of this country, so too are prominent members of our association. As such in this section you can view reports from our recently elected President Ms. Bonaventia Culmer, Southern District Councillor Ms. Kaye Tschop and CASMET/AMT Liaison Mr. Chris Seay. You will also have the pleasure of being introduced to our new Regional Council members for the period 2019-2021.

One of the National Birds of Trinidad & Tobago is the Scarlet Ibis. The Scarlet Ibis scientifically known as '*Endocimus ruber,*' and it makes a home in the Caroni Bird Sanctuary, which is 15,000 areas of marshland set aside by the government for

protection of these and other birds. Several thousand birds, nest on the mangrove and majority



can be seen during the last two hours closer to sunset. The adult Scarlet Ibis are not very hard to miss with their magnificent bright red or scarlet color. The section of this Journal is dedicated to the Scarlet Ibis will feature highlights from the 81st AMT Meeting in Chicago. Just as the Scarlet Ibis takes flight from South America, some of our members traveled to the United States of America to attend the Annual general meeting of our Affiliate Association in Chicago. At this meeting I am pleased to announce that this Journal received the 3rd place journal-state society publication award as well as most improved publication award for the 2018 publications. I would like to take this opportunity to sincerely thank all those who have contributed to this success. I encourage members to submit contributions in the form of Scientific, Management or Legislative articles, delegate reports or any other contribution to this publication. Feel free to contact me via email at richardsingh@rocketmail.com. Also, at this meeting, our current Immediate past president, who was at that time our CASMET president, Ms. Zobida Khan-Mohammed, received an Exceptional Merit Award, many congratulations to her.

Initially Trinidad & Tobago was known as the land of the hummingbird. The first inhabitants like many other Caribbean islands were Amerindians, in their language ‘yurette’ was hummingbird. It was believed that these mysterious birds with their vibrant colors, fluttering wings and aerial acrobatics, contain the souls of their ancestors. The

symbol of the hummingbird can be seen on the National Coat of Arms, the currency and passport as it remains a significant symbol of the country. Trinidad has recorded 19 hummingbird species on the island, in particular, the rainforests in the northern range. These Buzzing beautiful birds are the symbol of the progressive work that CASMET



does across the region. In the hummingbird sections you can find various articles together with our many games in this issue including Word Scrabble, Four Pictures-One-word puzzle, Word Scramble and a Crossword Puzzle. You can also Look out for sneak peak photos and major highlights of the CASMET BGM 2019 that took place on October 14th-18th. Colors play an important role in our lives, they remind us of important events that took place in our lives, they remind us and are associated with favorite traditions and they even evoke various emotions. Let this Celebration of Red and this ‘Red affair, ten years later’ be able to evoke the best in you and your contribution to Medical Laboratory Technology. Enjoy the Read!

Best Wishes

Richard Singh

CASMET Editor



I, Bonaventia Culmer, am honored and truly humbled to be given this opportunity to serve as the CASMET President. I served as President in 2003 to 2005, at which time CASMET underwent a strategic planning process, where we redefined our Vision and Mission Statement as the body representing medical laboratory professionals within the Caribbean.

Over the years CASMET has moved from strength to strength with each biennium. Each President along with their Council has made significant sacrifices and contributions towards maintaining and developing this Association. It is my hope and prayer that we continue to grow by leaps and bounds and make an even more significant impact not only within the Region but on the Global stage.

Our goals for this biennium are simple, **Advocacy, Collaboration and Training.**

For **Advocacy**, we must advocate to our stakeholders. Advocate to Ministries of Health and Education around the Region. Governments change and we have to be continuous with advocating on behalf of our profession at least once every 4 to 5 years or even sooner.

They need to Know who we are as a body, and what we stand for, and that we are active on all fronts dealing with medical laboratory technology.

We must continue to advocate for Quality standards especially as it relates to Point of Care Testing (POCT) in small Physician Office Labs (POL). There must Not be one standard for us and another standard for POLs attempting to do their own testing with no regard for CALIBRATION, STANDARDS or QUALITY MANAGEMENT SYSTEMS.

We must get on the doorsteps of CARICOM and be the recognized body with a CARICOM stamp of approval, for medical laboratory professionals. We must get on board and seize the opportunities available to CASMET as that recognized body.

We need to be vocal and speak out against unethical practice of physicians seeking payback for lab services provided to their patients outside of a Preferred Provider network or Health Management Organization.

We must **Collaborate** more with stakeholders. CASMET will be collaborating with CXC to provide a CASMET certification exam for Medical Technologists (MT). We will also explore examinations for MLT as well, but the pilot project will be on MT certification. We must refine our database to include the training institutions that offer all levels of Medical Technology and Phlebotomy training. We must collaborate with these institutions, Hospitals, private labs, and research facilities and we must include all the way from Guyana and Suriname, all the way up the chain of islands to Bermuda and Belize. We must also collaborate with our Vendors more to give input and to get feedback.

For **Training**, we must identify gaps and seek to fulfill them. We have expertise within our membership to provide seminars and webinars. The Foundation for this platform is well on its way to fruition. It is expected that by March of 2020 CASMET will have its first Online seminar. Within the next 6 months, we will be testing these engines to receive payments online, applications online and training online.

If we work diligently, we can see these goals come to fruition. We are not rewriting a book. In many cases, we are simply following through on a foundation already started. We aim to see a continuous improvement in Quality of services provided by CASMET. To accomplish these goals, we have a very diverse Regional Council. We have vibrant youth, a wealth of experience and a unique quality of skillsets. We also have members who are anxious to participate and have signed up for various committees. We are especially thankful to persons like Joyce White-Chin of Guyana, and Mario Dell of Western Scientific who promise to lend their expert advice to us not only as auditors.

We have AMT award winning editors, Khalil Lucky and Richard Singh to keep members abreast of our CASMET news. Special Congratulations to Joshua Djemadi of St. Maarten on winning the bid to host BGM 2021.

We ask members to email CASMET at casmet53@gmail.com if you don't hear from us. Check out our website www.casmet.org and ensure your country representative or Council member is posting information about your country activities. Join us as we seek to make the next 2 years even better for CASMET members. I leave this with you:

IF YOUR DREAMS DON'T SCARE YOU, THEY ARE NOT BIG ENOUGH. (from Martin Luther King museum). We ask for God's grace in taking us forward.

PHOTO CREDITS

Special thanks to these persons who have shared their amazing photos, helping us create this epic journal:

- ✓ Ms. Kaye Tschop
- ✓ Ms. Asha Biroo-Sankar of Snapshot Photography
- ✓ Mr. Rixon Boodoo
- ✓ Mr. Oseye Andrews
- ✓ Ms. Deidra Goolsair
- ✓ Ms. Bonaventia Culmer
- ✓ American Medical Technologists (AMT) website

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- | | |
|---|--------------------------|
| ❖ The CASMET Regional Council Executive and country Representatives 2017-2019 & 2019-2021 | ❖ Ms. Tiffany Maynard |
| ❖ Dr. Rajeev Nagassar | ❖ Ms. Earther Went |
| ❖ Mr. Carlin Ambrister | ❖ Ms. Collette Alexander |
| ❖ Mr. Owen Coakley | ❖ Dr. Katija Khan |
| | ❖ Bernice McClain |

Fall 2019 Southern District Councillor's Message



AMT's 81st Educational Meeting and Educational Program was held at the Chicago Hilton, Chicago, Illinois. There were 401 registered members, guests and students in attendance. AMT's 82nd Educational Program and National Meeting will be in Albuquerque, New Mexico at the Hyatt Regency Albuquerque 330 Tijeras NW Albuquerque, New Mexico 87102 July 13-17, 2020. Room rates will be \$ 129 + tax for a total of \$146.90 per night single or double occupancy. Plan your vacation around the AMT national meeting as there is so much to see and do in Albuquerque. AMT's 2021 meeting will be held in the Southern District.

Award recipients from the Southern District received their awards at the awards banquet and convocation in Chicago, Illinois as follows: OGM – Everett Bloodworth, MT – Kentucky; MOM – Solomon Goldenberg, RMA – Florida; Cuviello Commitment to Excellence Alice Macomber, RMA, RPT, AHI – Florida; RPT of the Year – Alice Macomber, RMA, RPT, AHI – Florida; Pride of the Profession – Paul Brown, MT– Alabama; Becky Award – Linda Jones Sotak, MT Virginia; President's Award – Daniel Benson, RMA, RPT – Alabama; GEM Award Lisa Bromley, RMA – Kentucky; Everett Bloodworth, MT – Kentucky, Nancy Barrow, MT – Virginia, Alice Macomber, RMA, RPT, AHI – Florida, Jerry Hudgins, MT – Tennessee; Exceptional Merit - Zobida Khan-Mohammed, MT, RPT – CASMET; Deborah Janeczko, RMA - Florida Distinguished Achievement - Lisa Bromley, RMA – Kentucky; Selina King, RMA – Kentucky, Charlene Lynch, RMA North Carolina; Chantal Jordan, RMA, RPT, CMAS – Georgia; Cynthia Perkins, RMA, CMAS – Alabama; Teresa Workman, MT- Alabama; Silver Service – Michelle Gillies, MT – Alabama; Naomi Melvin, MT – Florida; Legacy Tribute – David McCullough, MT – North Carolina; Publication Awards - Journal 3rd Place – *CASMET* Richard Singh, RPT Editor; Newsletter 2nd Place – Florida - *Florida News for Allied Health Professionals* – Kathleene Hardy, RMA; Most Improved Publication – CASMET – Richard Singh, RPT Editor; Editor of the Year – Kathleene Hardy, RMA – Florida; Honor Roll State Societies - Alabama, Florida, Georgia, Kentucky, North Carolina, South Carolina, Tennessee and Virginia. Student Technical Writing Award 1st Place: Imani Manning, “Escherichia coli: The Friend and the Foe” Winston-Salem State University, Greensboro, North Carolina. 2nd Place: Jennifer Preuss Osborne, “Dirofilariasis Immitis”. Winston-Salem State University, Winston-Salem, NC. Dusty Rhodes Life Award – Luther (Ray) Dean, MT - North Carolina. Congratulations to each of you. You have worked tirelessly for your state society and AMT and are so deserving of your award. I am proud of all your accomplishments.

Kathy Sutton, MT was the new member elected to the Board of Directors. Chris Seay, MT - Tennessee and Jeannie Hobson, RMA, RPT, CMAS, AHI - California were re-elected to their third term.

AMT Officers are President: Jeannette Hobson, RMA, RPT, CMAS, AHI; Vice President: Christopher Seay, MT; Secretary: Deborah Westervelt, RMA, COLT and Treasurer: Ken Hawker, MT.

Medical Assistants Recognition Week (MARW) is October 21-25, 2019. Registered Medical Assistants (RMA) will be celebrating the theme “Medical Assistants: At the Heart of Healthcare”. Download the 2019 logo and promo kit from the AMT website, Be Involved, Professional Recognition Weeks, Medical Assistant Recognition Week and help get the word out in your state.

CASMET will hold their Biennial General Meeting & Scientific Symposium October 14-18, 2019 at the Radisson Hotel Trinidad.

AMT continues to work on strategic planning for the organizations sound future. Stay tuned for more information as it becomes available.

If you have any questions or need assistance, please do not hesitate to email me at k9kid@bellsouth.net or phone me at (h) 615-833-3427 or (c) 615-424-0550.

Respectfully submitted,
Kaye A. Tschop, MT (AMT)
Southern District Councillor

Message from the CASMET Liaison

Chris Seay, MT (AMT)



AMT
American Medical Technologists
Certifying Excellence in Allied Health

What can I say?? The Biennial General Meeting held in Trinidad and Tobago was just fantastic. It is unfathomable how each country out does the last BGM. How fantastic is that? From the opening ceremony until the swearing in of officers, there was a pageantry of brilliance. The vendors, the continuing education sessions and presenters and the overall excitement of being there to share with other attendees. The students from Barbados were great. They appeared eager, interested and inquisitive. The future of CASMET is in good hands. I am really looking forward to the 2021 BGM in St. Maarten/St. Martin. I was so glad that the AMT National President Jeannie Hobson and several other AMT members were able to attend and present. I had the opportunity to attend several sessions. Each session was presented in a professional and informative manner. I had a chance to interact with vendors. They were informative and provided the attendees with a wealth of knowledge and information on the advances in the healthcare field.

I was so pleased to hear that Caribbean Examinations Council (CXC) was looking to CASMET to help with the development of Medical Technology testing for the region. CASMET is becoming a leader of healthcare professionals in the region. I am even prouder of the alliance of AMT and CASMET. Many years and many issues have passed. Still, the alliance is strong. Now CASMET is a part of the Magnolia Educational Treasures (MET). This will give CASMET an even stronger bond with fellow states in the Southern District. CASMET is growing stronger. CASMET is meeting the challenge of tomorrow. CASMET is the future of the Caribbean region. I pray we all work as a cohesive unit to ensure the unlimited potential of CASMET.

Regards,

Christopher (Chris) H. Seay, MT, AMT

Vice President, American Medical Technologists (AMT)

Liaison, Caribbean Association of Medical Technologists (CASMET)

"To be successful you must accept all challenges that come your way. You can't just accept the ones you like." *Mike Gafka*

CASMET PROUD MOMENTS



Harry Narine, MT, RPT
DIRECTOR

Mr. Harry Narine became the first ever CASMET member to be elected to AMT board of Directors in 2018. The 81st AMT National meeting in Chicago was the first time that he presided in a National meeting as Board Member



Madam President, Ms. Bonaventia Culmer reads the Oath to the newly elected Regional Council Officers at the BGM & scientific symposium 2019, Trinidad & Tobago. Look out for Extensive coverage in the next Issue!



CASMET HISTORY AT A GLANCE

CASMET History at a Glance con't

1 1955 Formation of
CASMET in Jamaica



2 1955 Formation of
Guyana Branch



3 1956 Formation of the
Trinidad & Tobago Branch



4 1958- The motto “Vitam Excolimus
per Artes” – “We save lives by our skills”
was created

5 1964 -Became members of the
International Association of Medical
Laboratory Technologists (IAMLT)

6 1965-Formation of the
Bahamas Branch and the
Chairperson was Mrs.
Norma Allen



7 1966- Formation of the
Barbados Branch



8 1973- Amendment to the constitution to
allow Fellows of the Society to be eligible
for nomination to the post of President
which were previously held by Pathologists.



9 1979- The first time the Annual General Meeting was held outside of Jamaica. The meeting was held in The Bahamas and it had the largest attendance of delegates. At this meeting Regional Council Members were elected from other Caribbean countries. Also at this meeting the name was changed to the Caribbean Association of Medical Technologists

10 1980- The Acronym
“CASMET” was adopted

11 1987- Formation of the
Bermuda Branch



12 1988- Formation of the
Grenada Branch



13 1989- An affiliation agreement between the Caribbean Association of Medical Technologists (CASMET) and the American Medical Technologists (AMT) was signed. This event took place at the Biennial General Meeting held in Miami Florida. CASMET President, Mr. James Mackey of the Bahamas, signed the on behalf of CASMET and AMT President, Mr. William Robbins, signed on behalf of AMT. As a result an amendment was made to AMT bylaws which allowed CASMET to function as an international society within AMT, due to the efforts of Dr. Gerard Boe of AMT.



14 1990- Formation of the
St. Lucia Branch



15 1998- Revision to the
existing constitution



16 2006- CASMET secretariat
located in Guyana



17 2011- CASMET secretariat
located in The Bahamas



18 2014- Formation of the
Cayman Islands Branch



19 2015- Formation of
the Belize Branch



23 2018- First CASMET Member,
Mr. Harry Narine, was elected on the
AMT Board of Directors



21 2016- Reinstatement
of Grenada Branch

22 2017- Revision, updating and
distribution of our constitution

24 2019- Revised Letter of Agreement between
CASMET and AMT was signed on March 18th



THE CARIBBEAN ASSOCIATION OF MEDICAL TECHNOLOGISTS(CASMET)

FOR LABORATORY PROFESSIONALS

MISSION STATEMENT

To be recognized as the Caribbean Association for medical laboratory professionals dedicated to meeting the needs and requirements of its members and clients, providing dynamic visionary leadership, advocacy at the highest level, educational development and support for regulatory mechanisms encouraging members to aspire to the highest standards of professional conduct, thereby promoting delivery of quality health

VISION STATEMENT

Laboratory Professionals partnering to provide Quality Healthcare CORE VALUES
- Excellence, Quality, Integrity, and Professionalism (EQIP) care.

AIMS

- ◇ Develop professionalism among Medical Laboratory Professionals within their countries
- ◇ Act as a collaborator and an advisory body to their respective governments and institutions
- ◇ Provide continuing education opportunities
- ◇ Maintain international standards in Quality Control and safety
- ◇ Uphold the ethics of the profession
- ◇ Encourage certification and registration of all practicing medical laboratory professionals
- ◇ Promote research and participation in scientific meetings

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CASMET RECOGNITION



Ms. Zobida Khan-Mohammed received an Exceptional Merit Award at the 81st AMT Awards Banquet in Chicago on July 2nd, 2019. We would like to extend heartfelt congratulations to her on this achievement.

Mr. Richard Singh received the 3rd Place Journal-State Society Publication for CASMET and Most Improved Publication Awards at the 81st AMT Meeting Awards Banquet in Chicago on July 2nd, 2019. We would like to extend heartfelt congratulations to him on these achievements.



ARTICLE: AUTOMATION ANXIETY



ABOUT THE AUTHOR

Collete Alexander is a certified wellness professional specializing in Career and Life Coaching. Collete holds a BSc in Human Resource Management and is also a member of HRMATT. Collete is an amateur artist and crafter and the owner of Chocollete Treats Ltd. a boutique handmade artesian service which can be found on all social media platforms. She's also the co-owner of OCA Fashion and Gift Boutique which is located on the Eastern Main Road in St Augustine. She was formerly employed with the Telecommunications Services of Trinidad and Tobago for almost 20 years, Collete held the position of a Technical Customer Service Representative.

As the waves of technology breaks on the shores of employment, it brings with it the harsh reality that advanced Artificial Intelligence (AI) can be taking over many jobs and may have an impact on the role of Human Resource Management. Jay Tuck a US journalist in one his Ted Talks summarized Artificial intelligence as a software that continuously writes itself. In other words, AI is continuously improving as it is always collecting and analyzing data rapidly.

For many persons, Artificial Intelligence (AI) brings with it an optimism that with this increase of technological advancements, there would be an ocean of opportunities becoming available. However, for others, this automation brings with it some levels of anxiety and fear. As Artificial Intelligence (AI) continues to exponentially grow, many are of the belief that it will replace them in the work force.

The truth is, the possibility of jobs being lost by the onslaught of increasing technology is inevitable and there is historical evidence in the Industrial Revolutions that shows how new technologies were met with disdain by some but accepted by others as it revolutionized society.

As we take a brief look at the first Industrial revolution, which began in the 18th century, we see that this was the age of mechanical production, the introduction of the steam engine and the industrialization of the farming industry, the coal industry as well as the textile industry. The second industrial revolution which was the age of Science and Mass productions allowed us to experience and enjoy the convenience of electricity, oil, gas and steel. The third industrial revolution saw the improvement of the previous energy systems and brought with new energy such as nuclear energy in the 1960's. Then there is the fourth industrial revolution which we are currently experiencing. This current industrial environment is continuously improving technologies and trends such as the Internet, virtual reality and AI and robotics, which are all new game changers that are significantly impacting the way we live and work today.

While increasing technology always brings with it many questions, doubts and concerns, we see where the old makes way for the new and is becomes widely accepted even by the biggest of critics. While some jobs may become archaic, we also see new and unexpected job opportunities becoming available. Human Resource Management like any other department is also susceptible to being affected by these changes.

The role of Human Resource Management traditionally focused on the processing of payroll functions, leave, policy making, implementation of these policies, along with training and development. However, with new human resource management automation features in place, tasks that were once unsafe, boring, repetitive and time consuming can now allow Human Resource Management to become more efficient when finding the right fit for the organization. Automation allows for easier more modernized methods and platforms for applying for jobs, setting goals capturing important feedback and knowing who to place in what position. This can potentially make it easier for companies to become more focused on its people and what drives them by easily placing the right talents in the right place. The Human Resource is now able to direct its attention on other aspects of the organisation such as increasing productions, improving or creating news products which in turn brings wealth and increases the organization's profit margin, which is ultimate goal of Human Resources. So, while automation may bring with it some level of anxiety, a quick look at our history will allow us to understand our future.



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I have experience in the field of medicine for over 10 years. I have served for over 5 years in leadership capacities as Medical Director and head of Department of the Sangre Grande Hospital. I have experience teaching at the tertiary level, and I have been a member of several Ministry of Health Committees. I have studied at The University of the West Indies, St Augustine and Mona, achieving undergraduate and post graduate degrees. I have spent time at Mt Sinai hospital receiving training in Microbiology. I have published several papers and I am currently working with my colleagues to publish the first National guidelines according the World Health Organization methodology. I am also the interim national focal point for Technical Corporation with PAHO in Infection prevention and control. I have collaborated with the Caribbean Public Health Agency to train regional pharmacists and to analyse regional resistance data. This work will assist in attaining sustainable development goals (SDG) 3 and 6. I have also worked with various institutions and organizations: Department of Engineering, The University of the West Indies, St Augustine, and Caribbean Association of Clinical Microbiologists and the Caribbean Association of medical Technologists. I have also volunteered with various NGO in social and medical capacities. I am the current Ambassador of the American Society for Microbiology to Trinidad and Tobago. I won the Prime Minister's award for Innovation and Invention in 2004 and I am a National Scholarship recipient.

Antimicrobial Resistance: A global problem of local concern.

Part 2: Let's learn how to detect it Gram Negative Resistance.

From the local American Society for Microbiology Ambassador

In the first part we learnt about detection of Gram-positive resistance. We will now look at the detection of selective Gram-negative resistance mechanisms. Detection of these resistance mechanisms is very important in antibiotic stewardship (AS) and infection prevention and control programs [IPC] (1, 2). Resistance in Gram negative bacteria can be quite complex and involve multiple mechanisms (2). It is important to detect resistance mechanisms which are found on chromosomes from those found on mobile genetic elements such as plasmids. It is the mobile genes which are concerning for IPC programs. AS programmes must be able to alert the physician that a chromosomal gene is present and thus the resistance encountered is an intrinsic property of the bacteria (2). Thus, the detection of resistance mechanisms has important clinical implications which you should always consult your hospital specialist microbiologist about.

We will now look at extended spectrum beta-lactamase (ESBL), AmpC and Carbapenem resistance detection and interpretation.

Table 1: Phenotypic patterns of ESBL and AmpC type resistance

	ESBLs	AmpC
Inhibitors (e.g. piperacillin/tazobactam, amoxicillin/clavulanate)	S	R
Cefoxitin	S	R
3 rd Generation Cephalosporins Ceftriaxone, Ceftazidime, Cefotaxime	R	R

ESBL- Extended Spectrum Beta-lactamase, S – Sensitive, R – Resistant

Table 1 highlights important phenotypic patterns seen if extended spectrum Beta-Lactamases (ESBLs) or AmpC resistance is present.

In detecting ESBL resistance we must:

1. Screen with an indicator cephalosporin
2. Do confirmatory testing, which can be phenotypic

Cefotaxime (CTX), Ceftriaxone (CRO) and Ceftazidime (CAZ) are usually used. These detect CTX-M and TEM/SHV genes respectively.

We first look for 3rd generation cephalosporin resistant strains with beta-lactamase inhibitor susceptibility (Table 1). Confirmatory tests include

1. The E-Test
2. Double disc diffusion test
3. The combination disc test

Table 2: Resistant Zones and MICs of select 3rd Generation Cephalosporins to Enterobacteriaceae

Antimicrobial Content	Resistant Zone	Resistant MIC
Ceftazidime 30 µg	≤ 17 mm	≥ 16 µg/mL
Ceftriaxone 30 µg	≤ 19 mm	≥ 4 µg/mL
Cefotaxime 30 µg	≤ 22 mm	≥ 4 µg/mL
Amoxicillin-Clavulanate	≤ 13 mm	≥ 32/16 µg/mL

*The CLSI 2019©standard is used (3)

Double Disc Synergy (Diffusion)

The CAZ (30 µg) is placed 30 mm away from a disc containing co-amoxiclav 60/10 µg. A CTX disc may be placed on the opposite side of the co-amoxiclav disc, 30 mm away. An enhanced zone of inhibition between the beta-lactam and beta-lactam combination agent is considered positive.

Combination Disc test

A ≥ 5-mm increase in a zone diameter for either antimicrobial agent tested in combination with clavulanic acid vs its zone when tested alone mean an ESBL is present (e.g., ceftazidime zone = 17; ceftazidime/clavulanic acid zone = 22). This can be done for Cefotaxime also (3). This is for *Escherichia coli*, *Klebsiella pneumoniae* and *Klebsiella oxytoca*. There are different interpretative criteria for *Proteus mirabilis* which can be found in the CLSI document. Example: Ceftazidime/Ceftazidime - clavulanic acid 30 µg 30/10 µg

Quality Control: *K. pneumoniae* ATCC 700603 as an ESBL-producing QC control. *E. coli* strains are available from the NCTC: CTX-M-15 (cefotaximase) NCTC 13353 TEM-3 (broad-spectrum) NCTC 13351 TEM-10 (ceftazidimase) NCTC 13352.

Reporting for ESBL POSITIVE:

For confirmed ESBL producers the report should be: There is resistance to penicillin, cephalosporin and aztreonam.

ROSCO© (Taastrupgaardsvej 30, DK-2630 Taastrup, Denmark)

Kit KPC/MBL and OXA-48 Confirm Kit

Kit Codes:

1. Meropenem 10 µg, coded MRP10
2. Meropenem 10 µg + Phenylboronic Acid (KPC and AmpC inhibitor), coded MRPBO
3. Meropenem 10 µg + Cloxacillin (AmpC inhibitor), coded MRPCX
4. Meropenem 10 µg + Dipicolinic acid (Metallo-β-Lactamase inhibitor), coded MRDPD.
5. Temocillin 30 µg (only in the OXA-48 Confirm kit 98015)

Cartridges contain 10 µg Meropenem (diffusible amount) alone and in combination with inhibitors of different β-lactamases.

To differentiate between isolates with and without resistance mechanisms inhibitors are added.

Interpretation:

1. AmpC enzyme is inhibited by Cloxacillin. The Cloxacillin is used to distinguish between AmpC and KPC since both are inhibited by Phenylboronic Acid. A difference (≥ 5mm) in zones between Meropenem and Meropenem + Cloxacillin indicates AmpC activity.
2. Metallo β-lactamases - MBLs are inhibited by Dipicolinic Acid and a difference in zone size (≥ 5mm) between Meropenem and Meropenem + DPA indicates the presence of a MBL.

3. KPC enzyme. - KPC enzymes are inhibited by Phenylboronic Acid. Phenylboronic Acid also inhibits the AmpC.

To raise the specificity of the Kit, the Cloxacillin combination is included to distinguish between the two.

A zone difference ($\geq 4\text{mm}$) with Meropenem + Phenylboronic Acid but no difference ($<4\text{mm}$) with the Meropenem + Cloxacillin indicates the presence of a KPC enzyme.

4. An oxacillinase (e.g. OXA-48 or similar) is produced.

Negative results of other synergy tests, and no zone of inhibition with Temocillin 30 μg is presumptive of an OXA-48 or similar.

Isolates are highly resistant to Piperacillin + tazobactam.

Note: if both Meropenem and all combinations show no zone of inhibition, the Temocillin test is invalid, and the result inconclusive. The Temocillin test is only valid for Enterobacteriaceae.

Controls:

Positive: Q.C strain

K. pneumoniae NCTC 13438, KPC positive

K. pneumoniae NCTC 13439, MBL positive

K. pneumoniae ATCC BAA-1705, KPC positive

K. pneumoniae ATCC BAA-2146, MBL positive

Negative: Q.C strain

K. pneumoniae ATCC 700603

Note that for detection of carbapenem and AmpC type resistance excerpts from the ROSCO© test kits have been used. Further information on kits and interpretation can be obtained from the reference attached (4). I do not endorse any brand; however, this is a good choice for detecting Carbapenemases and AmpC. Other methods exist such as Carba NP© (BioMerieux) and the laboratory or technician may wish to try these.

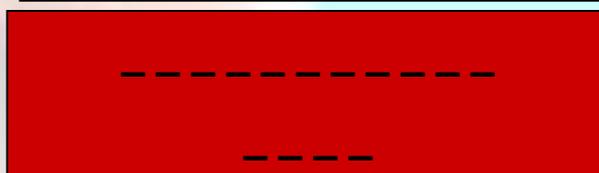
Reporting suggestion:

A carbapenem can still be used in an AmpC positive Enterobacteriaceae. However other beta-lactams cannot be used or must be used with caution.

For carbapenemase positive bacteria the carbapenems are not useful and another class of antibiotic will have to be used, unless the person is just colonized.

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**AMT First Timer Report- AMT 81st
Educational Convention Chicago, Illinois**



The 81st Annual National Educational Meeting for American Medical Technologist was held from July 1-5, 2019 in Chicago, Illinois. I had the opportunity to participate in a range of activities held at the Hilton Chicago Hotel and become familiar with neighboring allied health professionals from various national state societies, including the Southern District Society in which CASMET is apart off. Among the 300 or more members in attendance, the group represented health professionals in the fields of RMAs, MT, MLT, CMAS, AHI, RPT along with 40 AMT staff members. The week consisted of workshops to choose from which included topics relating to Medical Assisting, Leadership and professional development, Other Allied Health Professions and Laboratory- in which I took advantage of.

As a first-time attendee, I was welcomed by leaders of the organization, and briefed on the matters of affairs of the association. The series of events encompassed many lectures, presentations and activities in which members gained leadership skills, knowledge and enlightenment on topics related to their field. Members took advantage of the lectures which contributed to CE credits that help maintain annual membership status. The first day was an exciting time where members reunited and networked; members were friendly, and I made a few friends. There was an opening ceremony which included a keynote address by a known healthcare motivational speaker Chip Madera; tips on leadership and development were given based

on the theme; ‘Exceptional Experiences: Every Patient, Every Time.’

This was very encouraging and was a reminder of why we as health professionals chose this profession, despite the challenges on the job. The presentations that followed throughout the week were interactive and encompassed a range of topics. Members had the opportunity to ask questions and share experiences with other members- which they saw as family. I had the opportunity to be a delegate which granted me the privilege to know and vote in nominated board members.

Other events I enjoyed included a welcome party, awards banquet and dessert reception- in which I watched the independence fireworks display from a great view of the city. I will try my endeavor best to attend annually and will encourage other members to do so as well. The AMT conference allowed me to take a closer look at the organization and form a greater appreciation for what it stands for and does for its members. I hope this provides valuable insight and I thank you for the opportunity.

Respectfully,

Carlin Armbrister, MT (AMT)

Word Scramble



THEME: Trinidad and Tobago Folklore

A P P A S O I B

Public Announcement

Interested in advertising in the CASMET Journal May 2020, please contact the Editor- Mr. Richard Singh at richardsingh@rocketmail.com

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Mark your Calendar

Save the Date

American Medical Technologists 82nd Educational Program and National Meeting

Hyatt Regency
Albuquerque, NM

July 13-17, 2020



Photo credits: Balloon Fiesta and Biking, Ron Bohmann



Photo credit: JB_Sandias, Jay Blackwood



Learn more at www.americanmedtech.org



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The Necessity of Sustained Preventative Maintenance and Upgrades



ABOUT THE AUTHOR

My name is Bernice V. McClain. I'm a certified, licensed and well-experienced Medical Technologist of nearly 30 years.

I've been fortunate to have worked at the Centers of Disease Control, in Atlanta Georgia where I attained the experience of working with international scientists who formulated global PEPHAR policies. It was indeed a privilege to sit in esteem as these scientific leaders congregated. An even greater thrill was the thought that the Bahamas was represented among them; and, that I as a Bahamian aided in the establishment of compiling CD4 testing policies designed for the remote areas of Africa.

For several years I worked as a Manager/ Senior Medical Technologist for a private enterprise where I adroitly perform venipuncture processes, blood analyses, reported results to the Doctors, ensured that instruments were maintained, updated the inventory, wrote the Procedure Manual to ensure that the laboratory remained compliant and with Quality Assurance protocols. Presently I am back employed at the Princess Margaret Hospital, The Bahamas' premier health facility, where I received my initial training and educational foundation between the period of September 1990 to October 2008. Here it's a privilege to be able to work alongside other talented and hardworking individuals whose desire is to serve the peoples of the Bahamas with excellence.

In this Technological era, we are inundated with computer-generated systems that are essentially a part of our daily lives. From our smart phones to stove tops, technology is the sum of

today's reality. Akin to technological advancement, it is the necessity of maintenance and upgrades. These are needed to ensure that the systems are cleared of hindrances that can impede its processes. Upgrades are also a necessary component because it affords the end-user the convenience of better and faster services. Our society thrives on the "newer, better, faster, cleaner and at times cheaper because it shows that we are capable of being efficient while cutting costs.

Within the halls of a hospital's microcosm, technological advancements work to save, heal and restore lives. Therefore, it is important that computer systems governing security, salaries, intra-computational software containing patients' data have the best afforded antiviral protection. Even though the measure of cutting costs may be the characteristic of an efficient managerial process, in this situation, cutting cost cannot be considered prudent but categorically dangerous.

We have watched terroristic devastations play out on the global stage and believed that it could never visit our shores. However, because we are technologically attached to the global village, we can be considered prey to malware predators who may seek to sabotage our computers for ransom. Hence it is mandatory to have a technologically advanced IT Department manned by elite and savvy Technicians at the helm who will be the gatekeepers to ensure and maintain safety of the computer systems. The voice of the IT department should be heard and seen in the technology used. Preventative maintenance and upgrades should be necessary composites of their agenda. Funding should be delegated to this agenda because it is through sustained preventative measures and upgrades computer systems can remain virus-free, fast and efficient. Such qualities only serve to ably assist the staff to generate faster and improved services.

If measures are not taken to either maintain or upgrade the software in this health institution,

the result of a break down or even the hacking of systems can have catastrophic effects. Devastation of an untold magnitude can affect both staff and patient causing their thriving and hardworking system to come to a grinding halt. Who then is culpable? At whose feet does the blame rest? If the voice of IT department is not adhered to and a computer shutdown ensues, is it justified to blame them?

As a proposition, the importance of an efficient IT Department cannot be understated. Their services liken to all others is a tributary that affords all others to flow smoothly. With proper governance, the IT Department can assist any organization into harnessing the advantages of newer and better cutting-edge technologies for the services and pleasure of a growing and broadening society.

WORD SCRABBLE



List 10 words using the letters from the word-
PHLEBOTOMY

- | | |
|--------|---------|
| 1..... | 2..... |
| 3..... | 4..... |
| 5..... | 6..... |
| 7..... | 8..... |
| 9..... | 10..... |

DELEGATES REPORT

81ST AMT MEETING, CHICAGO

By Richard Singh

When I first heard the next AMT meeting was going to be in Chicago my mind first ran of Chicago being the home of Oprah Winfrey and the Chicago Bulls.

But this named city is going to even more special when I visit as it would also be the home of the office of the American Medical Technologists (AMT) and this year's 81st Educational Program and National Meeting. Having landed at the O'Hare International Airport, I was excited and anxious to make my way to the Chicago Hilton. Checking in and AMT registration was a breeze, meeting and greeting people I have grown accustomed to seeing at AMT meetings.



Browsing through the AMT Program, I was delighted and overjoyed to see my name published among other awardees as I was scheduled to collect two awards, Third (3rd) Place Journal for CASMET State Society Publication and Most Improved Publication. My first event was the opening ceremony where the highlight was the Inspirational Speaker- Mr. Chip Madera whose presentation was dynamic as well as encouraging.

Throughout the week of activities, I attended various lectures as well as social events organized by AMT. I attended the Annual Business Meeting where it was a pleasure to see history in the making when Mr. Harry Narine, the first member from CASMET elected to the AMT Board of Directors, address the National Meeting as a board member. It was an achievement for not only Mr. Narine but also CASMET.



A visit to Chicago would not be complete without visiting the unique sites of the City such as



discovering the depths of oceans at the SHEDD Aquarium or exploring the boundless less skies at the ALDER

Planetarium or seeing the vastness of the City at 1353 feet at the SKYDECK atop the Willis Towers or experiencing a sky full of fireworks at Navy Pier for 4th July celebrations. In all, I was totally pleased with my Chicago AMT experience and looking forward to Albuquerque 2020.



ABOUT THE AUTHOR

Tiffany Maynard is a daughter, sister, friend and a Christian. She completed her primary and secondary school education at Bayley's Primary School, The Garrison Secondary and Christ Church Foundation Secondary School respectively. At her Speech Day and Prize Giving Ceremonies she was awarded: The Principal's Award, Excellent CXC Results and Exemplary Behavior.

She is currently enrolled at the Barbados Community College, where she is in her fourth year of studying a Bachelor's degree in Clinical Laboratory Science and is the Public Relations Officer of the Clinical Laboratory Science Student Association. When not in a book, she enjoys outdoor activities such as: hiking, swimming, horseback riding and archery. Tiffany is a participant of The Duke of Edinburgh Award Scheme, she has completed her Bronze and Silver Awards and is currently pursuing her Gold Award.

High Titer, Low Avidity (HTLA) Systems By Tiffany Maynard

High-titer, low-avidity (HTLA) antibodies are frequently described as "reactive weakly by the

antiglobulin test"; (Bryant, 1994). This simply means that the antibodies would be present in high amounts in individuals but would not bind strongly to antigens on the red cells. These antibodies include anti-Chido (Ch), anti-Rodgers (Rg), anti-Cost-Stirling (Cs), anti-York (Yk), anti-Knops (Kn), anti-McCoy (McC), anti-Swain-Langley (Sl) and anti-John Milton Hagen (JMH). Most of the antibodies are directed at high incidence red cell antigens (Bryant, 1994). The classic HTLA antibodies are thought to be incapable of fixing or binding to complement. However, present data indicates that some of these antibodies do not cause either increased red cell destruction when incompatible blood is transfused or Hemolytic Disease of the Newborn (HDN) (Bryant, 1994). Special serological techniques can be used to differentiate the antibodies within the HTLA classification from antibodies not of an HTLA nature (Moulds, 1981).

The Chido and Rodgers system, each have one antigen respectively, Ch^a and Rg^a (Bryant, 1994). The Ch^a antigen, was first reported in 1967 when the antibody, anti- Ch^a , presented with crossmatching difficulties, while Rg^a , was later described in 1976 when the antibody, anti- Rg^a , reacted with 97% of people in Britain. Both antigens are located on the $C4d$ fragment of the 4^{th} component of complement (C4) and are adsorbed onto the red cell membrane, which occurs in the course of complement activation via the classical pathway. The antibodies of the system are IgG in nature and react best in IAT (Daniels, 2002), but react weakly. If antibody titers are performed they will have high titers with continued weak reactivity, however the antibodies are rarely significant and are not associated with HDN or HTR (Daniels, 2002).

Cost-Stirling (Cs) antibody, anti- Cs^a , was first described in three patients with antibodies reactive with red cells of 98% of Northern Europeans by Giles and associates (Rohli, 1999). This antibody was named after two of the original patients, Mrs. Cost and Mrs. Stirling. An antibody in a multiple transfused woman with a weak Cs^a antigen was named anti- Cs^b by Molthan and Paradis

and the antithetical antigens were reported in 1987 when the antibodies were described (Rohli, 1999). In 1988, the collection was established and named “Cost” (Bryant, 1994) and has two antigens, Cs^a and Cs^b . Cs^a is commonly found in both Caucasians (98%) and Africans (98%) whereas with Cs^b is rarely seen in both Caucasians and Africans (Bryant, 1994). The antibodies are IgG based and do not bind to complement nor do they cause HDN or HTR, therefore, they are not clinically significant (Daniels, 2002).

The York (Yk) antibody, anti- Yk^a , was initially thought to be anti- Cs^a because it was compatible with two Cs^a negative samples. The York group has only one known antigen, Yk^a . It was not until the red cells of a patient Mrs. York, were tested and found to be Cs^a positive that it was realized that a new antibody was found. The antigen Yk^a was described by Molthan and Giles as a new antigen related to Cs^a in 1969 (Daniels, 2002). The Yk antibody is considered high frequency because it is present in 92% of Caucasians and 98% of Africans and is also not associated with HDN or HTR, and therefore not considered clinically significant (Daniels, 2002).

Knops (Kn) antibody was first found in the serum of an O⁻ female, Mrs. Knops, whose blood was incompatible with all O⁻ donor units until a Blood Bank technologist, Margaret Helgeson, tested her own blood and found it compatible. Thus, in 1970 it was reported as anti- Kn^a -Helgeson (Daniels, 2002) and has two corresponding antigens: Kn^a and Kn^b , with Kn^a having the highest incidence (Bryant, 1994). 99% of Kn^a positive individuals are Caucasians and Africans, while 4% of Kn^b positive individuals are Caucasians and less than 0.1% of Africans are Kn^b positive (Bryant, 1994). The antibodies are not hemolytic and do not reduce the survival of transfused incompatible red cells (Petty et al, 1997), but can mask the presence of more dangerous antibodies commonly present in the serum.

The McCoy antibodies, anti- McC^a and anti- McC^b , and six corresponding antigens which are McC^a , McC^b , McC^c , McC^d , McC^e and McC^f . With McC^a the most common antigen (Bryant, 1994). Although generally thought to be clinically insignificant, alloantibodies formed against Knops blood group system antigens can be difficult to identify due to variable weak reactivity with most red cells. Therefore, they can mask the presence of other clinically significant antibodies, cause difficulty in identification of other alloantibodies (Moulds, 1981).

Swain-Langley (Sl) antibody, anti-Sl, was first described by Lacey and associates in 1980 and is defined as an antigen missing from Kn^a negative, McC^a negative red cells of Caucasians (Daniels, 2002). The Sl antibody has two associated antigens Sl^a and Sl^b , however, it is believed that Sl^a is McC^c (Daniels, 2002). 99% of Caucasians have Sl^a antigen on their red cells while 80% of Africans have Sl^b antigen on their red cells (Bryant, 1994). It is IgG based and is not associated with HDN or HTR, therefore not considered clinically significant (Daniels, 2002).

The John Milton Hagen (JMH) antibody, anti-JMH, is the only reported “naturally occurring” HTLA antibody (Bryant, 1994). Anti-JMH is also the only HTLA antibody that does not react with enzyme-treated red cells. The only antigen is JMH^a which is weakly expressed on the red cells of newborns, achieving full strength during the first few years of life (Daniels, 2002). JMH^a is mostly seen in Caucasians rather than in Africans and is inherited as a dominant character (Bryant, 1994). The antibody anti-JMH has not been demonstrated to be of any clinical significance, although there maybe decreased survival in the variant types (Daniels, 2002). It is an IgG based antibody but is not associated with HDN nor HTR (Bryant, 1994).

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have been the reduced number of workshops that usually took place on the Sunday before the opening. If I were to give some suggestions as to what I think can improve the excitement and enthusiasm of the Meeting it would be to include more interactive sessions where attendees can get hands on knowledge as to what message the sessions are about, also including field work into the meeting where attendees can be transported to sites such as laboratories, hospitals and research facilities to enhanced the experience. Furthermore, I think that more social events can be included as well such as tours of the state that we are in and shopping and entertainment trips for the attendees. Overall though I thoroughly enjoyed the meeting and look forward to attending the meeting in 2020 in New Mexico.

DELEGATES REPORT

81ST AMT MEETING, CHICAGO



Delegate Report
By

Mr. Owen Coakley RPT/AMT
Bahamas Branch of the Caribbean Association of
Medical Technologist (CASMET)

It was indeed both a privilege and a pleasure to attend the 81st annual educational program and National Meeting for the American Medical Technologist in Chicago Illinois. It was also my first time attending as a delegate and my fourth time attending the meeting. The meeting was indeed powerful as the keynote address by Mr. Chip Madera was captivating and caught my attention very fast. However, what I like most about the meeting was the tremendous amount of leadership and personal development sessions that was spread out throughout the entire week and not just on one day as was done in the past. However, If I were to caution on what I was not to please with it would

The Caribbean Association of Medical Technologists (CASMET) News Updates



- ❖ Reinstatement of the Jamaica Branch was done effective October 12th, 2019
- ❖ St. Maarten has been granted Branch status as of October 12th, 2019
- ❖ The Trinidad & Tobago Branch are now accepting applications for their Registered Phlebotomy Training program to commence on Saturday 11th January 2019
- ❖ CASMET is testing the process to receive CASMET applications and BGM registration payments via website by June 2020
- ❖ St. Maarten won the bid to be the host of BGM 2021 and so preparations will be soon on the way
- ❖ CASMET has begun talks with CXC to have an examination for Medical Technologists that will standardize Medical Technologist's throughout the Caribbean.
- ❖ Next Regional Council Meeting is scheduled for Belize, May 2020



ABOUT THE EDITOR

Dr Katija Khan is a Lecturer in Clinical Psychology at the University of the West Indies, St Augustine Campus. Some of the material in this article was presented at the CASMET Biennial General Meeting and Scientific Symposium held in Port of Spain in October 2019.

Preventing suicide in the workplace

By Dr Katija Khan

The average worker spends at least a quarter of their life in the workplace. As such, our jobs and workspaces have a huge impact on our quality of life and can significantly affect our mental health. One public health and social crisis facing the Caribbean is suicide. Every 40 seconds someone, somewhere in the world dies by suicide. While rates vary widely across the region, Guyana, Suriname and Trinidad and Tobago have the highest rates. Suicide, however, is preventable and conversations about suicide awareness and prevention need to happen in many spaces-including the workplace.

Research in Trinidad and Tobago has shown that it is not uncommon for persons to have thoughts about hurting or harming themselves and this is so for both men and women, across all ages, religions, ethnicities and educational backgrounds. But how do we know when a person is at risk for suicide? What should you look out for in your co-worker? Sometimes a person might say something or give clues that they are contemplating suicide (e.g. I don't think I can go on, my family will be better off without me) or you might notice negative changes in their performance, behaviour, mood or appearance. If you become concerned that they might be thinking of hurting themselves, it is ok to start a conversation about suicide. One of the fears

people have is that talking about suicide might encourage the person to act. This is far from true. Instead of hurting them, talking to someone gives them an opportunity to talk and gets them to open up which could be their first step towards getting help.

The Australian Suicide Call Back Service gives some tips on starting a conversation. You can say: "I've noticed that you haven't been yourself lately, is everything ok with you?", "I'm worried about you. I'm wondering if we can talk about what's troubling you?", "You've seemed really (down/sad/angry/unhappy) lately. I'm worried that you might be thinking of hurting yourself or suicide. Can we talk about this?". Let your co-worker know you've noticed a change and that you care. Be honest and genuine and listen without judging. Don't try to minimise their concerns or give advice. If they are thinking about suicide or hurting themselves, encourage them to get professional help and to reach out for more support.

If you think the risk is immediate (e.g. they are talking about wanting to die or kill themselves or they already have a plan), call the emergency services. But what if you say you're concerned, and they say nothing is wrong? You can't force someone to open up to you so continue to be observant and look out for the warning signs and remain available to listen for when they might be ready to open up. You can also tell a co-worker who is closer to them about your concerns.

Employers and managers can also take action to help prevent suicide by fostering and prioritising psychologically healthy work environments and facilitating access to mental health services. Many employees are afraid to talk about mental health to managers and HR for fear of stigma and discrimination. As such organisations need to be more direct and proactive in normalising support for employees, protecting employees' privacy and confidentiality, modelling healthy behaviours and help seeking, and promoting self-care and mental wellness. This way, workplaces can rise to the mandate and manifest themselves as critical partners in suicide prevention.

HIGHLIGHTS FROM THE 81ST AMT CONVENTION IN CHICAGO, ILLINOIS



A few words between colleagues- Ms. Velma Humphrey and Mr. Richard Singh of the CASMET Trinidad Branch



Mr. Chris Madera- Guest Inspiration Speaker delivery a vibrant and energetic speech



Members of the CASMET Bahamas Branch enjoying the Awards Banquet at the Chicago Hilton



Mr. Richard Singh with his award for Most Improved Publication



Members, Family and Friends of the CASMET Trinidad Branch at the AMT Awards Banquet 2019



Ms. Kaye Tschop, Southern District Councillor and Mr. Walter Parsons enjoying their breakfast before a long day of lectures



Ms. Lynette Saunders having a quick chat with Ms. Kaye Tschop, Southern District Councillor and Mr. Walter Parsons



Members of CASMET having a quick break between the AMT Business Meeting 2019



Mr. Harry Narine and Mr. Richard Singh from CASMET during the break at the National General Meeting



Mr. Rixon Boodoo collecting the prize from the North Carolina Representative



Ms. Chery Ann Da Costa Carter representing New York at the Welcome Night



Ms. Zobida Khan Mohammed presents the CASMET Token to the winner at the welcome night



Above- 4th July Fireworks seen from Navy Pier



Members of CASMET Trinidad Branch and relatives at the Museum of Natural History



Above- Mr. Richard Singh from CASMET enjoying a moment at the Chicago Bean



CASMET Secretary, Ms. Udra Sookal Goolsair with her family at the AMT Convention 2019



Mr. Kazim collects his winning prize during the raffle draw on the welcome night



The beauty and Serenity of Navy Pier prior to the 4th July Fire Works



Picture moment at the awards banquet! Chris Seay smiles for the camera with fellow Bahamas members.

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Tumor Markers

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- CEA
- Total PSA
- f-PSA
- CA 125
- CA 15-3
- CA 19-9
- HCG/β-HCG
- Tg (Thyroglobulin)
- PAP
- CA 50
- CYFRA 21-1
- CA 242
- CA 72-4
- NSE
- S-100
- SCCA
- TPA-snibe
- Pepsinogen I
- Pepsinogen II
- Gastrin-17
- H.pylori IgG
- H.pylori IgA
- H.pylori IgM
- β₂-MG
- Calcitonin
- Proinsulin
- ProGRP
- HE4
- HER-2
- *PIVKA-II

Cardiac

- CK-MB
- Troponin I
- Myoglobin
- hs-cTnl
- H-FABP
- NT-proBNP
- BNP
- Aldosterone
- Angiotensin I
- Angiotensin II
- Direct Renin
- D-Dimer
- Lp-PLA2
- hs-CRP
- *MPO

TORCH

- Toxo IgG
- Toxo IgM
- Rubella IgG
- Rubella IgM
- CMV IgG
- CMV IgM
- HSV-1/2 IgG
- HSV-1/2 IgM
- HSV-2 IgG
- *HSV-2 IgM
- *HSV-1 IgG
- *HSV-1 IgM

Immunoglobulin

- IgM
- IgA
- IgE
- IgG

Kidney Function

- β₂-MG
- Albumin
- *NGAL

Fertility

- FSH
- LH
- HCG/β-HCG
- PRL
- Estradiol
- Testosterone
- free Testosterone
- DHEA-S
- Progesterone
- free Estriol
- 17-OH Progesterone
- AMH
- SHBG
- Androstenedione
- *PIGF
- *sFlt-1

Hepatic Fibrosis

- HA
- PIIIP N-P
- C IV
- Laminin
- Cholyglycine

Anemia

- Vitamin B12
- Ferritin (FA)
- Folate (FA)
- *RBC Folate

Inflammation Monitoring

- hs-CRP
- PCT (Procalcitonin)
- IL-6
- *SAA (Serum Amyloid A)

Autoimmune

- TGA(Anti-Tg)
- Anti-TPO
- TRAb
- TMA
- ICA
- IAA(Anti Insulin)
- GAD 65
- Anti-IA2
- Anti-dsDNA IgG
- ANA Screen
- ENA Screen
- Anti-Sm IgG
- Anti-Rib-P IgG
- Anti-Scl-70 IgG
- Anti-Centromeres IgG
- Anti-Jo-1 IgG
- Anti-M2-3E IgG
- Anti-Histones IgG
- Anti-nRNP/Sm IgG
- Anti-SS-B IgG
- Anti-SS-A IgG
- Anti-CCP
- *Anti-Cardiolipin IgG
- *Anti-Cardiolipin IgM
- *Anti-MPO

EBV

- EBV EA IgG
- EBV EA IgA
- EBV VCA IgG
- EBV VCA IgM
- EBV VCA IgA
- EBV NA IgG
- EBV NA IgA

Thyroid

- TSH (3rd Generation)
- T4
- T3
- FT4
- FT3
- Tg (Thyroglobulin)
- TGA (Anti-Tg)
- Intact PTH
- Anti-TPO
- TRAb
- TMA
- Rev T3
- *T-Uptake

Infectious Disease

- HBsAg
- Anti-HBs
- HBeAg
- Anti-HBe
- Anti-HBc
- Anti-HCV
- Syphilis
- Anti-HAV
- HAV IgM
- HIV Ab/Ag Combi
- Chagas
- HTLV I+II
- H.pylori IgG
- H.pylori IgA
- H.pylori IgM
- *Anti-HBc IgM

Glyco Metabolism

- C-Peptide
- Insulin
- ICA
- IAA (Anti Insulin)
- Proinsulin
- GAD 65
- Anti-IA2

Prenatal Screening

- AFP (Prenatal Screening)
- Free β-HCG
- PAPP-A
- HCG/β-HCG
- free Estriol

Drug Monitoring

- Digoxin
- CSA (Cyclosporine A)
- FK 506 (Tacrolimus)

Bone Metabolism

- Calcitonin
- Osteocalcin
- 25-OH Vitamin D
- Intact PTH
- *β-CrossLaps (β-CTX)
- *total P1NP

Others

- Cortisol
- GH (hGH)
- IGF-1
- ACTH
- IGFBP-3

*Available Soon



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Public Notice

The Council is eager to work with its membership in taking the Regional Body for Medical Laboratory Technologists forward. The Council is encouraging its membership to reach out to its local representative(s) and Local Branch to get involved. Members can also forward any concerns, suggestions or news to the Council email at

casmet53@gmail.com



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Belize- Venue of CASMET May 2020 Regional Council Meeting

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