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President’s Message

Dr Cameron Wilkinson MBBS, FACS, FCCS
President

Dear Colleagues,

It seems like just yesterday when a few of us gathered in a small hotel in Port of Spain, Trinidad for the first formal meeting of the Caribbean College of Surgeons. In fact, it was sixteen years ago in the year 2003. As we reflect on the time that has passed since that inaugural meeting, we have witnessed significant development of the College and expansion of its membership across every Caribbean Island and also North America and Europe.

The College not only continues to advance its mission in acknowledging the richness to be achieved through the various exchanges during the conference, but it also provides a means of sharing cross-cultural experiences through the social interaction gained along the way among colleagues.

A major achievement was the first publication of the Journal of the Caribbean College of Surgeons last year. This was widely distributed and read by almost every physician in the Caribbean. I am indeed pleased that we now have our second publication with an array of interesting case presentations and scientific research from surgeons of this body. I thank all the authors whose invaluable research and case documentations have continued to shape the practice of surgery across the Caribbean in a positive way. I also want to thank the members of the editorial committee led by our Vice President, Professor Shamir Cawich for their dedication and commitment in the production of this journal.

I now take this opportunity to welcome you all to the seventeenth annual scientific conference of the Caribbean College of Surgeons. This year it is being held in the Republic of Guyana and I am certain we can look forward to a very invigorating conference, rich in its scientific content delivered by the surgeons from across the Caribbean and beyond, as they share their surgical experiences, their research and the ethical and legal implications of practice.

As the college continues to expand I look forward to the induction of several new members to the college at our awards banquet.

Lastly I would like to express my sincere appreciation to the members both past and present, who have served the college in generously giving of their time to participate on the various committees or made contributions of some form, thereby assisting in its development.

Best regards to all.

Dr Cameron Wilkinson MBBS, FACS, FCCS
President
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The cover design for the Journal of the Caribbean College of Surgeons depicts a satellite image of the Caribbean region taken from space. The image shows the tranquil beauty of the region on the background of the aqua blue Caribbean Sea.

Although, the Caribbean is relatively small, it casts a large footprint that can be seen far and wide.

The cover also shows the surgical main and satellite lights that we use on a daily basis to illuminate the work that surgeons do. The emblem of the Caribbean College of Surgeons is featured in the top left hand corner, bringing together the qualities of the Caribbean and the work of the surgeons.

The cover was designed by our President, Dr. Cameron Wilkinson, and medical students from the Windsor Medical School.
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OFFICIAL JOURNAL OF THE
CARIBBEAN COLLEGE OF SURGEONS

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Published by:
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In this issue of the Journal, we present the proceedings of the 17th Annual Clinical Symposium of the Caribbean College of Surgeons. This year we visit “The Land of Many Waters” - the Republic of Guyana. The local organizing committee, headed by Drs. Shilindra Rajkumar and Navindra Rambaran, has done an exceptional job to ensure a successful meeting in Guyana.

Over the years, we have seen a steady increase in participation in the Annual Clinical Symposium of the Caribbean College of Surgeons. This year we welcome a wealth of speakers from the entire Caribbean and outside the region.

This year, we received a record number of 110 submissions from Trinidad & Tobago (81), Guyana (15), Barbados (6), The Bahamas (3), Jamaica (2), St. Lucia (1), Cuba (1) and Curacao (1). The Scientific Secretary, Dr. Wesley Francis, has produced a high-quality academic programme for this meeting.

While we look forward to the high level of academia for which our meetings have become known, we also invite you to enjoy the warmth of the Guyana Marriott Hotel in Georgetown, see the beauty of this Caribbean territory and experience the camaraderie of your friends from the Caribbean.
Honnett Searwar was born on March 10, 1934 in Queenstown, Georgetown, Guyana as the 5th of 5 children. He attended the Queenstown Roman Catholic Primary School and then the Queen’s College in Guyana.

During his teenage years, Honnett was a devout altar boy and even considered becoming a priest. But in 1954, he earned a scholarship to study medicine at the Mona Campus of the University College of the West Indies, following his brother John’s footsteps. At the University, he participated in many extra-curricular activities such as cricket and volleyball, even becoming team captain.

Honnett returned to Guyana in 1960 and worked at the Georgetown Public Hospital until 1963. His eagerness to serve at the Catholic Hospital prompted him join the Sister’s of Mercy as the hospital doctor from 1963 to 1966.

In 1966, he set off to the United Kingdom for further surgical training, earning the F.R.C.S. (Ed) Degree in 1969. He then returned to Guyana to perform general surgery duties at St. Joseph Mercy Hospital from 1970 until today.

Honnett explained in an interview that, as a new surgeon, he was challenged to perform operations across all disciplines. At times, he had to perform deliveries and caesarian sections, which he didn’t like initially but grew to savor as time progressed. He was required to perform operations across many disciplines, including urology, oncology, gynaecology and neurosurgery - but he enjoyed orthopedic operations most.

Interestingly, Honnett often reminisces about the times that he administered anaesthesia himself before proceeding to surgery. Although he singled out Sr. Paula and Sr. Mayon on many occasions, this actually was the beginning of on the job training for nursing anaesthesia that continues at the Georgetown Public Hospital Corporation in Guyana today. He has taught at the nursing and medical schools in Guyana, served as Chairman of the Board of Directors and served as Hospital Medical Director at the St. Joseph Mercy Hospital.

Honnett Searwar was awarded the Arrow Head of Achievement (AA) Medal in 1992 in recognition of his services as a doctor and surgeon to the people of Guyana.

The Caribbean College of Surgeons presents this accomplished surgeon, Honnett Stanislaus Searwar, as a CCOS honouree in 2019.

Citation by:
Dr. Galton Roberts
Guyana
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Wallace (Bud) Irving Lee is a Guyanese legend. He is amongst the best known and best loved Caribbean surgeons. Bud was Head Boy of Queen’s College in his final year at the institution. Then, and perhaps even now, Queen’s College was recognized as one of the finest secondary schools in the Caribbean.

Bud proceeded to the University College of the West Indies in 1951. He was a member of the 4th graduating class of the University College of the West Indies and earned the M.B.B.S. (London) Degree in 1957. During this time, he also represented the University College in football and cricket.

Bud completed his internship at the University Hospital in Mona, Jamaica - an honour since there were more graduates than hospital places at that time. Sir Professor John Golding ensured his place at Mona. Sir Professor Harry Annamunthado later assisted him to attain higher surgical training in the United Kingdom, where he earned the F.R.C.S. (Edin) in 1964.

Bud served as surgical registrar at Queen Elizabeth Hospital in Barbados alongside Mickey, now known as Sir Professor Errol Walrond. He returned to Guyana in 1966 and worked at the Georgetown Hospital for 21 years. He was a very capable general surgeon who was able to perform emergency craniotomy, fix an ingrown toenail, pin a hip, nail a femur, ligate a patent ductus arteriosus or whatever else needed to be done. For his invaluable contribution, Guyana honoured Bud Lee with two national awards: The Golden Arrow of Achievement and the Cacique Crown of Honour.

The Caribbean College of Surgeons presents this outstanding human being and accomplished surgeon, Wallace Irving Lee, as a CCOS honouree in 2019.

Citation by:
Dr. Deen Sharma
CCOS Past President, Guyana
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17th Annual Clinical Conference
June 20-22, 2019
Guyana Marriott, Georgetown, Guyana

PROGRAMME
THURSDAY, JUNE 20, 2019

7:30 am  Registration

7:55 am  Welcome: CCOS President
Cameron Wilkinson
St. Kitts

CME Session 1
Moderator: Wilkinson C
St Kitts

8:00 am  Mammography in the Detection of Breast Cancer
Sinanan A
Trinidad & Tobago

8:20 am  Treatment of Early Breast Cancer
Francis W
Bahamas

8:40 am  Treatment of Locally Advanced Breast Cancer
Springer D
Barbados

9:00 am  Reconstructive Techniques for Breast Cancer
Mohammed F
Trinidad & Tobago

Distinguished Guest Lecture
9:20 am  Single Incision Laparoscopy in Low Resource Environments
Ruiz-Lizarraga J
Hospital Angeles Pedregal, Mexico

10:00 am  Viewing of Posters and Sponsors’ Exhibits
Posters (1-7) / Judges

CME Session 2
Moderator: Sharma D
Guyana

10:30 am  Caribbean Mens’ Risk to Develop Prostate Cancer
Aiken W
Jamaica
10:50 am  
**Screening for Prostate Cancer**
Daniel C  
St. Lucia

11:10 am  
**Surgical Management of Early Prostate Cancer**
Reid G  
Jamaica

**Distinguished Guest Lecture**
11:30 pm  
**Current Management of Arterio-Venous Malformations**
Brooks J  
University College and Royal Free Hospital, London

**Break**
12:00 pm  
Lunch

**SCIENTIFIC SESSION 1:**

**Moderator:** Naraynsingh V  
Trinidad & Tobago

1:30 pm  
**Safety in Surgery: An Audit from the Caribbean College of Surgeons**
Fa Si Oen P, Cawich SO  
Curacao

1:40 pm  
**A Review of Snake Bite Injuries Presenting to a Rural County Hospital**
Hassranah D, Olivier L, Beharrysingh B, Sham Ku  
Trinidad & Tobago

1:50 pm  
**Women In Surgery Questionnaire: The Caribbean Perspective**
Calderon C, Maraj A, Roopnarine C, Crichlow J  
Trinidad & Tobago

2:00 pm  
**Compliance to Surgical Safety Checklist Completion at the Georgetown Public Hospital Corporation**
Singh D, Prashad C  
Guyana

2:10 pm  
**A 4-year Audit of a Multidisciplinary Team Meetings in a Caribbean Hospital**
Trinidad & Tobago

2:20 pm  
**Laparoscopic Hysterectomy Using A Locally-Designed Articulated Uterine Manipulator**
Aragón Palmero FJ, Bandomo Alfonso FS, Jorge Álvarez Y, Ortega Márquez R  
Cuba

2:30 pm  
**Surgical Antibiotic Prophylaxis at Georgetown Public Hospital Corporation in Guyana**
Nandan V, Rajkumar S  
Guyana
SCIENTIFIC SESSION 2:

Moderator: W Aiken
Jamaica

2:40 pm  Clinical epidemiology and prevention of MRSA infection in surgical patients
Bodie D, Kemp K, Chea W, Knott J, Forbes N
Bahamas

2:50 pm  Penetrating Cardiac Injuries in Barbados
Smith AI, Powlett CL, Went TR
Barbados

3:00 pm  Advanced Trauma Life Support in the Caribbean
Trinidad & Tobago

3:10 pm  Epidemiology of Neuroendocrine Tumours in Southern Trinidad
Islam S, Lum T, Chackan S, Bheem V, Jugool S, Singh Y, Sookhoo K, Harnaryan P
Trinidad & Tobago

3:20 pm  Implementation of an Electronic Medical Records System at San Fernando General Hospital
St. Louis P G, Arjoon S, Elder R, Seetahal-Maraj P
Trinidad & Tobago

3:30 pm  Extent of Urological Exposure in Medical School: A Survey of UWI Graduates
Persaud S, Morrison B, McCammon K, Sadhoo K, Gosine C
Trinidad & Tobago

3:40 pm  Assessment of Simple Surgical Skills Through Simulation
Nandan V, Rajkumar S
Guyana

3:50 pm  Radiation Safety Awareness and Practices at San Fernando General Hospital
Quan Soon K, Sadho K, Gosine C, Khan A, Sieusankar C, Kawal T,
Ramsoobhag K,
Trinidad & Tobago

Council Meeting
4:00pm  CCOS Council Meeting

Opening Ceremony
7:00 pm  Welcome: CCOS President
Cameron Wilkinson
St. Kitts

Feature Address
Dr. Shamdeo Persaud
Chief Medical Officer
Guyana

Poster Session
Poster Presenters
FRIDAY, JUNE 21, 2019
Morning Session

7:30 am  Registration

**SCIENTIFIC SESSION 3:**

Moderator: Warner C
Barbados

8:00 am  Clinico-Pathologic Profile of Bladder Cancer in Southern Trinidad
Backredee A, Hosein I, Maharaj A, Goetz L, Ramsoobhag K, Bajrangee G, Rampaul M
Trinidad & Tobago

8:10 am  Factors Affecting Renal Access During Image-Guided Supine PCNL
Maharaj A, Kawal T, Backradee A, Ramsoobhag K
Trinidad & Tobago

8:20 pm  Early Cannulation AV Graft for Haemodialysis Access in the Caribbean
Harnanan D, Pran L, Lynch S, Shah A, Sieunarine K, Naraynsingh V
Trinidad & Tobago

8:30 am  Citrate Levels in Stone Disease In Trinidad and Tobago
Sukhraj R, Bellamy W, Kawal T, Persaud M, Persaud S, Goetz L
Trinidad & Tobago

8:40 am  Knowledge and Practices of Urethral Reconstruction Among Members of the Caribbean Urological Association and Pan African Urological Surgeons Associations
Persaud S, Rhudd A, Jalloh M, McCammon K
Trinidad & Tobago, Jamaica, Senegal and USA

8:50 am  Management of Gleason 7 Prostate Cancer at the San Fernando General Hospital
Backredee A, Kawal T, Ramsoobhag K
Trinidad & Tobago

9:00 am  Evaluation of the U.W.I. Postgraduate Urology Program in Trinidad & Tobago
Goetz L
Trinidad & Tobago

**Distinguished Guest Lecture**

9:10 am  Endovascular Management of Varicose Veins
Brooks J
University College and Royal Free Hospital, London

9:40 am  Viewing of Posters and Sponsors Exhibits
Coffee Break
SCIENTIFIC SESSION 4:

**Moderator:** Rambaran N / FaSiOen P
Guyana

10:00 am  
**Fall Epidemiological Analysis and Risk factor Assessment (FEAR)**  
Lewis S, Rauseo C, Mencia M  
Trinidad & Tobago

10:10 am  
**Improving Blood Transfusion Practices in Primary Total Joint Arthroplasties in Jamaica**  
Ameerally A, Johnson J, Rose CR  
Jamaica

10:20 am  
**Knowledge, Attitudes and Practices of Orthopaedic Doctors toward Operative Note-Taking**  
White K, Persaud D, Ragbir K, Pattron R  
Trinidad & Tobago

10:30 am  
**Orthopedic stabilization of the Charcot’s foot**  
Budhoo E, Deane D, Kassie P, Toolsie A, Maharaj D  
Trinidad & Tobago

10:40 am  
**The Introduction Of An Operating Note Proforma Using A Novel Orthopaedic Score**  
White K, Ragbir K, Persaud D, Goalan R  
Trinidad & Tobago

10:50 am  
**Health Literacy in patients requiring joint replacement**  
Rampersad R, Mencia M  
Trinidad & Tobago

**Distinguished Guest Lecture**
11:00 am  
**Principles of Laparoscopic Gastric Surgery**  
Ruiz-Lizarraga J  
Hospital Angeles Pedregal, Mexico

SCIENTIFIC SESSION 5:

**Moderator:** Rajkurnar S
Guyana

11:30 am  
**Bariatric Surgery in Low Volume Setting: An Initial Experience**  
Hassranah D, Olivier L, Beharrysingh K, Sham Ku N  
Trinidad & Tobago

11:40 am  
**Laparoscopic Surgery at Georgetown Public Hospital Corporation: An Overview**  
Bhudilall J, Ramcharran H, Rambaran N, Ramnarine D  
Guyana

11:50 am  
**Management of Symptomatic Gallstone Disease: Equity Between Two Healthcare Delivery Systems in Trinidad & Tobago**  
Mahabir AH, Cawich SO  
Trinidad & Tobago

12:00 am  
**The Predictive Index Laparoscopic Cholecystectomy Score**  
Pran L, Alexander R, Baijoo S, Maharaj R  
Trinidad & Tobago
12:10 am  A Comparison of Laparoscopic and Open Appendectomy  
Hassranah D, Olivier L, Persad N, La Borde L  
Trinidad & Tobago

12:20 am  Negative Appendectomy Rates and the Alvarado Score  
Ramjoo A, Ramcharran H, Hassan H  
Guyana

12:30 pm  An Audit of OT Turnaround Time in San Fernando General Hospital  
Gosine CS, Quan Soon K, Sadho K, Khan A  
Trinidad & Tobago

12:40 pm  Rare and Difficult Herniae  
Rosin D  
Barbados

Break
12:50 pm  Lunch

SCIENTIFIC SESSION 6:

Moderator:  Plummer JM  
Jamaica

2:00 pm  Carotid Endarterectomy: Relevant Adaptations Over 35 Years  
Naraynsingh V, Harnanan D, Panday A, Esack A  
Trinidad & Tobago

2:10 pm  Distribution and Presentation of Aortic Aneurysmal Disease In a West Indian Cohort  
Deyalsingh ST, Ramdass MJ  
Trinidad & Tobago

2:20 pm  Audit of a Caribbean Vascular Surgery Unit in a Teaching Hospital  
Harnanan D, Pran L, Shoogoon A, Shah A, Raghunanan B, Sieunarine K, Naraynsingh V  
Trinidad & Tobago

2:30 pm  Cutaneous Malignant Melanoma at the Port of Spain General Hospital: A 15-year Retrospective Study  
Trinidad & Tobago

2:40 pm  Diabetic Foot Care: A Series of Bandage-Induced Ischaemic Injuries  
Harnanan D, Shah A, Naraynsingh V  
Trinidad & Tobago

2:50 pm  Major Lower Limb Amputations: A Quality of Life Survey  
Pran L, Harnanan D, Baijoo S, Maharaj R, Naraynsingh V  
Trinidad & Tobago

3:00 pm  The Perforating Vein in a Proximal Radial Artery Fistula: Modification of the Gracz AV fistula  
Greenidge C  
St. Lucia

Ethics Session
3:10 pm  Updating Patient Relatives on Social Media – An Ethical Discussion  
Trinidad & Tobago

Discussant:  Walrond ER
Annual General Meeting

3:30 pm  Annual General Meeting
          General Audience

8:00 pm  Awards Banquet
          Master of Ceremonies: Madan Rambaran
          Guyana

Opening Prayer: Kathleen Tuitt
                USA

Opening Remarks
                CCOS President:
                Cameron Wilkinson
                St. Kitts & Nevis

Feature Address:
Minister of Health:
                Hon. Volda Lawrence
                Guyana

Awards Ceremony
                CCOS Honouree:
                Wallace “Bud” Lee
                Guyana

Citation:
                Deen Sharma
                Guyana

                CCOS Honouree:
                Honnet Seawar
                Guyana

Citation:
                Galton Roberts
                Guyana

Best Podium 2018
                Diagnosis and profiling of non-small cell lung cancer
                Haralsingh A, Rawlins R, West M
                Trinidad & Tobago

Best Poster 2018
                Trans-Articular Migration of Broken Cerclage Wire
                Augustus M, Quan Soon C
                Trinidad & Tobago

Induction Ceremony
                New CCOS Fellows
                CCOS President
                Cameron Wilkinson
                St. Kitts

Vote of Thanks
                MJ Ramdass
                Trinidad & Tobago
SATURDAY, JUNE 22, 2019
Morning Session

7:30 am  Registration

**SCIENTIFIC SESSION 7:**

**Moderator:** Walrond ER  
Barbados

8:00 am  **A Study on Breast Cancer Awareness**  
Chung C, Seurattan V  
Guyana

8:10 am  **Distribution of genetic mutations among patients with Breast Cancer**  
Bodie, D, Carroll K, Rolle A, Francis WP  
Bahamas

8:20 am  **Breast Cancer Treatment: Conservative Versus Ablative Therapies**  
Cave C, Alexander R, Maharaj R  
Trinidad & Tobago

8:30 am  **Immediate Autologous Breast Reconstruction: A community Hospital Experience**  
Hassranah D, Olivier L, Ali S, Murray N  
Trinidad & Tobago

8:40 am  **Review of Immunohistochemistry of the Breast Cancers in Trinidad and Tobago**  
Milne D, Jarvis J, Rattan J, Spence R, Ramdass MJ, Barrow S  
Trinidad & Tobago

8:50 am  **Factors affecting breast cancer recurrence in Trinidad and Tobago**  
Shah A  
Trinidad & Tobago

9:00 am  **Methylene Blue as a Single Mapping Agent In Sentinel Lymph Node Biopsy In Trinidad**  
Joseph K, Sham Ku N, Belleza N, Hassranah D, Olivier L Trinidad & Tobago

9:10 am  **Accuracy of Sentinel Lymph Node Biopsy in Breast Cancer Using Methylene Blue Dye Technique in a Developing Country**  
Milne D, Sookar N, Sookar N, Ali J  
Trinidad & Tobago

**SCIENTIFIC SESSION 8:**

**Moderators:** Greenidge C / Algu T  
Trinidad & Tobago

9:20 am  **Wilms Tumour in Children Using the International Society of Paediatric Oncology Protocols**  
Rampersad B, Cooblal AS, George C  
Trinidad & Tobago

9:30 am  **Infantile Hypertrophic Pyloric Stenosis in Southern Trinidad**  
Labban S, Roop L, Persad R  
Trinidad & Tobago

9:40 am  **Resection and Anastomosis for Benign Tracheal Stenosis: Initial Experience in Guyana**  
Placeres-Leon ZA, Mahadeo C  
Guyana
9:50 am | VATS Thymectomy in Trinidad & Tobago
Ramnarine I, Browne K, Persaud S, Ramsingh K
Trinidad & Tobago

10:00 am | Patterns, Distribution and Outcomes of Pancreatic Cancer in Nassau, Bahamas
The Bahamas

10:10 am | Outcomes of Oncologic Pancreatic Surgery in Trinidad & Tobago
Cave C, Pran L, Maharaj R
Trinidad & Tobago

10:20 am | Approach to Tumors of the Third and Fourth Parts of the Duodenum
Lucas C, Nixon H, Major D, Francis W
The Bahamas

10:30 am | Viewing of Sponsors’ Exhibits

SCIENTIFIC SESSION 9:

Moderators: Dan D / Prashad C
Trinidad & Tobago

11:00 am | Atypical Lipomatous Tumour of the Oesophagus: A Case Report
Smith A, Edwards C, Maynard C, Gaskin D, Went T
Barbados

11:10 am | The Paediatric Jehovah’s Witness: Do Parental Views matter?
Baron J, Rampersad B
Trinidad & Tobago

11:20 am | Bicep Femoris Tendon Transfer to Correct Loss of Extensor Mechanism of Knee Secondary to Full Thickness Electrical Burn
Smith AK, Rajkumar S
Guyana

11:30 am | Simultaneous Perforation and Haemorrhage as a Rare Presentation of Gastric GIST
Lum T, Jugool S, Dan D, Tinnie A, Ramsawak S, Ramrattan K
Trinidad & Tobago

11:40 am | Long Segment Alimentary Tract Duplication Cyst in a Neonate: Possible Surgical Options
Dubay C, Khan R
Trinidad & Tobago

11:50 am | Paired Exchange Renal Transplant
Persaud K
Guyana

12:00 pm | Testicular Torsion: A Different Twist
Ramkissoon AP, Jaggernauth C, Kawal T, Backradee A
Trinidad & Tobago
SCIENTIFIC SESSION 10:

Moderator: Rambaran M / Rajkumar S  
Guyana

12:10 pm  
Cystic Mesenchymal Hamartoma of the Liver: Rare Case Report  
Spence R, Sattaur A, Ragbir K, Maharaj R  
Trinidad & Tobago

12:20 pm  
Congenital Pseudoarthrosis in a Patient with Neurofibromatosis Type 1: Disappearing Ulna  
Augustus M, Beharry A, Quan Soon C  
Trinidad & Tobago

12:30 pm  
Diffuse Midline Glioma: Rare Case Report  
St Louis P, Naidoo V, Harewood S, Banfield R, Ma Joe  
Trinidad & Tobago

12:40 pm  
An Unusual Presentation of Meckel’s Diverticulum with an Internal Hernia  
Solomon SS, Mahadeo C  
Guyana

12:50 pm  
Vertebral Osteomyelitis: Current Practices and Management  
Dixon, B, Goodluck-Tyndal R, Pencle F, Holness, R  
Jamaica

1:00 pm  
A Giant Cystic Pheochromocytoma with a Low Risk of Malignancy: Case Report  
Trinidad & Tobago

1:10 pm  
Treatment of Paediatric Hip Fractures with Adult Hip Fracture Implants  
Raghunanan R, Young Pong C  
Trinidad & Tobago

1:20 pm  
Neurosurgery in Epilepsy  
Calderon C, Ramnarine D  
Trinidad & Tobago

1:30 pm  
An Unusual Case of Pyometra in Infancy  
Khan R, Persaud D  
Trinidad & Tobago

1:40 pm  
Vote of Thanks  
Rajkumar S  
Local Organizing Committee

2:30 pm  
Beach & Creek Lime  
Transportation available from Hotel
(P – 1) A Novel Technique for Peritoneal Access in Laparoscopic Surgery
Singh Y, Mohammed S, Naraynsingh V
Trinidad & Tobago

(P – 2) Knee Arthrodesis for a Failed Total Knee Arthroplasty: A Caribbean Solution
Mencia M, Goalan R, Akii Buua A, Augustus M
Trinidad & Tobago

(P – 3) An Analysis of Major Lower Limb Amputations
Pran L, Baijoo S, Harmanan D, Cave C, Maharaj R, Naraynsingh V
Trinidad & Tobago

(P – 4) Pectus Repair Using Bar
Ramnarine I, Browne K
Trinidad & Tobago

(P – 5) Gastrocnemius Myocutaneous flap in Knee Reconstruction
Rajkumar S, Chung C
Guyana

(P – 6) Vascular Injury in a Paediatric Patient
Ramdass J, Maharaj S, Cooblal AS
Trinidad & Tobago

(P – 7) Giant Perforated Duodenal Ulcer with Complete Erosion of the Common Bile Duct
Islam S, Dial S, Bheem V, Harnarayan P
Trinidad & Tobago

(P – 8) Silent Common Bile Duct Stones: Do We Always Explore?
Jarvis J, Haralsingh A, Maharaj R
Trinidad & Tobago

(P – 9) Laparoscopic TAPP Repair of a Spigelian Hernia using V-Loc Sutures
Lum T, Jugool S, Ramsawak S, Tinnie A, Ramrattan K
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(P – 10) A Pink Herring in the Colon: Eosinophilic Colitis
Milne D, Rattan J, Muddeen A, Rambhajan A
Trinidad & Tobago

(P – 11) Evolution of laparoscopic surgery at San Fernando General Hospital: Single Surgeon Series
Singh Y, Mohammed S, Naraynsingh V
Trinidad & Tobago

(P – 12) Laparoscopic Removal of a Giant Gallstone
Singh Y, Mohammed S, Naraynsingh
Trinidad & Tobago

(P – 13) Bleeding and Inflamed Meckel’s Diverticulum
St. John S, Springer D, Bernstein S
Barbados

(P – 14) Extended Lymphadenectomy in Whipple’s Pancreatoduodenectomy for Duodenal Carcinoma
Maharaj R, Ragbir K, Spence R, Sattaur A
Trinidad & Tobago

(P – 14) Pancreatic Pseudocyst: Uncommon Sequelae of a Common Complication
Rattan J, Bernard T, Rambhajan A
Trinidad & Tobago
(P – 15) Approaches to the Management of Thoracic and Abdominal Injuries in Polytrauma
Persaud SDN, Griffith L, Ramnarine I, West M
Trinidad & Tobago

(P – 16) Mini-Incisions Versus Laparoscopy in Paediatric Surgery
Persaud D, Khan R
Trinidad & Tobago

(P – 17) Adult Intussusception: A Rare but Important Diagnosis
Rattan J, Milne D, Rambhajan A
Trinidad & Tobago

(P – 18) Spondylodiscitis Likely Secondary to Mycobacterium Tuberculosis
Maraj A, Calderon C, Corbin R, Perez A
Trinidad & Tobago

(P – 19) Complex Abdominal Wall Reconstruction in a Patient with Abdominal Loss of Domain
Ramdharry C, Rajkumar S, Leon P
Guyana

(P – 20) Oesophageal Perforation: A Combined Approach
Haralsingh A, Ramkissoon C, Persaud S, Seenath M, Manjunath G, West M
Trinidad & Tobago

(P – 21) Pelvic Pseudotumour in a Guyanese Haemophiliac
Mohamed-Rambaran P, Rambaran N, Mc Donald M, Fernando Camps G
Guyana

(P – 22) Factors that Affect Surgical Outcomes after Total Knee Arthroplasty in Trinidad and Tobago
Trinidad & Tobago

(P – 23) Dissociation of a Modular Humeral Prosthesis: A Rare Complication
Goalan R, Mencia M, Skeete R, Augustus A
Trinidad & Tobago

(P – 24) Milroy Disease. Help Please
Ramnarine I, Lee-Cazabon H, Nicholas A
Trinidad & Tobago

(P – 25) Pre-Operative Nephrostomy in Children Undergoing Pyeloplasty for PUJ Obstruction
Kawal T, Rampersad B, Ramgobin V
Trinidad & Tobago

(P – 26) The Rectus Repair: Non-Mesh Repair Of Primary Ventral Hernias
Richardson R, Hassranah D, Naraynsingh V, Olivier L, Frederick A
Trinidad & Tobago

(P – 27) Diabetic Foot Infection Survey
Pran L, Shoogoon A, Harnanan D
Trinidad & Tobago

(P – 28) Surgical Site Infection following Inguinal Hernia Repair in a Day Case Setting in Guyana
Nandan V, Singh D, Rajkumar S
Guyana
MAMMOGRAPHY IN THE DETECTION OF BREAST CANCER
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Mammography is the gold standard for the detection of breast cancer both in the symptomatic and screening population. There are several concepts in relation to mammography that must be understood, including: breast anatomy, procedural technique, BIRADS system, emerging techniques and the controversy about the use of mammographic screening in reduction of mortality, over-diagnosis and over-treatment.

TREATMENT OF EARLY BREAST CANCER
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Early breast cancer is defined by ductal carcinoma in situ to operable stage IIIa. While the biologic behavior of breast cancer is heterogeneous, early breast cancer in general has very good overall survival. The new AJCC 8th staging takes into consideration the grade and receptor status in the overall clinical stage. Surgery is the primary treatment modality for early breast cancer and offers several options for loco-regional control. Oncoplastic reconstructive options have increased the overall choices for women wishing to undergo breast conservation. The management of the axilla while clear for patients undergoing BCS still provides a variety of controversial options in patients undergoing mastectomy. Adjuvant therapies are guided by the hormone receptor status and targeted therapy continues to have a significant role in properly selected individuals. With proper and timely treatment options patients with early breast cancer can have prolonged disease free survival.

TREATMENT OF LOCALLY ADVANCED BREAST CANCER
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Locally advanced breast cancer is a heterogeneous entity encompassing tumours with advanced primaries, extensive nodal involvement and inflammatory breast cancers. Multidisciplinary management is essential in order to obtain optimal results. Preoperative systemic therapy is the usual first step in the management of these patients. This therapy can result in the tumour downsizing and the conversion to operable cases. The surgical options will ultimately depend on the response to neoadjuvant treatment, disease biology and patient factors.

RECONSTRUCTIVE TECHNIQUES FOR BREAST CANCER
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Many patients with breast cancer, especially those with locally advanced disease, will require extensive resection of breast tissues, leaving wide defects for which primary closure may not be achievable. At the same time, this anatomic area often demands reconstruction for which aesthetic outcomes are important. In this segment, we discuss the patient selection for reconstruction, autologous reconstruction, implant-based reconstruction and combination techniques. We discuss an algorithm for reconstruction standards in the Caribbean population.
Minimally invasive surgery has reached unsuspected possibilities. Thanks to the advancement of technology we have gone beyond our borders, developing from mini-laparoscopy instruments that allow smaller incisions, to robots. Such technological advances involve high costs, limiting their use and application in developing countries, as is the case in Mexico, where there are 12 Da Vinci robots - unlike our neighboring United States, which has more than 3,000 fully equipped robots. The pinnacle of minimally invasive surgery is carried out by an incision of two centimeters in length, known as single incision laparoscopic surgery. This surgery requires specialized material and even the robot to be carried out. We present the development of a very low cost device, reproducible in any hospital that has a basic laparoscopic surgery equipment to perform single port surgery or surgery without scars.

Caribbean men are at disproportionately higher risk of being diagnosed with and dying from prostate cancer. Being of African descent is an independent risk factor for developing prostate cancer while lack of awareness, poor health-seeking behaviour, limited access, fear and acceptance of commonly-held myths regarding the disease and outcomes of treatment contribute to the late presentation and ultimately the high mortality rate. The Caribbean region currently has the highest mortality rate in the world followed by sub-Saharan Africa. As prostate cancer is a disease of advancing age, the incidence of prostate cancer is expected to rise as Caribbean populations age. Furthermore, with the increasing prevalence of obesity in the region, outcomes are anticipated to worsen since obesity is associated with higher grades and more aggressive disease. Urgent attention must be focused on decreasing the mortality from prostate cancer in the region by focusing efforts on educating men about the benefits of early detection and making the resources available for men to access prostate cancer screening at low cost. Concomitantly, governments must ensure that the necessary resources are in place to handle the increased number of screen-detected cancers.

Prostate cancer remains the leading cause of male cancer deaths in St. Lucia and throughout the Caribbean. The disease is most common in older age groups, but it can affect men from 45 years onwards. Some of the risk factors for prostate cancer are known, but majority of cases appear to be sporadic. Wilson and Jung criteria are accepted as the standard for disease screening. This presentation will discuss the experience with prostate cancer diagnosis in St. Lucia with suggestions on the way forward for early diagnosis and treatment of this disease.
SURGICAL MANAGEMENT OF EARLY PROSTATE CANCER
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Surgical management of early prostate cancer in the form of radical prostatectomy is a curative treatment option for men with localized prostate cancer. It is the gold standard of definitive therapy in men that are surgical candidates. It offers the ability to better stage the disease and allows for easier detection of treatment failures with PSA rises. Several techniques have evolved over the last 30 years, including the open, laparoscopic and robotic approaches. The different techniques, their advantages / disadvantages and their applicability to our Caribbean population will be discussed. Other focal therapeutic measures such as the use of high-intensity focused ultrasound (HIFU) and cryoablation of prostate cancer will also be addressed.

DISTINGUISHED GUEST LECTURE

CURRENT MANAGEMENT OF ARTERIOVENOUS MALFORMATIONS
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Arterio-venous malformations (AVMs) are a mixed group of rare embryonic developmental vascular disorders, hereditary syndromes and overgrowth disorders that present in myriad forms that traditionally defy classification and definitive treatment. They are best treated therefore in specialist centres where expertise can be concentrated and better results obtained. Developments in diagnostic imaging, genetics and pharmacology as well as better understanding of underlying pathology together with newer treatment modalities have transformed this challenging area of therapeutics such that real evidence of benefit can now be offered. We discuss the current management of AVMs.
SAFETY IN SURGERY: AN AUDIT FROM THE CARIBBEAN COLLEGE OF SURGEONS
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INTRODUCTION: Modern perioperative safety measures are being introduced internationally and have a positive impact on patient safety outcome. To assess the understanding and use of perioperative safety measures for elective and emergency surgery in low-to-middle income Caribbean countries, we conducted an electronic survey among members of the Caribbean College of Surgeons (CCOS).

METHODS: Using an open source electronic survey method a double round of a short assessment survey was distributed among all CCOS members through their email on file.

RESULTS: There was feedback from 48 participating surgeons. The results showed a 100% awareness for the Time-Out-Procedure (TOP) and a 64.8% awareness of the Standard-Operating-Protocol (SOP), a 47.9% structural implementation of the TOP and a 39.6% implementation of the SOP. Furthermore it showed that the TOP was mandatory in 62.5% of the institutions and the SOP mandatory in 37.5% of the institutions. Finally it showed that institutional enforcement through measurement was done in 35.4% for the TOP and in 25% for the SOP.

CONCLUSION: This study showed that despite international implementation in ‘first world setting’, safety measures are yet to structurally reach the patient environment in low-and-middle income country setting. Moreover it shows the possibility of fast and accurate feedback of safety culture through modern electronic means.

A REVIEW OF SNAKE BITE INJURIES PRESENTING TO A RURAL COUNTY HOSPITAL
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OBJECTIVE: To review the incidence, risk factors, envenomation sites and complications of poisonous snake bites presenting in the setting of a rural hospital in Trinidad & Tobago.

STUDY DESIGN: A retrospective review was performed using data sourced from the Poison Information Centre and medical records at the Sangre Grande County Hospital.

RESULTS: There were 276 patients with snakebites presenting to the hospital. Sixty of these patients required in-patient hospital care. The most commonly affected age groups were 31-35 years and 46-50 years. The lower limb was a commoner site for envenomation (62%) than the upper limb (37%). The commoner clinical sequelae were: cellulitis with coagulopathy (43.2%), cellulitis alone (13.6%), coagulopathy alone (34.1%), and respiratory complications (2.3%). The hospitalized patients required anti-venom in 75% of cases and 11.4% required surgical intervention as outlined: amputation of digits (2.3%), fasciotomies for compartment syndromes (6.8%) and drainage of abscesses (4.5%). One patient developed Acute Respiratory Distress Syndrome with hypoxic brain injury and subsequently died.

CONCLUSION: Poisonous snake bites is a significant and costly public health issue that can be prevented by educational outreach (gloves for farmers and covered lower limbs and closed footwear for hikers).
WOMEN IN SURGERY QUESTIONNAIRE: THE CARIBBEAN PERSPECTIVE
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BACKGROUND: To assess the personal and professional fulfillment of women in the surgical specialty in the Caribbean and to compare this with international data.

METHOD: A 35-point questionnaire was distributed to seven tertiary health care facilities in three Caribbean countries. The inclusion criteria were women working in a surgical department.

RESULTS: Out of the 76 questionnaires delivered, 70 were returned for analysis, averaging a 92% response rate. The mean age of the study population was 37 years (SD +/-8.96) and approximately 43% of respondents held registrar posts. Based on the 7-point Likert scale, job satisfaction was viewed positively (mean score 5.5; SD +/-1.5) but personal satisfaction showed a general shift towards a less favourable stance (mean score 4.4; SD +/-1.89). Over 70% of respondents indicated that they had no active mentor relationships, strongly contrasting with the 61 respondents (88%) who declared that this would be beneficial to career advancement.

CONCLUSION: It is still a challenge in the 21st century attempting to bridge the male-female imbalance in the workforce. However, active mentor relationships and the presence of positive female role models help attenuate this.

COMPLIANCE TO SURGICAL SAFETY CHECKLIST COMPLETION AT THE GEORGETOWN PUBLIC HOSPITAL CORPORATION
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BACKGROUND: The aim of this study was to determine the compliance with the WHO Safe Surgery Saves Lives checklist at Georgetown Public Hospital Corporation.

METHOD: A retrospective study was carried out to audit the use of the checklist during all operations performed at the major operating theatre at Georgetown Public Hospital Corporation between May 1st and July 31st, 2018. Each checklist was retrieved and reviewed. Data was collected and grouped into categories from the checklist namely: Sign in, Time out and Sign out. Data was entered and tabulated in Microsoft Excel.

RESULTS: A total of 1350 surgical operations were performed of which 837 were elective cases and 513 were emergencies. The checklist was used in 454 (33.6%) elective cases but there was no use in emergency cases. The number of fully completed checklists was 54/454 (11.89%) and 400/454 (88.11%) were incomplete.

CONCLUSIONS: The majority of checklist items were completed in each category but the overall compliance rate was below par. The sign in section had the highest rate of completeness while the sign out period was the most deficient.
A 4-YEAR AUDIT OF A MULTIDISCIPLINARY TEAM MEETING IN A CARIBBEAN HOSPITAL
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BACKGROUND: The Multidisciplinary Team (MDT) is a standard of care in surgical oncology. Our team sought to audit the first four years of our revised MDT meetings; to determine how MDT influences patient care and to identify lessons learnt for the next audit cycle.

METHODS: This was a retrospective study of MDT case submissions between November 2013 and October 2017. The MDT email account records were accessed; patient notes acquired, and MDT patient forms examined. Data was extracted and loaded in Microsoft Excel. Descriptive analyses were then conducted.

RESULTS: There were 192 submissions in the email accounts. There were 124 fully completed forms obtained (35.4% fall-out). Major changes in management plan were recorded in 37 cases (29.8%), whilst minor changes were recorded in 36 cases (29%). There were 105 submissions (84.7%) from general surgery and 19 submissions (15.3%) from other surgical subspecialties.

CONCLUSIONS: The MDT process makes a significant impact on patient care. We note the challenges in maintaining a record of meeting proceedings and to keep participants motivated.

LAPAROSCOPIC HYSTERECTOMY USING A LOCALLY DESIGNED ARTICULATED UTERINE MANIPULATOR
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BACKGROUND: Laparoscopic hysterectomy is a procedure with many advantages over other types of hysterectomy. In Cuba the high importation cost of Clermont-Ferrand uterine manipulator has limited the use of this technique in hospitals in which it could be performed. Therefore, we designed laparoscopic uterine manipulator with a threaded and articulating tip from discarded and recycled parts. This study sought to evaluate the technical feasibility and safety of our articulated uterine manipulator to perform laparoscopic hysterectomy.

METHODS: A prospective study was performed including all consecutive patients who underwent a standardized four-port laparoscopic hysterectomy between 2009 and 2015. The data collected were patient age, body mass index (BMI), estimated uterine weight measured in grams, operative time, intraoperative blood loss, complications, need for transfusion, conversion, hospital stay and re-intervention.

RESULTS: There were 84 laparoscopic hysterectomies performed using the uterine manipulator. The average age of the patients was 42 years. The average weight of the surgical specimen was 264 grams (range: 200-320). The average operative time was 140 minutes (range: 96-190). The mean intraoperative blood loss was 132 mls and there were no conversions recorded. These patients had an average in-hospital stay of 25 hours (range: 18-96). There were no deaths were reported.

CONCLUSIONS: Performing laparoscopic hysterectomy with our uterine manipulator is feasible and safe for the treatment of patients with benign diseases of the uterus. Its design and use could be implemented in other hospitals in the country that do not yet perform this technique for lack of this important device.
SURGICAL ANTIBIOTIC PROPHYLAXIS AT GEORGETOWN PUBLIC HOSPITAL CORPORATION IN GUYANA
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BACKGROUND: To assess the knowledge, attitude and practice about surgical antibiotic prophylaxis amongst surgeons and residents at Georgetown Public Hospital Corporation (GPHC).

METHOD: A descriptive study was conducted among surgeons and surgical residents in order to assess their knowledge, attitude and practice about surgical antibiotic prophylaxis. A five-section questionnaire was modelled from Shadi et al and hand-delivered to the participants. The answers were considered correct when they were in accordance with the American Society of Health-System Pharmacist guidelines. Seventy-two surgeons and surgical residents are employed at GPHC. To achieve a representative sample with a p-value <0.05 and confidence interval of 95%, a minimum of sample of 61 persons was required.

RESULTS: There were 65 participants and 69% had fair knowledge about surgical antibiotic prophylaxis. Fifty four percent of participants aware of Cefazolin as recommended surgical antibiotic prophylaxis. No participant was aware of all the indications for surgical antibiotic prophylaxis. Overall, 98% had fair-to-excellent attitudes towards surgical antibiotic prophylaxis. While 88% strongly agreed that surgical antibiotic prophylaxis helps to prevent surgical site infections, only 46% strongly agreed that they followed the guidelines and 57% strongly agreed that their adherence needed improvement. Accordance of the physician’s practice with American Society of Health-System Pharmacist guidelines was poor (75%).

CONCLUSION: Although the surgeons and surgical residents had a good attitude towards surgical antibiotic prophylaxis, their knowledge and practice should be improved.

SCIENTIFIC SESSION 2:

CLINICAL EPIDEMIOLOGY AND PREVENTION OF MRSA INFECTION IN SURGICAL PATIENTS
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BACKGROUND: The objectives of this study were to determine the prevalence and distribution of MRSA infection among surgical patients in The Bahamas. This study also determined the effectiveness of the use of a preoperative screening protocol and routine decolonisation therapy in the prevention of MRSA infection in surgical patients.

METHODS: A retrospective study was performed collecting clinical microbiologic culture reports of surgical patients who tested positive for MRSA infection. Patient demographics, risk factors for MRSA infection, and site of origin were included in this study. Data regarding MRSA screening results and decolonisation therapy were also obtained.

RESULTS: A total of 86 cases of MRSA infection were confirmed among surgical patients; this accounted for 55.4% of the total number of reported cases MRSA infection. One-quarter (22) of the patients were 18 years old or younger. Twelve (14%) patients had previously confirmed infections, of which four (4.7%) were confirmed MRSA infection. Only six (7.0%) patients underwent MRSA screening in public sector; preoperative screening was performed only in private sector. Hospital-acquired MRSA infection accounted for eight (9.3%) reported cases.

CONCLUSION: Surgical patients account for over half (55.4%) of the cases of MRSA infection. The paediatric population and patients with history of previous infections are at greatest risk for acquiring MRSA infection. Preoperative screening of patients is an effective tool in the prevention of HA-MRSA infection in surgical patients and should be implemented in the public sector.
PENETRATING CARDIAC INJURIES IN BARBADOS
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BACKGROUND: Penetrating cardiac injuries are a significant cause of morbidity and mortality, and are not always easily diagnosed. The objective of this study was to evaluate the clinical features, imaging modalities and outcomes of these patients presenting to our institution. We hypothesised that there is significant delay in making this diagnosis, with the use of unnecessary imaging modalities resulting in a prolonged period before definitive treatment.

METHOD: All surgically confirmed cases of penetrating cardiac injury presenting to the Queen Elizabeth Hospital in the period from 1994-2017 were retrospectively reviewed.

RESULTS: Twenty-two patients were operated on for penetrating cardiac injuries during the study period. There was only one female patient. The time from arrival to incision ranged from 36 to 795 minutes with a mean of 155 minutes. There were 4 deaths in the study population, for an overall mortality of 17%. Two patients had emergency department thoracotomies. Over half (55%) of patients who had a systolic BP < 90 mmHg had imaging performed prior to surgery.

CONCLUSION: The survival of patients reaching the operating room alive is comparable to published data, and the best outcomes are achieved in patients who are operated on prior to cardiopulmonary arrest. This case series inadvertently also demonstrates that patients with cardiac stab wounds can survive for extended periods prior to surgery, and that unnecessary investigations are too commonly being performed, rather than relying on the clinical condition of the patient. A protocol for the management of these patients needs to be instituted.

ADVANCED TRAUMA LIFE SUPPORT IN THE CARIBBEAN
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BACKGROUND: The Advanced Trauma Life Support (ATLS) course of the American College of Surgeons, considered the standard for trauma resuscitation, was introduced in Trinidad & Tobago in 1986. This was the first course to be held outside North America. This paper documents the Trinidad & Tobago faculty delivering ATLS training to doctors and nurses in the Caribbean and proposes enhancement.

METHODS: We performed a retrospective analysis of all ATLS courses delivered since its introduction to the Caribbean in 1986.

RESULTS: The Jamaica program started in 2001, training 20 instructors. There were 9 courses conducted, training 167 doctors and 74 nurses. In 2002, the Jamaica program became independent. The Grenada program started in 2002 and remains on going. Using equipment from Trinidad, the faculty has held 20 courses and trained 266 doctors from Grenada, 25 from St. Vincent and 108 nurses in total. Other Caribbean candidates travelled to Trinidad and comprise 4 nurses and 151 doctors. Travel increased to Trinidad in the last five years and was due to the new centre providing accommodation, meals and airport transfers.

CONCLUSIONS: The faculty has contributed significantly to ATLS training in the Caribbean and ATLS courses in Barbados, Guyana and Surinam by partnership promulgation is possible as these countries accrue more candidates and Emergency Medicine training programs.
**EPIDEMIOLOGY OF NEUROENDOCRINE TUMOURS IN SOUTHERN TRINIDAD**

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**OBJECTIVE:** To investigate the anatomical distribution of neuroendocrine tumours (NET) and to determine the demographic of patients with histologically confirmed diagnoses.

**METHODS:** We performed a retrospective study of all patients with histologically confirmed NET in pathology registers at a hospital in southern Trinidad from January 2012 to December 2017. Patient records were retrieved and data analyzed.

**RESULTS:** There were 36 patients diagnosed with NET during the study period. The average age at diagnosis was 54 years and there was a female preponderance (61% vs 39%). The most common location for NETs was appendiceal (31%). Metastatic disease was present in 83% of small bowel NET at the time of diagnosis. Overall, 81% of NETs were well differentiated and 19% were poorly differentiated NETs, all of which were metastatic at diagnosis.

**CONCLUSION:** Females developed NET 1.5x more commonly and usually at a younger age than males. In our population there was an almost 10 year earlier age of detection of these tumours compared to international populations.

**IMPLEMENTATION OF AN ELECTRONIC MEDICAL RECORDS SYSTEM AT SAN FERNANDO GENERAL HOSPITAL**

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**BACKGROUND:** An Electronic Medical Record is invaluable as it provides ready access to data, allows effective communication among medical personnel and reduces medical errors. The purpose of this study was to assess the knowledge, attitudes and practices of medical staff and patients at San Fernando General Hospital towards implementation of an Electronic Medical Record.

**METHODS:** A randomised, cross-sectional study was done between January 1, 2019 and February 1, 2019 on 300 medically affiliated staff and patients at San-Fernando General Hospital, Trinidad. Patients were assessed by a pre-structured, interviewer-administered questionnaire.

**RESULTS:** The study populations comprised of 35% doctors, 20% Nurses, 23% Auxiliary Staff, 14% Administrative staff and 8% Patients. The data revealed that 94 % of participants were computer literate, 68% of participants used their smart phone for work place duties, 87% of hospital staff used smart-devices to communicate with colleagues, 78% used smart-devices to communicate about patients and 80% of hospital staff had no prior experience with EMR. All participants believed EMR implementation would require training. However, 87% of hospital staff expressed interest in attending such sessions.

**CONCLUSION:** Knowledge alone is not sufficient to influence attitudes and practices of medically affiliated staff.
EXTENT OF UROLOGICAL EXPOSURE IN MEDICAL SCHOOL: A SURVEY OF UWI GRADUATES

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OBJECTIVES: To objectively assess the self-reported adequacy and utility of exposure of our students to urology during their training taken in the context of practice following medical school.

METHODS: A survey was sent to the University of the West Indies graduating class of 2018 using the online survey tool Survey Monkey. Preliminary results for the Barbados and Trinidadian Campuses were analyzed.

RESULTS: There were 191 surveys were sent and 84 responses were returned, of which 85.7% were from Trinidad and 14.3% from Barbados. Clinic exposure was the most common form of interaction with the specialty during training. On a 5-point Likert scale, most students were more comfortable performing a digital rectal exam (avg 2.9) than a male genital examination (avg. 2.6). Their exposure to common urological procedures was low with only 10% having seen a circumcision or prostate biopsy by graduation, 19% were uncomfortable viewing and 46% were uncomfortable viewing a CT scan to look for a stone. Overall, 93% considered urology to be an important clinical sub-speciality but 49% indicated that their exposure to urology did not prepare them to manage urological conditions that they have encountered since graduation.

CONCLUSION: There remains much room for improvement in exposing our medical students to urology during their training.

ASSESSMENT OF THE SIMPLE SUTURE SURGICAL SKILL THROUGH SIMULATION

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BACKGROUND: The purpose of this study was to teach surgical suturing skills to medical students in a simulated environment outside the operating room.

METHOD: Two one-day suturing workshops were held at the Institute of Health Education in Guyana. A total of 38 final year medical students, 8 surgeons, 7 surgical residents and 3 house officers participated. A pair of students was randomly assigned to an instructor and given 20 minutes to practice the technique. An Objective Structured Assessment of Technical Skills (OSATS) checklist was used to assess participants’ suturing skills before and after training.

RESULTS: Significant improvement was seen in all participants’ post-training checklist scores. The mean score pre-training was 10 (SD +/-17) compared to the mean post-training score of 19 (SD +/-3). The mean time to complete a single suture before training was 135 seconds (SD +/-56) compared to a mean suture time post-training of 93 seconds (SD +/-32).

CONCLUSION: Basic surgical skills can be taught to medical students through simulation. Future studies are needed to identify the optimal teaching schedule for skill retention and to investigate the effects of self-directed or prescribed practice schedules.
RADIATION SAFETY AWARENESS AND PRACTICES AMONG OT STAFF
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BACKGROUND: We sought to assess the knowledge and attitudes of OT staff to radiation exposure and to assess the safety practices among OT staff based on the ALARA principles.

METHODS: Data were collected using a questionnaire comprised of 16 questions that enquired about: occupation, number of years working in the OT, use of personal protective equipment and knowledge of As Low As Reasonably Achievable (ALARA) principles.

RESULTS: All urology OT staff answered the questionnaire and all were exposed to radiation in the OT. Of all participants, 42.2 % had >1 exposure per week and 22.2 % had >3 exposures per week. Personal protective equipment was used by 97.8%: 100 % used lead body shields, 37% used thyroid shields, 4.4 % used lead glasses, 15.6% used dosimeters and none used lead gloves. The total number of participants aware of ALARA was 22 and 53.3% attended the annual radiation course. The percentage of staff aware of collimation was 57.8% and 80% were aware of increasing distance from source.

CONCLUSIONS: The results showed a lack of knowledge of the ALARA principles and poor use of personal protective equipment.

SCIENTIFIC SESSION 3:

CLINICO-PATHOLOGIC PROFILE OF BLADDER CANCER IN SOUTHERN TRINIDAD
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BACKGROUND: Regional data for bladder cancer remains lacking. The aim of this study was to analyze the clinico-pathologic profile of bladder cancer at San Fernando General Hospital.

METHODS: This was a retrospective study of all patients undergoing trans-urethral resection of bladder tumors (TURBT) performed at San Fernando General Hospital between January 2014 and May 2018. All histology reports were accessed and the following data retrieved: patient demographics, histologic type, depth of invasion and associated risk factors.

RESULTS: A TURBT was performed for resection of bladder cancer in 101 patients. The median patient age was 63yrs and there was a 9:1 male-to-female ratio. Chronic smoking was a risk factor in 44 (43.6%) patients, 18 (17.8%) were non-smokers and 39(38.6%) had no documentation of smoking status. An analysis of the histology reports revealed the following histologic profile: high-grade urothelial cancer (50.5%), low-grade urothelial cancer (48.5%), and squamous cell cancer (1%). There were 90 (89.1%) patients with non-muscle invasive bladder cancer (NMIBC) and 11 (10.9%) with muscle invasive bladder cancer. We attempted to use the AUA risk stratification, but there were missing data in 22 patients. Of the remaining 68 patients, 41 (60.3%) were high risk, 21 (30.9%) were intermediate risk and 6 (8.8%) were low risk.

CONCLUSION: The majority of patients with bladder cancer in Southern Trinidad had NMIBC and most had high-risk disease. Smoking was a risk factor in 44% of patients with bladder cancer.
FACTORS AFFECTING RENAL ACCESS DURING IMAGE-GUIDED SUPINE PCNL
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BACKGROUND: We sought to determine the factors affecting renal access time for supine percutaneous nephrolithotomy (PCNL) because there is little published data on this topic.

METHOD: We retrospectively analyzed data from all consecutive patients who underwent combined ultrasound and fluoroscopic-guided renal access in a single surgeon series of supine PCNL over a 3-year period. The following data were extracted from patient records: BMI, pre-operative nephrostomy, presence of hydronephrosis, stone size, stone location, puncture location, puncture time and presence of residual fragments. Data were analyzed using SPSS version 20.

RESULTS: There were 52 patient records analyzed. There were 34 males (65%), with a median patient age of 55 years (range: 29-74) and median BMI of 26 Kg/m² (range: 17-39). The mean puncture time was 27 minutes (range: 0-70). Pre-operative nephrostomy and puncture location were significantly associated with a low puncture time (p <0.05).

CONCLUSION: Renal access time was significantly associated with puncture location and pre-operative nephrostomies.

EARLY CANNULATION AV GRAFT FOR HAEMODIALYSIS ACCESS IN THE CARIBBEAN
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BACKGROUND: Autogenous arteriovenous (AV) access is the preferred choice for the delivery of haemodialysis (HD). The lack of suitable quality superficial veins and prolonged use of tunneled catheters oftentimes make creating AV accesses problematic. Early cannulation vascular AV grafts allow for a long-term access without the need for bridging haemodialysis catheter.

METHODS: This is a prospective single surgeon non-randomized study. The study data include patient characteristics, vascular access history, standardized operative techniques, time to cannulation and dialysis parameters. Data with respect to primary patency at 1, 2, 3 and 6 months were collected.

RESULTS: Between the nine-month period, April 2018 to January 2019, a total of 22 AV grafts (Flixene) were implanted in end stage kidney disease patients with a mean age of 51 years. The implantation site was the upper arm in 68% of cases, forearm in 22% and thigh in 10. Successful cannulation was achieved in all cases within the first week with an average time to cannulation being 3 days (Range 1-10 days). Minimum flow rates of 350ml/min and targeted URR were achieved, confirming acceptable dialysis in all cases. The median follow up was 90 days (30-300days). Primary patency at 1, 2 and 3 months was 95% respectively.

CONCLUSION: Preliminary results of the use of early cannulation grafts for dialysis access suggest that in the short term, they are safe and effective. These early results suggest that early cannulation graft may be a suitable option for achieving long term dialysis in patients with multiple failed attempts or inadequate venous anatomy, however sufficient long-term follow-up would be needed to confirm these findings.
OBJECTIVE: The introduction of 24-hour urinary citrate testing allowed an objective assessment of a major risk factor in the formation of urinary calculi. We assessed the 24-hour urinary citrate of patients with urinary calculi in Trinidad & Tobago.

METHODS: We retrospectively evaluated data from all consecutive patients with urinary calculi who had 24-hour urine citrate testing over a two-year period from January 2016 to December 2017. The data extracted from patient records included: urinary citrate levels, urinary oxalate levels, urinary uric acid, urinary calcium, urine pH, urine volume, mid-stream urine cultures, serum calcium and serum uric acid.

RESULTS: There were 40 patients (34 males / 6 females) with urinary calculi who had 24-hour urine testing. The average patient age was 54.5 years (range 31-92). The commonest disorders identified were: low urinary pH ≤ 6 (92%), low urinary volume ≤ 2L (74%), low citrate levels ≤ 320mg (68%), documented urinary tract infections (38.7%), elevated uric acid levels (29%), elevated urinary calcium (2.5%) and elevated oxalate levels (0).

CONCLUSIONS: A low citrate level is the most common metabolic disorder in patients with urinary calculi. This is correctable and easily followed up with 24-hour urinary citrate testing.

OBJECTIVES: To evaluate the current attitudes and practices of Caribbean and African urologists in the management of urethral stricture disease.

METHODS: An online questionnaire was distributed to the members of the Caribbean Urological Association and the Pan African Urological Surgeons Association (PAUSA) using Survey Monkey©. Demographic data, data on investigations used and surgical techniques used in the management of urethral stricture disease were gathered.

RESULTS: Responses were received from 31 Caribbean urologists and 50 African urologists. In both organizations, most respondents practiced both privately and publicly with the majority practicing in academic settings. Among Caribbean urologists, 24% saw ≥15 urethral strictures annually in routine practice. Comparably, 62% of African urologists indicated that they saw ≥15 strictures annually. Urologists in the Caribbean were more likely to pursue buccal mucosal urethroplasty as a treatment option than their African counterparts (54% vs 36%). African urologists were more likely to perform ≥15 urethroplasties annually compared to Caribbean urologists (30% vs 0).

CONCLUSIONS: There were significant variations in practice patterns between the two groups.
MANAGEMENT OF GLEASON 7 PROSTATE CANCER AT SAN FERNANDO GENERAL HOSPITAL
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BACKGROUND: To review the clinical profile and management of patients with prostate cancer Gleason 7 disease according to their International Society of Urological Pathology (ISUP) designated grade.

METHODS: Patients were retrospectively identified from a departmental urology database. The following data were extracted: patient demographics, initial PSA, NCCN risk stratification, initial treatment and development of metastases post treatment.

RESULTS: We retrospectively analyzed records of 55 patients at a median age of 67 years (IQR 9, 62-71). Metastatic disease was present in 19 (34.5%) of patients (57.9% ISUP grade 2 and 42.1% ISUP grade 3). In the remaining patients, 56.4% were classified at intermediate risk (77.4% favourable, 22.6% unfavourable) and 9.1% were at high risk. The median PSA level for patients with ISUP grade 2 (Gleason Score 3+4) was 14.5 (IQR 17.71, 7.7-25.4) and for those with ISUP grade 3 (Gleason score 4+3) was 43.5 (IQR 69.8, 14.6-84.4). In terms of their initial treatment, 58.2% of patients received external beam radiation therapy, 34.5% of patients received hormonal therapy and 7.3% of patients had radical prostatectomy. Of those that received external beam radiation therapy, 9.4% progressed to metastatic disease (33.3% ISUP grade 2 and 66.7% ISUP grade 3).

CONCLUSION: Among our population of Gleason 7 patients, ISUP grade 2 was more common. However, a large proportion of patients presented with metastatic disease, of which 57.9% were ISUP grade group 2. This is contradictory as ISUP grade group 2 is expected to be more aggressive, however this sample size is small with a greater percentage of patients having ISUP grade group 2. A larger sample size and longer follow up is needed to assess this.

EVALUATION OF THE U.W.I. POSTGRADUATE UROLOGY PROGRAM IN TRINIDAD & TOBAGO
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BACKGROUND: This is a retrospective review of the development of a Urology Unit in the public healthcare setting in Trinidad & Tobago over a period of 26 years. This is important information for other developing countries who wish to develop their urology services.

METHODS: We performed a retrospective audit of the Urology subspecialty service in the public healthcare setting from the year 1992 to 2018. We divided the data into two period: data from the year 1992 - 2006 prior to commencement of the DM urology program was labeled Group 1 and Group 2 comprised data from the year 2006 - 2018. Specifically, the following data were compared: (1) performance of major urologic operations, (2) staff complement, (3) number of outpatient encounters, (4) number of patient encounters in the operating room and (5) formal urological tuition. The data were inserted into an excel spreadsheet and evaluated with SPSS statistical software.

RESULTS: There were notable changes over the study period in all parameters measured. Specifically, there were increases in the following parameters from Group 1 to Group 2: (1) performance of major urologic operations (30 vs 135 per month), (2) senior medical officer staff complement (1 vs 5 SMOs), house officer staff complement (1 vs 24 HO), (3) number of outpatient clinics (1 vs 7 per week), (4) number of operating room lists (1 vs 10 per week) and (5) formal tuition from (0 vs 4 per week). Additional indicators of progress that were not directly measured were a contribution to the development of the Caribbean Urological Association, relationships with multiple international urology associations, organization of training workshops and endorsement by the UWI in 2006, culminating in 6 graduates.

CONCLUSIONS: Partnerships with multiple stakeholders, including the UWI, Ministry of Health and urologists has allowed this service to overcome obstacles and realize tangible progress parameters.
DISTINGUISHED GUEST LECTURE

ENDOVASCULAR MANAGEMENT OF VARICOSE VEINS

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The management of varicose veins and chronic venous insufficiency generally has undergone fundamental change in concept and execution over the past 20 years. The previous 50 years of surgical ligation and stripping of the saphenous veins has now been superseded by minimally invasive endovascular techniques. Better understanding of the underlying pathology with advancements in diagnostic technology has been shown, supported by level I evidence, to offer better outcomes at lower operative risk for the large proportion of our patients afflicted by these problems. Extension of understanding of the aetiological relationship of chronic venous insufficiency to chronic pelvic pain and varicose ulceration has introduced effective treatment of these common but difficult-to-manage conditions also. We discuss the endovascular management of varicose veins and chronic venous insufficiency.

SCIENTIFIC SESSION 4:

FALL EPIDEMIOLOGICAL ANALYSIS AND RISK FACTOR ASSESSMENT (FEAR)

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BACKGROUND: To determine the prevalence of falls among older adults and to determine the risk factors associated with falls.

METHODS: In this cross-sectional study, a sample of 416 participants from four distinct geographic regions completed an interviewer-administered demographic questionnaire. Participants also answered questions on factors known to be related to fall risk in addition to performing functional tests of gait and balance. Data was analyzed using SPSS Ver 23.0. Person Chi-squared test was used to identify factors associated with falls at a significance level of p<0.05

RESULTS: There were 331 females (79.6%) and 85 males (20.4 %) with a mean age of 66.3 years (SD +/-4.2) and a mean Body Mass Index (BMI) of 24.1 kg/m² (SD +/-3.5). The prevalence of falls was 43% and the significant risk factors included age, hypertension, glaucoma and poly pharmacy (> 4 drugs). Low scores in the functional tests, the use of walking aids and living alone were also significantly associated with the risk of falling.

CONCLUSIONS: Falls are very common in older persons. In this study the prevalence was found to be 43%. The significant risk factors correlate with regional and international studies. Fall prevention measures should focus resources on this vulnerable group.
IMPROVING BLOOD TRANSFUSION PRACTICES IN PRIMARY TOTAL JOINT ARTHROPLASTIES IN JAMAICA
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BACKGROUND: This study aims to establish the current blood loss and transfusion rate in patients having primary total hip and knee arthroplasties at the University Hospital of the West Indies, and to determine the factors that influence the need for transfusion.

METHODS: This was a retrospective study that analyzed data from medical records of all consecutive patients who underwent primary total hip arthroplasty (THA) and total knee arthroplasty (TKA) at the University Hospital of the West Indies between January 1st, 2015 and December 31st, 2017. Data was analyzed using SPSS 20 and Stata version 14.

RESULTS: The average blood loss in THA was 590mls and that for TKA was 419mls. Transfusions were performed in 20.1% of all cases in the study group. Transfusions were significantly more likely during THA (27%) than TKA (12%; P=0.035). The factors that were associated with blood transfusion are Pre-operative haemoglobin <12 g/dL and post-operative haemoglobin <8 g/dL. Seven of ten patients (70%) in the subset of sickle cell disease patients undergoing a primary THA for avascular necrosis of the femoral head required blood transfusion.

CONCLUSIONS: Patients for primary THA and TKA with a preoperative haemoglobin <12 g/dL should be optimized to decrease the likelihood of blood transfusion. The patients with sickle cell disease are likely to receive blood transfusion after a primary THA. Tranexamic acid may have a role for routine use in TKA and THA to significantly decrease the risk of blood transfusion.

KNOWLEDGE, ATTITUDES AND PRACTICES OF ORTHOPAEDIC DOCTORS TOWARD OPERATIVE NOTE-TAKING
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BACKGROUND: Several studies have highlighted the poor quality of operative note taking globally. This study aims to discern the knowledge, attitudes and practice of orthopaedic doctors in Trinidad and Tobago toward recording operative notes.

METHODS: 80 questionnaires comprising 25 items designed to investigate the knowledge, attitudes and practices toward operative note taking were administered to orthopaedic doctors in the four major public hospitals across Trinidad and Tobago. Statistical Analysis was performed using Stata v.14.

RESULTS: The response rate was 75% (n=60). Fifty three percent of participants were unaware of existing guidelines, but 89% deemed the necessary components of these guidelines very important. Eight percent said that they received formal training in operative note-taking and this was dependent on postgraduate status (chi2 p<0.001) and duration of time spent in orthopaedic department (chi1 p<0.001). Eighty five percent said their note taking would improve with more prompted fields, which was dependent on hospital (p=0.002). Approximately 72% said that they would write operative notes when not a participant in surgery, and it was unlikely (43.3%) or extremely unlikely (26.7%) that these notes would be dictated or reviewed.

CONCLUSION: While the majority of participants were not aware of existing guidelines and did not receive formal training, they agreed that the components of these guidelines were important for note taking with respect to patient follow up, research and medico legal proceedings.
ORTHOPEDIC STABILIZATION OF THE CHARCOT’S FOOT
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OBJECTIVE: This study sought to compare ambulatory status pre and post fixation in patients with unstable Charcot's neuroarthropathy. A secondary aim was to determine infection rates associated with surgical fixation in relation to patient's risk factors.

METHODS: Data were retrospectively collected from patients with known Charcot's arthropathy, with both open and closed wounds who underwent surgical fixation. Analysis was performed using Fisher's exact test and a statistical significance was set with a p value <0.05.

RESULTS: A total of 10 patients with Charcots arthropathy was identified (5 open, 5 closed; mean age 55 +/- 15.4 years; BMI 29.1 +/- 4.4). The average serum HbA1c level was 10.2 +/- 2.5 in this group. Out of 10 patients, 7 met favorable criteria for assessing ambulatory status post fixation. From this, 71.4% of patients were ambulating well while 28.6% required orthotic aid. No significant relationship was found between infection rates post operatively and patients’ BMI or serum HbA1c levels.

CONCLUSION: Post-ambulatory status was improved in the majority of patients who underwent surgical fixation for Charcots arthropathy. Patient's factors such as HbA1c levels and BMI played no substantial role with respect to postoperative infection rates.

INTRODUCTION OF AN OPERATING NOTE PROFORMA USING A NOVEL ORTHOPAEDIC SCORE
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BACKGROUND: The Royal College of Surgeons (RCS) and British Orthopedic Association (BOA) published guidelines that outlined the basic standards that an operation note should meet. The objective of this study is to determine adherence to these guidelines and to assess how the introduction of a new orthopedic specific surgical proforma affected operative note-taking competency.

METHOD: The operative notes from 50 orthopaedic operations were retrospectively audited by two independent reviewers using a random selection of 10 notes which were hand written over last year on the standard hospital surgical operative note proforma, which was not orthopaedic specific. These notes were then evaluated using a novel score developed and validated by the authors using the RCSE and BOA suggested parameters. The staff in the orthopedics department were then educated and a new surgical proforma introduced with aide-memoires. Another 50 notes were then audited post installation.

RESULTS: Overall, the average percentage compliance with RCSE and BOA guidelines was 44.7% on initial collection of data and 68.9% after education and implementation of the surgical proforma. Notably, date, tourniquet time, tourniquet pressure, antibiotic prophylaxis, time-in, time-out and estimated blood loss all had surprisingly low compliance rates that improved significantly during the second arm of data collection.

CONCLUSION: Education and introduction of a surgical proforma greatly improved compliance with RCSE and BOA guidelines on operative note-taking.
HEALTH LITERACY IN PATIENTS REQUIRING JOINT REPLACEMENT
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BACKGROUND: This study sought to assess the general and musculoskeletal health literacy in a group of patients requiring joint replacement at public hospitals in Trinidad & Tobago. A secondary aim was to determine which factors affect both general and musculoskeletal health literacy.

METHODS: In this cross-sectional study, a convenience sample of 82 patients completed a demographic survey as well as the Newest Vital Sign (NVS), a general health literacy tool, and the Literacy in Musculoskeletal Problems (LiMP) that assesses musculoskeletal health literacy. Statistical analysis was performed using Stata version 15, a x² analysis was used to compare results from both the NVS and LiMP questionnaires to determine the relationships between general and musculoskeletal health literacy and demographic variables.

RESULTS: Of a total of 82 patients, there were 61 females (74%) and 21 males (26%), with a mean age of 63.5 years (SD +/- 8.2). The mean score for the NVS was 2.3 (SD +/-0.9) – where >3 indicates adequate general health literacy. The mean score for LiMP was 3.7 (SD +/- 1.7) – where >5 indicates adequate musculoskeletal health literacy. Male patients, secondary school education, being employed and previous healthcare experience were all statistically associated with higher NVS and LiMP scores.

CONCLUSIONS: Inadequate general health literacy (90%) and musculoskeletal health literacy (80%) was found in the majority of patients. The inability to make good decisions about health care due to insufficient health literacy is associated with poor outcomes and increased utilization of resources. Greater emphasis should be placed on educational campaigns to improve health literacy.

SCIENTIFIC SESSION 5:

BARIATRIC SURGERY IN LOW VOLUME SETTING: AN INITIAL EXPERIENCE
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BACKGROUND: To demonstrate that Bariatric Surgery can be performed safely with acceptable results in a low volume setting.

METHODS: We retrospectively evaluated the records for all consecutive patients who had bariatric surgery between 2015 and 2018 at a low volume rural hospital. The following data were extracted from patient records: excessive weight loss (EWL), reduction in body mass index (BMI), effect on Diabetes Mellitus, hypertension and post operative complications.

RESULTS: Seventeen patients underwent bariatric surgery and were followed up for a period of 1.5-28 months. There were 14 longitudinal sleeve gastrectomies and 3 single anastomosis gastric bypasses performed. Patients BMI ranged from 39.2-67.9. Actual weight loss ranged from 10.8-50.65 Kg during the follow up period with mean EWL of 44.19% (range 19-84). Co morbidities included Type 2 Diabetes mellitus (33%), hypertension (67%), obstructive sleep apnea (20%) and osteoarthritis (13%). Diabetes resolved in 80% of patients and 20% had reduction in medications. Hypertension resolved in 80% of patients and 20% had reduction in medication. Sleep apnea resolved in 60%. There were no cases of post operative bleeding, gastric or anastomotic leaks, internal herniae. No patient reported worsening symptoms of reflux oesophagitis. There was no mortality.

CONCLUSION: This study demonstrates that bariatric surgery can be performed safely and with acceptable outcomes in low volume hospitals.
LAPAROSCOPIC SURGERY AT GEORGETOWN PUBLIC HOSPITAL CORPORATION: AN OVERVIEW

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BACKGROUND: Laparoscopic surgery has metamorphosed the field of surgery in the past and is now considered the recommended surgical approach for many procedures. Previously published data shows an average of eight cases per month. This paper seeks to assess the current trend of laparoscopic surgeries at GPHC.

METHODS: We retrospectively reviewed data from the hospital records of all patients who had laparoscopic operations at GPHC for the year 2018. The following data were collected: number and type of procedures.

RESULTS: There were 180 cases in the year, representing an average of 15 cases per month. A significant difference in the case volumes was noted in the first six months versus the last six months (5 vs 25 cases per month). Most of the advanced cases were done in latter half of 2018 and included abdomino-perineal resections (2), Graham’s Patch repairs of perforated ulcers (2), ventral hernia repairs (2), rectopexies (2) and Heller’s Myotomies (1). There were conversions in 19 cases.

CONCLUSION: The volume of laparoscopic surgeries has increased, especially in the latter half of 2018. While most cases continued to be cholecystectomy and appendectomies, a variety of advanced cases were being done in comparison to previously published data.

MANAGEMENT OF SYMPTOMATIC GALSTONE DISEASE: EQUITY BETWEEN TWO HEALTHCARE DELIVERY SYSTEMS IN TRINIDAD & TOBAGO

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BACKGROUND: Patients with symptomatic gallstones require laparoscopic cholecystectomy (LC) to remove the gallbladder in order to avoid complications, such as gallstone pancreatitis and gallbladder empyema. The aim of this study was to determine the presence of horizontal equity in the public and private health care delivery systems in Trinidad & Tobago.

METHODS: We retrospectively examined the operating theatre registers at two institutions for identical time periods from January 1st 2016 to August 31st 2018. Hospital records for all consecutive patients undergoing LC were retrieved. The following data were extracted: patient demographics, index diagnosis, date of index diagnosis, interval between index diagnosis and LC, complications between index diagnosis and LC, duration of LC and complications after LC. We used the length of operation as a proxy for the difficulty of operation.

RESULTS: A total of 98 patients were collated from both centers with a mean patient age of 44.8 years ± 12.4(SD) and 92.8% were female. The most common indication for cholecystectomy overall was biliary colic (31.6%). For patients with biliary colic, the mean waiting time for LC was 289.3 days ± 521.5 (SD) days at the public institution compared to 9 days ± 6 (SD). Acute cholecystitis accounted for 30% of diagnoses at both centers completing the similar numbers over the study period. The mean waiting times for patients who presented with acute cholecystitis was 392.9 ± 876.2 days (mean ± SD) in the public healthcare system vs 26.1 ±27.3 days (mean ± SD) in the private healthcare system.

CONCLUSIONS: There is some disparity in management of symptomatic gallstones between the private and public healthcare systems in Trinidad & Tobago. Specifically, a statistically significant difference in waiting times to complete LC exists between healthcare delivery systems.
THE PREDICTIVE INDEX LAPAROSCOPIC CHOLECYSTECTOMY SCORE (PRILS)
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BACKGROUND: This prospective observational study aims to preoperatively identify predictors of the difficulty of a laparoscopic cholecystectomy.

METHOD: We prospectively identified all patients from major hospitals in Trinidad and Tobago undergoing laparoscopic cholecystectomy between January 2018 and January 2019. We excluded cholecystectomies as part of another surgical procedure or cases performed open, not as a result of conversion. Pre-operative, intra-operative and post-operative patient details were recorded and analysed.

RESULTS: There were 44 cases were included: 40 laparoscopic cholecystectomies and 4 converted open procedures. Biliary colic (49%) and acute cholecystitis (44%) were the most common indications. The male to female ratio was approximately 1:5 and mean age was 35.3 years. Approximately 40% of cases were performed by residents, PGY3 and above. The cases that were successfully completed by residents were elective cases and largely on types 1 or 2 gallbladders with classic radiological findings.

CONCLUSION: This study identifies determinants of the difficulty of laparoscopic cholecystectomy that can be used to influence surgery scheduling, theatre time management and resident training.

A COMPARISON OF LAPAROSCOPIC AND OPEN APPENDECTOMY
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BACKGROUND: Surgical site infections (SSI) and intra-abdominal abscesses (IAA) are the most frequent complications of appendectomy. The incidence of IAA has been reported to be 6-24% and SSI, 3-16% after laparoscopic appendectomy (LA). The purpose of this study is to determine the incidence of IAA and SSI at the Sangre Grande Hospital in Trinidad.

METHODS: A retrospective study was performed examining all patients who had appendectomy at this institution over a 5-year period between January 2014 and June 2018. Patients were identified using the post-operative surgical register. The following data were extracted from the hospital records: intra-operative findings, severity of appendicitis, post-operative complications, SSI and IAA.

RESULTS: There was a total of 97 surgeries (85 laparoscopic, 11 cases converted to open, 1 Exploratory Laparotomy). Conversion rate was 11.4%. Of 85 laparoscopic cases, 3 (3.53%) had a port site SSI. Of the 12 cases performed open, 4 (25%) had a midline superficial SSI. There were no patients that developed an IAA post-operatively.

CONCLUSION: Laparoscopic appendectomy shows a significantly lower incidence of SSI when compared to open surgery (3.5% vs 25%). However the reported higher incidence of IAA following LA was not demonstrated in our study. In addition to the advantage of allowing a more extensive examination of the peritoneal cavity, LA also results in a reduction of the incidence of SSI and IAA.
NEGATIVE APPENDECTOMY RATES AND THE ALVARADO SCORE
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BACKGROUND: In low resource settings where routine imagining for Appendicitis are not done, the negative appendectomy rate can vary from 4% to 45%. The Alvarado score has been reported to be useful in stratifying a patient's risk of having appendicitis. The aim of this study was to assess whether the negative appendectomies were associated with a low Alvarado score in a resource-poor setting.

METHODS: We retrospectively examined the operating room register at the GHPC from January 11, 2018 to January 8, 2019 to identify all patients who had appendectomies. The patient records were retrieved and the Alvarado score was calculated for each patient. The relationships between the Alvarado score and operative findings were compared. Data analysis was completed using Excel and SPSS.

RESULTS: There were 127 patients subjected to appendectomies, with a negative appendectomy rate of 36%. Patients with a low Alvarado score had a significantly greater chance of having a normal appendix compared to those with a high Alvarado score (82% vs 1.3%).

CONCLUSION: The negative appendectomy rate at GPHC was higher than international standards. Employment of the Alvarado score may lower rate of negative appendectomies at GPHC.

AN AUDIT OF OT TURNAROUND TIME IN SAN FERNANDO GENERAL HOSPITAL
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OBJECTIVE: To determine the average OT turnaround time and the success of meeting a target turnaround time of 30 minutes or less at San Fernando General Hospital.

METHODS: Turnaround time (TAT) is defined as the time from closure of a patient’s surgical wound to the next patient’s skin incision. A TAT <30 minutes ensures efficiency of an operating theatre without compromising on patient care. The audit was done over a 4-week period looking at the average turnaround time for 2 theatres. A standard of 30 minutes TAT was set and when this standard was not met, the reason for the delay was recorded.

RESULTS: A total of 91 patients underwent surgery in the four weeks. The average TAT was calculated to be 50 minutes in theatre 1 and 45 minutes in theatre 2, therefore the standard turnaround time was not met. On analysing the data, the most common cause for the delay was noted to be theatre preparation (51%) in between cases while the other common causes were issues with equipment (13%) and nurses (15%).

CONCLUSION: Many factors can be used when determining the efficiency of the operating theatre. In this audit we looked at TAT as the factor in determining the efficiency of the OT. From the above results it can be noted that the standard TAT was not met.
DIFFICULT AND RARE HERNIAS
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BACKGROUND: Difficult and rare hernias are only seen infrequently in most general surgical practices. Often, a surgeon has never seen such a hernia and is uncertain as to how to manage it. They may also present a challenge operatively.

METHODS: The diagnosis and treatment options are based on personal experience and a detailed study of the medical literature. The treatment of difficult hernias, such as massive inguinal hernias and obstructed femoral hernias as well as the management of rare hernias, such as lumbar, Speigelian, obturator, interstitial and pelvic hernias will be discussed.

RESULTS: Analysis of articles in the medical literature provides the accepted approach to the investigation and treatment of these hernias.

CONCLUSIONS: Surgeons must be aware of the existence of these rare hernias and should know the preferred approach to diagnosis and treatment of difficult and rare hernias

SCIENTIFIC SESSION 6:

CAROTID ENDARTERECTOMY: RELEVANT ADAPTATIONS OVER 35 YEARS
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BACKGROUND: To report our experience with carotid endarterectomy (CEA) and adaptive modifications in our practice over 35 years.

METHODS: We retrospectively analyzed the records of all consecutive patients who had CEA at a single institution between 1984 and 2018.

RESULTS: There were 256 patients undergoing CEA over the study period: 215 (84%) had surgery following a transient ischemic attack, 18 (7%) for repeated / fluctuating stroke, 14 (5.6%) as prophylaxis before cardiac surgery and 9 (3.5%) for acute stroke. There were 198 cases done under regional/local anaesthesia, with 13 conversions to GA, and 58 done under general anaesthesia. All of the GA cases were done after using the preoperative digital carotid compression test. Two hundred and fifteen patients (84%) had uneventful recovery and were discharged within 24 hours, while 36 patients remained for 48 hours. The other 5 patients had longer hospitalizations, 3 with temporary hemiparesis and 2 with complete hemiplegia. Shunting was needed in 5 (2%) cases. The mean operating time was 44 minutes. Ninety-three cases were done using the eversion method (used mainly for small or tortuous arteries); this has been selectively used in the last 15 years. In the last 7 years, over 90 % of the CEA’s were done under GA compared to >90% under LA in the preceding 28 years.

CONCLUSIONS: There has been a marked increase in the use of GA for CEA in recent years because of the preoperative digital compression test. Use of the digital compression test and eversion technique have made CEA easier, cheaper and safe with decreased use of shunts and patching, and minimal need for intraoperative monitoring equipment.
DISTRIBUTION AND PRESENTATION OF AORTIC ANEURYSMAL DISEASE IN A WEST INDIAN COHORT

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BACKGROUND: Regional evaluation of aortic aneurysmal disease has revealed an increase in incidence and prevalence. The distribution, demographics and morphology of this condition is well documented in developed and to a lesser extent developing countries but few have investigated relationships between the patient’s demographics and the characteristics of the aneurysm. POSGH is a busy vascular center making it suitable to investigate relationships between the patients’ demographics and characteristics of the aneurysms.

METHODS: A retrospective review of the CT reports of 300 patients with aortic aneurysmal disease was performed over an eight-year period from January 1st 2009 - December 31st 2017. The CT images for these patients were obtained and the size, type, morphology and location of the aneurysm, the presence of thrombus and maximum diameter of the thrombus recorded. Those which could be classified as Crawford type 1-4 were classified as such. The demographic data and clinical presentation were recorded from the medical records.

RESULTS: There were 279 patients with 300 aortic aneurysms. The most significant associations were with age and gender and to a lesser extent, ethnicity. Only males presented with false aneurysms (p=0.015) and the average size of aneurysms was 0.7cm larger in males, mean ± sd (5.6±2.3 vs 4.9±1.4, p=0.003, 95%CI). Both genders most commonly presented incidentally but females were more likely to present with rupture (p=0.01). Patients with multiple, false and dissecting aneurysms were younger than those with single and true aneurysms (p=0.012, p=0.05 respectively). The age of presentation was higher in East Indians than other ethnicities (77 vs 66-73 years, p=0.001). Finally, only 50% of the patients with aneurysms extending into multiple segments could be classified using the Crawford System.

CONCLUSION: Gender followed by age were found to have the most influence on the type, morphology and presentation of aortic aneurysms while there was a minor association with ethnicity. The Crawford Classification System was noted to be inadequate in classifying aneurysms in this study.

AN AUDIT OF A CARIBBEAN VASCULAR SURGERY UNIT IN A TEACHING HOSPITAL

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BACKGROUND: This study aims to evaluate the characteristics of patients requiring vascular interventions, as well as outcomes, in a stand-alone vascular surgery unit in a low resource setting. The vascular service at EWMSC is the only facility in the public sector with the capability of open and endovascular surgery.

METHODS: A retrospective, single institution study was done for the period March 2015 to January 2019. Data was collected from computerized records from the operating theatre and catheterization laboratory logs. Long-term follow-up data was acquired from clinic notes and phone interviews.

RESULTS: A total of 1202 (712 open/ 490 endovascular) procedures were done from 2015 - 2018. Male to female ratio was 3:2 for open and 1:1 for endovascular procedures over the four years. The mean age of patients was 55.3 years. 91% of cases were elective or semi-elective, 50% of which were for renal access. Limb revascularization dominated major elective (open; 66% and endovascular 61%) and emergency (45%) procedures whilst the number of amputations performed decreased by 26.9% during the same period. Limb salvage rate of 86% and 75% was achieved after 1 and 3 years follow up.

CONCLUSION: There is a significant burden of patients afflicted with vascular disease in the Caribbean. Patients present later and are likely to have multiple poorly controlled comorbid conditions, in addition to complex vascular disease, and as such optimal management and outcomes require advance skills and innovation. We report that a dedicated vascular service can function effectively and efficiently in a resource poor setting with acceptable overall outcomes.
CUTANEOUS MALIGNANT MELANOMA AT THE PORT OF SPAIN GENERAL HOSPITAL: A 15-YEAR RETROSPECTIVE STUDY

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BACKGROUND: Cutaneous Malignant Melanoma (CMM) is the least common of the skin cancers however it is the deadliest. To date, there is no published studies detailing the characteristics of this cancer in our unique and diverse population.

METHODS: All cases of CMM diagnosed between 2003-2017 were analysed and data were collected on age, gender, method of diagnosis, anatomical location and histopathological characteristics.

RESULTS: There were 50 documented cases of CMM. The majority of patients were male (54%) and the ages ranged from 12-88 years (median age 62 years in males and 65 years in females). The most common anatomical site was the lower limbs in both genders (37% of males and 30% of females). The histopathological subtype was not described in 84% of the cases whilst 16% were further classified: 6% of the CMM were Acral Lentiginous, 4% Nodular Melanoma, 2% Amelanocytic superficial spreading and 2% Melanoma in situ. The Breslow Stage was documented in only 26% of patients and Clark Level in only 18%. 11 patients were Breslow Stage IV (22%) and 6 patients were Breslow Stage V (12%), 5 patients were Clark level IV (10%) and 3 patients were Clark level III (6%).

CONCLUSION: The anatomical distribution of CMM in our study population was similar to that described in other Caribbean countries and in other predominantly black populations.

DIABETIC FOOT CARE: A SERIES OF BANDAGE-INDUCED ISCHAEMIC INJURIES

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INTRODUCTION: Sensory loss in diabetic neuropathy often leads to wounds that go unnoticed until complications occur. Wound care is therefore critical in the management of diabetic feet. In our setting, diabetic foot dressings include topical applications with crepe bandages to secure them. However, crepe bandages exert a degree of compression that can occlude arterial inflow in a diabetic limb with pre-existing arteriosclerosis. In the neuropathic foot, there is no warning of pain when a dressing is too tight and ischemic wounds can quickly develop, ultimately leading to limb loss.

METHODS: This was a retrospective study of patients who presented with bandage-induced injuries. Patient records were reviewed and relevant data extracted.

RESULTS: There were 20 cases of bandage-induced ischemic injuries in persons with diabetes. All had circumferential dressings done by inexperienced healthcare staff. The resultant injuries were partial thickness in 25% of cases and full thickness injuries in 75% of cases. The wounds were located on the dorsum of the foot in 90% of cases and limb loss was prevented in all cases.

CONCLUSIONS: When compression is severe enough to occlude arterial supply in the neuropathic limb, there is no warning of pain, lending to the development of ischemic injuries and compromising limb viability.
MAJOR LOWER LIMB AMPUTATIONS: QUALITY OF LIFE SURVEY
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OBJECTIVE: To assess the quality of life of patients after major lower limb amputation.

METHODS: Data of all major lower limb amputations undertaken at the Eric Williams Medical Sciences Complex (E.W.M.S.C.) during the period of January 2010 to December 2016 were reviewed. A quality of life assessment using The EURO QOL 5D-5L quality of life assessment tool was performed. This cohort of patients was selected by convenience sampling as a subgroup of the patients identified for the study period.

RESULTS: The EURO QOL 5D-5L assessment tool was applied to 148 individuals after having a major lower limb amputation. Overall a dramatic worse quality of life was observed, when the average utility index value obtained (0.502) was compared to other countries (0.878) p<0.0001. Statistical significance was also seen between patients who ambulated with a prosthesis (0.742) compared to those who did so without (0.569), with a mean difference of 0.173, p<0.00. Increasing age was inversely related to quality of life (p 0.028). There was no statistical difference in quality of life between the level of amputation (above versus below knee) and gender (males versus females).

CONCLUSION: Major limb amputations continue to affect our population significantly. Overall Quality of life after major amputation, as well as mobility continues to be problematic in this population. Factors adversely related to quality of life include increasing age and patients who were non-ambulatory.

THE PERFORATING VEIN IN A PROXIMAL RADIAL ARTERY FISTULA: MODIFICATION OF THE GRACZ AV FISTULA
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BACKGROUND: To describe a technique which facilitates the creation of an arterio-venous fistula in dialysis patients.

METHODS: When creating an arterio-venous fistula (AVF) on the upper limb for dialysis the ideal location is as distal as possible. This increases the number of possible sites to place the needles. There are also two potential complications that one wishes to avoid, namely damage to the artery with potential ischemia to the limb and steal syndrome. With this consideration in mind it is much safer to create an AVF using the radial or ulnar arteries rather than the brachial artery as the risk of ischemia due to vessel damage and steal syndrome are less frequent using these lower order vessels which have collateral flow. When the forearm veins were not suitable rather than carry out a brachio-cephalic fistula the perforating vein was used dissecting it down to the deep veins gaining enough length to allow an anastomosis to the radial artery.

RESULTS: Using an extended length perforating vein produces a good AVF with the radial artery when the forearm veins are not suitable.

CONCLUSIONS: The extended perforating vein- radial artery arterio-venous fistula provides the benefit of using the arm veins combined with the lower risk of carrying out the anastomosis with the forearm arteries and not the brachial artery.
UPDATING PATIENT RELATIVES ON SOCIAL MEDIA - AN ETHICAL DISCUSSION

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OBJECTIVE: To increase the awareness of the potential vulnerability of medical professionals to be approached privately via social media.

CASE REPORT: We present a case report in which a consultant surgeon was approached by a concerned relative via an Internet messenger platform on social media. The team was always in communication the next of kin and other relatives via traditional consultations, even up to the date of reception of this message. Despite being invited for traditional consultation, the relative appeared to monitor the surgeon's online activity to re-initiate discussion. Furthermore, the relative then proceeded to issue a social invitation to the same surgeon. The patient did improve and further communication by that relative stopped. Enquiry at the various levels of the administration did not reveal any attempts by said relative to make use of the conventional channels to communicate with the team.

CONCLUSIONS: The physician must actively seek out guidance for private social media interaction. Where local policy and law fail to provide direct guidance, the physician must adhere to the tenants of medical ethics, whilst noting similar incidents in more developed countries.

A STUDY ON BREAST CANCER AWARENESS

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BACKGROUND: Breast cancer is one of the most common cancers affecting women globally with about 1.7 million new cases and 522,000 deaths reported annually. Mortality has been declining since 1990 due to better screening and early detection. We sought to determine the level of awareness for breast cancer in the general population at a hospital in Guyana.

METHODS: A questionnaire was used as the instrument to evaluate the knowledge and attitudes of women in the general population in Guyana. A convenience sample was chosen including women attending the general outpatient clinics at the outpatient department of GPHC.

RESULTS: There were 100 women surveyed. Of this, 64% had secondary level education and 11% had tertiary level education. The most common age group was between 35-64 years (62%). These women demonstrated a basic knowledge of breast cancer (85%), basic knowledge about breast self-examination (59%), adequate knowledge about early signs of breast cancer (40%) and knowledge of the appropriate treatment options available (56%).

CONCLUSION: Although many women possessed adequate knowledge about breast cancer and the available treatment options, there were deficiencies in the early clinical signs that could lead to delayed presentations. It is important for health professionals to reinforce the value of early detection of this disease.
DISTRIBUTION OF GENETIC MUTATIONS AMONG PATIENTS WITH BREAST CANCER
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OBJECTIVE: Multi-panel gene testing is becoming more important in the management of patients with breast cancer. This study was designed to determine the distribution of genetic mutations among patients with breast cancer in the Bahamas.

METHODS: Consecutive patients who met criteria for genetic testing were evaluated using a saliva test. The specimen was processed using Invitae® labs, a College of American Pathologists-accredited and Clinical Laboratory Improvements-certified clinical diagnostic laboratory. Full-gene sequencing and deletion or duplication analyses using next generation sequencing technology were performed.

RESULTS: Twenty-seven consecutive patients met criteria for genetic testing based on current NCCN guidelines. The patients ranged in age from 33 to 63 years and all had histologically proven breast cancer. Seven patients had no evidence of mutations and 20 had a mutation identified. One patient had three mutations, 6 patients had two mutations, and 13 patients had 1 mutation (BRCA1=6, AXIN=5, ATM=5, APC=2, SDHA=2, NBN=1, MSH6=1, MUTYH=1, DITCER1=1, MSH3=1, RAD15=1). There were 4 pathologic BRCA1 mutations; the remaining mutations were variants of undetermined significance (VUS).

CONCLUSIONS: In this study 74% of patients had at least 1 mutation identified. Pathogenic BRCA1 mutations were identified in 14% of patients. VUS was the most common mutations identified in 59% of patients. VUS are DNA sequences that are not clinically actionable but present a diagnostic challenge to the clinician. These non-informative results increase anxiety among patients and providers. Until the pathogenicity of VUS is determined its role in informing management decisions is limited.

BREAST CANCER TREATMENT: ABLATIVE VS CONSERVATIVE THERAPY
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OBJECTIVE: To retrospectively compare breast conservative and ablative techniques at a single institution.

METHODS: We retrospectively examined the operating theatre log to identify all patients who had surgical procedures for breast carcinoma performed by a single surgeon over an eight year period from 2010 to 2018. All patient records were retrieved and the following data extracted: type of procedures, interval between surgery and radiation therapy. Telephone interviews were also performed.

RESULTS: There were 107 patients who had breast procedures. The ratio of breast ablative-to-conservative procedures was 2.7:1, with 76 breast ablative procedures, 28 breast conservative procedures and 3 completion mastectomies in patients who had local recurrences or positive margins. When the treatment was analyzed in halves, we noted that there was a shift in this ratio from 1.1:1 before 2015 to 8:1 after 2015. When the subset of patients in the latter group was analyzed, 60% of patients with a valid indication for radiation actually received radiation but 40% did not receive irradiation, most commonly due to difficulty accessing radiotherapy. The mean interval between index surgery and irradiation initiation was 7.16 months (range 2-10 months).

CONCLUSIONS: Mastectomy rates have increased in recent years for a number of reasons, including late presentation, inability to guarantee of radiation, cardiac disease in patients with left sided cancers and more aggressive disease in this population.
IMMEDIATE AUTOLOGOUS BREAST RECONSTRUCTION: A COMMUNITY HOSPITAL EXPERIENCE
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BACKGROUND: Modern techniques aimed at breast reconstruction include autologous tissue flaps, specifically the pedicled transverse rectus abdominis myocutaneous (TRAM) flap, and the latissimus dorsi flap. Current literature describes flap complication rates ranging from 7.7-38% and rate of abdominal hernias or bulge from 1.5-12%. This study aims to highlight that these techniques can be employed safely in a community hospital setting for tissue coverage or enhanced cosmesis after mastectomy.

METHODS: A retrospective study design was used, and cases between the years 2016 to 2019 were selected. Patient demographic information was extracted from medical records. The following parameters were examined: indication for surgery, type of surgery performed, stage of cancer at operation, length of operation, length of stay in hospital and complication rates. The Clavien-Dindo classification was used to grade complications.

RESULTS: A total of 16 patients had pedicled TRAM flaps and two had latissimus dorsi flaps between the years 2016-2019. In 11 patients (69%) surgery was performed for coverage. Flap complications included superficial wound dehiscence and surgical site infection in five patients. Partial flap necrosis occurred in 3 patients, 1 of whom required repeated debridement. No complete flap loss, abdominal hernias or bulge were seen. In total, 50% of patients had no post-operative complications and 50% had complications grade III or higher. No grade IV or V complications were seen.

CONCLUSIONS: Immediate autologous tissue flaps can be safely performed for coverage of the chest wall post mastectomy or for enhanced cosmesis in a community hospital with acceptable complication rates.

REVIEW OF IMMUNOHISTOCHEMISTRY OF BREAST CANCERS IN TRINIDAD AND TOBAGO
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BACKGROUND: Assessment of the expression of progesterone (PR), estrogen (ER) and human epidermal growth factor 2 (HER2) receptors have become a routine part of the pathological work up for breast cancer. We conducted an audit of our immunohistochemistry results in order to identify the incidence of hormone receptor positive breast cancer, HER2 positive breast cancer and triple negative breast cancer.

METHODS: Data were retrospectively collected for immunohistochemistry results from all breast cancer patients who had pathological specimens submitted to the lab at the Port of Spain General Hospital.

RESULTS: 334 patients were included in the study. Hormone receptor positive breast cancers (meaning those that were ER and or PR positive) were observed in 216 (65%) patients. Her 2 positive breast cancers were seen in 52 (16%) patients. Triple negative breast cancers were seen in 93 (28%) patients.

CONCLUSION: The incidence of HER2 positive and triple negative breast cancer is noted to be higher in our population compared to that which is reported in the international literature.
FACTORs AFFECTING BREAST CANCER RECURRENCE IN TRINIDAD AND TOBAGO
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OBJECTIVES: This study aimed to determine factors that affect breast cancer recurrence in Trinidad and Tobago.

METHODS: A retrospective study was performed at the San Fernando General Hospital from January 2010 to December 2018. Data was obtained from medical and pathological records.

RESULTS: 465 patients had operations for breast cancer: 294 mastectomies and 171 breast conserving surgeries (BCS). Recurrences occurred after mastectomy in 16/294 (5.4%) patients and after BCS in 9/171 (12.7%) patients. These 25 patients were selected for further analysis. In this subset, the mean age was 57.8 years (range: 27-80; modal 57). In this subset, the stage of the primary was T1 (0), T2 in 12 (48%) cases, T3 in 6 (24%) and T4 in 7 (28%) patients. Other factors that bore a relationship to recurrent disease were: the presence of microscopically clear resection margins in 24 (96%) cases, axillary lymph node involvement in 20 (80%) cases, lymphovascular invasion in 20 (80%) cases, hormone receptor positive/ Her-2 negative status in 15 (60%) cases and triple negative disease in 7 (28%) cases. Recurrences occurred in 3 (33.3%) patients who had BCS but did not receive adjuvant radiation. The recurrences occurred within 5 years after index treatment in 23 (92%) patients and the recurrences were loco-regional in 19 (76%) patients. The common sites for distant recurrences included lung, bone and brain. Less common sites included the spine and pericardium.

CONCLUSION: In keeping with international data, most breast cancer recurrences occurred within 5 years of treatment and most had axillary lymph node involvement and lymphovascular invasion. However, 60% of recurrences were hormone receptor positive and 28% were triple negative.

THE USE OF METHYLENE BLUE AS A SINGLE MAPPING AGENT IN SENTINEL LYMPH NODE BIOPSY IN TRINIDAD
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BACKGROUND: In early breast cancer, nodal status is an important prognostic tool in determining adjuvant management. The use of Sentinel lymph node biopsy (SLNB) in breast cancer patients with a clinically negative axilla has become standard practice. Many investigators recommend the use dual modalities for SLNB (radioisotope and blue dye). It is recommended that SLNB should be performed with <5% false negative rate. This study assesses the use of a single modality (Methylene Blue) to identify the sentinel lymph node.

METHOD: A cohort study was done, from 2016 -2018 to identify the sentinel lymph node by injecting sterile methylene blue in the sub areola plane. Following the removal of sentinel node(s) a completion Level 2 Axillary Dissection was performed. Specimens were labeled and sent separately for pathological examination to determine false negative rate of SLNB.

RESULTS: Twenty consecutive SLNB was done in 3 years, 8 (40%) patients had a positive SLNB. Of the twenty patients studied, one had a negative sentinel node and was found to have a positive node on completion Axillary clearance (false negative rate of 5%).

CONCLUSION: In a low resource setting, the use of Methylene Blue only for SLN mapping is feasible. When combined with radiotherapy to the Breast, further axillary surgery and its complications can be avoided. The use of radioisotopes and its attendant costs and risks and requirements of special training for staff and patients can also be avoided.
ACCURACY OF SENTINEL LYMPH NODE BIOPSY IN BREAST CANCER USING METHYLENE BLUE DYE TECHNIQUE IN A DEVELOPING COUNTRY
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BACKGROUND Sentinel lymph node biopsy (SLNB) is the procedure of choice for assessing the axilla in early stage breast cancer. We set out to determine the accuracy of our technique of SLNB using methylene blue dye

METHODS We prospectively analysed data from consecutive T1 and T2 female breast cancer patients with non-palpable axillary lymph nodes between January and December 2018. All patients were assessed by determining the percentage of true positive and negative as well as false negative (by comparing histology of the excised sentinel lymph node with the histology of at least 10 non-sentinel nodes removed by axillary lymph node dissection).

RESULTS 47 patients were studied. T1 stage accounted for 24% of the patients and T2 for 76%. The incidence of axillary metastases (both sentinel and axillary nodes) was found to be 57% (27 of 47). True negative was 100% (20 of 20) and true positive was also 100% (27 of 27). There were no false negatives.

CONCLUSION In comparison with other SLNB validation studies, we report a very accurate technique of SLNB in our setting. Our data suggest SLNB using methylene blue dye can be used as a reliable alternative to the costly technique of radioactive colloid.

SCIENTIFIC SESSION 8:

WILMS TUMOUR IN CHILDREN USING INTERNATIONAL SOCIETY OF PAEDIATRIC ONCOLOGY PROTOCOLS
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BACKGROUND: The outcome of nephroblastoma in children of developed countries has greatly improved. Similar outcomes have not been reproduced in less developed nations. This report aims to describe the incidence, disease pattern and clinical outcome of nephroblastoma at a single centre in a recently declared developed country, using the International Society of Paediatric Oncology (SIOP) protocol.

METHODS: Data was collected retrospectively for all patients under the age of 15 years who presented with confirmed nephroblastomas during the period 2006 to 2015 at a single paediatric hospital.

RESULTS: There were 26 patients with nephroblastomas were identified. The average presentation was at age 3 years, and it was commoner in children of female gender (73%) and African descent (54%). The incidence was 0.9 in 100,000 patient years, mostly presenting as Stage IV disease (38.5%) with favourable histology (85%). A minimal follow-up of 3 years showed a total survival rate of 84.6%, an overall event-free survival rate of 72.7% and remission rate of 61.5%. The overall survival rate was 100% in patients with Stage I, II and V disease. The relapse rate was 19.2% and death rate was 15.4%.

CONCLUSION: The favourable outcome of treatment for nephroblastoma seen here indicates successful application of the SIOP protocol in a country that has not previously participated in the SIOP clinical trials. This occurred despite the unique ethnic pattern observed in patients of African ancestry, as well as the recent shift of this country to “developed” status by the Organisation for Economic Co-operation and Development.
INFANTILE HYPERTROPHIC PYLORIC STENOSIS IN SOUTHERN TRINIDAD
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BACKGROUND: Infantile hypertrophic pyloric stenosis (IHPS) is one of the most common causes of gastric outlet obstruction in infants. This study sought to describe the demographic data, clinical presentation, treatment and outcomes of IHPS at San Fernando General Hospital (SFGH).

METHODS: This is a descriptive retrospective study of infants with IHPS admitted to SFGH between 2002 and 2018.

RESULTS: A total of 54 patients (M:F = 3.9:1) were studied. The prevalence of IHPS was 3 in 5,000 live births. The median age at presentation was 4 weeks. Non-bilious vomiting was the most frequent symptom and it was described in all (100 %) patients. A palpable mass was found in 23.5 % of infants. The diagnosis of IHPS was suspected clinically and confirmed by ultrasound in all patients. 46% of patients had a deranged electrolyte profile at presentation. The treatment was Ramstedt’s pyloromyotomy in all cases. The postoperative complication rate was 7.14 %, with no mortality. The median length of hospital stay was 5 days.

CONCLUSION: The incidence of IHPS is 3 in 5,000 live births in southern Trinidad, which is lower than the average international incidence.

SURGICAL TREATMENT OF BENIGN TRACHEAL STENOSIS IN GUYANA
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OBJECTIVE: The objective of this study was to evaluate the outcome of the surgical treatment of patients with benign tracheal stenosis in a resource poor country.

METHODS: A retrospective study was conducted on all consecutive patients who underwent resection and anastomosis for tracheal stenosis between January 2016 and December 2018. All patient records were retrieved and the following data were extracted: demographics, history, clinical presentation, computed tomography, bronchoscopy details, preoperative interventions, indications for surgery and operative details, the procedure performed, postoperative complications and clinical progress at 3 months follow-up.

RESULTS: There were 6 cases identified. In 4 patients the stenosis was secondary to prolonged endotracheal intubation, in 1 due to gunshot trauma and 1 patient had idiopathic stenosis. The length of stenosis ranged between 2.4 cm and 4.8 cm. The diameter of stenotic segment ranged between 0.4 mm and 0.9 mm. Average length of resected segment was 2.83 cm, and number of tracheal rings resected ranged from 2 to 6. The surgical approach was trans-cervical (4), trans-sternal (1) and by right thoracotomy (1). Postoperative complications occurred in one patient (16.6%). All patients had a good post-surgical recovery and were discharged in the clinic at three months with excellent functional results.

CONCLUSIONS: The initial results in the management of tracheal stenosis in our center are encouraging, reinforcing the need for a multidisciplinary approach, the refined surgical technique and a careful and aggressive postoperative management.
VATS THYMECTOMY IN TRINIDAD
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BACKGROUND: Video-assisted Thorascopic Surgery (VATS) has been available since 2008 in Trinidad for pleural and pulmonary-based procedures. However, progress to advanced procedures has been slow. We reviewed the experience with VATS thymectomy at a single centre over a four-year period.

METHODS: A retrospective study of all patients who had VATS thymectomy at a single institution was performed over a four-year period. Data were extracted from the patient records and analysed.

RESULTS: There were 3 VATS thymectomies performed over the 4 year study period. One case was converted to mini-thoracotomy. The thymus was removed completely and successfully in each case. One patient developed a post-operative DVT. There was minimal bleeding. Two were early stage Thymomas.

CONCLUSION: VATS thymectomy is performed at low volumes in this centre.

PATTERNS, DISTRIBUTION AND OUTCOMES OF PANCREATIC CANCER IN NASSAU, BAHAMAS
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BACKGROUND: Pancreatic ductal adenocarcinoma is considered one of the deadliest cancers. Radical resection of these tumors is the only viable option for long-term survival. This study details the pattern and distribution of this disease and reviews the outcomes associated with surgery in the Bahamas.

METHODS: A retrospective chart review was performed for the period of January 2008 to December 2017. Patients with pancreatic cancer were identified. Demographic, clinical, pathological, short term and long term outcomes with surgery were evaluated.

RESULTS: Twenty patients were identified who underwent surgical resection for pancreatic tumors. Fifteen had malignant histology. The mean age was 57, males represented 53.3% (n = 8) and females represented 46.7% (n = 7) of those with pancreatic malignancy. Lesions were located in the head of the pancreas (n = 11), ampullary (n=2) and tail (n=2). Pancreatectoduodenectomy was performed in the majority (86%) of patients followed by distal pancreatectomy. Central pancreatectomy was performed in one patient with a pseudopapillary tumor of the pancreas. The most common histology was moderately differentiated ductal adenocarcinoma (n=8). The majority of patients presented with advanced stage pancreatic cancer with 60% being node positive. One patient died within 30 days and the median survival time was 12.2 months. The average survival time was 14.2 months.

CONCLUSIONS: Pancreatic cancer in the Bahamas mirrors the pattern seen in other countries.
OUTCOMES OF ONCOLOGIC PANCREATIC SURGERY IN TRINIDAD & TOBAGO
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OBJECTIVE: To contrast the outcomes found in oncologic pancreatic resection done in a developing nation, by one surgical firm, with those in international literature.

METHODS: Data on oncologic pancreatic procedures were retrospectively assessed from operating records with the corresponding files. All-cause mortality rates are directly compared to those seen in developed nations and the specific morbidity of postoperative pancreatic fistula were recorded and critically analyzed in terms of definition of the various types and their clinical repercussions.

RESULTS: Postoperative Pancreatic fistula grades A-C were tallied with their resultant rates compared to international figures and once Grades A were excluded from the analysis, comparable rates of fistula were observed in our sample pool, with 9% incidence of Grade B and no evidence of Grade C leaks. Grade A being excluded stems from the work literature review done by the International Study Group of Pancreatic Surgery which is now classified as a biochemical leak that bears no clinical manifestation nor change in management. Comparably, our data revealed a mortality rate of approximately 6.7%, well within international standard of care with respect to all-cause mortality post-operatively.

CONCLUSION: Despite smaller numbers and lack of resources to be labeled a high volume centre, trends towards successful outcomes in pancreatic surgery are achievable in the developing world.

APPROACH TO TUMORS OF THE THIRD AND FOURTH PART OF THE DUODENUM
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BACKGROUND: The anatomic complexity of the duodenum makes surgical resection challenging. We describe our experience with distal pancreas sparing duodenectomy (PSD) and Pancreaticoduodenectomy (PD) for tumors arising from the third and fourth parts of the duodenum.

METHODS: We retrospectively analyzed a prospectively held database of all patients who presented with tumors in the third and fourth part of the duodenum and underwent surgical resection. Patient demographics, clinical, pathological, short and long term outcomes were evaluated

RESULTS: Between June 2017 and December 2018, three patients underwent surgical resection of tumors involving the 3rd and 4th part of the duodenum. Median age was 63, there were 2 females and 1 male. All patients presented with weight loss and duodenal obstruction. Average tumor size was 3.5cm. Two patients underwent PSD and one had a PD. Average blood loss was 400cc. All patients had duodenal adenocarcinoma and average nodes removed was 9, with median length of stay of 7 days. Delayed gastric emptying occurred in one patient who had PSD. There was no 30day mortality. All patients underwent adjuvant chemotherapy and all were disease free after an average of 11 months follow-up.

CONCLUSION: Tumors involving the third and fourth part of the duodenum are rare and can be approached either with PD or PDS with minimal morbidity and favorable short outcomes.
SCIENTIFIC SESSION 9:

ATYPICAL LIPOMATOUS TUMOUR OF THE OESOPHAGUS: A CASE REPORT
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**Background:** Atypical lipomatous tumours of the oesophagus are rare malignant tumours that are found most commonly in the cervical oesophagus. They are commonly clinically misdiagnosed as giant fibrovascular polyps of the oesophagus. Only histological examination and immunohistochemistry reveal the true diagnosis.

**Report of a Case:** We present the case of a patient diagnosed with an atypical lipomatous tumour. The lesion was initially misdiagnosed on computed tomography and upper gastrointestinal endoscopy as a giant fibrovascular polyp. The correct diagnosis was eventually made on histological examination after surgical resection, and confirmed by immunohistochemistry.

**Conclusion:** The differentiation between these two entities is of clinical importance as giant fibrovascular polyps are benign. Atypical lipomatous tumours are malignant lesions that need to be completely excised. This case highlights the need to treat all large cervical oesophageal polyps as malignant tumours, ensuring complete resection with clear margins.

THE PAEDIATRIC JEHOVAH’S WITNESS: DO PARENTAL VIEWS MATTER?
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**Background:** Blood transfusions in patients who are Jehovah’s Witnesses are still a medico legal issue. While the laws have evolved to recognize their beliefs and requests, there is still a problem with paediatric patients who are Jehovah’s Witnesses.

**Report of a Case:** A 3 month old male was born with hydronephrosis to a Jehovah’s Witness mother. During preparation for surgery, the patient was noted to be anaemic but his parents refused blood transfusion. Alternative treatment options were discussed, but ultimately the case was taken to court where the judge ruled in favour of the hospital. The patient became a ward of the state and could receive blood if deemed necessary.

**Conclusion:** Management of a Jehovah’s Witness paediatric patient varies from that of an adult. In children consent for blood transfusion must be obtained from the parents or legal guardian, and while we accept the wishes of adult Jehovah’s Witnesses in their own management the same cannot be done for children as they are incapable of making that decision themselves.
BICEP FEMORIS TENDON TRANSFER TO CORRECT LOSS OF EXTENSOR MECHANISM OF KNEE SECONDARY TO FULL THICKNESS ELECTRICAL BURN

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INTRODUCTION: Management of full-thickness burns to the knee joint presents a considerable challenge. If there is exposure or destruction of bone, tendon, or ligaments, and after excision of the burnt tissues, the remaining wound bed is not usually viable for skin graft. Destroyed tendons and ligaments require specific reconstructive procedures, including tendon transfer for functional mobility.

CASE: A 29 year-old man sustained electrical injury to 16% of his total body surface area - burns to his lower and upper extremities. The lower limb injuries included burns to the distal thigh and knee with injury to the flexor tendons, patellar tendons and synovial involvement. He underwent early excision and split thickness skin grafting of all the deep burns including those to his left lower extremity. There was a 93% graft take. The 7% loss was to the lateral aspect of the knee and extended into the joint space. A negative pressure dressing was then added to assist with graft take and control of synovial fluid leakage. Despite wound coverage, there was significant loss of knee extension on the affected side and persistent synovial leakage. A bicep femoris tendon transfer was done to restore extension, followed by physiotherapy. The result is acceptable extensor function at the knee and unassisted ambulation.

CONCLUSIONS: Early debridement, good coverage of wound, adjuvant vacuum assisted closure and bicep femoris tendon transfer provided a good functional outcome.

SIMULTANEOUS PERFORATION AND HAEOMORRHAGE AS A RARE PRESENTATION OF GASTRIC GIST

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BACKGROUND: Gastrointestinal stromal tumours may present with abdominal pain, bleeding or perforation. We report a rare case of patient presenting with simultaneous GIST perforation and haemorrhage.

REPORT OF A CASE: A 65-year-old man presented with abdominal pain and distention for 3 months. An endoscopy revealed a large ulcerated mass at the lesser curvature of the stomach. The patient then presented emergently with coffee ground vomitus and plain X-rays demonstrating a pneumoperitoneum. The patient underwent an emergency laparotomy where a large pedunculated mass was found on the lesser curvature of the stomach. There was a perforation adjacent to the mass. A wedge resection was performed, and he recovered well postoperatively and discharged.

CONCLUSIONS: This is an unusual report of a GIST presenting with simultaneous perforation and haemorrhage.
LONG SEGMENT ALIMENTARY TRACT DUPLICATION CYST IN A NEONATE: POSSIBLE SURGICAL OPTIONS

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INTRODUCTION: Alimentary tract duplications are rare anomalies. Treatment is indicated, even if asymptomatic, due to the potential for life threatening complications and a risk of malignant change. Total excision is preferable but may prove surgically challenging for many reasons, including its relation to native blood supply or other vital structures. This report highlights the possible alternate approaches when total excision is deemed risky or unfeasible.

REPORT OF A CASE: Our patient was a 2-day old female with abdominal distension and dilated bowel on abdominal x-rays. She had exploratory laparotomy that revealed a long segment tubular duplication on the mesenteric border of normal bowel and intimately related to the blood supply. A length of 96cm of ileum was resected out of a total 180cm small bowel (53%), and the ileo-caecal valve was preserved in an attempt to prevent short gut syndrome. We discussed the various possible surgical approaches, and whether sacrifice of normal small bowel was avoidable.

CONCLUSION: Total surgical excision was the preferred surgical approach, which in this case did not result in short gut syndrome. However, should the duplication have been significantly longer, there are multiple other approaches that may have avoided the sacrifice of significant portions of normal bowel.

PAIRED EXCHANGE RENAL TRANSPLANT

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BACKGROUND: A paired exchange transplant occurs when a living donor-recipient pair is incompatible, but exchanges kidneys with a separate living donor-recipient pair. This allows 2 recipients to receive organs, effectively through 2 live-donor transplants. We report a case of a paired exchange renal transplant in Guyana that we believe might be novel in the Caribbean.

REPORT OF A CASE: We report a case of a 29 year-old man with end stage renal disease who had multiple potential living donors disqualified due to blood group incompatibility. The option of a paired renal exchange transplant was discussed with another donor-recipient pair also on the transplant list. After confirming donor-recipient compatibility for both recipients, a renal exchange transplant was undertaken. Both transplants were coordinated successfully, with no adverse events. Both recipients achieved glomerular filtration rates >90%.

CONCLUSION: Paired exchange renal transplant can be successfully coordinated in the Caribbean and could be an option for patients with incompatible donors who remain on transplant waiting lists.
TESTICULAR TORSION – A DIFFERENT TWIST
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BACKGROUND: Considering testicular torsion as compartment syndrome has led to a novel idea for achieving testicular salvage.

REPORT OF A CASE: A 16 year-old male presented with an acute scrotum and was clinically diagnosed with a testicular torsion. Intra-operatively a torted, dusky-blue left testicle was seen. A 180-degree de-torsion was performed with supportive adjunctive measures (oxygen, warm packs). Exploration of the right hemi-scrotum revealed a shrunken atropic testis the size of a cashew nut, with questionable function. Despite resuscitative measures, the left testicle remained dusky. Faced with the dilemma of torsion in a solitary testis and the risk of lifetime infertility, testicular salvage was attempted. Incision into the tunica albuginea allowed decompression and the testicle became pink in colour. A pedicle tunica vaginalis flap was placed and sutured to cover the exposed seminiferous tubules. Doppler ultrasound post operatively showed normal flow in the testicular arteries bilaterally up to one month after.

CONCLUSIONS: A tunica albuginea incision may relieve intra-testicular pressure, allowing tension-free closure with a tunica vaginalis flap, and bringing a chance of testicular salvage.

SCIENTIFIC SESSION 10:

CYSTIC MESENCHYMAL HAMARTOMA OF THE LIVER: CASE REPORT
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BACKGROUND: Mesenchymal Hamartoma of the Liver (MHL) is a rare pathology of the liver. It presents a diagnostic dilemma because of its low prevalence and variations in morphology on imaging and microscopic evaluation.

REPORT OF A CASE: A 35 year-old woman with sickle cell disease (SS) was being prepped by a gynaecological unit for total abdominal hysterectomy and left salpingo-oophorectomy. At laparotomy, a pedunculated lesion was found at the left lateral segment of the liver and excised.

CONCLUSIONS: MHL constitute 5% of all primary liver tumors in children, but it is rare in adults. Literature review reveals less than twenty reported cases in adults. An incidental finding is not an uncommon presentation in adults.

CONGENITAL PSEUDOARTHROSIS IN A PATIENT WITH NEUROFIBROMATOSIS TYPE 1: DISAPPEARING ULNA
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BACKGROUND: Congenital pseudarthrosis is a rare condition, which has a high correlation with neurofibromatosis type 1 (NF1). Clinical signs are not always present at birth and may become evident during development.

REPORT OF A CASE: At five weeks of age this patient sustained a distal ulna fracture secondary to trivial trauma that was managed conservatively. Over ensuing seven years, there was progressive bowing of the radius and radiological “disappearance” of his distal ulna. He presented to a tertiary center because of worsening deformity. The examining doctor identified café-au-lait spots and neurofibromas and diagnosed NF1.

DISCUSSION: NF1 is an autosomal dominant disorder, with mutation or deletion of NF1 gene, that has multi-systemic manifestations. The earliest sign is the appearance of café- au-lait spots, which were only noted at seven years of age in our patient. There is a 50% incidence in congenital pseudarthrosis in patients with NF1. On review of the literature, there have been 14 cases involving the forearm bones. Pseudarthrosis cases, which are associated with NF1, are more difficult to treat and have a poorer prognosis.
DIFFUSE MIDLINE GLIOMA: A CASE REPORT
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INTRODUCTION: Diffuse midline glioma H3 K27M-mutant is a grade IV tumor and a new addition to World Health
Organization (WHO) 2016 Classification of central nervous system tumors. This report examines the diagnostic
challenges associated with the WHO 2016 classification for central nervous system tumors.

REPORT OF CASE: A 28 year-old female presented to a healthcare facility complaining of confusion and right
hemipareisis for one month. Radiological imaging revealed infiltrative bilateral thalamic lesions. She demised nine
months after initial presentation.

CONCLUSION: Radical surgery and stereotactic biopsy for thalamic lesions can be challenging. Targeted therapies
are being developed, but currently they are still in the early stages of development. Molecular testing is mandatory
to facilitate the diagnosis and tailor target treatment, in accordance with WHO 2016 guidelines. In this Caribbean
setting, however, molecular testing is not available, creating diagnostic difficulty.

AN UNUSUAL PRESENTATION OF MECKEL’S DIVERTICULUM WITH AN INTERNAL HERNIA
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BACKGROUND: A meckel’s diverticulum represents a true diverticulum that results from persistence of the
omphalomesenteric duct. We present an uncommon presentation of a patient with a meckel’s diverticulum.

REPORT OF A CASE: A 35 year-old man presented to hospital with a second recorded episode of small bowel
obstruction. At operation, an internal hernia was identified. The tip of a meckel’s diverticulum had adhered to the
mesentery of the ileum, creating an internal hernia with incarcerated small bowel. The hernia was reduced and
wedge resection of the diverticulum with primary anastomosis was performed.

CONCLUSIONS: Clinicians should be aware that a meckel’s diverticulum can present with an internal hernia in the
adult population.

VERTEBRAL OSTEOMYELITIS: CURRENT PRACTICES AND MANAGEMENT
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BACKGROUND: A spinal infection involves the vertebral body, intervertebral disc or adjacent paraspinal tissue.
They account for 2-7% of all musculoskeletal infections, although a rising incidence has been observed in recent
years. Diagnostic delays remain an important issue.

REPORT OF A CASE: A 75 year-old woman presented to our institution with severe mid-back pain radiating to
lower abdomen and both lower limbs, associated with difficulty ambulating. On MRI, there was an expanded T12
vertebral body with secondary spinal stenosis. L3-5 disc herniation and bilateral L4/5 nerve root impingement. A
neoplastic process was entertained. A biopsy of T12 bone marrow yielded pus and so antibiotics were commenced.
A repeat MRI showed mild edema and enhancement to L1/2, with associated disc destruction. Clinically, back pain
resolved and patient was able to ambulate with minimal difficulty.

CONCLUSION: Vertebral osteomyelitis is a rare disease. The initial treatment involves antibiotic therapy, thoracic
bracing and serial imaging to assess response to therapy. Surgical intervention can be considered if the response is
not adequate.
GIANT CYSTIC PHEOCHROMOCYTOMA WITH A LOW RISK OF MALIGNANCY: CASE REPORT
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BACKGROUND: A giant pheochromocytoma is one that is >10cm in diameter. They are often clinically silent since they do not usually secrete catecholamines.

REPORT OF A CASE: We report a case where a patient presented solely with a palpable retroperitoneal mass that required surgical resection. The mass measured 27x18x12 cm and weighed 3,315 grams. Histopathologic examination confirmed the diagnosis of a giant benign pheochromocytoma.

CONCLUSION: Giant cystic pheochromocytomas are rare entities. The tumour in this case is believed to be the fourth largest in weight and fifth largest in diameter reported in the world.

TREATMENT OF PAEDIATRIC HIP FRACTURES WITH ADULT HIP FRACTURE IMPLANTS
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OBJECTIVE: Paediatric intra-capsular hip fractures are relatively uncommon, but carry a high risk of morbidity, including osteonecrosis, non-union and coxa-vara. The Delbet Classification can be used to stratify the risk of osteonecrosis and to guide clinical management.

REPORT OF A CASE: We treated a 9 year-old boy who sustained a basicervical left hip fracture. He had reduction and internal fixation performed, using an adult dynamic hip screw implant. Six months post operatively his fracture healed and he returned to normal activities without complications.

CONCLUSION: One should discuss appropriate options and consider differences in anatomy when paediatric hip fractures are treated using adult implants.
NEUROSURGERY IN EPILEPSY
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BACKGROUND: Epilepsy is a life altering clinical condition, usually managed with pharmacotherapy. We discuss the role of neurosurgical management in this condition.

REPORTS OF CASES: Two cases are reported in which patients have undergone surgical intervention for epilepsy. The first was a 43 year-old female with a seizure disorder for >20 years. Several trials of anti-epileptic drugs failed to control frequent focal onset seizures. Magnetic resonance imaging displayed right anteromesial temporal lobe sclerosis, supported by electroencephalogram (EEG) findings. She underwent an anteromesial temporal lobectomy and has been seizure-free since operation. The second patient was a 9 year-old boy, known to have a seizure disorder from infancy. Computed tomography of the brain showed multiple sub-ependymal nodules and cortical tubers in both hemispheres, in keeping with a diagnosis of tuberous sclerosis. EEG confirmed seizure activity not limited to, but with greater activity from cortical tubers located in right hemisphere. Right-sided lesionectomy was performed, however his seizure disorder continued.

CONCLUSION: Drug resistant epilepsy represents approximately 30% of seizure disorder cases. In these cases, surgery may be a therapeutic alternative.

AN UNUSUAL CASE OF PYOMETRA IN INFANCY
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ABSTRACT: Pyometra, accumulation of pus within the uterine cavity, is very rare in childhood. One cause for pyometra is persistent urogenital sinus - a cloacal anomaly that results in the formation of a single common passage for the urethra and vagina in females.

REPORT OF A CASE: Our patient was a two-month old girl with features suggestive of Patau's Syndrome who presented with a discoloured umbilical hernia. A pyometra was only detected intra-operatively. A single opening at the introitus was identified. The pyometra was drained and antibiotics commenced.

CONCLUSION: A persistent urogenital sinus is rare and clinically occult diagnosis. Meticulous examination is required for an early diagnosis.
FACTORS DECIDING THE APPROACH TO THE DIAPHRAGM
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OBJECTIVE: There are a variety of surgical approaches to repair the diaphragm. We discuss the factors in decision-making for surgical repair.

METHODS: We retrospectively identified all patients who had diaphragmatic injuries repaired at a single hospital between during July 2018 and September 2018. Their records were retrieved and data retrospectively extracted.

RESULTS: There were three cases identified in this series. The first fell from a height and sustained diaphragmatic rupture that required a laparotomy for repair. The second patient sustained a gunshot wound to the left chest and had gastric contents draining from a left thoracostomy tube. A thoracotomy was used to repair the stomach and diaphragm. The third patient sustained a stab wound to the left chest and had a persistent left pleural effusion. This patient required combined thoracotomy and laparotomy for repair.

CONCLUSIONS: One must consider the mechanism of injury, associated injuries and hemodynamic status when making the decision on the approach to repair diaphragm injuries.

A NOVEL TECHNIQUE FOR PERITONEAL ACCESS IN LAPAROSCOPIC SURGERY
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OBJECTIVE: There are numerous procedures to access the peritoneal cavity for laparoscopic surgery. We report another method based on the umbilical fat pad that may be considered.

METHODS: We retrospectively analyzed the outcomes of all consecutive cases in which the new peritoneal access technique was utilized.

RESULTS: There were 130 laparoscopic cases in which this technique was used to gain intra-peritoneal access. Access was achieved in all cases. There were no access-related complications reported in this series. The time to establish a pneumoperitoneum ranged from 20 to 120 seconds. All patients were satisfied with post-operative cosmesis.

CONCLUSION: This is a new technique for peritoneal access that is cosmetically appealing, safe, quick and easy to perform.
KNEE ARTHRODESIS FOR A FAILED TOTAL KNEE ARTHROPLASTY: A CARIBBEAN SOLUTION

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BACKGROUND: There are increasing numbers of total knee arthroplasties being performed. When revision procedures fail or are not appropriate, knee arthrodesis is the most functional salvage option available.

REPORT OF A CASE: A 62-year-old poorly compliant diabetic developed a deep prosthetic infection after total knee replacement. The implant was removed and an antibiotic cement spacer inserted. He was a poor candidate for revision surgery and he was offered knee fusion. After excluding active infection, the patient was taken to the operating theatre where the knee was fused using a docking technique. This technique combines a femoral and tibial nail interconnected by a rush rod and further stabilized by two lateral plates. The patient recovered uneventful and ambulated pain free, with a mild limp.

DISCUSSION: Knee fusion is a salvage option for a failed total knee arthroplasty. Conventional intra-medullary rod fusion techniques typically involve expensive implants which need to be specially requested. The technique described illustrates a low-cost, practical alternative that requires no special training and utilizes readily available implants.

AN ANALYSIS OF MAJOR LOWER LIMB AMPUATIONS

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OBJECTIVE: To investigate the current trends in major lower limb amputations and prospects for rehabilitation.

METHODS: Retrospective data of all major lower limb amputations performed at the Eric Williams Medical Sciences Complex during the period of January 2010 to December 2016 were reviewed. The variation of yearly trends, gender, type of amputation and reason for amputation were analyzed for the mentioned period.

RESULTS: The demonstrated a progressive increase from 2010 to 2016. The average yearly amputation rate for the seven-year period was 28 per 10^5 per year. Males accounted for approximately 59% of cases and the majority (60%) of amputations were done above the level of the knee joint. The most common reason for amputation was control of sepsis in 71.5% of cases. A strong association between major amputations and prior intervention for a foot related problem was observed, as 52% of the sample had a pre-existing wound and 32% a prior minor amputation. Overall 14.5% of all amputees were able to acquire prostheses. Diabetes mellitus was the most consistent associated comorbidity occurring in 90% of the study population.

CONCLUSIONS: Major limb amputations continue to affect our population significantly, with a rise in the amputation rate. Diabetes and its foot related complications is one of the leading causes for major lower extremity amputations. Prosthetic limb acquisition for our amputee population continues to be lacking, reflected by the low prosthetic acquisition rate observed.

PECTUS REPAIR USING BAR

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BACKGROUND: Multiple surgical techniques have been described for the correction of Pectus defects, including the Ravitch and Nuss techniques. Pectus defects have been repaired without a bar with varied results.

REPORT OF CASES: Two boys, both 15 years of age, presented with worsening pectus excavatum deformities. The repair involved a sternal wedge osteotomy with anterior angulation of the affected part. A bar tunnelled between the sternum and the heart for stabilization of the repair. One case was unstable and required re-operation for repair of the lower defect without a bar using a previously un-described technique.

CONCLUSION: Successful repair requires versatility, knowledge of a variety of techniques and a low threshold for reoperation when complications arise.
GASTROCNEMIUS MYOCUTANEOUS FLAP IN KNEE RECONSTRUCTION
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BACKGROUND: Skin grafts are useful in patients who have loss of skin coverage, especially over vital areas such as joints, to maintain the normal barrier and immune function of that area and to aid healing and return of normal function.

REPORT OF A CASE: A 38 year-old woman with type 2 Diabetes Mellitus was diagnosed with septic arthritis due to trauma. She required multiple debridements, resulting in loss of skin cover. She initially had split-thickness skin grafting done that was disrupted due to a synovial leak. She then received a lateral gastrocnemius myocutaneous flap to the knee to enable coverage of the joint and to assist with healing and the eventual return of function.

CONCLUSION: Surgeons should all be familiar with the different methods of closure available in difficult cases to ensure the best outcome for the patient.

VASCULAR INJURY IN A PAEDIATRIC PATIENT
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BACKGROUND: Vascular injury in the paediatric patient is rare and the involvement of the popliteal fossa is even less common. We report a case of a child presenting with popliteal fossa trauma.

REPORT OF A CASE: A 5 year-old boy presented to hospital with crush injury to the left lower limb. There were signs of compartment syndrome and acute limb ischaemia at presentation. He underwent surgical exploration approximately 20 hours post presentation. At exploration a popliteal vein injury was identified and was partially over-sewn. The popliteal artery was in spasm. A long left femoral-posterior tibial bypass was performed with vein graft. Multiple procedures were required for wound closure.

CONCLUSIONS: The management of vascular trauma in children is uncommon and challenging.

GIANT PERFORATED DUODENAL ULCER WITH COMPLETE EROSION OF THE COMMON BILE DUCT
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INTRODUCTION: Although non-steroidal anti-inflammatory drugs (NSAIDs) are used commonly for analgesia, complications are common. We discuss one such complication in this case.

REPORT OF A CASE: An 87 year-old woman had hip replacement one month prior to presentation. After taking NSAIDs for hip pain, she presented with hypovolaemic shock, peritonitis and a pneumoperitoneum. At exploratory laparotomy, an extensive ulcer involving 70-80% the circumference of the first part of the duodenum and a choledocho-duodenal fistula were found. Damage control surgery was performed, but she became unstable post operatively and succumbed to her disease.

CONCLUSION: The use of NSAIDs can be potentially fatal, especially in the elderly. Patient education on the use and side effects of NSAIDs is necessary to avoid delays in presentation and possible catastrophic outcome.
SILENT COMMON BILE DUCT STONES: DO WE ALWAYS EXPLORE?

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INTRODUCTION: Between 5% and 20% of patients undergoing cholecystectomy are estimated to have choledocholithiasis, and the incidence increases with age.

REPORT OF A CASE: An elderly man was found to have a 14mm common bile duct stone incidentally on CT whilst being assessed for colonic malignancy. There was no biliary obstruction as evidenced by the absence of intrahepatic duct dilation on imaging and normal liver function tests.

DISCUSSION: Roughly 10% of patients with common bile duct stones are asymptomatic, but they have elevated liver function tests or biliary duct dilation. However, 2% show no signs of the disease. Although it is routinely recommended that biliary stones be treated, exploration of the common bile duct is not without complications such as pancreatitis, bleeding and duodenal perforation. We discuss whether there is room for observation in selective cases.

LAPAROSCOPIC TRANSABDOMINAL PRE-PERITONEAL REPAIR OF SPIGELIAN HERNIA USING V-LOC SUTURES

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BACKGROUND: Spigelian hernias account for approximately 1-2% of abdominal wall hernias. We report a method to repair these herniae.

REPORT OF A CASE: A 78-year-old man presented with a swelling to the left anterior abdominal wall, confirmed as a Spigelian hernia on CT scans. At laparoscopy, a 7cm defect was closed with V-Loc ® sutures, mesh was anchored to fascia with Prolene ® sutures and peritoneum closed with V-Loc ® sutures. Recovery was uneventful.

CONCLUSION: The laparoscopic trans-abdominal pre-peritoneal repair of Spigelian hernia using this method is a feasible option.

A PINK HERRING IN THE COLON: EOSINOPHILIC COLITIS

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BACKGROUND: Eosinophilic colitis is an inflammatory condition in which the wall of the colon becomes infiltrated by eosinophils which stain densely pink on microscopy. It is an uncommon clinical entity which has a long list of differential diagnoses.

REPORT OF A CASE: A 35 year old male presented with a six week history of right lower quadrant abdominal pain associated with diarrhea and weight loss. Colonoscopy showed an inflamed cecum and a CT revealed a small ascites fluid collection in the right iliac fossa. Biopsy showed eosinophilic colitis and he was treated conservatively with albendazole and then mesalamine. Patient failed to improve over the following month with continued weight loss and a repeat CT scan showed a new right iliac fossa mass. A right hemicolecction was performed with histopathology from the specimen showing mucinous adenocarcinoma.

CONCLUSION: Eosinophilic colitis can mask colon cancer and should be considered a diagnosis of exclusion.
EVOLUTION OF LAPAROSCOPIC SURGERY AT SAN FERNANDO GENERAL HOSPITAL
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BACKGROUND: Laparoscopic surgery was popularized at the San Fernando General Hospital in 2002. The volume and cadre of laparoscopic operations has since increased. We sought to review the volume and types of cases performed at this centre.

METHODS: A retrospective analysis of all laparoscopic cases performed by a single team at the San Fernando General Hospital was performed. The cases were stratified into oncologic resections verses surgery for benign diseases.

RESULT: Laparoscopic oncologic commenced generally as laparoscopic assisted procedures in the first year. Complication rates and patient satisfaction were acceptable in this setting.

CONCLUSIONS: Laparoscopic surgery is feasible and safe in this resource-poor setting.

LAPAROSCOPIC REMOVAL OF A GIANT GALLSTONE
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INTRODUCTION: Gallstone disease is prevalent in the western hemisphere, including the Caribbean region. Giant gallstones with a diameter >5 cm are uncommon.

REPORT OF A CASE: A woman presented with features of biliary colic for one year. On examination, she had a palpable gallbladder without jaundice. On radiologic examination, a 7x14cm gallstone was identified within the gallbladder. A laparoscopic cholecystectomy was performed without event.

CONCLUSION: Although technically challenging, laparoscopic cholecystectomy is feasible in these cases.

BLEEDING AND INFLAMED MECKEL’S DIVERTICULUM
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BACKGROUND: It is uncommon for a Meckel’s diverticulum to manifest clinically over the age of fifty years. We report one such case.

REPORT OF A CASE: A 68 year-old man presented with hematochezia for 12 hours. The right lower quadrant of the abdomen was tender with peritonitis. At operation, an inflamed, phlegmonous Meckel’s diverticulum was found two feet from the ileocecal valve. The appendix and 6’ of ileum incorporating diverticulum and the inflamed ileum were resected and a primary anastomosis was completed. Histological features were consistent with Meckel’s diverticulitis.

CONCLUSION: Lower gastrointestinal bleeding in the adult population due to a Meckel’s diverticulum is a rare manifestation of a Meckel’s diverticulum.
EXTENDED LYMPHADENECTOMY IN WHIPPLE’S PANCREATODUODENECTOMY FOR DUODENAL CARCINOMA
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BACKGROUND: Pancreatoduodenectomy (PD) is the standard operative procedure for peri-ampullary carcinomas. The presence of para-aortic lymph nodes (PALN) in these patients is considered an independent risk factor for an unfavorable prognosis because nodes outside the resection field can harbor micro-metastases. The survival benefit of extended lymphadenectomy (EL) involving PALN during PD is heavily disputed topic.

REPORT OF A CASE: A 68-year-old male presented with obstructive jaundice. A CT scan revealed an 8.3 cm duodenal mass transversing the ampulla, abuting the IVC and hepatic flexure of the colon associated with infra-renal peri-aortic nodes. There was no other sign of distant metastatic disease. A PD with extended lymphadenectomy was performed removing node station 16a. The histology reflected moderately differentiated adenocarcinoma of the duodenum, invading into the pancreas with all margins uninvolved, but the peri-aortic node was positive for metastatic carcinoma. Three months post operatively this patient had good quality of life, despite disease recurrence.

CONCLUSION: The presence of peri-aortic nodes should be not a reason to refrain from extended lymphadenectomy.

PANCREATIC PSEUDOCYST: AN UNCOMMON SEQUELAE FOR A COMMON COMPLICATION
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BACKGROUND: Pancreatic pseudocyst is a complication of pancreatitis with many varying presentations and management options. We highlight an unusual presentation of a pancreatic pseudocyst.

REPORT OF A CASE: A 52 year-old man presented with obstructive jaundice, thrombocytopaenia, a left sided varicocele and a history of acute pancreatitis. Investigations revealed a large pancreatic pseudocyst. He was treated surgically with a Roux-en-Y cysto-jejunostomy with long-term resolution of his symptoms.

CONCLUSION: This was an uncommon clinical presentation of a pancreatic pseudocyst. The presentations of obstructive jaundice and hypersplenism are relatively rare and there have only been 2 reports of left varicocele secondary to pancreatic pseudocysts.

MANAGEMENT OF THORACIC AND ABDOMINAL INJURIES IN POLYTRAUMA
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BACKGROUND: Tracheal lacerations are rare injuries after polytrauma. We present on such case after a motor vehicle accident.

REPORT OF A CASE: A 23 year-old man, who was the restrained, front seat passenger in a motor vehicle was extricated after involvement in a motor vehicular accident. On physical examination there was subcutaneous emphysema and CT confirmed a tracheal laceration at the level of the third thoracic vertebra. Bronchoscopy and oesophagoscopy revealed the posterior tracheal laceration. Repair was completed via a right thoracotomy with bronchoscopy assistance. Bronchoscopy, lavage and suctioning were performed during the post-operative period, facilitating uneventful recovery.

CONCLUSIONS: Tracheal lacerations are rare injuries but the outcomes can be good with appropriate management.
MINIMAL INCISIONS VERSUS LAPAROSCOPY IN PAEDIATRIC SURGERY
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BACKGROUND: Certain neonatal congenital abdominal conditions still require laparotomy incisions. However, there has been an increase in the popularity of laparoscopy in paediatric surgery.

REPORT OF A CASE: We present a few cases including duodenal, jejunal and ileal atresias, inguinal hernia repairs, orchidopexy, pyloric stenosis, foreign body removal and Meckel's diverticulectomy to show that mini-laparotomies may still have a place in a paediatric surgery service at a hospital with limited resources.

CONCLUSIONS: There is still a place for minimal incisions for some paediatric surgical conditions in low resource settings.

ADULT INTUSSUSCEPTION: A RARE BUT IMPORTANT DIAGNOSIS
Rattan J, Milne D, Rambhajan A
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BACKGROUND: Intussusception is common in the paediatric population, but only occurs in 0.003-0.02% of the adult population.

REPORT OF A CASE: A 44 year-old woman with a long history of vague abdominal pain presented to hospital with intestinal obstruction. An exploratory laparotomy revealed a right colonic intussusception that was resected. Pathologic examination identified a colonic adenocarcinoma as the lead point.

CONCLUSION: Approximately 66% of lead points in colonic intussusception are malignant neoplasms. Therefore, clinicians should maintain a high index of suspicion.

SPONDYLODISCITIS LIKELY SECONDARY TO MYCOBACTERIUM TUBERCULOSIS
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BACKGROUND: We report the case of a patient with a challenging cervical spine injury and misdiagnosis of spondylodiscitis.

REPORT OF A CASE: A 34 year-old man with history of poly-substance abuse and cervical injury, presented with a three-month history of poor coordination of lower limbs and upper limb weakness. Radiologic investigations revealed a C7 spinous process fracture and comminuted fractures of C6 / C7. An anterior cervical corpectomy with an expandable cage was scheduled. Intra-operatively, pus was found deep to the pre-vertebral fascia, involving the C6/C7 vertebral bodies. A titanium expandable cage was still implanted to attain spinal stability, but he represented six months after with similar complaints. Radiological findings at that time revealed a grossly displaced implant and anterior spondylolisthesis of C5. Intra-operatively, there was loosening of screws and pus around the titanium expandable cage. The titanium cage was explanted and posterior cervical fixation of C5/T1 was performed. Further investigations confirmed the presence of miliary tuberculosis.

CONCLUSION: This uncommon case was likely secondary to mycobacterium tuberculosis. The role of surgery is truly controversial in these cases, leading to a loss of hardware and worsening neurological deficit.
COMPLEX ABDOMINAL WALL RECONSTRUCTION WITH LOSS OF ABDOMINAL DOMAIN
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BACKGROUND: Loss of domain is defined as a clinical scenario when more viscera are outside the abdominal cavity than inside. This makes fascial closure difficult and can result in intra-abdominal hypertension. Preoperative pneumoperitoneum followed by definitive mesh hernioplasty may be an option for surgical repair.

REPORT OF A CASE: A 62-year-old woman presented with a huge ventral wall hernia and loss of domain for abdominoplasty. She noticed an umbilical swelling three years before that progressively increased in size, eventually causing abdominal discomfort, nausea and vomiting. A CT Scan identified bowel herniation through a 4x5.4cm anterior abdominal wall defect. Serial consecutive pneumoperitoneum followed by abdominal wall mesh hernioplasty was performed.

CONCLUSION: The technique of serial pneumoperitoneum followed mesh hernioplasty is a surgical option.

OESOPHAGEAL PERFORATION: A COMBINED APPROACH
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BACKGROUND: Oesophageal perforation is a surgical emergency that is associated with high morbidity and mortality. Most are iatrogenic but foreign bodies are also an important cause.

REPORT OF A CASE: A 25-year-old man presented with a two-day history of dysphagia after swallowing his dentures. Endoscopy revealed a foreign body in the cervical oesophagus. Attempted retrieval by flexible and rigid oesophagoscopy was futile, resulting in advancement into the stomach. Subcutaneous emphysema was detected on the table and chest radiography revealed a pneumo-mediastinum. Flexible oesophagoscopy confirmed a small oesophageal perforation 30cm from the incisors that required emergency primary repair.

CONCLUSION: In our setting, a combined open and endoscopic approach is a safe option for primary oesophageal repair.

PELVIC PSEUDOTUMOUR IN A GUYANESE HAEMOPHILIC
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BACKGROUND: Haemophilia is a hereditary X-linked disorders resulting in deficiency of clotting factors VIII and IX. These patients are prone to recurrent bleeding.

REPORT OF A CASE: A 24 year old man presented with a left pelvic mass. On CT, a bone cyst was identified but excision revealed an organized haematoma. The mass recurred one year later but aspirates for cytology revealed a “hypo-cellular smear with background haemorrhage background and scan lymphocytes.” At this point, a suspected diagnosis of Ewing Sarcoma led to treatment with radiation, without resolution. Repeat detailed investigations suggested a haemophiliac pseudo-tumour. Misdiagnosis of Ewing Sarcoma resulted in un-necessary radiotherapy and earlier diagnosis could have prevented this pseudo-tumour.

CONCLUSION: Physician awareness may have led to an earlier diagnosis. A dedicated haemophilia program and regular supply of factor VIII concentrate may also improve therapeutic outcomes.
FACTORS THAT AFFECT SURGICAL OUTCOMES AFTER TOTAL KNEE ARTHROPLASTY IN TRINIDAD AND TOBAGO
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BACKGROUND: This study aims to identify factors affecting post-operative outcomes for patients undergoing total knee replacement in Trinidad & Tobago.

METHOD: In this prospective cohort study, patients were selected from the waiting list of a single facility for the “Operation Walk Maryland Project”. The following data were collected from study participants: demographics, comorbidities, BMI, preoperative interventions, pre and post-operative Oxford Knee Scores. The relationship between patient factors and the change in the Oxford Knee Scores after operative intervention was investigated using Stata v.14.

RESULTS: The pre-operative Oxford score was shown to be inversely related to difference between pre and post-operative Oxford scores by a factor of -0.89 [p<0.0001; r squared 0.66], with no significant relationships between age, gender, BMI, diabetes or use of physiotherapy and aqua therapy and post-operative Oxford Knee Scores. A significant relationship between steroid use pre-operatively and improved outcome [p=0.018] was identified. It was also noted that this difference was dependent on the number or steroid injections [p=0.0069].

CONCLUSION: In patients undergoing total knee arthroplasty, only the pre-operative intra-articular steroid injections showed any significant relationship between difference in pre- and post-operative Oxford scores.

DISSOCIATION OF A MODULAR HUMERAL PROSTHESIS: A RARE COMPLICATION
Mencia M, Skeete R, Augustus A
Port of Spain General Hospital, Trinidad & Tobago

BACKGROUND: Although dislocation of a shoulder hemi-arthroplasty is not uncommon, dissociation of the modular components in modern 3rd generation humeral prostheses are rare. To the best of our knowledge this is the first report of such an event.

REPORT OF A CASE: A 47-year-old man presented with a six-week history of a missed posterior shoulder fracture-dislocation following an epileptic seizure. A shoulder hemi-arthroplasty with a 3rd generation modular prosthesis was performed because the humeral head defect was not amenable to reconstruction. He defaulted from follow up after hemi-arthroplasty but presented 2 months later with a painful, stiff shoulder. Radiographs revealed a dissociation of the modular head-neck junction. Revision surgery was performed and he regained satisfactory shoulder function.

CONCLUSION: This is a rare complication that may compromise outcomes after shoulder hemi-arthroplasty.

MILROY DISEASE. HELP PLEASE
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Email: nicard@gmail.com

BACKGROUND: Milroy disease is uncommon and its management is challenging in a resource-poor country.

REPORT OF A CASE: A 3-month old girl presented with a history of peri-orbital swelling, fluctuating right upper limb swelling and recurrent ear infections. She now re-presented at 11 year of age with cellulitis of the upper limb and recurrent pleural effusions. Conservative management has allowed her to perform day-to-day activities, but she continues to have recurrent effusions despite decortication and pleurodesis.

CONCLUSION: Primary lymphedema is a rare and progressive disorder that occurs in 1 of 100,000 persons. There is no consensus regarding the optimal surgical approach, but some options include pleurodesis, thoracic duct ligation and lymphatic bypass procedures.
PRE-OPERATIVE NEPHROSTOMY IN CHILDREN UNDERGOING PYELOPLASTY FOR PELVI-URETERIC JUNCTION OBSTRUCTION
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BACKGROUND: Pelvi-ureteric junction (PUJ) obstruction is the commonest cause of hydronephrosis in children. Occasionally, urgent kidney decompression is required as a temporizing measure prior to pyeloplasty. This study sought to determine the usefulness of pre-operative nephrostomy in children undergoing pyeloplasty.

METHODS: We retrospectively reviewed all consecutive paediatric pyeloplasty cases at a single centre between 2007 and 2018. Patients having additional pathology other than PUJ obstruction were excluded. The following data were extracted: patient age, renal function and performance of pre-operative nephrostomy. The primary outcome measure was radiologic improvement in hydronephrosis after pyeloplasty, in which case the surgery was deemed successful.

RESULTS: There were 42 children who had surgery for PUJ obstruction at a median age of 3 years (interquartile range 1, 5). Children <2 years old accounted for 42.8% (n=18) of the study cohort. Median differential renal function was 28%. A pre-operative nephrostomy was performed in 7 (17%) patients and 35 (83%) patients had no prior decompression. In the pre-operative nephrostomy group, one patient (14%) underwent nephrectomy based on intra-operative findings of an unsalvageable kidney. In patients without prior decompression the nephrectomy rate was 8.6% (n=3). Post pyeloplasty, 14.3% (n=5) of patients had resolution of hydronephrosis on imaging, while 85.7% showed adequate drainage or improving dilation. No patient had worsening hydronephrosis.

CONCLUSION: In some cases, pre-operative nephrostomy may be useful as a temporizing measure to preserve renal function.

THE RECTUS REPAIR: NON-MESH REPAIR OF PRIMARY VENTRAL HERNIAS
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BACKGROUND: Ventral hernia repairs continue to be a challenge, with multiple surgical techniques described and high recurrence / complication rates. A rectus repair suturing technique, initially described by Naraynsingh et al in 1993, was employed at our institution. We retrospectively evaluated outcomes using this method.

METHODS: A retrospective observational study was performed of all consecutive ventral hernia repairs performed over a nine-year period from 2009 to 2018 at the Sangre Grande Hospital in Trinidad & Tobago.

RESULTS: Of 214 patients with primary ventral hernias, 152 (71%) had the modified rectus repair. There were 15 recurrences: 10 after en masse closures (25%), 1 after laparoscopic repair (10%) and 4 after Rectus repair (2.6%). However, there were high complications rates after rectus repair (28%), with seroma being most common.

CONCLUSIONS: The rectus repair is an acceptable alternative to mesh reinforcement for primary ventral hernias.
THE DIABETIC FOOT INFECTION SURVEY
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BACKGROUND: To determine the feasibility in using an online mobile application for data collection and evaluation of trends in diabetic foot infections.

METHODS: We targeted all consecutive patients admitted for diabetic foot infections over a three-month period at the Eric Williams Sciences Complex in Trinidad & Tobago. A mobile device with specially designed software was used to collect variables from patients with diabetic foot infections, including age, gender, duration of diabetes, mechanism of injury, length of time before presentation to hospital, previous admissions for diabetic infections, extent of peripheral neuropathy, glycosylated haemoglobin A1C, white blood cell count, use of home remedies and presence of the slipping slipper sign.

RESULTS: There was a male predominance (56%), mostly between the ages of 61 and 70 years. Most of the patients had unknown injury mechanisms (65%), bringing to light the severity of neuropathy in these patients. Approximately 80% of patients had glycosylated haemoglobin levels >6.6%, reflecting poor glycaemic control.

CONCLUSION: An electronic survey tool was feasible to collect data and to investigate trends, such as a relationship between diabetic foot infections and the degree of peripheral neuropathy.

SURGICAL SITE INFECTION FOLLOWING INGUINAL HERNIA REPAIR IN A DAY CASE SETTING IN GUYANA
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BACKGROUND: To determine the incidence of surgical site infection (SSI) following Lichenstein open mesh repair at an ambulatory setting in Guyana.

METHODS: A prospective cohort study was carried out to determine the incidence of SSI following Lichenstein open mesh repair in a day case setting from December 13th to December 15th, 2018. 50 Patients were enrolled at admission once verbal consent was given. All patients who underwent inguinal hernia repair were included. We documented the following data: prophylactic antibiotic use, skin preparation and sterility during surgery. Patients were also interviewed via telephone on post-operative days 7, 14, and 21 respectively; those who reported signs of possible SSI returned to the hospital to be examined. On postoperative day 30, all patients were examined for any post-operative complications. The Southampton scoring system was used at each interview and outpatient visit to determine whether the subjects developed a SSI.

RESULTS: There were 50 patients included in this study. The incidence of SSI following these cases was 14% with one patient presenting during week 1 post-operatively and 3 patients each presenting during weeks 2 and 3 post-operatively, respectively.

CONCLUSION: Surgical site infection after hernia repair is common. However, this study was unable to pinpoint specific causative factors for the development of SSI. Large clinical trials are required to determine which factors are responsible for the incidence of SSI.
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