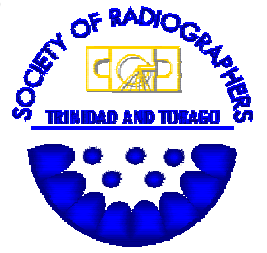


Oct 31st to Nov 1st
Annual Conference 2009
Tobago

The Society of Radiographers of Trinidad & Tobago

SRTT DETECTOR



Volume 1, Issue 2

Support Your Society: Renew or Join Today! ...Founded Since 1973.

01-June-2009

The Second stated Objective of the Society of Radiographers according to its Memorandum of Association is:

- "To bring together the various members of the profession engaged in or concerned with the Science of Medical Imaging and Radiotherapy so as to promote awareness of the problems of the profession and of the latest scientific developments, techniques, practices and contributions made thereto"

Infection Control

CPD Lecture

Radiology Department

San Fernando General Hospital

Wed 17th June 2009, 1:30 pm

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Conventional Angiography: As I know it in Trinidad

In Trinidad, angiography has evolved from the early days of *dark adaptation* to the more modern and first world method of *digital subtraction angiography using flat panel detectors*.

I remember coming across the appropriate equipment required for direct fluoroscopy at a private hospital in south Trinidad around July 1990 and saying to myself this must be scary for the patient, to remain in the darkness and hear the cross conversation full of technical jargon whilst having the procedure performed on them. I remember having to wear dark adaptation goggles and pulling cassettes out of a spring loaded holder filled with cassettes, with the pull being in a timely fashion in order to catch the various phases of the angiogram, I must say those days are gone but not forgotten.

Today I am proud to say that I use a system with pre-programmed views accessible by the touch of a button and

digitally processed and archived images requiring very little or no enhancement whatsoever which can be burnt to a compact disc (CD) or sent via the internet as an electronic film to anywhere in the world in a matter of minutes.

Angiography as I know it today is seeing it's best days ever with the Radiographer being able to cross train in other technical fields whilst keeping their Primary role. Angiography requires a very strong team spirit and growth is endless in this field, it no longer carries the stigma of high Radiation doses as it did in the past and justifiably so.

Today, one can look forward to cross training in the related fields such as Cardio Vascular Technology (CVT), which is also a Profession by itself that entails Hemodynamics as well as Echocardiography and Electrocardiography with all aspects being interdependent. CardioVascular Technology training is available to Radi-

ographers working at Eric Williams Medical Sciences Complex free of charge under the guidance of Johns Hopkins University (Johns Hopkins Medical Institutions) who has been contracted to provide training for Catheterization Laboratory (Cath Lab) Staff at that hospital. Radiographers today are very lucky to have the opportunity to get into angiography in a more formal way by having available appropriately qualified persons with years of experience to teach them.

It is a unique experience to be part of that team that actually save lives as it unfolds in front of your eyes and you do feel a sense of accomplishment at the end of the days work, with a well deserved days pay of course.

By Chaitram Ramroop RRR, Interventional Radiographer
Advanced Cardiovascular Institute POS.

From the Executive

This is our second quarterly issue and we would like to thank **BayerScheringPharma** for their generous co-sponsorship in the printing of our SRTT Detector Newsletter.

The Society recently held its Annual General Meeting on the 14th March 2009 at which

the 2008 Annual Report was delivered and a new Executive Committee was elected.

The Committee Members are:
Aleth Bruce/Petrotrin
(President)
Debra Ealie-Bastaldo/SGH
(Vice President)
Timothy Dean/Petrotrin
(Secretary)
Aleithea Bruce/EWMSC

(Treasurer)

Carla Julien Haywood/SRH
(Assistant Sec./Treas.)
Aneesa Ali/SFGH
(Committee Member)
Alisha Ramadeen/AHF
(Committee Member)
Anushka Kattick-Mahabirsingh / CASi
(Council Member ISRR).

Our team looks forward to a successful term of office and hope that you would support us in all our endeavors.

PACS in Trinidad and Tobago

By Sathyanand Ramkhalawan RRR, PACS Administrator EWMSC

As the need increases to improve radiological services, the implementation of *Picture Archiving Communication System (PACS)* is making significant impact on healthcare enterprise globally. In Trinidad, some of the major radiology departments are in the process of installing a PACS system.

Despite the fact that these departments have made significant strides in updating itself with advanced imaging units, it has failed to address some of the plaguing workflow deficiencies. Workflow deficiencies have been far too long a major problem in the functioning of efficient and productive department.

Unfortunately the magnitude of this PACS project has not been realized, thus not much pre-planning has occurred. As such, it seems as though that PACS is a mere modality to be installed rather than an extensive ongoing project. PACS is not a "plug and play" system, in fact a lot of attention and emphasis must be placed on pre-planning, implementation and problem solving. It is the hope that the relevant personnel seek to educate themselves in this new development so that the benefits and rewards of PACS implementation will be attained.

THE BENEFITS OF PACS IN TRINIDAD AND TOBAGO...

The use of PACS will definitely improve the workflow; with an integrated HIS-RIS the process of submission of radiology request will be reduced to a much faster and simplified process. There will be fewer errors; prior studies will be easily available and scheduling of appointments simplified. Also, a work list can be generated at the

different modalities, thus the elimination of entering patient information, decrease in workflow steps and greater accuracy. Images will be automatically routed to the various workstations located throughout the hospital once the examination is closed, thus eliminating the use of the darkroom and the need for film sorting. Film lost will also be reduced.

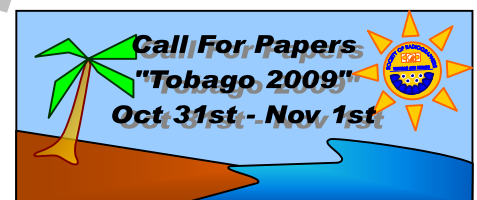
The implementation of PACS will enhance the overall productivity. It allows the display of images at all workstations, this enables clinicians to view images on the various wards rather than make time-consuming trips to the department thus significantly improving their workflow.

The introduction of PACS will no doubt make a significant impact on the reporting paradigm. A key feature of PACS is the use of Voice Recognition Technology (VRT) or Speech Recognition. This has the potential to reduce the reporting turn-around time to mere hours in all specialties as compared to the present reporting time of weeks. The time-consuming, care-delaying dictation/transcription loop will be eliminated.

From a holistic perspective, PACS will definitely make a significant contribution to any medical enterprise especially in the workflow chain. Throughout the workflow chain, all of these chains streamline the process and improve patient flow, safety and care. Patient satisfaction is increased, less time is required for taking digital images, retakes are eliminated, dose exposure is decreased, errors are reduced, patients no longer have to pick up and transport their films, and physicians have more time to consult with patients.

Change by its very nature represents a state of disequilibria and movement from comfort zones. The whole new concept of viewing images from a monitor can present resistance from radiologist, physicians, surgeons and even radiographers who are not accommodating to new technology. In a workflow chain, the chain is as only as strong as its weakest link. A weak link in the chain will decrease the total resulting value. Implementation of PACS without physician support can result in an unwillingness to convert to reading images from a monitor as oppose to film. This eliminates any advantages that will result from saving on film costs and productivity. The development of a culture change is a necessary requisite for the success of implementation and integration of PACS. This starts with a structured PACS awareness/sensitization program.

There is no doubt that PACS implementation is a major undertaking. Over the last two decades, the health institutions have been operating with what is about to be called the 'outdated department' be it films, darkroom, paper, filing room etc. The imaging department of today is now filmless and paperless with digital imaging. Currently, departments are plagued with various workflow deficiencies, but the time has come for its eradication. PACS officials need to undergo formal training to keep abreast with the PACS revolution. PACS workflow will definitely make a tremendous impact on the radiology workflow and hospitals to an extent once the correct planning and management is integrated.



Council for the Professions Related to Medicine (CPRM)/ Radiographers' Board: New Radiographers' Board

The Radiographers' Board also held its election of members on the 4th April 2009 when ten members were elected.

The persons newly sitting on the Board are: *Shirley Bland-Mohon, Wilma Collins, Christine Khan, Marcus Duncan, Suzette Thomas-Rodriguez, Shiraz Khan, Solange Eligon-Khan, Reisha Alleyne, Aleithea Bruce and*

Hansraj Ramsubhag.

The Board members are to be appointed by the Minister of Health and will hold office for a period of three years.

The Board needs your support by registering annually and reporting any questionable practices to the CPRM to ensure that the public receives the highest qual-

ity care by qualified registered professionals.



Copies of Act No. 35 of 1985 is available from the Society of Radiographers, Government Printery and online at Ministry of Legal Affairs Website:

www.legalaffairs.gov.tt

Are you registered with the CPRM / Radiographers' Board? Do you know it is illegal to practice without Registration!

MDCT Coronary Angiography

HISTORY: 44 year old male, smoker, had Myocardial Infarction (MI) at age 42, Conventional Angiogram showed sixty percent (60%) stenosis of the right coronary artery; Status post Stenting for follow up scan to check patency of stent and other arteries for any stenosis.

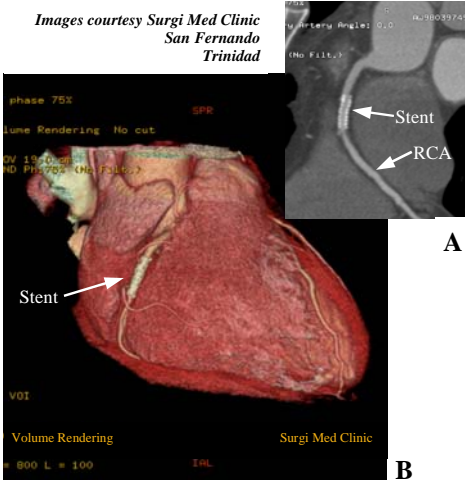
TECHNIQUE: Patient was scanned at *Surgi Med Clinic* using our Multi Detector CT / GE 64 slice VCT.

We used our cardiac protocol, snap shot segment (helical Scanning) with a rotation time of 0.35 seconds.

-Field Of View (FOV)	25cm.
- kVp	140
- mA	230-300
- SLICE THICKNESS	0.625mm
- HEART RATE	55-60 BPM
- CONTRAST MEDIUM	Ultravist 370
- RATE OF INJECTION	5mls per sec
- C.M. VOLUME	60 mls Ultravist, 20 mls (ultravist and 0.9% sodium chloride mixed 60/40) and 30mls 0.9% sodium chloride flush
- POST PROCESSOR	GE ADW 4.4

RADIOLOGIST'S REPORT: The present study shows stent in situ in the right coronary artery. There is no re-stenosis of

the stent nor any thrombus appreciated within the lumen. The images of the lumen view of the stent in the right coronary artery (image A) and of the right coronary artery in relation to the heart (image B) can be seen below.



DISCUSSION: Since the introduction of the 64 slice CT scanners, Cardiac CT has been gaining popularity as a screening tool for Coronary Artery Disease (CAD) and for the evaluation of bypass grafts and congenital heart disease.

By **Stephen Persad RRR, Radiographer**
Surgi Med Clinic, San Fernando

The CT Angiograms are relatively non invasive (it only involves the contrast injection in the arm) and has less complications than a conventional angiogram. The only risk of the CT angiogram is reaction to the contrast media which is also a risk of the conventional angiogram.

There are some limitations and concerns involved with Cardiac CT scans also. The radiation dose to the patient is higher than conventional angiograms. It is good for patients with non specific chest pains and as a screening tool for coronary artery disease but if patients are high risk patients that will most likely need intervention. These patients should have cardiac catheterization because they can have it done immediately in the "cath lab" according to our Consultant Cardiologist at the *Surgi Med Clinic*, Dr. Godfrey Aleong. CT Angiography has a high negative predictive value, this is to say that if your CT angiogram is negative the results are very accurate.

CONCLUSION: Cardiac catheterization remains the 'gold standard' for coronary imaging but CT coronary angiography has its place and maybe in the future it will take over as the method of choice in the diagnosis of coronary artery disease.

Students say: Smooth sailing

By **Radiation Therapy Students Yr 1**
College of Science, Technology and Applied Arts of Trinidad and Tobago

Cancers are among the leading causes of death in Trinidad and Tobago. Radiation therapy is one of the primary treatment modalities used to combat this disease. However, this may lead one to ask him or herself, "Does Trinidad and Tobago possess the necessary equipment and personnel to make radiation therapy accessible to its citizens?" The answer is, yes. The College of Science Technology and Applied Arts of Trinidad and Tobago (COSTAATT), through the vision of Ms. Wilma Collins, has taken the daring steps to help make radiation therapy more accessible to the people of Trinidad and Tobago by introducing the Bachelor of Science Degree in Radiation Therapy program. This initiative makes the college the first in the Caribbean to do so.

We as students of this program are honored to be part of the mechanism that is geared towards providing better health care for the cancer patients of Trinidad and Tobago. However, as with any vessel on its maiden voyage there are likely to be some unforeseen obstacles in



its path. The most salient of these obstacles the college encountered was: the procurement of lecturers for some of our courses, which was due to the limited number of radiation therapists in the world; and that sites to obtain our clinical experience were not yet acquired. Although, we knew that the college was trying its best to resolve these issues, it left some of us thinking, "What trouble have we gotten ourselves into?" At this point, we decided that we would brave the storm since we were determined to keep true to our goal which was to become the best radiation therapists that Trinidad and Tobago and by extension that the Caribbean can produce. We are proud to state that not one student from either year one or year two dared to turn back; not knowing what was ahead.

It was while traversing these uncharted waters we saw our beacons of light. Hence, our thanks to the National Radiother-

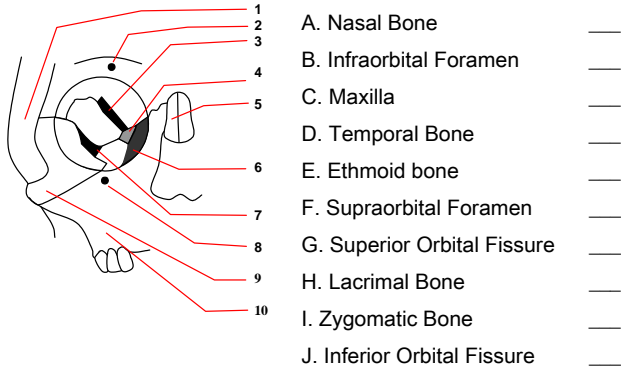
apy Centre; which was at one point the sole centre that we were able to acquire clinical experience. In addition, we must give recognition to Mrs. Vernessa Gaines-Cuffy and the staff of that centre who willingly imparted their knowledge and experience to us. Another beacon of light emerged, from the hard work and persistence of our clinical coordinator, Ms. Susan Morgan, resulted in the college securing both local and international venues for us to acquire our clinical experience. Therefore, we would like to express our gratitude towards the administration of the Brain Lara Cancer Treatment Centre for agreeing to have us obtain our clinical experience at their facility; we are extremely thankful for this gesture.

Although, we have not yet attained our degree it is evident, that the worst of the storm has passed and there would be relatively smooth sailing ahead. At this point in our journey, we have learnt that in face of adversity we all must hold our course. We have yet to discover what other lessons will be learnt in the future.

Activity Page

Anatomy Review

Name the structures about the right bony orbit:



(Answers: A5, B8, C10, D1, E4, F2, G3, H6, I9, J7)

Post Test

Complete the Post Test questions, email the answers or submit the answer sheet And you can win a **Medium Pizza!** The winner will be drawn randomly and will be announced by email and published in the next SRTT Detector Newsletter. **Deadline: 31st July 2009** (One submission per Person).

- What does CVT mean:
 - A. Coronary Vascular Test
 - B. Contrast Volume Therapy
 - C. Caribbean Vantage Tract
 - D. Cardio Vascular Technology
- VRT stands for:
 - A. Versatile Radiation Therapist
 - B. Valid Registration Trial
 - C. Virtual Reality Treatment
 - D. Voice Recognition Technology
- Where online can you find Act No. 35 of 1985:
 - A. www.health.gov.tt
 - B. www.legalaffairs.gov.tt
 - C. www.soradtt.com
 - D. www.I-dont-know.com
- MDCT Angiography is the 'gold standard' for Coronary Imaging :
 - A. True
 - B. False
- What is one of the primary treatments in the fight against cancer:
 - A. CT
 - B. Medical photography
 - C. Radiation Therapy
 - D. Echocardiography

Answers:
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____



Our Winner of the last Post Test is:
Neela Dipnarine, RRR
San Fernando General Hospital



Name: _____
 Phone: _____
 Date: _____

Word Sleuth

Can you find the following surnames of Radiographers?

Bruce	Collins	Bland-Mohon	Ward
Henry	Ramsubhag	Rocke	Prashad
Rodriguez	Jack-Rolston	Hodges	Bernard
Ealie-Bastaldo	Oudit	Deen	Baah
Wint	Nicholls	Ramharrack	Doman
Abdool	Ramsaran	Gaines	Tewarie
St Rose	Metivier	Regisford	Alleyne

Z E U G I R D O R E I R A W E T
 X A Z F S E S L D R A N R E B G
 S O E T L G B T Y R N E H Y A R
 R T E T L I L O R M L S C H O E
 N A D N O S A Q U O N J B C A I
 O L A I H F N X W I S U K L K V
 T L H W C O D Z L R S E I K U I
 S E C D I R M L A M G E P D S T
 L Y K A N D O M A A B D O O L E
 O N S H D C H R X A H I L I B M
 R E E S A A O H S W O T D R A W
 K V N A R N N T O S N O U N Q A
 C K I R E V A U E D M C E R L A
 A F A P B L D L A A E E H A A B
 J C G M D I E R N Y D S E E G C
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