



CONTENTS

President's Message	1
Honorary Award Ceremony	2
First Doctors of Health Sciences Graduate	3
Interested to become an academician?	3
Editor's Note	4
From the Secretary's desk	5
National Institute of Occupational Safety and Health (NIOSH)	6
Repetitive stress and work-related injuries	8
Musculoskeletal disorders among Sonographers	10
Injuries at work – A radiation therapists view	12
MultiHance®	13
Personnel Monitors	14
Pass on the Inspiration	14
Radiation dose and paediatric CT procedure	15
Work	15
Excerpts from John Kehoe	16
Keys for joyful living!	17
You are your desserts	17
I am thankful	17
Penang Adventist Hospital (PAH) goes digital	18

President's Message

Assalamualaikum warahmatullahi wabarakatuh and Salam Sejahtera to all Radiographers

Firstly, I would like to thank the editorial committee for giving me the opportunity to say a few words in this first issue of Sinaran for 2006.

The existence of Sinaran provides a very good platform for sharing ideas and knowledge within the radiographers' community. It also plays a role as a medium for disseminating and updating the latest information to all the members. In order to receive the Sinaran Newsletter on a regular basis please make it your responsibility to update your current address as you would when relocating to a new home address so that you will not miss out on all the latest information.

The new integrated scheme that we have long awaited for is here. Though there will be a few hiccups as in all new endeavours we will smooth them over with the support from MOH (Ministry of Health). Let us all together focus on positives career pathways and advancement.

As everyone is aware the new scheme comprises Grade U29 to Grade U 36 for the Diploma holders and Grade U41 to Grade U54 for the Degree holders; meaning that opportunities are now wide open for all radiographers to improve themselves. This is an excellent opportunity especially for the junior radiographers to enroll in a topping up degree programme. With the inclusion of our profession into the professional group we must build a new strong image and improve our way of delivering services. We can learn from our colleagues in the private sector who have set the bar higher especially in the corporate values they adopt. Hence, the first activity for our Society for 2006 is the Study Day cum Psychedelic Night themed "Image Building for Radiographers" on the 26th of February at The Mines Beach Resort & Spa, Seri Kembangan.

I would like to also strongly urge all members to give their support and contribute to our journal, the **MAJURAY**, which the Education Committee would like to circulate by September this year. Submissions to the committee may be done immediately to help facilitate the scheduled editing and printing process.

Finally I would like to thank all the members who have supported the society all these years without which we could not function. The increased numbers in membership makes me and the entire Malaysian Society of Radiographers feel great pride and it has increased our strength to forward any issues we may have to the higher authorities.

Warmest Regards,

Hjh. Salmah Ahmad

President

Malaysian Society of Radiographers



There can be hope only for a society which acts as one big family, not as many separate ones.
Anwar Sadat – Egyptian President



HONORARY AWARD CEREMONY

Standing left to right: Vice Chancellor, Deian Hopkin; Pro-Chancellor Jane Newell; David Grayson; Rt Rev Dr Tom Butler, Bishop of Southwark; Peter Kyle; Anne Owers; Kevin Spacey; Chancellor Sir Trevor McDonald

Sitting left to right: Sir Peter Mansfield; Lord Victor Adebawale; **Tyrone Goh.**

Wednesday, 9 November 2005 was a proud day for Singapore, the Radiography profession and me. It was the day when I was officially conferred the Doctor of Science, honoris causa by the London South Bank University (LSBU).

The ceremony held at the Southwark Cathedral was fully packed with academics from LSBU and invited professors from other London universities. There were 4 graduands receiving their doctorate. One each for Doctor of Laws, Doctor of Letters and two for Doctor of Science. Four others received their fellowship. These are individuals who have rendered outstanding service to the university and community.

It was a very impressive ceremony where the Deans and senior academics of the Faculties in their academic robes of all hues and designs were ushered in. These were followed by invited dignitaries and royalties. Lead by the University's mace bearer, the Graduands, Chancellor and his senior staff were ushered into the sanctuary accompanied by music from the cathedral's pipe organ. My family, who accompanied me to London, were seated at the front pews. They were beaming with pride and joy. When my name was announced, I was ushered to the front of the cathedral's sanctuary, where the pro-chancellor read my citation. Below are the excerpts of the citation.



Mr Tyrone Goh, was the first Singapore radiographer to join the small group of elite scholars under the Colombo Plan scholarship awarded by Singapore's Public Service Commission (PSC) to study advanced medical imaging and techniques. He received

his clinical training at Middlesex, Guys, St. Thomas and King's College in London, United Kingdom. He has an MBA from Hemley Management College, a Fellow of the UK College of Radiographers and a Fellow from the Australian Institute of Radiography. He has been appointed a visiting fellow of LSBU for several years.

Tyrone has been recognised for his leadership in the International Society of Radiographers and Radiological Technologists (ISSRT) comprising of 82 countries with more than 3000,000 members. He is their current President. The

Society, with official relations with WHO, IAEA and other international organisations related to radiation medicine has contributed much to support and improve the standards of x-ray technology in countries like in East Europe, Africa, India, Fiji and Central America. Tyrone has said that "all countries, no matter how poor or underdeveloped should have at least a basic radiological service. ISSRT is there to support the efforts of the local governments and international organisations to make this happen"

As a reservist Captain of the Singapore Armed Forces (SAF), he redesigned and reorganized the imaging services in the field hospitals. He serves in several advisory boards pertaining to healthcare and radiography training in Singapore. For his achievements, he was awarded the Pingat Kepujian (Commendation Medal) by the President of Singapore.

Tyrone works for the National Healthcare Group (NHG) in Singapore and holds concurrent appointments as Chief Executive Officer, NHG Gulf, General Manager, NHG Diagnostics and Director, Administration and Operations, the Children's Medical Institute, National University Hospital Singapore.

Chancellor, Tyrone Goh has contributed much to both the profession of radiology and to healthcare on an international level through his work with global organisations and also through his continued partnership with this University. It is with great pleasure that I present to you Mr. Tyrone Goh for granting of honorary doctorate of London South Bank University.

Of significant note, my fellow recipient for the Doctor of Science is a Nobel Laureate and a Knight of the Garter, Sir Peter Mansfield. A medical physicist by training, he has made pioneering contributions to Magnetic Resonance Imaging (MRI) in 1970. Today over 60 million investigations with MRI are performed each year.

Dr. Tyrone Goh

President of (ISSRT) International Society of Radiographers and Radiological Technologists

Article courtesy of Singapore Society of Radiographers, Vol. 47, Issue 4, Nov/Dec 2005

FIRST DOCTORS OF HEALTH SCIENCES GRADUATE WITH FLYING COLOURS 30 JANUARY 2006

The University's Faculty of Health Sciences has achieved a significant landmark, with the awarding of the first three, prestigious **Doctor of Health Sciences (HScD)**, including two previous graduates of the University of Sydney. Academic Program Coordinator, Associate Professor Barbara Adamson said the awarding of the inaugural doctorates was a special achievement for the Faculty.



The three recipients are:

- **Mohd Hanafi Ali (M Mrs '01): Trends in abdominal doses in Malaysian practices,**
- **Mei-Han Lo (Mgerontology '97): Family care among elderly Chinese immigrants in Australia: a quality of life study.**
- **Cheryl Hobbs: Physiotherapy students' attitudes towards and knowledge of older persons.**

The Health Science Professional Doctorate Program was introduced in 2000 to serve the needs of allied health professionals and to develop close links between professions, workplaces and the University of Sydney. Professor Adamson said the professional doctorate combines a coursework program with quality, robust and rigorous research, informing the workplace, to provide higher quality services to clients.

Dr. Mohd Hanafi Ali is currently attached to the Faculty of Health Sciences, University Teknologi Mara, Petaling Jaya and serves on the executive Committee of the Malaysian Society of Radiographers as Forward Planning Chairman.

Interested to become an academician?

A) The Faculty of Health Sciences, **Universiti Teknologi MARA** would like to invite you to apply as:

- Academic staff
- TPM Scholarship candidate

Minimum eligibility:

- With degree. (2nd class upper)
- With degree + clinical experience > 2yrs, age <35.

B) While, those who are interested to pursue further study, you are invited to apply for: Bachelor Degree in Medical Imaging (Hons.) - UiTM - (e-PJJ mode).

Hj. Sulaiman Md. Dom

Head, Medical Imaging Program, Faculty of Health Sciences, UiTM.

Tel : 03-79652004 (office), 019-7609615 (mobile)

Fax : 03-79652104, 2012

Email : sulaimanmd@salam.uitm.edu.my or smd_dom@hotmail.com

Radiographers with Degrees
keen to be tutors in the
Ministry of Health Malaysia
may also apply online to
www.ipa.gov.my
for further information.

Changi General Hospital is looking for Radiographers in the
fields of Angiography, Magnetic Resonance Imaging and Computed
Tomography. The salary is **S\$3500** per month with extra allowances
for calls and also 13 month's pay. For further details please
email: ms_radiographer@yahoo.com

**A WORKING GROUP FOR A TECHNICAL COMMITTEE FOR MALAYSIAN STANDARD AT SIRIM
WILL BE FORMED SOON. THOSE INTERESTED TO JOIN THIS GROUP PLEASE CONTACT DR. HANAFI
ALI AT FACULTY OF HEALTH SCIENCES UNIVERSITY TEKNOLOGI MARA, PETALING JAYA
Office: 03 7965 2127, HP: 0129805364 OR EMAIL: myctdose@yahoo.com.au**



EDITOR'S NOTE

Rachel Barbara Sta. Maria, Editorial Chairperson
Malaysian Society of Radiographers
Email: rachel_santa_maria@yahoo.com

HOSPITAL TUNKU AMPUAN RAHIMAH KLANG FAMILY

The occasion – World Radiography Day

The date – 8 November 2005

The Place – Hospital Tunku Ampuan Rahimah Klang

EDITORIAL COMMITTEE

GINA GALLYOT
SRIPRIYA MANOHARAN
R. CHANTHRIGA

Before I begin let me first explain that I was with the Diagnostic Department in Klang for a couple of months and really felt the energy and enthusiasm generated from all the staff there and want to share my experiences during a particular event that showcased real camaraderie among the staff members.

Planning

Approximately one month before the 8th of November 2005, Dr. Hanun, as we fondly call her, the head of Department, Diagnostic Imaging Department, Hospital Tengku Ampuan Rahimah (HTAR) Klang, supported our idea of celebrating World Radiography Day in Klang. The idea was mooted by Pn. Hamsiah, the chief Radiographer there. Dr. Hanun together with Pn Hamsiah gathered all staff for a meeting so we could start brainstorming on what could be done on such an auspicious day for radiographers who form 80% of the staff in any Imaging Department.

"Most of my staffs are radiographers so certainly I must do something to appreciate them..." said Dr. Hanun. Her words are still ringing in my ears and this is what makes me want to share with everyone how HTAR celebrated World Radiography day. Pn Hamsiah, on her part arranged the celebration to coincide with the HTAR monthly morning assembly. Her most able assistant En Sangaran did his best in assisting me with my presentation titled World Radiography Day. En Subra, Pn Chandra, Pn Aloya and Pn

Noraini together with the rest of the radiographers and staff came up with everything else, from the choir to the door gifts for all who would attend the function. From the delegation of duties I realised that the people involved were doing what they actually loved doing and what they did best. From my point I could not see or hear any discontent as they carried out their assigned tasks. Besides this, work in the Department was not different from any other day. There were patients coming for their examinations as usual, whether it was for a CT scan or Ultrasound appointment. All other work went on as usual even in the operating theatres and on call in the A&E Department.

The Day of the Function

The day of the function finally arrived and all the excitement started as early as 7.15am and by 9am it was over. The itinerary was simple and it all went as planned with everyone doing their respective duties well. Compliments came from many who attended appreciating Radiography as a career for their friends and relatives. This is the message that I feel everyone took home that day. We planned together as a family.

I have worked together as a team. Our motivation came out of respect to our leaders. Our leader knew us so well and brought out the best from us so we could contribute to the organization. Well done HTAR family.

MALAYSIAN SOCIETY OF RADIOGRAPHERS

SCIENTIFIC MEETING and 36TH AGM

EXCELLENCE AND SAFETY IN RADIATION SCIENCE

The academic programme of the MSR Scientific Meeting promises to be an exciting one as it is expanded from previous years to include new categories where ongoing research performed at both the industry and academic institutions can now be showcased. The academic submissions for the following segments are open now!

Proffered paper / Free papers

- Open to all Radiographers, Radiation Therapists and professionals from related areas
- Oral presentation 13 minutes
- Categories: Diagnostic Radiography, Radiation therapy, Ultrasound, nuclear Medicine, PACS and IT, Radiology Management

Abstract submission guidelines

- 1) Abstracts should not exceed 250 words
- 2) Abstracts must include: Title of talk. Full name of author(s) with titles and designations, institutional affiliations. Contact information of presenter including email address.
- 3) Abstracts to be part of main email message. No attachments

Closing date for submissions: 31st March 2006

Kindly submit abstracts via mail/email to: Mr. Sawal Marsait, Education Chairman.

Tel: 03-91324294 Fax: 03-91320687 Mobile: 012-6346509 Email: sai_wal2000@yahoo.com

"Only those who risk going too far can possibly find out how far one can go" ~ T. S. Eliot

DISCLAIMER: "Reasonable efforts have been made to ensure the accuracy of this data however, due to the nature of the information, accuracy cannot be guaranteed. The Society furthermore disclaims any liability from any damages of any kind from use of this information. The opinions expressed or implied in this newsletter should not be taken as those of the Malaysian Society of Radiographers or its members unless specifically indicated."



Packya
Narayanan
Dassan

FROM THE SECRETARY'S DESK

Packya Narayanan Dassan

Email: ms_radiographer@yahoo.com

THE STARFISH STORY

Once upon a time there was a wise man that used to go to the ocean to do his writing. He had a habit of walking on the beach before he began his work. One day he was walking along the shore. As he looked down the beach, he saw a human figure moving like a dancer. He smiled to himself to think of someone who would dance to the day. So he began to walk faster to catch up. As he got closer, he saw that it was a young man and the young man wasn't dancing, but instead he was reaching down to the shore, picking up something and very gently throwing it into the ocean. As he got closer he called out, "Good morning! What are you doing?" The young man paused, looked up and replied, "Throwing starfish in the ocean." "I guess I should have asked, why are you throwing starfish in the ocean?" "The sun is up, and the tide is going out, and if I don't throw them in they'll die." "But, young man, don't you realize that there are miles and miles of beach, and starfish all along it. You can't possibly make a difference!" The young man listened politely. Then bent down, picked up another starfish and threw it into the sea, past the breaking waves and said, "It made a difference for that one." **There is something very special in each and every one of us. We have all been gifted with the ability to make a difference, and if we can become aware of that gift, we gain through the strength of our visions the power to shape the future. We must each find our starfish. And if we throw our stars wisely and well, the world will be blessed.** — Author Unknown —

Indeed there is something so wonderfully unique and special in each and every one of us especially in the category we are currently positioned in. It is only up to each individual to realise the extent and strength of your gifts and utilize them for good and not waste them in idle chatter and useless habits. With this in mind I urge every member to fully support our upcoming activities and to also spread the word to those radiographers who are not yet members to come join us. All of you are our assets and valuable to the profession, so stand up and be counted.

"You must be the change you wish to see in the world" – Mahatma Gandhi

PSYCHEDELIC NIGHT AND STUDY DAY 25th-26th February 2006

The Society began the New Year activities with the Psychedelic Night and Study Day at the Mines Beach Resort and Spa on the 25th & 26th of February 2006. The setting of the study day at the 5-star Mines Beach Resort & Spa was indeed very conducive for us to mingle and renew acquaintances. We had wonderful food and great company to make this first event of the year a truly memorable one. It was a well attended affair of radiographers from far and near. We salute and thank all the participants who made the time and effort and to attend these activities. We were pleased to see our colleagues from as far as Hospital Sarikei, Timberland Medical Center, Sarawak, Hospital Batu Pahat, Johor, Hospital Tengku Ampuan Afzan, Kuantan, Pahang, Pasir Mas, Kelantan and as close as the Hospital Kuala Lumpur. The participation from student radiographers from the UiTM campus and tutors from various colleges were also noteworthy. The Psychedelic Night was also a Tribute to our previous leaders. We were very fortunate to have Tuan Hj. Riza Selahettin and Tuan Hj. Sulaiman Md. Ali two of our past presidents grace our function. They received from the Society a token of appreciation. The turnout for the study day was approximately 100 radiographers which showed great enthusiasm to learn more on improving the image of the radiographer since the study day title was IMAGE BUILDING FOR RADIOGRAPHERS. The speakers for the day shared much knowledge and new insights and we took back with us experiences that will have great impact on our attitude and practices. There were 4 guest speakers. En. Amir Firdaus Abdullah, A. Administrator (Technical & Screening Services Division) Gleneagles Intan Medical Centre who spoke on Professionalism and the Radiographer, Ms. Gina Gallyot, Chief Radiation Therapist of the National Cancer Society Malaysia elaborated on Improving Our Image, Ms. Tan Kui Lan a trainer for a private company gave valuable tips on Grooming for Men & Women and Ms. Chan Lai Kuan from the Bahagian Pengurusan Latihan Kementerian Kesihatan Malaysia wrapped up the session with powerful words on Developing Professional Image. We hope to see even better participation from all members in future activities to further enhance our profession.

Please note that the study day presentation is available on VCD for a limited time only i.e. 8th May 2006. The VCD's are in 2 volumes and priced at RM10/- per set. to order please send a RM2/- stamped self-addressed envelope (sized 9" x 6") to the MSR Secretariat c/o Department of Diagnostic Imaging Kuala Lumpur Hospital together with your payment either by cheque, bank draft or money order. Please do not send cash.

National Institute of Occupational Safety and Health (NIOSH)

A Centre dedicated for training, consultancy, information dissemination and research in occupational safety and health in Malaysia.

The National Institute of Occupational Safety and Health (NIOSH) was launched on December 1st 1992, to improve the safety and health of workers at the workplace in Malaysia. NIOSH would be instrumental in the promotion of occupational safety and health that would also create a self-regulating occupational safety and health culture in Malaysia.

NIOSH was established as a Company Limited by Guarantee, under the Malaysian Companies Act, 1965. As a company, NIOSH is expected to operate efficiently and with minimal administrative bureaucracy. The NIOSH Board of Directors comprises of 15 Board members, ten of which are appointed by the Government while the remaining are elected by NIOSH members during the Annual General Meeting (AGM). This makes NIOSH different from similar institutions in other countries. NIOSH was set up with a RM1 million Launching Grant from the Government and a further RM50 million Endowment Fund (RM40 million from the Social Security Organization (SOCSO) of Malaysia and a further RM 10 million from the Malaysian Government), which will be invested, and the return of investment will be used to partly finance the operation of NIOSH.

NIOSH Safety & Health Policy

NIOSH is committed to ensure a safe and healthy working environment to all employees and others involved in or affected by its operations taking into account statutory requirements and relevant national and international standards and codes of practices.

Implementation and effectiveness of this policy is a line management responsibility together with the participation and involvement of all employees and NIOSH will ensure that adequate resources, training and time are made available.

OSH matters will be given equal priority with other major business objectives.

Safety and health management systems and programmes will be regularly reviewed to ensure continuous improvement.

Humanistic approach will be adopted by NIOSH to promote a safe and healthy work culture where employer and employees share the common responsibility of creating a better work environment for all.

This policy will be monitored to ensure achievement of our objectives and reviewed in light of legislative or organisational changes.

ADDRESS:

Lot 1, Jalan 15/1, Section 15, 43650, Bandar Baru Bangi, Selangor
Tel : 03-89261900, Fax: 03-89262900 HOTLINE : 03-89265606

SOCIAL SECURITY ORGANISATION (SOCSO)

Employees are exposed to various contingencies which cause hardship in their lives. Accidents which result in disablement or death, occupational diseases and others not only results in problems to the employee but also affects the lives of the dependants. Employees have to be protected by social insurance to reduce the sufferings and to provide financial guarantees and protection to the family as a whole. SOCSO is committed to ensure socio-economic

security of all working Malaysian citizens including their dependants through:

- The principle of Social Insurance
- To provide speedy, quality and efficient services using the most cost-effective methods while utilising advanced technology and ensuring human resource development.
- To review the benefit structure periodically as well as the benefit disbursement system. As far as possible without increasing the contribution rate to secure and strengthen SOCSO's funds through prudent financial and investment management.
- To promote and encourage work safety and health of workers and employers alike.

SOCSCO'S Strategies

- Giving top priority to the interest of the nation and the organisation.
- Providing quality, fair, precise, speedy and economical services to the clients
- Improving the skills and expertise of the personnel besides utilising advanced technology to upgrade services.
- Maintaining and ensuring the viability of the SOCSO'S Fund in order to further strengthen it.
- Fostering goodwill and noble values amongst SOCSO'S personnel.
- Cooperation with all the parties involved in Social Security.

SOCSCO'S Safety and Health Policy

SOCSCO commits to ensure it will be a healthy and highly secured organisation based on the principle that safety and health is a common responsibility.

- The management and staff commits to create and maintain a safer and healthier work place which will prevent work injuries and damages to property and life.
- The organisation guarantee the success of the policy based on:-
- Developing staff training programs on health and accident prevention measures.
- Instill the relevant social values necessary to control the action of an individual which may jeopardise his personal health and safety including other people.
- Constantly keep abreast to changes in safety standards, health care trends and techniques.
- Regular inspection on office equipments to identify and correct irregularities from the health and safety perspective.
- Review plans for new location including the facilities for the office to guarantee the designing, contraction, installation and operation are within the stipulated government guidelines.
- Management commits to ensure every person in the organisation understands and accepts that he has role and responsibility towards his safety and health as well as that of his surroundings.

TO WHOM IS IT COMPULSORY TO CONTRIBUTE TO SOCSO?

An employee employed under a contract of service or apprenticeship and earning a monthly wages of RM2,000 and below must compulsorily register and contribute to SOCSO regardless of the employment status whether it is permanent, temporary or casual in nature. An employee must be registered with the SOCSO

irrespective of the age. SOCSO only covers Malaysian workers and permanent residents. As a result, foreign workers are protected under the Workmen's Compensation Act 1952. Nevertheless, SOCSO does not cover the following categories of persons:

- A person whose wages exceed RM2,000 a month and has never been covered before.
- Government employees.
- Domestic servants employed to work in a private dwelling house which includes a cook, gardeners, house servants, watchman, washer woman and driver.
- Employees who have attained the age of 55 only for purposes of invalidity but if they continue to work they should be covered under the Employment Injuries Scheme.
- Self-employed persons.
- Foreign workers.

Client Charter

- To provide social security protection and a just, accurate, timely and quality service economically to all employees and their dependants as well as the employers. SOCSO hereby pledges that upon receiving all the relevant information together with completed claims, SOCSO will undertake to:-
- Pay temporary disablement benefit (first payment) to injured employees within a month.
- Pay permanent disablement benefit (first payment) and constant attendance allowance to all injured employees within 3 months.
- Pay dependant's benefit (first payment) to dependants within 3 months.
- Pay invalidity pension (first payment)/invalidity grant/constant attendance allowance to employees who qualify within a period of 3 months.
- Pay survivor's pension (first payment) to dependants within a period of 3 months.
- Pay funeral benefits to eligible dependants of deceased persons within 15 days.
- Register new employers and employees and inform employer of their code number and employees social security registration number within 1 month re-investigate and provide information on every complaint regarding benefit claims within 2 weeks.

Employment Injury Insurance Scheme

The scheme provides an employee with protection for accidents that occur while :-

A. Traveling (Commuting accident)

- while traveling on a route between his place of residence/stay and his work place
- while traveling between his work place and the place where he takes his meals during any authorized recess
- while traveling on a journey directly connected to his work

(All commuting accidents are considered as employment related as long as the accident does not occur during a stoppage or deviation done for personal reasons. All reports of commuting accidents must be accompanied by a police report and a sketch map of the route indicating the place of the accident).

B. Arising out of and in the course of employment

- Accidents occurring while working at the work place which arise out of the employment.

C. Occupational diseases

- Diseases that result due to exposure at work to various hazards, examples of which are :-
 1. Loss of hearing (due to exposure to excessive noise at the work place;
 2. respiratory diseases or industrial asthma as a result of exposure to dust for employees in sawmills, powder factories, flour plants and others).

(The listed scheduled occupational diseases are found in the Fifth Schedule of the Employee's Social Security Act, 1969).

METHOD OF REPORTING AND MAKING CLAIMS

- All commuting and work related accidents have to be reported by completing the Accident Report Form (Form 21). The facts regarding the accidents and injury have to be recorded clearly and in detail.
- An employer's statement, claims Form 10 and sick leave certificates should be attached to the completed Form 21. A police report, attendance records and a sketch plan are additional requirements to report commuting accidents.
- Occupational diseases can be reported using Form 68 if the employee is still in employment or Form 69 if he has ceased employment.
- The completed application should be sent to the nearest local office for processing.

Benefits provided under the scheme are:

Medical Benefit, Temporary Disablement Benefit, Permanent Disablement Benefit, Constant Attendance Allowance, Dependant's Benefit, Funeral Benefit, Rehabilitation Benefit, Education Benefit

Contact: MENARA PERKESO, NO. 281, JALAN AMPANG, 50538 KUALA LUMPUR. Tel: 03-4264 5000

e-mel: perkeso@perkeso.gov.my laman web: www.perkeso.gov.my

Occupational safety and health act 1994 (act 514)

Objective Of The OSH Act

The Occupational Safety and Health Act 1994 is an Act to make further provisions for securing that safety, health and welfare of persons at work, for protecting others against risks to safety or health in connection with the activities of persons at work, to establish the National Council for Occupational Safety and Health (NIOSH), and for matters connected with it.

OSH Policy

According to Section 16 of OSH Act, except in such cases as may be prescribed, it shall be the duty of every employer and every self-employed person to prepare and as often as may be appropriate revise a written statement of his general policy with respect to the safety and health at work of his employees and the organizations and arrangements for the time being in force for carrying out that policy and to bring the statement and any revision of it to the notice of all of his employees. The OSH policy demonstrates the company's concern, commitment and attempts to ensure safety and health of the employees. It acts as a basis for developing and implementing programmes for securing safety and health at the workplace.

For further information on the Occupational Safety and Health Act 1994 (Act 514), you can purchase the book from International Law Book Services, Lot 4.1, 4th floor, WISMA SHEN, 149, Jalan Masjid India, 50100 KUALA LUMPUR, MALAYSIA. Tel: 603-26939862 or contact DOSH (department of safety and health) at www.dosh.gov.my.

REPETITIVE STRESS AND WORK-RELATED INJURIES

Thousands of computer users injure upper limbs

KUALA LUMPUR: About 10,000 Malaysians, who use computers in their workplace, suffer upper limb injuries annually. Socso statistics showed the number of cases involving injuries in the upper limb, especially fingers and hands, reached about 10,000 every year and the number of back injury cases at about 2,000. In response to this, the National Institute of Occupational Safety and Health (NIOSH) proposed the need to apply ergonomics in workplaces. Niosh chairman Tan Sri Lee Lam Thye said industries that implemented ergonomics programmes reported a significant drop in accidents, injuries, illnesses and healthcare cost and increased productivity, work efficiency, product quality and higher worker morale. Ergonomics integrating knowledge, derived from human sciences to match jobs, systems, products and environment to the physical and mental abilities and limitations, was a relatively new field in Malaysia in comparison with advanced countries like Japan, the United States and Canada, he said in a statement. "Nevertheless, the philosophy, essence, principle and concepts of ergonomics are clearly important to humans at work and to disregard it would be a handicap in efforts to promote occupational safety and health at the workplace," he said. – Bernama Jan 2006

Injuries at work

Injuries at work are a common occurrence and also a leading cause of the decrease in productivity and wages for both for the injured worker and the company. We hope that the recommendations in this article will be helpful to address and reduce this significant problem. Common work-related injuries are:

- Spine disorders – particularly when dealing with heavy machinery and equipment
- Cumulative trauma from repetitive motions, which may cause carpal tunnel syndrome and tendonitis. The incidence of cumulative trauma continues to increase as computer usage grows.

What Is a Physiatrist?

A physiatrist (*fizz ee at' trisť*) is a physician who specializes in physical medicine and rehabilitation. Physiatrists treat a wide range of problems from sore shoulders to spinal cord injuries. They see patients from all age groups and treat problems that touch upon all the major systems in the body. These specialists focus on restoring physical function to people.

Physiatrists treat:

- Acute and chronic pain
- Musculoskeletal disorders.

Their patients may include:

- Anyone who lifts a heavy object at work and experiences back pain
- A basketball player who sprains an ankle and needs rehabilitation to play again
- A knitter who has carpal tunnel syndrome
- People with arthritis, tendonitis
- And any work- or sports-related injuries.

Physiatrists also treat serious disorders of the musculoskeletal system that result in severe functional limitations. For example:

- They would treat a baby with a birth defect
- Someone in a bad car accident
- An elderly person with a broken hip
- Patients with spinal cord injuries such as cancer patients, multiple sclerosis, stroke and brain injuries

Physiatrists may practice either in rehabilitation centers, hospitals or in private offices. They often have broad practices, but some concentrate on one area such as pediatrics, sports medicine, geriatric medicine, brain injury, or many other special interests.

Ergonomics Makes Your Office Work for You

Ergonomics (from Greek ergon work and nomoi natural laws) is the study of designing objects to be better adapted to the shape of the human body and/or to correct the user's posture. Common examples include chairs designed to prevent the user from sitting in positions that may have a detrimental effect on the spine, and the ergonomic desk which offers an adjustable keyboard tray, a main desktop of variable height and other elements which can be changed by the user.

Ergonomics in simple terms means molding a worker with their working environment. For any company, ergonomics is a cutting-edge, bottom-line oriented business bonus: because it reduces injuries and improves employee morale while saving money.

Physiatrists have a strong understanding of ergonomics and can work with physical therapists to teach correct posture and behavior modification to prevent injuries. Early stages of patient care include medication, testing and therapy. For chronic problems, the **Physical medicine and rehabilitation (PM&R) physician** may medicate to reduce pain and prescribe exercise to improve a patient's physical fitness.

According to the Occupational Safety and Health Administration in the United States of America, workers lost more than 647,000 workdays in 1996 due to work-related musculoskeletal disorders. That cost \$15 - \$20 billion in workers' compensation costs. Workers' affected by these injuries not only have problems at work, many cannot even complete simple household projects.

Physiatrists are trained and experienced in helping prevent and rehabilitate those same workplace injuries that affect a worker's health. Here are some important tips to create a successful and productive ergonomic workplace.

Develop ergonomic strategies

- Proper positioning of equipment, posture and education are key elements to a successful ergonomic program and it is not necessary to spend a fortune redesigning your office space to provide relief
- Introducing ergonomic tools and education in bits and pieces are the best weapons to prevent injury in the workplace.
- Counseling by a professional skilled in the area of ergonomics is an excellent first step. A fifteen-minute assessment of a worker's environment can potentially save employers and employees time and money in lost productivity, wages, and medical expenses.

Pace your activity and include short, frequent breaks

- In our deadline-driven world, workers frequently work for longer periods and then take a longer break expecting it will ease the progressive onset of pain. The reality is that once you feel pain, the damage has already been done.
- Short, frequent breaks such as standing for about 30 seconds every 20 or 30 minutes provides a necessary break for your muscles as these breaks revitalize your muscles with the oxygen necessary to operate efficiently.
- In the business world time lost is money lost. An office that is well-designed from the standpoint of ergonomics should result in fewer **repetitive stress injuries (RSIs)**. This in turn will increase employee job satisfaction, followed by heightened productivity, and perhaps even greater employee retention.

Many injuries can be minimized if not prevented by remembering a few simple steps.

1. Poor posture can place stress and strain in areas of the body that are weak, resulting in pain and excessive wear. During a normal work day, 8 hours are demanded on one's body. Usually these 8 hours do not allow for movement out of **prolonged positions. Being aware of your work environment can be 1/3rd of one's solution.** For example, a person whose job responsibilities include computer inputting can prevent headaches and shoulder or neck pain by a few modifications.
2. Simply placing their keyboard so that elbow are even with one's waist, wrists in neutral (neither bent down or up) and approximately one foot in front of one's body eliminated excessive demands on your arms, shoulders, and neck.
3. Placing the monitor level with your eyes, so that one's neck is not back or down eliminates excessive strain on the eyes and the neck.
4. Another simple modification includes having a back support in one's chair and having one's feet in a position to allow your legs to be level with your hip eliminates excessive wear on the lower back.
5. Moving frequently to change the stresses from low to high. What does this mean? In general, posture should require minimal effort, but should be changed frequently to avoid muscular fatigue.
6. Once again, posture is a key in proper body mechanics. Pretend that there is a board in the front and one in the back of your body. In other words, try to keep your back as straight as possible at all times. This is done by remembering the basics of -head up, shoulders back, chest out, stomach and rear-end in and back straight!
7. Poor posture and incorrect body mechanics are two of the leading causes of back and neck pain and injury. When lifting heavy objects - widen your feet, squat from your hips and not **your waist. Do not twist** especially while bending and **tighten your stomach! One's** legs are a great deal stronger than one's back. Your abdominals (stomach) attaches to the front of your back, therefore when you pretend that you are about to be punched and still breath - you protect your back because of using your abdominals. Use common sense, use the stronger muscles - use your legs when lifting.

8. If lifting a light object - use the **golfer's technique: the back is straight, one leg is straight, one arm is used for balance, the opposite leg is extended (in back of you) and the object is picked up by the arm not balancing. Try pushing objects with legs not pulling them towards you. When reaching for objects stay within your arms length without twisting.**
9. If it is further than arms length, **get up and get it!**
10. Eating, sleeping and exercise **are vital when preventing injury** and keeping a healthy body. **Dietary habits are addressed every day.** The basics - fruits, vegetables, protein and **low fat** help keep the body happy and healthy.
11. Sleep should be approximately 8 hours with **good sleeping posture.** The neck should be neither bent nor extended, it should be gently supported.
12. The legs should also be supported with either one or two pillows. Some may reply: - I can't sleep like that - I move around too much! - That is OK, the first hour is the most important.
13. The center of the spine (the nucleus) depends solely on absorption from surrounding structures - kind of like a sponge. It absorbs 80% of it's nutrition in the first hour of sleep. When the legs are supported, it opens up the spinal segment to allow for maximal absorption.
14. For people with continued back pain or problems, instruct them to lie down with their legs elevated for an extra 1/2 hour daily. This allows for an extra 40% of nutrition to the spine.
15. Exercise should incorporate strengthening, endurance and flexibility. 30 minutes at least 4 times a week is recommended. This can also be achieved at work by parking your car further away and walking, taking the stairs instead of the elevator, and walking a message over to someone instead of calling.
16. Also remember to stand up - stretch - and walk around at least once an hour. You will be surprised how easy this is to do and how much better your body will feel when practicing these simple suggestions.

Quick Tips to Remember at Your Desk:

- Don't bend your wrists while typing.
- Keep your wrists in a straight position, not flexed or bent.
- Maintain good posture. Sit back in your chair, not on the edge. Keep your feet flat on the floor or use a footrest.
- Relax your shoulders.
- Position your mouse next to, and the same height as, your keyboard. Keep it close to your body; try not to reach too far for your mouse.
- Adjust your computer screen for your eyes. Give your eyes a break by looking away from the screen and focusing on a distant object.

Adjustments You Can Make to Your Workspace

- Have ergonomic Chairs
- Glare screens for your computer
- Telephone headsets, speakerphones, speed dial & phone placement
- Document holders to use while typing
- Computer monitor risers to put the screen at eye level
- Foot rests for proper sitting position
- Good lighting to reduce eye strain

MUSCULOSKELETAL DISORDERS AMONG SONOGRAPHERS

By Assoc Prof Dr Retneswari Masilamani

Dept of Social and Preventive Medicine, Faculty of Medicine, University of Malaya

Email: retneswari@ummc.edu.my

What are work-related musculoskeletal disorders (WRMSDs)?

Work-related musculoskeletal disorders (WRMSDs) are a group of painful disorders of muscles, tendons, and nerves. Carpal tunnel syndrome, tendonitis, thoracic outlet syndrome, and tension neck syndrome are examples. Work activities which are frequent and repetitive, or activities with awkward postures cause these disorders which may be painful during work or at rest.

Almost all work requires the use of the arms and hands. Therefore, most WRMSD affect the hands, wrists, elbows, neck, and shoulders. Work using the legs can lead to WRMSD of the legs, hips, ankles, and feet. Some back problems also result from repetitive activities. Musculoskeletal disorders account for 40-60% of all recorded musculoskeletal injuries. In the field of diagnostic medical sonography, 84% of sonographers surveyed suffer from some form of injury.

According to many surveys, the average incidence of sonographers scanning in pain is more than 80% with 20% of cases involving career ending injuries. The type of work activities known to cause WRMSD in sonographers include:

1. Repetitive motions
2. Forceful exertions or strain when pushing into a patients abdomen or compressing leg veins
3. Awkward posture or unnatural positions, commonly from reaching over patients during bedside exams
4. Poor posture / improper positioning - uncomfortable positioning of limbs, such as flexion, extension or deviation of the hand
5. Overuse, generally the result of downsizing and increase number of examinations carried out
6. Frequent reaching over shoulder level
7. Duration of pressure
8. Work activities to which the worker is unfamiliar

Musculoskeletal disorders cause pain, swelling, inflammation and deterioration of tendons and ligaments. Muscles and joints become stressed as a result of the support structures being weakened. The most commonly affected areas in sonographers are the shoulder and neck in those who scan right-handed and the wrist and elbows in left-handed sonographers

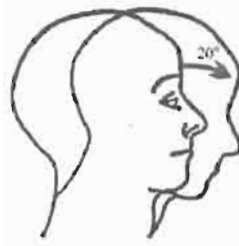
To prevent long term WRMSD, the following precautions can be recommended:

1. Organize workspace so that controls and consumables are within easy reach
2. Adjust the height of chair and bed to ensure:
 - back is supported in lumbar region
 - knees are level with or slightly lower than hips and feet are well supported. It is advisable to provide footrest for shorter workers
 - elbows are relaxed by the side and forearms are supported where possible: the left arm is used for keyboard and right arm for scanning
 - shoulders are relaxed and comfortable
3. Adjust the monitor screen height and tilt it to suit your line of sight
4. Encourage patient to move closer to ultrasonographer or roll on their side
5. Avoid movements that allow joints to exceed recommended range of movements for prolonged periods (refer to diagram 1)
6. Always face your work area and avoid twisting or leaning to one side
7. Adopt a power grip around transducers and avoid pinch grip
8. Rotate tasks to change positions frequently
9. Take frequent, short breaks at appropriate times – two 10 minutes breaks are better than one 20 mins break
10. Take mini breaks by bringing arms to side and wrist to neutral position and rest grip on probe to allow recovery time
11. The last and not the least is to provide high priority in purchasing ergonomically adjustable equipment

Conclusion

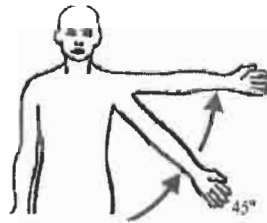
The cost of these injuries is significant both in temporary or permanent replacement of personnel, as well as in terms of revenue. The estimated average cost to find and hire a sonographer is US\$10,000 which holds strong justification for providing an ergonomic environment that can not only protect sonographers from WRMSD but also enable them to provide quality patient services.

Diagram 1: Illustrations showing extension limits that should be avoided



NECK

Neutral position- Head erect, neck neither extended nor flexed
Danger zones: any extension or flexion more than 20°



SHOULDER ABDUCTION

Neutral position- arms by the side
Danger zone: more than 45° of abduction



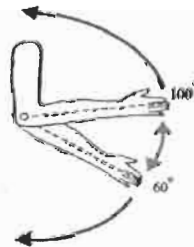
SHOULDER FLEXION

Neutral position- arm down by side
Danger zone: more than 60° flexion



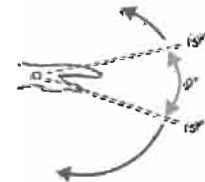
SHOULDER EXTENSION

Normal position – arms down by side
Danger zone: arms 20° behind the body



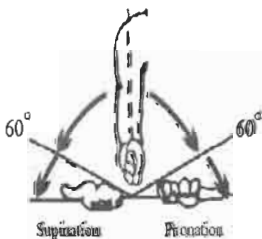
ELBOW FLEXION

Neutral position- arms down by side
Should not be flexed less than 60° or more than 100°
Danger zone: elbow flexed less than 60° or elbow flexed more than 100°



WRIST FLEXION/EXTENSION

Neutral position- wrist straight
Should not be flexed or extended more than 15°
Danger Zone: flexion more than 15° or extension more than 15°



FOREARM :SUPINATION/ PRONATION

Neutral Position: hand held thumbs upward
Should not be supinated or pronated more than 60°
Danger Zone: More than 60° supination or more than 60° pronation



WRIST RADIAL OR ULNAR DEVIATION

Neutral position- wrist straight
Should not be radially deviated more than 15°, should not be ulnar deviated more than 25°
Danger Zone: radial deviation more than 15° ulnar deviation more than 25°



THE POWER GRIP

Try to adopt a power grip around the transducer. This allows the hand to develop strength. The thumb is in direct opposition to the fingers which totally enclose the object and curve around the shape



THE PINCH GRIP

Try to avoid the pinch grip. The thumb is opposed to the distal joints of the finger. This develops only 25° of the hand's total grip strength. It is intrinsically at great risk



INJURIES AT WORK A RADIATION THERAPISTS VIEW

Gina Gallyot,

Chief Radiation Therapist, National Cancer Society Malaysia

gallyot_gina@yahoo.com

During the course of my work at a radiation treatment centre I have sustained certain injuries. There have been minor and forgettable ones but some have been some very memorable too. Allow me to share some of my experiences with you as I recollect some of these series of unfortunate events that have taken place during my tenure as a radiation therapist the past 12 years. Maybe some of these incidences would in fact be similar to what some of you have experienced too and for my colleagues who do not practice this branch of medicine maybe it will be an insight into the life of a radiographer from the other side of the hospital (so to speak!). For radiographers in general and radiation therapists in particular, physical injuries occur mainly to the hands, arms, back and shoulders and I believe that these injuries can be placed in a number of categories.

(A) Recurring physical injuries

These injuries are co-related to the tasks we perform everyday and are unavoidable.

1. lifting heavy lead blocks to shield critical anatomical structures
2. lifting heavy electron beam applicators
3. lifting patients from trolleys
4. opening and closing heavy lead lined doors
5. bruised fingers from inserting sharp edged wedges into machine

(B) Occasional physical injuries

Occasionally we will encounter certain scenarios that take us by surprise when we are unprepared that may result in these injuries.

1. scratches from patients long finger nails
2. bruises from patients tight grip especially on the arms
3. swollen toes due to improper wheelchair and stretcher use

(C) Injuries due to carelessness

Injuries that are born from carelessness occur especially when we are impatient to carry out the next treatment field, anxious to complete the treatment of a restless patient or rushing to attend to other matters not pertaining to work at hand

1. collision with moving machinery example gantry in motion
2. collision with stationary machinery example hanging hand pendant
3. bruised hips from collision with treatment table

Avoiding these injuries

The injuries mentioned above in (A) can be avoided in departments which have treatment machines equipped with inbuilt lead blocks and virtual wedges. Lead doors would be replaced with non-physical barriers such as extra long maze and motion detector interlocks. However for those of us who still have to contend with conventional treatment machines then these will remain as unavoidable injuries. In other cases such as mentioned in (B) and (C) I would advise practicing patience, self-restraint and proper work flow procedures to reduce these incidences.

Patience

Patience is indeed a virtue when it comes to dealing with any level of society especially cancer patients. If we always remember to remain calm and attend to each patient **patiently** it will greatly reduce the frequency of nasty incidences. When we are impatient we tend to throw caution to the wind and will only incur disaster for ourselves.

Self-restraint

Sometimes we are not impatient but rather over zealous or over eager to help a patient that results in us sustaining injuries instead. We do need to allow patients to do things by themselves too as this will encourage improved mobility and less dependency on their caregivers.

Work flow protocol

Having a pre-determined work flow protocol will ensure that all staff follows the same procedures therefore:

- staff movements in the treatment room are well coordinated
- no over lapping of duties that may cause collisions
- enough manpower to deal with heavy objects
- system of checks and balances where one staff will not be overburdened

I would like to end on a lighter note and share this bizarre but true incident. Not too long ago I had to treat a very senile 87 year old man suffering from Basal Cell Carcinoma of the Pinna of the Right Ear. The disease was rapidly advancing causing much bleeding and necrosis of the affected area. The patient's relatives were agreeable to treatment as it would reduce the pain and suffering of this man. However the patient himself was vehemently against any form of treatment and for that matter hated staying in the hospital during the course of treatment.

Therefore the burden of restraining the patient and delivering daily treatment was on us the radiation therapists. Everyday was a challenge for us because besides having the heavy applicator to position and lift the patient from the trolley to treatment table plus restrain him we also encountered verbal abuses. He would constantly spit at us when we came close to him and at every opportunity he would grip our arms tightly and not want to let go. We took all this in our stride understanding that he was very old and had a fear of hospitals and such. However the last straw to destroy our mask of composure came on his 10th treatment day out of the prescribed 15 fractions. As we were about to transfer him to the treatment table the patient raised his fist in the air and hurled a red bean bun at us! Where did it come from? Apparently he had been hiding it among his bedclothes from that morning's breakfast! We were all shocked and stunned and everyone froze at their spot. Suddenly someone laughed and then all of us burst out laughing until our sides ached as never before had we received such a greeting. The old man joined in our laughter and I guess he felt that he had given us our just desserts for restraining him everyday.

And so with that I sincerely hope may your work be just as fun for you as it has been for me and as it continues to be each and everyday.

A candle loses nothing if it is used to light another one

MultiHance®

Contributed by: Mr. Faizi Kanan, Product Manager Braeco Imaging, faizikanan@idsgroup.com

- MultiHance® is a MRI contrast agent
- The Gd-chelate molecule of MultiHance® is Gd-BOPTA, or gadobenate, which is salified with 2 molecules of meglumine (gadobenate dimeglumine)
- MultiHance® is formulated in a 0.5M solution of gadobenate and meglumine
- Gd-BOPTA gadolinium benzyloxypionictetraacetic acid

What is relaxivity?

- It is a measure of the contrasting capability of a paramagnetic contrast agent
- Therefore, it is directly related to the level of enhancement: the higher the relaxivity, the higher the enhancement
- Relaxivity is a characteristic of the molecule, and it is independent of the concentration

How can MultiHance® be different

- Gadolinium is the active element in MR contrast agents, but the different relaxation properties are determined by the chelating molecule
- Gadobenate dimeglumine has an affinity with serum albumin, which increases the relaxation rate of hydrogen protons
- No other Gd-chelate has the affinity to proteins, which means that other Gd-chelates have a limited

Why MultiHance®?

- Because MultiHance® has a double relaxivity with respect to all other Gd-chelates, which translates into a higher enhancement obtained with the same dose
- The superior enhancement is particularly useful in CNS and MRA exams, and it is the reason for the half dose indication in liver exams



PERSONNEL MONITORS

**Ms. Sripriya Manoharan, Senior Radiation Therapist,
National Cancer Society of Malaysia
email: sripriya@time.net.my**

This article is written to refresh our memory on the personnel monitoring which we use in our daily work as a radiographer. It is none other than our film badge. The film badge is used to evaluate the amount of ionizing radiation to which a radiographer has been exposed. It is important to note that any type of personnel monitoring merely records the amount of exposure received. It in no way protects the wearer from the ionizing radiation and its associated effects. Personnel monitoring is used to assure that individuals working in a radiation environment stay below the maximum legal exposure limits which can be received within an agreed period of time. A film badge monitors high energy alpha, beta, gamma and x-ray exposure. A halide emulsion is spread on a support base and the radiation interacting in the emulsion darkens the film. The degree of darkening (opacity) is directly proportional to the amount of radiation that interacts with the film.

Therefore, we know that the film badge is a very important device in our job. Many of us do not take it seriously. Some radiographers do not use the film badge at all during work. It is left in their lockers and only taken out once a month when the film is due for change. This is a very irresponsible act as it endangers them selves. As we know, ionizing radiation can increase health risk by inducing fatal cancer, infertility and cause genetic damages. Some of us actually take the monitoring device back home either accidentally or as a routine practice where we simply empty our overall pockets and drop everything into our handbags. As for the men they might put the film badge into their shirt or trouser pocket or for those who clip the device to their belt might just go home with it. Taking the film badge out of the work area may give an inaccurate measurement of exposure received because the badge might have been exposed to other sources of radiation in our environment. Most of us who use

the personnel monitoring are ignorant about the right method and general rules of using it. Here are some of the guidelines.

General Rules for Use of Personnel Monitors

- Always wear your own personnel monitor. Never allow another person to wear your badge and never wear a badge assigned to another individual.
- Wear the film badge between the shoulders and waist with the name facing out.
- If you leave your film badge at work, keep it in a safe place (e.g., your desk) or where the control is located.
- Do not store or leave your personnel monitor near sources of ionizing radiation.
- Do not wash your film badge because water and heat from a washer/dryer may destroy it or alter the reading.
- Do not lose your film badge. In the event that it is lost, damaged, or film is missing from the holder, notify

your supervisor to arrange for replacement. No work with radiation should take place until the personnel monitor is replaced.

- Remember that these devices will not provide any warning when an individual receives a radiation dose. They do not change color, beep, or in any other way visually indicate exposure has been received. Their sole function is to legally document the radiation dose an individual may receive from working with radioactive material.
- Never wear your badge when undergoing any type of medical or dental radiographic procedures as a patient. Badges are intended to measure doses received while performing your job duties.
- If you must take it with you when you travel to other facilities, protect it, particularly from airport x-ray machines. Metal detectors do not damage the film badge.



PASS ON THE INSPIRATION

While at the park one day, a woman sat down next to a man on a bench near a playground. "That's my son over there," she said, pointing to a little boy in a red sweater who was gliding down the slide. "He's a fine looking boy," the man said. "That's my daughter on the bike in the white dress." Then, looking at his watch, he called to his daughter. "What do you say we go, Melissa?"

Melissa pleaded, "Just five more minutes, Dad. Please? Just five more minutes." The man nodded and Melissa continued to ride her bike to her hearts content. Minutes passed and the father stood and called again to his daughter. "Time to go now?" Again Melissa pleaded, "Five more minutes, Dad. Just five more minutes." The man smiled and said, "OK."

"My, you certainly are a patient father," the woman responded. The man smiled and then said, "Her older brother Tommy was killed by a drunk driver last year while he was riding his bike near here. I never spent much time with Tommy and now I'd give anything for just five more minutes with him. I've vowed not to make the same mistake with Melissa. She thinks she has five more minutes to ride her bike. The truth is, I get Five more minutes to watch her play." Life is all about making priorities, what are your priorities? Give someone you love 5 more minutes of your time today!

Can we apply this to our daily work routine? Definitely! Just 5 more minutes of our time to listen to someone might brighten their day; just 5 more minutes to answer someone's questions might make a difference in their choices that day. Just 5 more minutes to smile at someone might just make a change in someone's life.

It is not really the quantity of time that we devote to a task that makes an act meaningful, what is measurable is the quality and value we add to it by our patience and sincere empathy. Life passes us by whether we like it or not and we must make the added effort to make each moment count or we will just be mere extras in a play others have written. We need to take the lead starring role and make our presence felt.



RADIATION DOSE AND PAEDIATRIC COMPUTED TOMOGRAPHY (CT) PROCEDURE

Original article by: **Donald P. Frush, M.D.**, Division Of Paediatric Radiology, Duke University Medical Center
Adopted by: **Dr Mohd Hanafi Ali**, UiTM, Email: myctdose@yahoo.com.au

Background

Computed Tomography (CT) is an invaluable modality where the individual's benefits far outweigh its costs and risks. However, one of the risks from CT is the relatively high radiation dose. There are unique issues with respect to radiation and CT in children. Generally, about 5% of imaging procedures could account for 40-60% of all medical radiation doses and it makes the largest source of medical radiation. The use of CT is increasing (approximately 600% increase from 1980 to mid 1990's). The technology is becoming more complex with increasing challenges for appropriate paediatric CT technique.

CT Radiation in Children: Unique Issues

A number of considerations should be taken while discussing radiation dose in children. Children's organs are more radiosensitive than in adults with an equivalent amount of radiation. They have a longer life span therefore radiation related changes (i.e. cancer) have a tendency to manifest in them. Thus, technical parameters for CT should be adjusted based on: child size, the region scanned (i.e. chest vs abdomen), and the clinical indication for the CT.

However, adjustments are **infrequently** made where children are often scanned with adult exposure factors

(eg for adult chest CT the mAs used is 240, while paediatric chest CT mAs should be 20 -120mAs, depending on size).

Radiation dose is proportional to the mAs used with a ratio of 1:1: eg $2 \times \text{mAs} = 2 \times \text{dose}$.

These practices are due to lack of paediatric guidelines and the increased complexity of scanning. Literally, there are hundreds of possibilities for an individual scan, not all appropriate in terms of radiation dose.

What Are the Radiation Risks in Children?

Currently, the general consensus is that even low radiation exposures do not have a "threshold" for radiation-induced cancers. That is, there is no amount of radiation which should be considered absolutely safe. While an individual CT or collection of scans have never been proven to cause cancer (this relationship may take up to 50 years to determine), new data suggest that the thresholds for cancer development from low dose radiation exposure and CT doses which can occur during clinical scanning have the potential to overlap. For example, one recent investigation suggested that a single relatively high dose CT examination in a child increases the risk of cancer by 0.35% over background rate (Brenner, et al AJR February 2001).

Solutions:

The responsibility of minimizing radiation lies with the clinicians, radiologists, radiographers and various medical and governmental organizations. CT Procedure should be performed only when necessary. Communication with primary care and sub speciality providers is critical in this respect of minimizing radiation to children. Consideration must be given to use other modalities (i.e., sonography and MR imaging) wherever possible. The examination should be limited to area of question, and adjust the examination based on the patient's size; region scanned, and the clinical indication for the scan. The Radiographer must support research and assist to investigate issues with CT radiation related cancer. Professionals in this area should establish information resources, group discussion or a network which will provide information related to radiation and CT in children. Because of all these points, Radiographers should deal with this issue in a highly professional way. ■ ■ ■

W
O
R
K

A long time ago, there was an Emperor who told his horseman that if he could ride on his horse and cover as much land area as he likes, then the Emperor would give him the area of land he has covered.

Sure enough, the horseman quickly jumped onto his horse and rode as fast as possible to cover as much land area as he could. He kept on riding and riding, whipping the horse to go as fast as possible. When he was hungry or tired, he did not stop because he wanted to cover as much area as possible.

Came to a point when he had covered a substantial area and he was exhausted and was dying. Then he asked himself, "Why did I push myself so hard to cover so much land area? Now I am dying and I only need a very small area to bury myself."

The above story is similar with the journey of our Life. We push very hard everyday to make more money, to gain power and recognition. We neglect our health, time with our family and to appreciate the surrounding beauty and the hobbies we love.

One day when we look back, we will realize that we don't really need that much, but then we cannot turn back time for what we have missed.

Life is not about making money, acquiring power or recognition. Life is definitely not about work! Work is only necessary to keep us living so as to enjoy the beauty and pleasures of life. Life is a balance of Work and Play, Family and Personal time. You have to decide how you want to balance your Life. Define your priorities, realize what you are able to compromise but always let some of your decisions be based on your instincts. Happiness is the meaning and the purpose of Life, the whole aim of human existence.

So, take it easy, do what you want to do and appreciate nature. Life is fragile, life is short. Do not take Life for granted. Live a balanced lifestyle and enjoy Life!

Watch your thoughts; they become words.
Watch your words; they become actions.
Watch your actions; they become habits.
Watch your habits; they become your character.
Watch your character; it becomes your destiny.

Excerpts from John Kehoe

CONSCIOUS CHOICES

Almost all aspects of our life are determined by the choices we make. We have complete free will to choose our thoughts and actions. We choose our goals and the directions we wish to pursue. Think of the choices you've already made today. You have chosen what you are now wearing. You have chosen what you ate for breakfast. You have chosen a number of activities, including the choice to open this newsletter and read this article. Each day consists of countless choices, many of them done without much thought, following the programming and habitual routines we have built within ourselves.

When we are unconscious of the act of choosing or too busy to notice why and what we are choosing, we cease to have free will; instead we allow our programming to choose for us. This is fine if our programming has been carefully selected by us to assist in our unfolding destiny. But if our programming is the result of neglect, fears, worries and destructive forms of cultural bombardment, then we are apt to fall into the choice of least resistance, rather than the choice of highest good. Choice is our ultimate act of creativity. The ability to choose wisely is the number one director in determining who we will become and what experiences we will meet in life. This is not hard to understand if you'll take five or ten minutes to reflect on who you are now. Think of the type of person you are. Are you confident or timid? Are you generous or stingy? Are you a worrier or do you flow with life? Do you generally succeed at your goals or do things seem to consistently backfire on you?

Look closely at your life and who you are. Get a good picture of it. Now, stepping back, think of your past choices, many of them spur of the moment, many of them following the path of least resistance. Who you are now and the circumstances of your current life are directly related to your choices. Yes, fate and chance play their mysterious role too, but ultimately it's your choices that have brought you to where you are. Awakening to the incredible power choice plays in our life can be a life-changing realization. To consciously choose one's direction, one's attitude, one's courage and determination, is to embark upon a new direction. And not only can we choose our actions, but we can also consciously choose our thoughts and beliefs. We can choose creativity and freedom from past programming. We can re-create ourselves from within.

But before you choose, reflect upon the incredible free will each of us has been given. Free will is often not fully appreciated by us busy human beings, but we can change that. An amazing thing happens when we learn to focus on our choices in a new self-directed way. Something "clicks" inside and we suddenly realize that to change our life in a dramatic way is no more difficult than learning to consciously make one small choice at a time.

DESIRE

Knowing what one wants is not enough. Wishing or hoping is of little value. It is desire that gives you the needed momentum and inspiration. Fuel your desire daily and watch the small spark of hope, that now exists within you, ignite into a blazing fire of

determination. Nothing else is more important and crucial to your success.

All the great men and women achievers of the past have had (amongst them) one, overwhelming similarity - a burning desire to achieve their objectives. Thomas Edison experienced more than 10,000 failures before he perfected the light bulb. His desire to succeed never waned. Wilbur and Orville Wright suffered humiliation and ridicule for years for daring to believe they could make a vehicle fly in the air. Yet it was the strength of their purpose and desire that led them to produce the first successful airplane. Ted Turner knew he wanted a media and communications empire, so with the aid of a satellite, he beamed the programming, that came out of his small Atlanta television station across America. He founded Cable Network News, his flagship operation, which, despite his best efforts, lost \$77 million in its first five years. But Ted never wavered. During this time, he had a sign on his desk that read "Lead, follow or get out of the way." He knew what he wanted and where he was going, and nothing was going to stop him. His burning desire overcame all else. Today, his media empire is a resounding international success, worth billions of dollars.

A strong, burning desire to obtain and possess the goal you are pursuing is the starting point of all achievement. This isn't a vague wish or a simple hope, it is something much more powerful. Burning desire, when properly ignited, takes on a life and power of its own and empowers you in hundreds of different ways. Hoping, wishing, wanting, needing to achieve your goals does not count. You must desire it with your whole being. Desire is the fuel that propels you towards your objectives and influences your thoughts and actions.

I don't mean that you should become obsessive, thinking about it every moment of every day until nothing else matters. But, would you be willing to spend 10 minutes a day? How about five minutes in the morning and five in the evening, thinking about your goals, inflaming your desire to the point where it takes on a life and power of its own?

Follow this three-point plan and watch it work wonders for you:

STEP 1: Write down a clear, concise statement of what it is you wish to obtain.

STEP 2: Outline what you intend to do to achieve this objective. There is no such thing as something for nothing. What skills, knowledge, disciplines and actions will you obtain or practice? Be clear and concise.

STEP 3: Promise to yourself to let nothing stop you from obtaining your objectives. Make a commitment to yourself to do whatever is necessary to achieve your goal. Be firm in your resolution.

Read this statement over, twice everyday. Once, upon rising in the morning, and once again before you go to sleep and begin immediately to put this plan to work. When reading your statement, magnetize your mind to the reality of achieving your goal. See and feel yourself already in possession of that which you desire. As days turn into weeks, and then months, this ritual will be the source of a great amount of power and inspiration for you.

Strong desire acts as a magnet attracting the people, circumstances and situations needed to achieve your goal. No other method can replace it. It is indispensable to your success. Remember first you fuel the desire, then the desire fuels you. This is such an important principle to understand that I will repeat it again. First you must fuel the desire, then the desire will fuel you.

LIFE IS A JOURNEY NOT A DESTINATION

One of the beautiful things about young children is their ability to absorb themselves totally in the present moment. They manage to stay totally involved in whatever they are doing, whether it be watching a fly, drawing a picture, building a castle or imagining a scene.

As we become adults, many of us learn the art of thinking about and worrying about several things at once. We can allow past problems and future concerns to crowd into our present such that we become miserable and ineffective.

We also postpone our pleasures and our happiness, often developing a notion that sometime in the future everything will be much better than it is now.

For example, a teenager may think, "When I'm out of school and don't have to do what I am told, then everything will be great!" He leaves school and suddenly recognises that he won't be happy until he has left home. He leaves home and starts university and soon decides, "When I have got my degree, then I'll really be happy!" Eventually he gets his degree at which time he realises that he can't be happy until he has a job.

He gets a job and has to start at the bottom of the heap. You guessed it. He can't be happy yet. As the years roll by, he postpones his happiness and peace of mind until he gets engaged, gets married, starts buying a house, gets a better job, starts a family, gets the kids in school, owns his home, gets the kids out of school, retires but drops dead before he allows himself to be blissfully happy. All his present moments were spent planning for a wonderful future which never arrived.

Do you relate to this story? Do you know anybody who has been putting off being happy until sometime in the future? The thing about being happy is that you are mostly involved in the present. We decide to be happy on the journey of life, not just when we reach our destination.

Many of us postpone spending time with the people who mean the most to us. Many fathers have plans to spend more time with their kids "when the house is finished", "when the pressure is off at work", "when there is more money in the bank." The point is that NONE of us has a guarantee that we will be here tomorrow. Now is all we have got.

Living in the now also means that we enjoy whatever we are doing for its own sake and not just for the end result. As we celebrate each day, let that day be a special time to enjoy the company of our friends, the love of our family and the pleasures of life given to us.

Today is a gift. That is why it is called the present!

KEYS FOR JOYFUL LIVING!

Here are some thoughts for finding and experiencing joy in your life. If there were one thing I could wish upon my family and friends, it would be joy in everything they do!

Know your purpose. Nothing will bring you joy more than knowing what it is that you are about on this earth. Not knowing brings sadness, wondering, fear and lack of fulfillment. Above all, find out what your unique purpose is here on this earth - then fulfill it! As you do, you will experience joy!

Live purposefully. This is a follow up to number one. It is one thing to know your purpose, but then you need to live according to that purpose. This is a matter of priorities. Let your actions and schedule reflect your purpose. Don't react to circumstances and let them cause you to live without your purpose fully in site. Living without your purpose will cause frustration. Living purposefully will bring you deep satisfaction and joy!

Stretch yourself. Don't settle into the status quo. That will leave you unfulfilled. Always look to stretch yourself. Whatever you are doing, stretch yourself to do more! Stretching yourself will break the limits you have set for yourself and will cause you to find joy in your expanded horizons!

Give more than you take. It brings happiness to accumulate. It brings joy to give away. Sure, getting the car you worked hard for will bring you a sense of satisfaction and even happiness. But it won't bring you joy. Giving something away to the less fortunate will bring you deep, abiding joy.

Surprise yourself and others too. The words here are spontaneity and surprise! Every once in a while, do the unexpected. It will cause everybody to sit back and say, "Wow where did that come from?" It will put a little joy in your life, and theirs.

Indulge yourself sometimes. Too much indulgence and you are caught in the happiness trap; looking for the next purchase, celebration, etc., to bring you a little "happiness high." But if you will allow yourself an infrequent indulgence as a reward for a job well done and a life well lived, you will appreciate the indulgence and experience the joy of it.

Laugh a little - no, a lot! Most people are just too serious. We need to laugh a little - no, a lot! Learn to laugh daily, even if you have to learn to laugh in bad situations. This life is to be enjoyed! The next time you go to the movie rental store, get a comedy and let loose! Let yourself laugh! Joy can be yours! Look for it, pursue it and enjoy it!

YOU ARE YOUR DESSERTS

If all of the desserts listed below were sitting in front of you, which would you choose? Be honest. Pick your dessert first, then look to see what Psychiatrists think about you! Sorry but you can only pick one:

Angel Food Cake
Brownies
Lemon Meringue Pie
Vanilla cake with Chocolate Icing
Strawberry Short Cake
Chocolate on Chocolate
Ice Cream
Carrot Cake

And NO, you can't change your mind once you have seen the answers! So think carefully what your choice will be! Now that you've made your choice, this is what research says about you!

ANGEL FOOD CAKE

Sweet, loving, cuddly. You love all warm and fuzzy items. A little nutty at times. Sometimes you need an ice cream cone at the end of the day. Others perceive you as being childlike and immature at times.

BROWNIES

You are adventurous, love new ideas, are a champion of under dogs and a slayer of dragons. When tempers flare up, you whip out your saber... You are always the oddball with a unique sense of humor and direction. You tend to be very loyal.

LEMON MERINGUE

Smooth, sexy, & articulate with your hands, you are an excellent after-dinner speaker and a good teacher. But don't try to walk and chew gum at the same time. A bit of a diva at times, but you have many friends.

VANILLA CAKE WITH CHOCOLATE ICING

Fun loving, sassy, humorous. Not very grounded in life; very indecisive and lack motivation. Everyone enjoys being around you, but you are a practical joker. Others should be cautious in making you mad. However, you are a friend for life.

STRAWBERRY SHORTCAKE

Romantic, warm, loving. You care about other people and can be counted on in a pinch. You tend to melt. You can be overly emotional at times.

CHOCOLATE ON CHOCOLATE

Sexy; always ready to give and receive. Very creative, adventurous, ambitious, and passionate. You can appear to have a cold exterior but are warm on the inside. Not afraid to take chances. Will not settle for anything average in life. Love to laugh.

ICE CREAM

You like sports, whether it be baseball, football, basketball, or soccer. If you could, you would like to participate, but you enjoy watching sports. You don't like to give up the remote control. You tend to be self-centered and high maintenance.

CARROT CAKE

You are a very fun loving person, who likes to laugh. You are fun to be with. People like to hang out with you. You are a very warm hearted person and a little quirky at times. You have many loyal friends.

I AM THANKFUL

I am thankful for the colleague who hogs the hand pendant control, because he/she is there to enjoy time with me

for the mess to clean after an office party, because it means that I've been surrounded by friends

for the clothes that fit a little too snug, because it means that I have enough to eat

for clothes that need washing, windows that need cleaning, because it means that I have a home

for my superior that watches me work, because it means that I, am important

for the weariness and aching muscles at the end of the day, because it means that I am capable of working hard

for the CT Scan room at the far end of the corridor, because it means that I am capable of walking

for the patients that are always calling my name, because it means that I can hear

for all the complaining I hear about the government, because it means that we have freedom of speech

for the alarm that goes off in the early morning hours, because it means that I am still alive

and lastly, for too many emails and text messages, because it means that I have friends who would listen to me.....

Penang Adventist Hospital (PAH) goes digital

Ms Muniroh Azizan

*Project Manager, IT Solutions, Agfa Healthcare ASEAN Region.
muniroh.azizan@agfa.com*

Penang Adventist Hospital President and Chief Executive Officer Dato' Teddrick Jon Mohr envisioned PAH having a new Hospital Information System (HIS) with Electronic Medical Records (EMR) and Picture Archiving & Communications System (PACS) support capability, as the abundant benefits the hospital could derive from such technology was apparent to him.

Convinced that a hi-tech HIS system and a PACS, would facilitate long-term cost-savings and improve efficiency in the entry and retrieval of examination data, viewing of medical images, and maintenance of digitalized patient records, PAH appointed Agfa as their enterprise PACS implementation partner on **28 March 2005**. 6 months later the Radiology department of PAH went digital and on **28 October 2005** the Agfa's enterprise PACS was launched officially by the Ambassador of Belgium to Malaysia.

Penang Adventist Hospital President, Dato' Teddrick Jon Mohr said, besides the obvious speed, efficiency and cost-savings to be derived from the digital system, PACS also facilitates the transmission of diagnostic images, which would allow doctors to consult their counterparts at the Loma Linda University in California and the Florida Adventist hospitals – two important referral points for PAH.

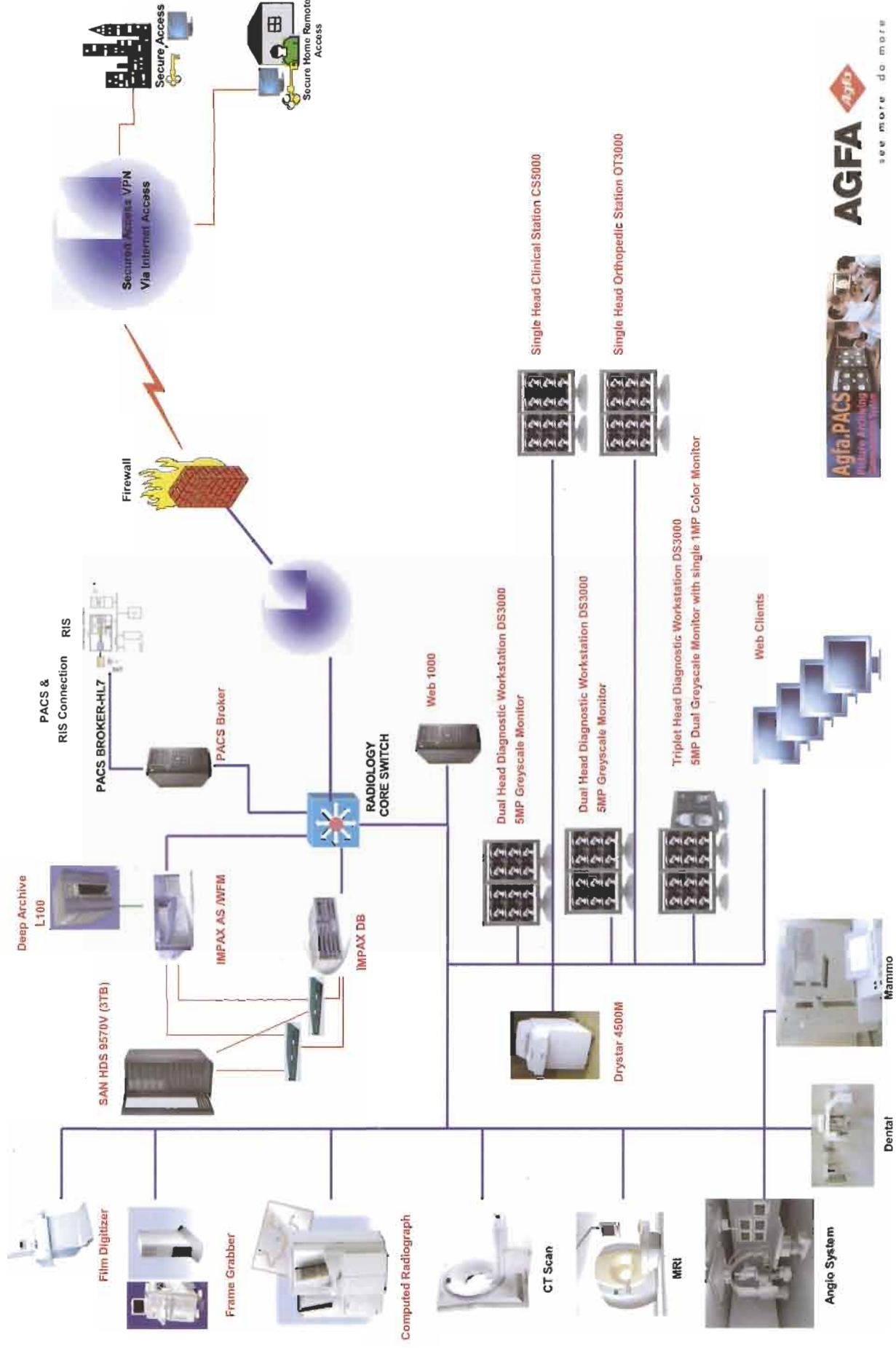
"This digital system provides a new facet to the concept of telemedicine as our doctors are now able to consult and share diagnostic images with their counterparts there, quickly, easily and simultaneously in real time through the web," he said.

"More importantly, it allows us to provide faster retrieval, more reliable in securing information and cost-efficient service owing to less printing of films for the patients' benefit. With this system, waiting time during the referral and diagnostic stages will be much reduced, as patients' records are only a click away. Gone is the time-consuming practice of digging up past records and dealing with damaged film or outdated reports," he added.

***"What you have to do and the way you have to do it is incredibly simple.
Whether you are willing to do it, that's another matter."***

Peter F. Drucker

IMPAX Schematic Diagram for Adventist Hospital



AGFA
see more do more

... contrast agent registered
since 1985,
with more than
90 Million examinations
worldwide and over
a Billion images.

