

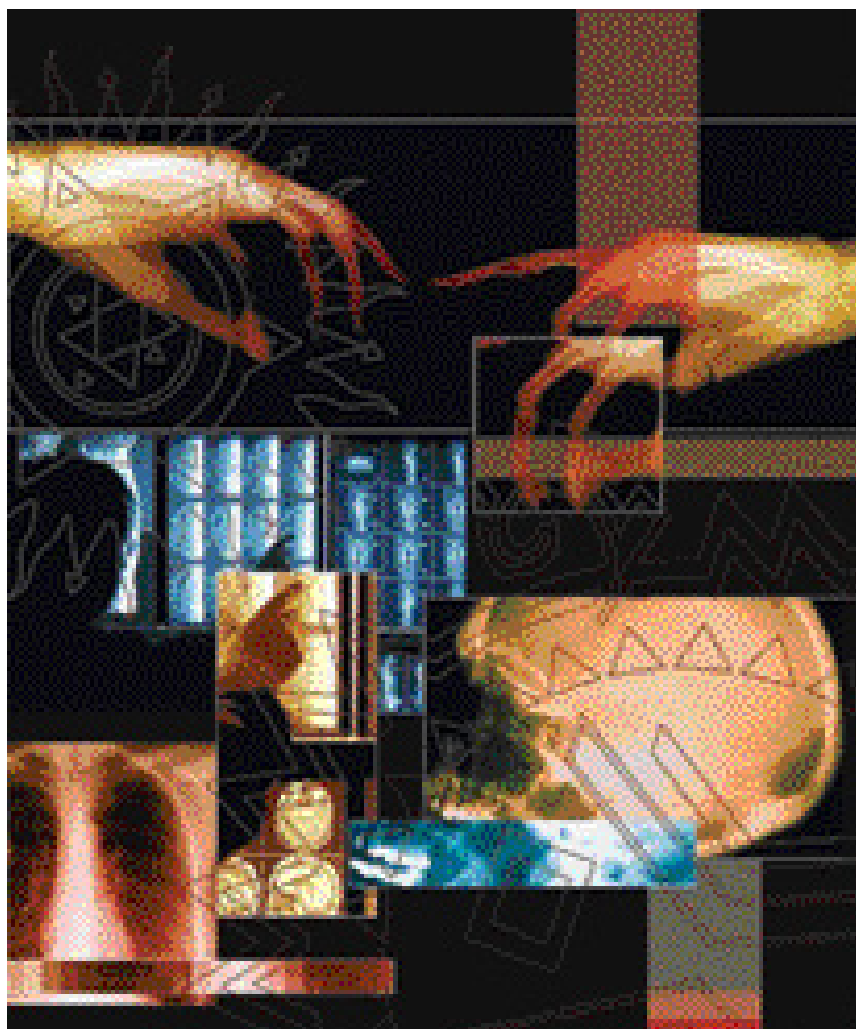
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NEWSLETTER

Volume 43. No. 1 – 2007



**International
Society of
Radiographers
and
Radiological
Technologists**



Interweaving Global Images

**2008 ISRRT WORLD CONGRESS
DURBAN, SOUTH AFRICA**



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RADIOGRAPHERS
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**Deadline for the twice yearly issues are:
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All material sent electronically that includes complex tables, charts & graphs please send also as hard copy by fax.

You are invited to comment in relation to the *ISRRT Newsletter* editorial content and make suggestions for future issues. All comments will be considered by the Editor and her Committee.

Advertisements/Secretariat

A section is reserved for the advertising of educational programs, courses or new radiological texts.

For further details or to advertise your program or new publications please contact the ISRRT Secretary General:

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President's Message

Report on **ISRRT Board Strategic Review meeting**
Singapore Jan 6- 9th 2007

FOLLOWING the discussions in the Council meeting in Denver in June 2006, the newly elected Board decided to hold a Strategic Review Meeting to review the existing structure of ISRRT. This was announced by the President at the closing ceremony in Denver and reported in the subsequent ISRRT Newsletter.

Several optional sites were considered on a cost basis with Hong Kong and Singapore the best choices- Singapore was chosen as the most cost effective package and the 6-9 January 2007 was selected as the most suitable dates for those attending despite it's proximity to the Festive Season. All board members and the Secretary General were able to attend.

We allocated 4 full days for the Board meeting. Apart from the formalities of attending to business from the previous meeting in Denver, the Board was asked to prepare for a full Strategic review of the Society - to start with a clean slate and look at the Society from the viewpoint of today's advances in Medical Imaging, the changed status of Europe with the development of the EU and the growth in our membership in Africa.



By way of focussing on the Review, the Board were also asked to carry out a SWOT analysis of the Society to closely examine the Strengths, Weaknesses, Opportunities and Threats. This ensured that we are able to build on current positive aspects and highlight areas where we can make changes. This was also an excellent opportunity for the new members of the Board to express fresh views and benefit from the experience of existing members.

The Review was carried out in 3 groups - Regional Officers, Directors and the Board Executive, who then came together to discuss their proposals so that a consolidated proposal can be disseminated to the Member Societies.

The Board then formulated a Strategic Plan involving a series of actions and projects for the period to 2010. As part of this Plan we also spent time looking specifically at Education issues under the guidance of Cynthia Cowling, the Director of Education. Many of the areas discussed also have implications for the other portfolios of Professional Practice and Public Relations.

The Newsletter and Website were also the subject of specific wide ranging discussions with



Continued on the next page

Continued from the previous page

several actions focussed on these two areas.

The Finance Committee and Budget were also items on the Agenda.

Apart from the Board meeting, The Board were invited to an informal meal with the President and Executive Committee of the Singapore Society of Radiographers.

The Directors of Education and Professional Practice and the Secretary General also joined me on a tour of the newly opened Philips Medical Singapore Learning

Centre - an amazing facility with specially designed class rooms, 4 working digital general rooms, 2 Fluoro rooms, 3 CT rooms, 2 Angiography rooms, 2 MR systems an ultrasound and mobile units. All are linked to a PACS installation. This Centre is one of only 3 in the World and is being made available to ISRRT for Teaching purposes in the Asia Pacific Region. The other sites in Cleveland, USA and Eindhoven, Europe are also available to us.

The Board appreciated the efforts of Treasurer, Tyrone Goh and his secretary Beth Chow as well as Tan Chek Wee the Singapore Council member, who assisted the Board Members during the Board meeting. We also thank Sandy Yule the Secretary General for his assistance and wise counsel.

A document advising the outcomes from the Strategic Review and Strategic Planning sessions is being distributed to all Member Societies through their Council Members.

**Robert George
President,
ISRRT**



***ISRRT Newsletter* publication dates are changing**

The ISRRT Committee are changing the dates of publication of the *ISRRT Newsletter* from 2008.

From next year, 2008, the newsletter will be published in May and November. The deadlines will be March 1 (May issue) and September 1 (November issue).

The second issue for 2007 will be October (deadline August 1 2007).

Any queries please contact:

The General Secretary, Dr Alexander Yule: isrty.yule@btinternet.com OR
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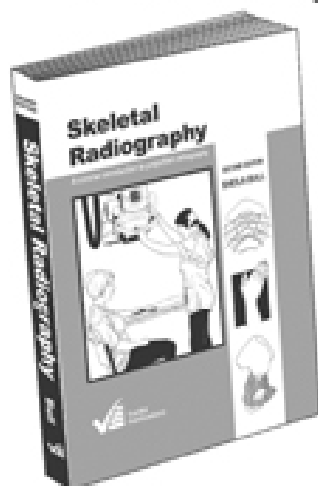
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Secretary General

THIS has been an extremely busy year with preparations for the Board and Council meetings in particular involving considerable communication with Member Societies, candidates for election and preparation for the actual meetings and elections. With respect to the voting system and the elections the new procedure was implemented and I felt that this went extremely well. I would like to thank all those who were involved in the development of the procedures and also to the three CEO's who acted as Scrutineers (Australia, Canada, UK).

The other area which has involved additional work was the commissioning of the ISRRT Website and subsequent training and operation. My involvement and training proved to be very rewarding and the website has received many compliments since it first went live. It is good to be able to up date the information and have the facility of producing a news section. I also feel that the introduction of photographs and information on Board Members and others has added to the interest. I receive quite a number of communications via the website and again, although requiring further work, this is extremely valuable and shows the interest being shown.

The Secretary General must also be readily available to travel and attend meetings which involves a considerable time away from home. In February last year I met with European Societies in Rome who were discussing their future co-operation with the ISRRT. In March 2006 I attended the European Congress of Radiology and also met with Dr Pedro Ortiz-Lopez, Head of the Unit for the Radiation Protection of Patients, International Atomic Energy Agency (IAEA).

In May I attended the WHO General Assembly in Geneva. This gave me further opportunity to meet with Harold Ostensen of the WHO to discuss our continuing co-operation. My last big meeting prior to Denver was in Birmingham attending the United Kingdom Radiology Congress (UKRC) held in Birmingham where the ISRRT was been provided with a complimentary booth which acts a focal point for UK and overseas radiographers.

I also travelled to Brussels to meet with the European Commission and with Agfa Gevaert, met with the auditor in Bristol and the portfolio manager in London and GE in Amersham. In October I presented a talk about the ISRRT in London and in November I attended the ECRRT meeting in Brighton, UK.

Finally at the end of November I attended the RSNA in Chicago with Robert George and Robert has reported on what was an excellent meeting with many valuable



contacts being made. It is good to be able to report that the ISRRT is now very well known and accepted at the RSNA. This year I was given complimentary registration and for the second year was invited to the CEO's breakfast which is organised by Dave Fellers, CEO of the RSNA. At the very early breakfast each CEO is given the opportunity to outline the activities of their organisation.

It has been highlighted by every Treasurer that the financial stability of the ISRRT must be maintained and in order to accomplish this we must all work together. It is important that we increase our Corporate Membership and advertising and this is best done by making personal contact and becoming known. I identified in my report for Denver that with the help of the ASRT we have succeeded in obtaining sponsorship of the website for a period of three years and Robert Gorge and myself have followed this up with meetings with companies during the Denver Congress, subsequent emails and meetings with companies while attending the RSNA.

Several societies are unable to pay their annual dues it has been proposed at several meetings that the more affluent countries agree to a possible mentorship in order to assist a country in difficulty. Assistance is available from the Development Fund but for some reason this is often not requested. This mentorship may be particularly valuable during the first years of membership and needs to be seriously considered.

Finally I would like to say how much I enjoy the work which is made easier by the co-operation and friendliness of Board, Council and colleagues throughout the world and of course very importantly the support of my family.

Dr Alexander Yule
General Secretary, ISRRT

Council Profile

Päivi Wood

ISRRT Vice President, Asia and Australasia

I graduated as a radiographer in 1985 and received my post graduate diploma in radiography administration in 1990. In 1997-1999, I studied management and leadership at Satakunta University for Applied Science. In 2002 I started Clinical Radiography Masters studies at Oulu Open University. I have also been studying Social Politics and Health Care Economics at Helsinki University. In 2002 I received my ISO 9000:1 Lead Auditor qualification.

Much of my working life as a radiographer has been spent at Satakunta Central Hospital in Pori - initially as a radiographer, and, as my experience grew and with further studies, I gained a position as a Superintendent in charge of fluoroscopy and mammograms. In 1992-1994 I worked in Saudi-Arabia initially in diagnostics and then for two years in radiation therapy. I moved back to Finland in 1997 and returned to work at Satakunta Central Hospital as an Assistant Chief of Radiography Services. In 1999 I moved with my family to Espoo and started my present career with the Society of Radiographers in Finland, first as an Officer and then 2001 as a CEO. Whilst working with the society I have played an active role in developing the national standard for clinical audits in the use of medical radiation. Since 2002 I have trained over one hundred assistant clinical auditors for Qualisan Ltd in Finland. Other radiography activities are:

- Project leader in Quality Manual for Medical Imaging Department.
- EU funded project coordinator in PHARE project, training radiographers in Estonia and starting radiographer education in Estonia.
- Mammogram image control working group, setting the national quality standards.
- ISRRT Council Member 1998-2006.



I am married to a Scotsman, Grant, with one daughter Emma-Julia and we live in Espoo, a town close to Helsinki.

In the summer time we spend all our holidays together at sea in Turku Archipelago sailing with our small 22 foot sailing boat. In the winter time we are keen skiers. I am also involved with my daughter's hobby Ringette (like ice hockey with a ring, not a puck - and only for girls) as a council member and her team's assistant team leader.

Maria Law PhD., MPhil, BRS, TDCR

ISRRT Vice President, Asia and Australasia

OVER the past two decades, Dr. Maria Law has imparted knowledge to legions of radiography students scattered all over the world. Maria, who joined the Hong Kong Polytechnic University in 1993, is currently the Associate Professor of the Department of Health Technology and Informatics. With her trademark vigor, Maria also serves as the visiting Associate Professor of the Department of Radiology in the University of Southern California, USA.

Maria, trained as a Radiation Therapist in the School of Therapeutic Radiography in Hong Kong, began her radiography career in 1974. Nine years later, she received teacher's training in the Guy's Schools of Radiography and Radiotherapy, UK. In the ensuing years, she obtained the Bachelor Degree in Religious Science in the Pontifical Urbanian University, Rome; Master of Philosophy in the University of Hong Kong and Doctor of Philosophy in the Chinese Academy of Sciences. Maria, one of the lifelong learning advocates, has been appointed as the Chairman of the departmental Postgraduate Education Committee in her university. Her recent research lies in the informatics in radiation therapy and radiology. By virtue of her well-garnered clinical experience, Maria is currently the PACS Co-ordinator for her university as well as the Honorary Consultant of the PACS project of the Princess Margaret Hospital in Hong Kong. Armed with extensive knowledge, Maria is proved to be a person of breadth and diversity.

Not only is she a brilliant and devoted scholar, but also a visionary and influential leader with successful track record in advancing the profession. As a founding member of the local Association of Therapeutic Radiographers, Maria served as Executive member in the Association until 1995, after which she has served in various positions in the Hong Kong Radiographers' Association until now. Maria stands as one of the icons in the local statutory Hong Kong Radiographers Board of the Supplementary Medical Professions Council. She was appointed as a member for 8 years and is still serving in various Committees and Sub-committees. From 2000-2005, Maria was appointed as member of the Examination Committee of the Chinese Medicine Council of Hong Kong, and from 2005 until now, as member of the Registration Committee of the same Council. In the 13th ISRRT World Congress held in Hong Kong in 2006, Maria was elected the chairman of the Local Organizing Committee. Being insightful and action oriented, she was uniquely suited to the post. Though the preparation of the 13th World Congress was stricken by the SARS epidemic in Hong Kong, under her leadership and the concerted efforts of the Local Organizing Committee, the group survived through the turmoil and worked wonders out of it.

After serving as a Council Member of the International Society of Radiographers and Radiological Technologists (ISRRT) for Hong Kong for 6 years unceasingly, Maria was elected Vice President (Asia and Australasia) of the ISRRT in 2006.



Update on the Europe and Africa Region 2006

Report by Stanley Muscat, Vice President & Caesar Barare, Regional Director, Europe & Africa

THE elections in Denver last June, brought into play a new team for this extremely complex and dynamic region of the ISRRT. It was therefore necessary to spend some time evaluating the situation and needs of both Europe and Africa.

The problems in Europe vary from socio-economic problems; like different education levels to geo-political problems focused on the relationship with the European Union; like the EUROATOM Directive and free labour market. Different cultural and religious backgrounds add on to this jig-saw puzzle. The problems in Africa are more or less similar but the biggest problem in this continent is communication, or better, the lack of it. This is accentuated by the limited availability of technology (such as internet and email).

In the last years, the historical ties between the two continents have build up a perception that such ties were withholding the development of the radiographer's profile within both Europe and Africa. This was the focus for various discussions especially during the Council meeting in Denver.

For this issue of the *ISRRT Newsletter*, we will be focusing this article on Africa.

Building a new structure for Africa

As Regional Officers, we acknowledge that a sustainable structure for Africa is the way forward. Africa is a large continent with over 50 countries; 19 of these are/were members of the ISRRT. To facilitate the built up of such a structure and also improve the communication within the African continent it was necessary to set-up three separate networks based on cultural background, geographical location and/or language: West and Central Africa (WCA); East and Southern Africa (ESA); North Africa and the Maghreb (NAM). During the period of June - December 2006, a lot of work was carried out in the three networks.

West and Central Africa Network

The ISRRT, with financial support from European Societies and the Benin Health Ministry organised a meeting for National Presidents and Council Members from those Societies within the West and Central Africa. This meeting was held in conjunction with the 4th Francophone Workshop organised by the AFPPE and was attended by representatives from Benin, Burkina Faso, Cameroun, Congo, Gabon, Ghana, Ivory Coast, Mali, Niger, Senegal and Togo. During the meeting, each country was given the opportunity to discuss the national education program and role of Radiographer. One important thing to mention is that, with the exception of Cameroun, radiography education follows a minimum of a three-year program at a higher educational Institution.

The problem of communication was also discussed and it was explained that internet is not readily available in Af-

rica, and on most occasions people had to travel over 30 km to the nearest internet point. At the end of the meeting, the WCA Network was set up with a working group from representatives from Burkina Faso, Ivory Coast and Cameroun.

East and Southern Africa Network

The Regional Director has been busy in this network and attended various meetings with separate countries. These included Uganda, Rwanda, Tanzania and Malawi. The importance of communication was stressed on each occasion. Other issues discussed included non-financed membership and the Development fund, minimum professional standards, education and PACORI 2007. A meeting to set up this network is planned during PACORI in September 2007.

Interesting developments in this network are the membership re-activation of Zimbabwe and the interest from Namibia, Malawi and Rwanda.

North Africa and the Maghreb Network

At present, there are no ISRRT member societies from this network. In November the Regional Vice-President together with Philippe Gerson (France) attended the Tunisian National Congress. During the meeting, the future membership of the Tunisian Association and collaboration with neighbouring Maghreb countries was discussed. This network is important for the forthcoming ICR meeting in Morocco.

In Conclusion, these organisational changes are aimed to gradually develop two independently sustainable regions. At present, Africa is not ready to become an independent region and if a hasty move is made, Africa will get lost in the process. What is essential at the moment is to provide autonomy between the two continents whilst maintaining the on-going support each continent gives to the other.

In line with this development, the Regional Officers have submitted appropriate proposals during the Board strategic review meeting. In the next issue of the Newsletter we will discuss the developments within Europe and how the proposed changes will affect the Europe/Africa Region. □



Regional Officers and Representatives of AFPPE with the Health Minister of Benin.

Update on Asia and Australasia Region

21st Malaysia Singapore Radiographers Conference

Kota Kinabalu, Malaysia
August 12-13, 2006

THIS year, the 21st Malaysia Singapore Radiographers Conference (MSRC) was held at Kota Kinabalu, Malaysia on 12-13th August 2006 at Promenade Hotel. This annual event that is held alternating between Malaysia and Singapore was held for the first time in East Malaysia, Kota Kinabalu which is the State Capital of Sabah. Kota Kinabalu is also fondly known as “Land Below the Wind” because of its location below the typhoon belt. This beautiful state is rich in cultural and nature beauty with the majestic Mt. Kinabalu, the pristine rainforests of Danum Valley and beautiful Sipadan Island which is one of the most exciting diving spot in the world. Many of the delegates also took some time off before and after the conference to explore these exciting spots.

The conference was a great success with a total of more than 150 participants from Malaysia, Singapore and Australia attended the conference. The choice of this year’s theme “From Novice to Expert We Excel” appropriately summaries our strived towards excellence in our professional journey. The conference opened with the key note speech by Dr Siti Fatimah, who spoke on the changing roles of radiographers in Malaysia. A total of 14 academic papers were presented over the 2 days event covering topics relating to our changing practice and technology.

As with all MSRC, other than the enriching scientific session, the other highlight was the official banquet on Saturday night. The banquet provided great opportunities for delegates to enjoy the local cuisine and to catch up with old acquaintances and make new friends. The delegates also had lots of fun, with the many exciting ‘traditional’ games, lucky draws and cultural performance arranged by the organising committee. □

6th Annual Scientific Meeting of Macau Radiology Association

Macau,
September 7-10, 2006

Report by Tan Chek Wee

THE 6th Annual Scientific Meeting of the Macau Radiology Association was held at the auditorium of Hospital Conde S. Januário (7-9th September) and Macau Fisherman’s Wharf Convention and Exhibition Centre (10th September) 2006. The newly built Macau Fisherman’s convention centre features a total area of 5,000m² and was built based upon a legend of an ancient civilization. The venue is also fully equipped with a wide range of cutting edge audio & visual technology.

A total of more than 220 guests and participants from Macau, Hong Kong, China and Taiwan attended the meeting. I would like to thank the Macau Association for inviting me as the ISRRT Regional Coordinator for Public Relation to attend the meeting

The theme for the meeting was “Recent Innovation and Development in Radiology”. A wide range of topics ranging from Neuroradiology to PACs management were discussed during the meetings and a total of 14 papers and 19 posters were presented at the meeting.

At the official banquet, delegates were treated to sumptuous local cuisine and entertained by excellence singing performance by one of the radiographers who crooned to many well-known Cantonese ballads. □

Go to the link below for all the photos:
www.kodakgallery.com/Slideshow.jsp?&mode=fromsite&collid=92363008505.138514512405.1161433114432&con_n_speed=1

Report

Update on the Americas Region 2006

Report by B. Patricia Johnson, Vice President, America & Dr Michael D. Ward, Regional Director

THE International Society of Radiographers and Radiological Technologists (ISRRT) and Pan American Health Organization (PAHO)'s Radiological Health Program, in collaboration with the National Health Authorities, organized two sub-regional workshops on Quality Assurance of Radiology Services during this period.

- "First Workshop on Quality Assurance for Radiological Technologists from Central America and the Caribbean Region," El Salvador (in Spanish).
- "Quality and Safety in Radiology Services for Radiographers and Radiological Technologists from the Caribbean Region," (in English).

Fifty participants from the host countries attended the workshops: 30 from El Salvador and 20 from Guyana. Additionally, 23 participants were nominated by the Ministries of Health of the following countries: Guatemala, Belize, Costa Rica, Nicaragua, Honduras, Panama, Dominican Republic, Barbados, Antigua and Barbuda, Dominica, Grenada, St. Lucia, St. Vincent and the Grenadines, St. Kitts/Nevis, Haiti, Suriname, Jamaica, Trinidad and Tobago, Bahamas, Montserrat, Turks and Caicos Islands and British Virgin Islands. In total, 73 persons were trained; and 23 countries and 2 territories were beneficiaries of the workshops.

The workshops were based in the WHO publication "Quality Assurance Workbook for Radiographers and Radiological Technologists", developed by the ISRRT under the umbrella of the WHO Global Steering Group for Education and Training in Diagnostic Imaging. For the workshop in El Salvador, PAHO translated the workbook into Spanish and distributed a copy to each participant. This Spanish version is being planned to serve for future workshops within the region and can be considered as an aggregated value of this project.

The workshops consisted of conferences during the morning sessions, and practical activities in the afternoons. The hospitals assigned to perform the practical activities were facilitated by the national health authorities, and included both public and private institutions.

The instructors, proposed by PAHO and the ISRRT,

were Elena Cotelro from Uruguay, Norma Roas from Nicaragua, Ileana Fleitas from PAHO/WHO, Sean Richardson from Barbados, Lystra Bharratsingh from Trinidad and Tobago and Shirley Hundvik from ISRRT. Patricia Johnson, Vice President of the ISRRT for the Americas, was also representing the ISRRT in both activities.

A survey to measure the quality of the workshops was conducted at the end of both workshops. All the participants reported that the instructors had the knowledge of the subject, were easy to understand and brought good presentations. The participants also recommended them as instructors for future workshops.

There were Pre and Post Tests in both workshops. All the participants showed improvement at the Post Tests performed at the end of the workshops.

At the end of the workshops, the participants were asked to write down what they will do after returning to their institutions, both in terms of quality assurance and education of their colleagues. It was agreed that each country will prepare a report about the workshop and the follow up actions to be sent to the National health Authorities, PAHO/WHO Country Offices and the ISRRT.

All of the participant countries have received one kit for Quality control of darkrooms in Radiology Services as programmed in the project. This was possible thanks to the support provided by the BPB Canada Fund, PAHO and ISRRT.

A Quality Assurance workshop was held in Paraguay in December, 2006. Paraguay has more than 100 schools for technicians and technologists. The programs, though, are not uniform. Because of the work obligations of the Regional Officers, we were not able to attend. This workshop, co-sponsored by PAHO and ISRRT, however, was a great success.

With on going dialogue with PAHO, ISRRT's Education Chairperson and the Regional Directors, there are plans for additional workshops in Equipment Maintenance within the region this year (2006-2007). □

47th Directing Council of the Pan-American Health Organization

Washington DC, USA
September 25-26, 2006

Report by Sean Richardson,
Regional Public Relations Officer, the Americas

Presentations, discussion & deliberations

On Monday September 25th 2006 the 47th Directing Council of the Pan-American Health Organization was declared open for deliberation by the outgoing president Dr Maria Julia Munoz, Minister of Public Health, Uruguay.

In her address, the outgoing president briefly outlined the past and present activities of the organisation in the various countries of the Pan-American region. This was followed by welcoming remarks by the Director of the Pan American Sanitary Bureau, Dr Mirta Periago. Included in Dr Periago's brief welcome remarks were an outline of the organisation's past and on-going activities and a request for closer attention to disaster preparedness. In support of her request Dr Periago briefly reflected on the disasters that affected the region and sub-regions over the past year.

Dr Periago's remarks were followed by brief remarks from Dr Andes Nordstrom, Acting Director-General of the World Health Organization. Of importance in Dr Nordstrom's remarks was the strong commitment received from the G8 countries for health internationally, at the recently completed G8 summit.

Dr Nordstrom's remarks were followed by kind words of welcome by the Honourable Mike Leavitt, Secretary of Health and Human Services of the USA, Dr Andrew Von Eschenbach, the acting commissioner of the US Food and Drug administration, and Dr Jose Miguel Insulza, Secretary-General of the Organization of American States.

The three speakers lauded the work of PAHO and restated their organization's continued support for PAHO and her activities.

In his welcome remarks Dr Von Eschenbach made a brief presentation on fighting disease together, where he outlined the FDA's position of an approach of togetherness in the fight against diseases regionally and internationally and mentioned the FDA's ongoing activities in Guyana and Haiti, among others.

A session on disability

Prevention and rehabilitation in the context of the enjoyment of the highest attainable standard of physical and mental health and other relation rights was preceded by an outstanding and emotional presentation by the first lady of Panama, Her excellence Mrs Vivian de Torrijos. In her presentation Mrs de Torrijos outlined issues affecting the disabled population in Panama and the Americas region and hoped that the region could adapt the Panamanian model for respecting, embracing and supporting their disabled population. The Panamanian disability model may be received as an idealistic model but in fact the Panamanian delegation demonstrated that their model is realistic and workable. A working model that can be adapted by countries of the region.

The strategic alliance for the attainment of the development goals of the United Nations Millennium declaration was discussed with countries outlining the Millennium Development Goals (MDGs) achieved to date. However, of importance was the caution expressed by the Jamaican delegation for the need to strengthen alliances with the private sector and for universities to be equipped with the required tools to measure/evaluate the MDGs countries claim to have achieved.

On Tuesday morning, the Director of the Pan American Sanitary Bureau Dr Mirta Roses Periago presented her annual report entitled "Closing the gaps in health in the least protected populations"

In the organisation's quest at closing the gaps in health in the least protected populations, Dr Periago itemised the following important initiatives that are currently in action:

1. Reducing health inequalities.
2. Measuring health inequalities.
3. Establishing policy-making in health.
4. Strengthening operating capacity.
5. Reaching disadvantaged groups.

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6. Extending social protection to the maternal- Neonatal population.
7. Strengthening primary care and broadening access to health and nutrition.
8. Implementing health programs in schools.
9. Improving child and adolescent health protection.
10. Preventing violence among youth.
11. Strengthening gender equality.
12. Reducing the stigma and discrimination against people affected by HIV and AIDS.
13. Improving health care for indigenous people.
14. Reducing challenges of health care for older adults.
15. Protecting the disable.
16. Reducing communities living in high-risk areas.
17. Improving border communities.
18. Reducing communities overburdened with risks and infectious diseases, and
19. Reducing the number of persons living in poverty.

The attainment of the 19 outlined initiatives also positively influences the attainment of the Millennium Development Goals by respective countries.

It was hoped that the document "Development of a Health Agenda for the Americas, 2008-2017" would have been presented on the evening session but because of time constraint this was rescheduled.

Awards

The PAHO award for administration 2006 and the Abraham Horwitz for Leadership in Inter-American Health 2006 was presented.

The award for administration was awarded to Dr Adolfo Horacio Chorny for his contribution to the development and innovation in the areas of planning, management and financing of health systems and services at the national and international levels, including his contribution to the strengthening of leadership in public health and health policies through several generations of managers and decision makers.

The Abraham Horwitz award for leadership in Inter-American health was awarded to Dr James Steele of the USA. The award recognises and stimulates excellence and leadership in health among persons working in the Americas and persons who produce ideas and work of regional significance.

ISRRT/ PAHO meeting

On Tuesday 26 September, I met with Dr Pablo Jimenez, Director of Radiological Sciences. I expressed sincere

gratitude for the assistance his office and organisation has given to the ISRRT over the past year. Dr Jimenez and I also briefly discussed plans for the coming year.

Of importance were:

1. A Quality Assurance workshop in Paraguay from 23-26 October, 2006 to be hosted by the Paraguayan National Society of Radiologist. Dr Jimenez hoped that a representative of the ISRRT would be in attendance at this meeting.
2. October 12-16, 2006 The Latin-American Conference of the Latin-American Society of Radiologists is to be held in Buenos Aires, Argentina. The conference will focus on QA for radiological services with three mini courses in Computed Tomography, Mammography and Interventional Radiology. Again, it is hoped that an ISRRT representative will be in attendance.
3. A workshop on equipment maintenance to be held in the Caribbean, preferably Guyana with Trinidad & Tobago and Barbados being alternates. The format and dates of the workshop is currently being discussed with Ms. Cynthia Cowling, ISRRT's chair of education and the Vice President / Americas, ISRRT. It is hoped that this workshop will include presentations on equipment purchasing, contract bidding, and obligations of equipment maintenance engineer, amongst others.

Dr Jimenez also informed me that the electronic English version of the QA manual is available for dissemination free of charge.

The Spanish version is currently undergoing final grammatical checks and should be available for dissemination soon.

In concluding our meeting, Dr Jimenez expressed his happiness in seeing the ISRRT maintaining its presence at the Directing Council meetings and pledged his support for further projects of the ISRRT.

Dr Jimenez also expressed how pleased he was in working with the ISRRT and stated that he is currently in discussion with the Iceland authority which has offered technical assistance to the Caribbean's radiological services. The pertinent details will be announced in due course.

Social events

On Monday evening, the Director of PAHO hosted delegates to a cocktail reception. This provided a relaxed forum for the fostering of relationships and the discussion of ideas. I was pleased to be introduced to the Acting Director-General of the WHO Dr Nordstrom. In this process Drs Nordstrom and Roses Periago expressed happiness at knowing that the ISRRT has maintained its presence at the Directing Council.

The following evening, the Secretary of Health and Human Services of the USA hosted delegates to a cocktail re-

ception at the Department of Health and Human Services. Again, this forum provided the opportunity for networking among the various countries, delegations and non-governmental organisations.

Both social events proved opportune to the continuation of cordial discussions with health ministers and delegations with respect to the mandates and objectives of the ISRRT. The international shortage of radiological professionals was the concern expressed by every minister or health delegate with whom I spoke. Their concern is further compounded specifically with the developing countries, since they are the ones that are most severely affected. To this affect, various schools of thoughts with possible solutions were offered by the region's learned health luminaries and decision makers.

Recommendations

In reflection, the 47th Directing Council of the PAHO was a success and it is evident that the work of this organization remains an integral part in the process of the countries of the Pan-American region achieving health for all and the Millennium Development Goals.

Recommendations put forward to the ISRRT/ Regional

Directors are as follows:

1. The ISRRT should maintain its presence at the Directing Council's meeting.
2. The ISRRT should use its good relations with the USA, Canada and/or the United Kingdom to present a resolution on the state of radiation standards and regulations to be included on the agenda for discussion and the relative affirmative actions taken, at the 48th Directing Council of the Pan-American Health Organization. These three countries all have excellent working radiation standards and regulations and therefore can illustrate the importance of having such standards and motivate others countries within the Americas' region to improve or implement such standards and regulations. It may also be the opportune time to commission an investigation of the state of radiation protection, standards and regulations within the sub-regions of the Caribbean and Latin America as a precursor to the tabling of this resolution. Dr Jimenez is in full support of this recommendation.
3. The ISRRT should work more closely with PAHO with the aim of assisting the organization in closing the gaps in health in the least protected populations- Radiologically. □



ELEKTA PROVIDES THREE-YEAR FUNDING FOR ISRRT WEBSITE RENOVATION

Elekta will fund \$30,000 USD, throughout the next three years, for the implementation of a complete Website renovation for the International Society of Radiographers and Radiological Technologists (ISRRT), a global organisation composed of 71 national radiographic societies from 68 countries. With Elekta's funding, the visionary approach of ISRRT is to create an effective, world-class Website (www.isrrt.org) that continues to connect and exchange information with ISRRT's membership, resulting in improving the member education and the enhanced development of medical radiation technology.

"Elekta has a strong commitment to radiographers and radiological technologists, and we strive to work closely through educational, professional and clinical means to ensure our relationship with the global radiation therapy community is strong and productive," says Peter J. Gaccione, vice president of global marketing at Elekta. "The International Society of Radiographers and Radiological Technologists also is purposefully dedicated to the improvement practice standards in radiation medicine technology, which Elekta firmly supports."

Elekta also is a platinum sponsor of the American Society of Radiologic Technologists (ASRT) Education and Research Foundation's Health Care Industry Advisory Council and annually funds four (4) \$5,000 scholarships. Elekta will attend the Annual ISRRT 14th World Congress, hosted by ASRT and the Association of Educators in the Radiological Sciences, Inc., which will bring together an international community of more than 1,000 radiologic science professionals June 9-13 in Denver.

About Elekta

Elekta is an international medical technology group, providing meaningful clinical solutions, comprehensive information systems and services for improved cancer care and management of brain disorders. All of Elekta's solutions employ non-invasive or minimally invasive techniques and are therefore clinically effective, gentle on the patient and cost-effective.

Clinical solutions include Leksell Gamma Knife(r) for non-invasive treatment of brain disorders and Elekta Synergy(r) for image guided radiation therapy (IGRT). Following the acquisition of Medical Systems Inc. in April 2005, the Elekta Group became the world's largest supplier of oncology software.

Mammography and Breast Ultrasound training

Suva, Fiji

July 24-28, 2006

Report by Liz Bowey,

Chief of Modality for Mammography, Dr Jones & Partners, Adelaide, South Australia

Introduction

I was asked to spend a week in Fiji, based in Suva to do some training in Mammography and Breast Ultrasound. This was partly funded by the ISRRT and partly by the Fiji Government, Ministry of Health. Before I left for Fiji I tried to find what sort of training would be required. I also sent a questionnaire to be completed by those attending the training. I had also planned a rough program for the week, but could not make definite plans, as I did not know format of training, facilities that would be available, number of participants or their experience.

On arrival I found that I had the use of a seminar room near the Mammography room in the CWM Hospital in Suva. 8 staff, 6 from CWM and 2 from Lautoka Hospital were freed from their normal duties for the whole week to attend my training course. All the course attendants, or trainees, were experienced in both Mammography and Breast Ultrasound. The management of the Radiology Department and the Fiji Society of Radiographers were very supportive of this training.

Equipment

Suva CWM Hospital is well equipped with a Sophie Planmed Mammography Unit installed in December 2005. There are four 18x24 and four 24x30 cassettes. Previously a

bench top processor was used solely for Mammography, but this is no longer operational, so films are processed through one of the processors in the main X-ray department. The Toshiba Ultrasound Unit is a high end model and very suitable for Breast Ultrasound. Images are printed on paper. Lautoka Hospital has a very old Lorad Mammography Unit with one 18x24 cassette, images processed through main processor. An equally old Ultrasound machine is used. It has no capability of Doppler or saving or printing images.

Training

On Monday morning I was able to ascertain from the questionnaires what the girls' level of experience was in both Mammography and Breast Ultrasound, and what they hoped to learn or improve on while I was there. I took some training resources with me, including copies of the basic Mammography training program I had set up for our own staff. The girls found these resources very helpful.

It soon became clear that their knowledge of theory of most aspects of Mammography and Breast Ultrasound was good, so I spent a large proportion of my time on improving their practical skills. I encouraged them to ask me lots of questions, and in turn I asked them a lot too, to find out the depth of their knowledge and interest. They were a fantastic group, enthusiastic, keen to learn and very easy to teach. In Mammography they wanted to improve their basic positioning skills, particularly for MLO views and learn how to do extra views. We had ready access to the Mammography room and patients available when required, so I was able to give them individual help to position, and group training on critiquing and offering suggestions for improvements. We also discussed what extra views would be appropriate in different circumstances. For Ultrasound it was a little more difficult as we had to fit in between patients in a very busy department, however I feel again they were able gain experience as a group and individually. I was able to help them



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with scanning technique and also recognition of normal and abnormal, what to look for and how to describe them. On the Friday morning I gave them a test to gauge how much they had learnt, and to ensure my teaching was understood. We discussed the results; they had all done very well. Friday afternoon a presentation and closing ceremony was held, with the Director of the Central/East Health Services as official guest. The girls were presented with certificates of attendance.

QC/QA

A QC/QA program had been implemented when training was given at installation of the Mammography Unit. However, the bench top processor was no longer used, so the staff had stopped doing the QC. The radiographers have no control over the processors, so I implemented a basic 2-step QC program that tests the constancy of the Mammo Unit and the processing. From this they can calculate if they need to adjust density on the Mammo Unit before they begin Mammography for the day. I also instigated regular cassette and equipment cleaning. I felt it was important to have program that was achievable, rather than too complex.

Interventional Techniques

I had hoped to be able to teach some interventional techniques for both Mammography and Ultrasound, however the Mammography Unit does not have this function. Unfortunately the Radiologist who performs these was not available the week I was there. I believe he is keen to have someone to train the staff in these techniques.

Images

The Mammogram images on the whole were very good quality, with the processing being consistent. I have recommended the purchase of 'screen cleaner'. Due to a shortage of 18x24 film, the girls had been asked to cut the 24x30 film in halves. This led to all sorts of problems, so I recommended no cutting of film and use of large cassettes instead. A supply of correct sized film arrived and alleviated that problem. Ultrasound images are printed on paper, which is of poor quality, so the printed images do not reflect the high quality of image on the Ultrasound screen. However the Radiologist comes in to see the real-time scan.

Other Resources

I took with me copies of several PowerPoint presentations, which I was able to show the trainees and other Radiology staff. These were on Breast Ultrasound and CR Mammography. They were very interested in all I had to offer and would love to have CR installed at CWM Hospital to relieve them of processing problems. I was able to obtain the older cassettes from Suva for the Lautoka girls to take back with them.

Conclusion

I thoroughly enjoyed my time in Suva, Fiji. It was very beneficial both to me and to the trainees. I was very humbled by the way they looked after me and greatly appreciated everything I did for them. I believe that the trainees gained a lot in self-confidence during my time there. I plan to keep in touch with staff at both hospitals, so they can use me as a resource person if required. I also believe that regular follow-up training is important in places such as Fiji. I would like to say a huge thank you to Robert George and the ISRRT for making this training possible. □

7th Central European Symposium

Erfurt, Germany

September 14-16, 2006

Report by Susanne Huber,
President 7th Central European Symposium

WHEN in 1993 the Central European Symposium (CEUS) was founded in the capital of the Czech Republic Prague, the members of the founding countries might not have been aware of the fact that they were creating an event which would last successfully for many years. The participant for Germany was Mrs T. Jasper, past president of the German radiographers' society dvta. In 2004 Mrs Jasper succeeded in Germany being the venue for the 7th CEUS. For her initiative we are honouring her by designating her Honorary President of the 7th CEUS.

For the first time the Central European Symposium took place in Germany. We are very happy that we, the DVTA, were successful in organising this congress in the historic city of Erfurt, Thuringia, in the former East Germany. Since the reunification of Germany (opening of the Berlin Wall in 1989, official reunification in 1990) both our history and our geography were reunited and as a result the city of Erfurt now represents the geographical centre of Germany. With respect to this congress being an international event, we provided English-German and German-English simultaneous translation.

As the president of the 7th CEUS, I opened the symposium Thursday afternoon and after the opening ceremony, we also opened the poster and the industrial exhibition. We then started the official programme with a session about the radiographers' education in several central European countries. The day was finished by a reception in the town hall of Erfurt thanks to an invitation of the Mayor.

On Friday we offered presentations given by presenters

from nine European countries who gave an overview about the topics: projection radiography and mammography, CT, interventional radiography of the vessels and RIS/ PACS. We were also able – thanks to our sponsors from the industry – to offer three lunch symposiums. In the evening the official congress dinner took place, where about 100 colleagues joined the guests invited by the president and the DVTA – among them the paper presenters and other officials – and together we enjoyed Thuringian specialities.

On Saturday six more presentations were given. After CPD and postgraduate studies in UK, we learned a lot about MRI in daily practice and future aspects. After this session I closed the 7th CEUS and announced Sarajevo/ Bosnia-Herzegovina as the venue for the 8th CEUS in 2008. This was decided by the CEUS member countries during this symposium. The date will be announced in this journal and on the ISRRT website.

We are very happy that the 7th Central European Symposium was very well attended with about 240 colleagues coming from 14 European countries. I would like to thank the organisation committee of the DVTA for all their effort in helping to organise our first international congress in the beautiful historic city of Erfurt. □

Susanne Huber

DVTA - Radiography International/

ISRRT Council Member

Radiology Services Manager, Munich, Germany

Report

RASCO 2006: Broadening the radiography spectrum

Mombasa, Kenya
April 2006

Report by Caesar Barare, Honorary Secretary, Society of Radiography in Kenya (SORK),
Regional Director Europe/Africa

DURING the last week of April 2006, over 100 radiographers convened at the Sun N Sand Beach Resort, in Mombasa Kenya to attend the 2nd Radiographers' Scientific Conference (RASCO 2006). This turned out to be a success if the attendance and the quality of presentations is anything to go by. There was representation from Denmark, Netherlands, South Africa, Sudan, Uganda, United Kingdom and of course the hosts Kenya. The theme for this auspicious event was "Broadening the Radiography Spectrum" with the official opening ceremony putting emphasis on the need to help rebuild and focus on healthcare in Southern Sudan after years of turmoil.

DAY 1: 29 April 2006

The day was dedicated to breast imaging, paediatric radiography, workshop on the principles of pattern recognition of skeletal structures by Jenny Motto of the University of

Johannesburg, and the official opening ceremony. On breast imaging, Dr Saleem Malik, the Chair of Radiology at the Aga Khan University Hospital in Nairobi (AKUH) offered a new perspective on the role of the radiographer in mammography; other than just imaging, a primary opinion on the images may be sort from experienced practitioners; but this should not be devoid of appropriate training and clinical exposure.

Later in the afternoon the plenary was offered a graphic demonstration of challenges and difficulties in paediatric radiography by Mrs J. Atiti and Mr L. Mucheusi. After the session, the meeting was in agreement that there is need for practitioner radiographers trained specifically to handle children.

Throughout the skeletal structures pattern recognition workshop, it was stated that the intention is not purposely to make a diagnosis but rather distinguish between normal and abnormal using knowledge of anatomy, assessment of diagnostic quality, and adoption of a sound and systematic

approach. Mrs Motto's lessons were later put to test when she kindly organised a competition on the same topic. The prizes were donated by BK Medical Systems and the University of Johannesburg.

Opening Ceremony:

The official opening of the conference was to be presided over by the former president H.E Daniel arap Moi. However, due to political considerations and other prevailing circumstances this was not to be. Hence the Director of



Group photo of delegates at RASCO 2006. Over 100 delegates from across Africa and Europe attended with several medical companies represented at the Technical Exhibition.

Medical Services (DMS) through his senior deputy Dr David Kiima did the honours. This part of the conference was dedicated to Southern Sudan: Dr Nathan Atem representing the Minister of Health South Sudan and Mr Daudi Waithaka of the office of the president Republic of Kenya, outlined in great depth the challenges and opportunities available in rebuilding this previously war-ravaged territory. Some of the challenges are; foreseen dependency on external resources, poor infrastructure, inadequate number of trained health personnel, no human resource policy, lack of baseline data, collapse of endemic disease control programs, poor quality health care amongst others. Dr Nathan Atem extended an invitation gesture to radiological professionals to venture into Southern Sudan noting that the current Minister of Health of the government of Southern Sudan Dr Theophilus Ochang Lotti is a radiologist trained in Kenya.

While the opportunities exist following several years of policy and strategy development, effective partnership among the health authorities and, professional bodies their international (mostly NGOs) and local (mostly faith-based) implementing partners, and government willingness to adopt implementation mechanisms.

Other invited guests and speakers included Ms Wilma de Vries, a health consultant on education in developing countries at the Fontys University, Netherlands who gave both a retrospective and prospective overview of medical imaging education in Africa, and current proposed projects in Kenya; Mr James M. Njoroge, Finance and Administrative Manager, Phillips Medical Systems (East Africa) gave insights into accessing finance for health radiographic facility establishment. The SORK patron Dr N. Adamali encouraged radiographers to establish collaboration with other link-minded institutions such as is the case with the Kenya Association of Radiologists.

In his opening ceremony speech the DMS appreciated the efforts that were being undertaken by SORK in representing and tackling the professional issues that arise from time to time. He noted that there is no country that can rise about the competency and productivity of its healthcare staff. Dr. Kiima further enumerated some of the ongoing developments in radiography amongst them were; development of a new scheme of service, policy framework to enact the draft Kenya Radiography Bill, and harmonisation of healthcare standards. These, he indicated were being done in collaboration with the current dynamic SORK council. The Chief Guest was kind enough to present outstanding awards to Dr N. Adamali (patron SORK), Mrs Mary Mwangi (private practitioner radiographer) and Mr. Solomon Kilaha (senior lecturer and head of Medical Education Kenya Medical Training College, Nairobi [KMTC]) for their immense support and contribution to radiography in Kenya. Also to be recognised were Shem Onchuki and James Kuloba for their outstanding presentations during RASCO 2004. This particular award was established courtesy of a donation by Dr P. C Engel-Hills from Cape Peninsula University of Technology in Cape Town South Africa.



Top: The Chairman of SORK (2nd left), Mr Longino Mucheusi, with some of the invited guests at RASCO 2006. From right Dr Nathan Atem, representing the Minister of Health South Sudan government, Dr N. Adamali Patron SORK, and Mr Daudi Waithaka - Director of KESSULO-Office of the President Republic of Kenya. In the Background is Mr Caesar Barare, Hon. Secretary SORK, now ISRRT Regional Director, Europe and Africa.

Bottom: Mr Barnabas Chumo (extreme right) one of the many Kenyan Radiographers in the diaspora now studying and working in Australia in a joint photo with local delegates at RASCO 2006.

DAY 2: 30 April 2006

The plenary session kicked off the day with an invited review by Dr Sudhir Vinayak (consultant radiologist AKUH, Nairobi) titillated the audience with presentation on the recent trends in ultrasound in the hope it would encourage more radiographers extend their role in this field. The challenge lies both in the cooperation between radiologists and radiographers, willingness to extend into that role and, the availability of resources to sustain these programmes.

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Report

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Above: The Chairman of SORK, Mr Longino Mucheusi (Front R), presenting a gift to the Chief Guest at RASCO 2006 Dr David Kiima, a Senior Deputy Director of Medical Services representing the Director of Medical Services Ministry of Health Kenya, Dr James Nyikal.

Below: The Chief Guest Dr David Kiima, Senior Deputy Director of Medical Services, Ministry of Health resenting a gift to Wilma de Vries from Fontys International University during the opening ceremony of RASCO 2006.



Subsequent presentations on distance learning (Mr S. Kilaha, KMTC) and curriculum development (Dr P. C. Engel-Hills, Cape Peninsula University of Technology) underscored Dr Vinayak's concerns since most of these aspects require self-motivation, self-regulation while taking into consideration of the local vis-à-vis regional needs and those of the external development partners who in most cases provide a bulk of the requisite financial assistance.

This conference also saw the initial groundbreaking for establishment of formal links between SORK and Minority

Ethnic Network of Society of Radiography UK (MENSOR) through an able presentation by the current MENSOR chair Mrs Indira Bhansali nee Gathani. Mrs Bhansali worked at the Kenyatta National Hospital, Nairobi in the 1970's. Some of the possible areas of such cooperation would be exchange visits, CPD, training and joint research.

Parallel Sessions:

The conference organisers experimentation with breakaway sessions bore fruit since discipline specific and education/research matters were given due attention as opposed to some delegates feeling out of place and context of the sub-speciality presentations that they never come across in their day to day practice. Delegates were seen loudly commending this and hoped that other regional forums would follow suit. At the nuclear medicine and therapy session the highlights were Mrs. Shaheeda Rhoda's presentation on neutron and proton therapy at the Ithemba LABS in Cape Town South Africa. It should be noted that this is the only such facility in the southern hemisphere. Whilst at the ultrasound and medical imaging session Mr. Barnabas Chumo (holds MSc in Ultrasound) one of the many Kenyan radiographers in the Diaspora, currently at South West Australia, stole the show with his informed and captivating talks on a sonographers guide to mid-trimester morphology and musculoskeletal ultrasound with reference to shoulder sonography.

Dr Henry Wanga a reknown Kenyan interventional radiologist took delegates through a series of current trends in interventional radiology practices in the country. This was definitely a must for any colleagues wishing to venture there. Although there are a few radiographers who are practising the same in Nairobi but whose capacity needs to be improved through further training and deliberate human capacity building and development policies. Dr Wanga's lecture had been preceded by papers that were very relevant to the conference theme viz. Three-phase spiral liver scanning and Interventional radiography; role of the radiographer by Andrew Thiong'o (Nairobi Hospital) and John Kiprop (AKUH) respectively.

What came out clearly is the need for a paradigm shift in radiography training in areas of teaching methodology and curriculum. A complete revamp would ensure that the radiographer especially in medical imaging is versatile and relevant within the rank and file of the healthcare professions. In a related matter Dr Gideon Onditi-Elias (senior lecturer at the Moi University and consultant radiologist at the Moi Teaching and Referral Hospital) unveiled the proposed BSc Radiography program and gave a progression report on the same. This initiative which is spearheaded by SORK and is a collaboration between SORK and the Moi University, is based on the current service needs in the country and the region.

Hospital Visits:

At the excuse of a trip to two (2) private hospitals, delegates

were treated to a serene, beautiful and scenic Mombasa. Most will remember the Mama Ngina Drive at the Likoni ferry channel. Prior to this, delegates were split into two groups for visits to the Mombasa Hospital and the Pandya Hospital. They both have facilities for CT, Fluoroscopy, General Radiography and Ultrasound. However, the former enjoys utilisation of more modern equipment. One interesting account is as much as these is at private facilities, one of the hospitals has direct fluoroscopy equipment but is currently not using this option. In addition, the film processor takes a whopping four (4) minutes to pass one film.

DAY 3: 1 May 2006

The last day of the conference was a mix bag; executive secretary for National Council for Science and Technology (NCST) Dr. John Onyatta gave a clear cut explanation on the role of NCST in advancing radiological services in Kenya; which facilitated capacity building, identifying areas for research, project proposal writing and collaborative bilateral/multilateral funding etc. He regretted the lack of initiatives from professionals in health, whereas other professions have taken advantage of this. He noted that the NCST is the local co-ordinating arm of the Kenya Government with the International Atomic Energy Agency (IAEA). He therefore encouraged radiologists and radiographers from Government institutions to take advantage of this - sadly noting

that the healthcare sector is still lagging behind and yet it may as well be the main beneficiary.

The icing of the event came from Mr Klaus Ostergaard from BK Medical Systems International on current trends in ultrasound. He left many of the participants wondering when some of the innovations currently in the West will home (Africa).

Closing Ceremony:

At the end of the conference, participants were urged to take stock of what had transpired. The need for greater regional and international integration would not have been more emphasised than by Dr Engel-Hills and the Chief Guest Mr Cox Olanya (Senior Radiographer, Mulago Hospital, Kampala Uganda). They underscored the need to exchange and compare notes since that's one way in which Africa can fast track her own development and advancement vide home-grown solutions with external logistical support.

RASCO 2008:

On behalf of the conference organisers, SORK wishes to extend gratitude to all those who ensured that RASCO 2006 was a success. The next RASCO shall be in Lake side Port City of Kisumu which is one of the millennium cities declared by the United Nations – from 18th to 20th October 2008. More details and information shall be made available through your national society journals and the next ISRRT newsletter. □



Above left: Ena Haarhoff from South Africa and Wilma de Vries from Fontys International University in a one to one conversation during a break at RASCO 2006.

Above right: The President of MENSOR UK, Mrs Indira Bhansali, confers with Ms Shaheeda Rhoda from the National Accelerator Centre (Ithemba Labs) Cape Town South Africa – the only one in the Southern hemisphere - during one of the breakaway sessions.

Report

Joint conference: Taiwan, Japan and Korea

Report by Robert Shen, Regional Director – Asia/Australasia

THE Taiwan, Japan, and Korea Joint Conference which includes a general invitation and exchange visits, has become an official annual meeting. The meeting will discuss common academic subjects and the resolutions will be discussed by three countries' representatives. This meeting was previously held in 2004 and the resolutions may include:



Above: 2006 meeting at Yonago, Tottori, Japan.



1. Each country to hold their own regular annual meeting as usual. After agreement of those attending, they must offer an official announcement, indicating the time, venue and the deadline for abstract submission and date for general registration. The registration fee is to be US\$50 or the equivalent local currency, which must be paid to their own country society. There will be no individual or on site service for registration.
2. The conference should also set up an international program. The host country may set a limitation on the number of oral presentations from other countries, but there should not be less than five such presentations. Oral presentations have to include an English manuscript and English version slides during the meeting - currently only the mother tongue was allowed. There is to be an interpreter for Q & A as well.
3. Each host country also may invite other regional countries' member to participate, or other representative personnel to attend. This can include local academic coordinating persons and ISRRT regional officers. Over the last few years in Hong Kong, Macau, Singapore, Mr Tyrone Goh, Mr Robert George and I, have been invited

and presented to the meetings. We found this provided an open channel which enabled many various countries' colleagues to contact government authorities and ISR-RT associate members. Comments or questions can also be addressed.

4. Significantly, following my participation in these meetings, I realised that when all our colleagues gather together to discuss and debate, this not only increases the opportunities to exchange communication, but also builds confidence at the same time. The quantity and quality of the meetings are increased because many school educators joined in with the meeting with their students, which encourage the students to build up their confidence, enthusiasm and interest.
5. The establishment of an international conference section, makes the conference more appealing internationally, motivates the potential of English presentation ability, and promotes attending international activities. It also encourages talented people and creates better interaction by way of increased energy and encourages the participants to become more interested in international MRTs' activities. It can also develop more qualified chairpersons or moderators of meetings, breakdown communication barriers and eliminate any obstacles on the road ahead. □



fied chairpersons or moderators of meetings, breakdown communication barriers and eliminate any obstacles on the road ahead. □

Left: 2006 meeting at Seoul, Korea.

Student's Corner: A Tale of Two Countries

Report by Mustafa Al-Muqbel, RTMR (CAMRT, ARMRT & ARRT 2006),
B.Sc. in Radiological Sciences at King Saud University, Riyadh, Saudi Arabia (2002)

Magnetic Resonance Imaging Educational Programs (Saudi Arabia vs. Canada)

I understand that before 2005, CAMRT also allowed registered technologists (RT) to be cross-trained in MRI. I had the opportunities to attend two different Magnetic Resonance (MR) imaging educational programs, the first was in Saudi Arabia which was a 1-year hospital based program (2002-2003) and the second was a 9-month academic one in Canada (2005-2006). Upon graduation from the Saudi Arabia's MRI program, I have been employed by the King Faisal Specialist Hospital & Research Center as CT/MRI Technologist before coming to Canada. For 13 weeks, together with 10 other Canadian RT's, at Red River College in Winnipeg, we learned MR Physics, Patient Care, Anatomy, Pathology, and Medical Technology Values & Health Care Ethics. Before Christmas, 2005, we also spent 3 weeks at the National Research Council Canada Institute for Biodiagnostics (NRC-IBD) to learn advanced MR techniques and methodology from Ph.D. research scientists as well as having hands-on MR experience on scanning human subjects.



Recognition Day, Department of Radiology, KFSH&RC, Riyadh, Saudi Arabia back in 2005.

In January, 2006, I started my MRI clinical practicum: the first 4 weeks at Winnipeg Pan Am Clinic on their newly installed Siemens Avanto, followed by 14 weeks at Vancouver General Hospital's two G.E. MRI's (one Twin Speed

Continued on the next page

	Canadian programs	Saudi programs
MRI Technologist Programs	Few academic, some of them accredited programs	Few hospital based, some of them accredited programs
Admission Requirement	Registered Radiologic, Radiation Therapy or Nuclear Medicine Technologist	B.Sc. Degree in radiological Sciences plus Registered Technologist
Competency assessment	By the CAMRT with national examination and registration	By the hosting hospital, required national registration but no national examination
Quality of the MR services	Canadian standard with RTMR very much welcome to work in United States, Europe and Australia/New Zealand	Competitive to the north American and the European standards
Job opportunities	On a high demand with significant regional fluctuation due to considerable variation in provincial government health care policies	If having an experience, highly demanded

Continued from the previous page



RRC MRI/S Tech. Program 21st Intake at NRC-IBD.

and one Echo Speed, both scanners were in operation for at least 16 hours a day). In May, 2006, I wrote my CAMRT MRI exam. in Vancouver; and just a month and a half ago, all eleven of us in the same 21st intake were notified by CAMRT that we passed the national certification examination and all are currently employed full time across Canada from the Maritimes to the Rockies. In June and July, 2006, I also wrote and passed the ARMRT (www.armrit.org) and ARRT (www.arry.org) MRI examination before returning to Saudi Arabia.

I found it interesting to compare these two programs, aiming that this could help both countries to improve their programs which directly will be reflected on providing improved health care services.

My personal comment:

- I do not think there are much significant differences between joining an academic or a hospital-based program if both can prepare the competent highly educated and well-trained MR Technologists.
- To get a B Sc. Degree in radiological sciences in Saudi, you have to study Ultrasound, Nuclear Medicine, CT,

Fluoroscopy, interventional procedures, which I found it helpful to use in your daily work in MRI. I found it more practical to train the Radiographers (diploma or degree holders) who have already spent sometime in the radiology department to meet the multi-tasking market demand.

□ I am glad that I have met all CAMRT MR Certification requirements; this is assuring that I gain at least the basic knowledge by which I can safely and competently practice as any other MR Technologist in Canada; whereas the absence of such national association (counter part of CAM-RT) in Saudi made the MR Technologist competency levels significantly varied from one hospital to another if not from one technologist to another technologist in the same diagnostic imaging department, which will directly affect the service quality.

- If one compares the Saudi MR services to the Canadian ones, one will find them to be very competitive. My personal explanation for that is because although the absence of national competency assessment, the highly qualified and trained Saudi Radiologists have worked hard for years and succeeded to improve the MRI services standards.
- The long waiting list in MRI in most countries does further enhance the job opportunity in both Canada and Saudi Arabia, since most of the hospitals and health centers tend to extend their working hours to reduce their long waiting list, and this for sure requires lot more MR technologists to operate the scanners.

Thanks to Dr Jonathan Lee and Red River College for arranging a 3T MR research component during my extended stay in Canada. In May, 2006, Professor Alex MacKay and MR Research Technologist Trudy Harris had been very generous to mentor me for 2 weeks at the University of British Columbia's Ultra-high field MR Facility (www.physics.ubc.ca/hfmri/) to learn about their various research projects and operation of their 3T Philips MRI before returning to Winnipeg to NRC-IBD for two months to work with Dr. Lizann Bolinger on their newly installed Siemens 3T Trio-Tim MRI

1.5T

Advantages	Disadvantages
Less RF energy deposition	Lower SNR
Less Susceptibility artifact	Less chemical shift resolution in MRS
Less "missile effect"	Less MRA background suppression
Good ECG reading	

3T

Advantages	Disadvantages
Better SNR	More RF energy deposition
Better chemical shift resolution in MRS	More prominent susceptibility artifact
Better MRA background suppression	More "missile effect"
	Elevated T-wave in ECG

system (www.ibd.nrc.ca) where I had gained a lot of theoretical as well as practical skills in Functional MRI (fMRI) and Diffusion Tensor Imaging (DTI).

A personal odyssey:

Who are the winners in comparison between 3T & 1.5T?

Today, MR is the modality of choice for many clinicians for their daily diagnostic orders, MR is widely used in investigating the Central Nervous system (CNS), Musculoskeletal, cardiovascular, women imaging, etc.

In the next few paragraphs, I would like to highlight certain aspects in comparing the 1.5T (the extensively utilized clinical field strength) with the 3T (the gradually with increasing popularity of magnetic field strength in the clinical world).



fMRI & DTI 3T group, IBD-NRC, Winnipeg, Canada, 2006.

Abbreviations:

- 1) MR: Magnetic Resonance.
- 2) MRA: Magnetic Resonance Angiography.
- 3) MRS: Magnetic Resonance spectroscopy.
- 4) 1.5T = 1.5 Tesla, where Tesla is the unit of the magnetic field strength.
- 5) 3T = 3 Tesla
- 6) SNR: Signal to Noise Ratio.
- 7) RF: Radio Frequency.
- 8) T1: the longitudinal relaxation time of the tissue
- 9) ECG: Electrocardiogram.
- 10) "Missile effect": the projectile force posed by the magnetic field against the ferromagnetic object.

At 3T:

- Better SNR can be traded for higher spatial resolution or shorter scanning time.
- Better chemical shift resolution helps in more accurate MRS interpretation, consequently more accurate diagnosis.
- Better MRA background suppression helps in visualising the tiny blood vessels, therefore better diagnosis.
- Both higher radiofrequency (RF) energy deposition and more "missile effect" pose more safety concerns on 3T.
- More prominent susceptibility artifact makes it more complicated to use some imaging sequences (e.g. Gradient EPI) at the tissue interfaces areas.
- Longer T1 values may require modification of sequence parameters to get the optimum image weight.
- Elevation of T-wave may complicate in achieving the optimum ECG reading for cardiac studies.

At 1.5T

- Lower SNR result in slightly longer scan time or spatial resolution may need to be sacrificed within limit to reduce scan time.

- Less chemical shift resolution will make it harder to interpret the MR spectra.
- Less MRA background suppression could make it difficult to detect the diseased tiny blood vessel which could miss diagnose the case.
- Both less RF energy deposition and less "missile effect" makes it less (only less) of a safety concern to operate on 1.5T
- Less susceptibility artifact renders it easier to scan some areas where the tissues interface is problematic at 3T.

Going back to my big question, who are the winners?

From my personal experience, there are a few numbers of winners in using 3T comparing to 1.5T, some of which are:

1. High throughput: since you can perform their MR examination on 3T with a high diagnostic quality in significant shorter time than if it would be done on 1.5T.
2. Radiologists: if we chose to trade the higher SNR on 3T for higher resolution images, this will make it more convenient for the radiologists to diagnose the subtle pathological changes confidently.
3. Because of the higher SNR at 3T, functional MRI considered one of the biggest winners, since the low SNR at the lower magnetic field was a big barrier to acquire enough statistical data.

The future:

3T has been becoming one of the widely used clinical field strength in the United States (~350), and I personally think it is spreading relatively quickly over to other clinical institutions worldwide. □

"I wish I had more time to spend with my birds, plants, fish, more time to spend on myself"

Teacher, radiographer looks towards retirement ... again

The following article by Petulia Clarke first appeared in The Jamaica Observer on October 23, 2006

ASK any Jamaican about Helen Maria Brown Haughton-Clennon and you're bound to get a variety of interesting responses. For some, she's the 'auntie' they took their children to at the World of Little People, assured that they'd be in the best care; for others, she's the teacher who hosted those fabulous Christmas luncheons, and for a mentored few, she's the woman who has shaped all areas of their lives.

An "Oh yes, Mrs Clennon!" immediately follows the "do you know?" question. "Oh my child went to her school ..." My sister worked with her ..." "She taught me ..."

CLENNON. I'd like to spend more time with my birds, plants and fish and naturally more time enjoying my own company.

It's almost midday on a steamy Wednesday. We're in a tiny office at the World of Little People, the chatter of children blaring outside. But we're not minding the heat or the noise, instead, there's a mini battle going on inside – there's me, trying to extricate information from this immensely modest woman, and she, fighting me all the way.

After a while the conversation goes easier, the consultant radiographer opens up and starts talking about herself. And, it's when she starts talking that I realise just how much of a hold she has on her charges.

We talk for an hour and a half, the information comes out piece by piece, about the school she founded, the people she's met, the career she has built and the lives she has changed. She talks about the end of an era, with the impending closure of World of Little People, and the beginning of another, a journey she hasn't quite planned through yet.

It gets overwhelming at times. How exactly do you incorporate her life in a story? How exactly do you tell it?

So for want of a better place to begin, we'll start somewhere in the middle.

It's 1960 and Clennon, who has so far satisfied her tax-collector father's requirements that she be a "well-rounded civil servant" with a stint at the immigration department, has returned to Jamaica from England with a diploma in diagnostic radiography from the College of Radiographers

in London, England.

She takes up a post as staff radiographer and part-time lecturer at the then School of Radiography, after which she goes to the Cayman Islands to help set up their new x-ray department, comes back home, then leaves again to obtain, as the first Jamaican, a fellowship and technical teacher education diploma at the College of Radiographers in the UK. After completing the fellowship, Clennon returns home to the School of Radiography in 1969.

During her tenure Clennon worked and taught, with an idea in mind to redesign the curriculum for the Caribbean's own diploma program, to compete with the program previously available only through the College of Radiographers in the UK.

With the help of Project Hope, she was able to design and implement this, the first Caribbean diploma for radiographers.

"Between 1980-83 we did a lot of work to get it off the ground, people were worried that we couldn't do it," Clennon explained. "A lot of Caribbean territories supported it however, they thought it would stem the brain drain. We were the only radiography school for the English-speaking Caribbean. We had to sensitise everyone. The launch of the Caribbean diploma in 1983, now a three year program, was a major feat." It was also that year that the school became the School of Medical Radiation Technology, incorporating additional programs

such as the medical darkroom technicians program and later the program in diagnostic ultrasoundography. Clennon was the head (first local director/principal) of the new school.

The school is now an international institution, attracting students from all over the world, with a degree program having started September 2006.

Said Valerie Lee, former student and now employee at Lasco Pharmaceutical Division: "I was a first year student at the time when Helen Brown assumed principalship of the then School of Radiography. I was totally awe inspired by this bouncy, energetic woman, with so much knowledge and experience which she was willing to share with everyone."

And somewhere in the middle of all that, Clennon found



Helen Clennon

Photo: Bryan Cummings

time for the International Society of Radiographers and Radiological Technologists (ISRRT), where she moved from council member for Jamaica to vice president for the Americas, the only Jamaican she said to have ascended that far.

Added to that, she wrote and presented academic papers on radiography at major international conferences, stamping her mark on persons here and far away.

"I've been a member of the ISRRT since '58. As a vice president I had to know the aims and objectives of the society in the region, promote it as a society concerned about the educational standards and work of radiographers, sell the society throughout the world and try to promote the society," she said.

Lee explained how proud she was to be associated with Clennon on one trip to Singapore. "The deference paid to her by the ISRRT executive and membership made me proud to be a part of her delegation and a fellow Jamaican," she said.

How she did it all, Clennon explained, was bit by bit, making a sacrifice here and there, and ultimately having the support of her family and peers.

"If you're dedicated to something and are determined to do well, you have a good support group – I commend the secretaries, members of staff who helped me – you keep doing it because it has to be done. You have to have the passion for it..." she said.

Her passion.

It comes with over 40 years progressive clinical and teaching experience in the field of radiography. It comes from being a strong leader with an extensive technical background, being a detail oriented person, a problem solver and team player.

Clennon is the first Jamaican to have been awarded the fellowship of the college of Radiographers, UK; she has served on various radiographers' boards; she was a consultant radiographer for the Cayman government and an external radiography examiner for the university of Guyana. She has been consultant radiographer, College of Health Science at Mount Hope, Trinidad; lecturer in the health science degree programme at UTECH; radiographer, Prince of Wales Hospital, UK; and part time radiography tutor at the Royal National Orthopaedic Hospital Infirmary, Scotland. She has a certificate in technical teacher education from the City of Guilds of London Institute; a diploma in radiology department management from St Louis University in the US; a certificate in supervisory management from the Jamaica Industrial Development Corporation and a certificate in radioisotopes from the Australian school on Nuclear Technology. She also works with the foreign affairs ministry as a liaison for foreign delegations.

She is involved with various groups including being a fellow of the College of Radiography and member of the Society of Radiographers in the UK and member of the Canadian Society of Radiologic Technologists. And this Heroes Day, she was recognised with an OD for her ex-

ceptional contribution to the development of radiography in Jamaica.

"When I saw her receive her award on Heroes Day tears came to my eyes," Lee said. "At last, I thought, Miss Helen's work is being properly recognised."

A cupful of accolades to a deserving woman. But that's not all.

Nineteen years ago, Clennon started the Sunshine Early Childhood Education Centre World of Little People in her carport with one child, and one teacher.

"I've always wanted to work with kids, had always been involved with young people and children," she said explaining that World of Little People started after her first husband died, and she was left alone with a young child.

"Once I started working with them I couldn't stop," she said.

Her legacy

Six years after officially retiring Clennon still lectures part time at UWI, teaching the radiography and radiology students.

Clennon rests in the assurance that the majority of radiographers now practicing in the Caribbean were taught by her and that she has touched the lives of the many tots who have passed through World of Little People.

"My ambition is to touch people's lives positively. Once they've passed through the door I want to believe that I've done this," Clennon said.

She added: "I'm proud of what I've achieved professionally, proud of the start my school has given to so many, proud of the lives I've touched. I think I'm a happy person. I have the ability to touch people's lives."

For World of Little People, a venture that "lots of trials, tribulations and tears went into", the movement on, is bittersweet, but necessary, as the school's finances dictate.

"They're my other heart, I don't know how I'll manage without them," she said of her students.

For now, she thinks of her wishes and dreams.

A wish – "I wish I had the facilities to expand the school of radiography earlier to produce more radiographers to stem the brain drain; – and a dream "I wish I had more time to spend with my birds, plants, fish, more time to spend on myself."

Clennon, Kingston born, is the daughter of the late Harold BA Brown, a collector of taxes, and Roslyn Brown, a homemaker.

"I'm looking forward to spending time looking at myself, my life, where I've been and where I'd like to find myself," she said of the future. "I'm not sure of the avenue I'll take, but I know it's something that will make me comfortable. I know it will be with people, but the precise road I'm not sure. Now that I've come face to face with retirement I'm not sure what I'll do."

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Forensic radiography

Mark Viner, a radiology manager and forensic radiographer from the United Kingdom, has recently spent three months travelling to South Africa, Argentina and the USA to investigate the role of radiography in forensic medicine. In this interview, he talks about his trip and the future development of forensic radiography in an international context.

This sounds like quite a trip - how did this come about?

I was very lucky to be one of the few people each year to be awarded a Winston Churchill Travelling Fellowship. The Winston Churchill Memorial Trust was set up to provide a living memorial to Sir Winston and grants fellowships each year for Britons to travel and undertake projects in other countries – to offer them a unique experience and to share their new found knowledge with their colleagues in the UK and abroad. www.wcmt.org.uk

So what made you want to investigate the role of forensic radiography?

I have long been interested in forensic medicine since I started my first job as a junior radiographer at The London Hospital almost 25 years ago. The hospital's forensic pathology department, situated in London's east end has a long history of investigating some of the more gruesome and sensationalist, of London's crimes including the infamous Jack The Ripper murders and, more recently, the victims of London's more colourful gangsters, the Kray twins. When I started work there, I made several trips to the morgue and also examined various "black bags" in the department. Later on, as acting superintendent & tutor in the dental hospital, I frequently undertook dental radiographs of the deceased for identification purposes.

My early experiences were typical of my colleagues across the UK. Hospitals that had forensic pathology departments would request the occasional X-ray examination in the morgue, and a "volunteer" would be dispatched with a mobile X-ray machine and a few old cassettes to see what was required. I don't think that any of us really had much of an idea of what forensic investigation really entailed or the legal context in which we operated – it was merely fascinating to some and horrific to others.

So how did you become more involved than most in this fascinating sphere?

Following some work for Scotland Yard in the wake of one of the IRA's terrorist campaigns in London, I was asked by one of the UK pathologists to assist in co-ordinating radiographers for the United Nations Forensic Team investigating war crimes in the former Yugoslavia. At first, it was impossible to find out what was required, what equipment was available, or even what living conditions would be like for

the team. I naively assumed that there would be a "hand-book" for forensic investigations of this type with a section on radiography..... well, it wasn't quite like that!

Over the next six years, large scale investigation of mass graves were undertaken by the UN in Bosnia, Croatia and Kosovo and Sierra Leone and in each case, I had to set up equipment in a temporary mortuary and schedule radiographers to work as part of the investigating team. At the start, of course, very few people had any experience of this sort of thing and, as I worked alongside other forensic professionals; pathologists, scenes of crime investigators, forensic anthropologists and archaeologists, etc, it became apparent to me that there was a whole world of forensic investigation that we as radiographers did not understand and had received no training in. But similarly, others were also unaware of the potential uses of radiography and other forms of medical imaging as tools of forensic science. As we learned more and more from our other forensic colleagues, radiographers were able to contribute more effectively to the investigation by suggesting alternative examinations and new imaging techniques.

I got to thinking that our work with mass grave victims was not that dissimilar to the investigations that would take place following a large scale mass fatality incident in the UK – a train crash or terrorist bomb, for example.

But surely there would be a team in place to deal with such events in the UK?

Well – I thought so too – but when I talked to radiographers who had been involved in the investigation of the Pam Am bomb over the Scottish town of Lockerbie I was shocked to find that the "plan" relied on radiographers from the local hospital, and borrowing an X-ray machine from wherever it could be found. This was not an unusual state of affairs – a survey of emergency planners and pathologists that we undertook in 1998 showed a similar situation across the UK.

At the same time, I talked to many colleagues up and down the country to find out what they understood by the term "forensic radiology" In the minds of most people, it was simply associated with the radiological examination of the deceased, although some realised that it extended to the investigation of non-accidental injury in children. In reality, of course, forensic radiology is the application of medical imaging techniques to answer questions of law. A forensic

examination can arise from many circumstances; assault, non accidental injury in any vulnerable group, examination of suspected drug traffickers, age determination in cases of identity fraud, negligence cases and of course murder and the identification of the deceased.

Faced with such an apparent lack of awareness of the legal context, the application of imaging and above all the dangers of failing to ensure a high standard of examination and documentation, a group of us decided to establish a "Special Interest Group" in Forensic Radiography with the support of the College of Radiographers.

Have you managed to change things?

The group, now called the Association of Forensic Radiographers, worked with the College of Radiographers to produce guidance notes "Guidance for the Provision of a Forensic Radiography Service", which were distributed to every radiographer in the United Kingdom. As part of this guidance, the College of Radiographers recommends that forensic radiography should be undertaken by qualified and state registered radiographers, and that these radiographers should be volunteers who have received additional post graduate training and undertake regular continuing professional development.

We also worked with two UK universities to establish courses as part of their Masters Degree programs in imaging, and also worked with the UK government emergency planners to establish a national radiography response team, fully equipped and able to respond in the event of a Mass Fatality Incident.

And has this team ever had to respond?

Yes, we have been in action several times, for train crashes, the Tsunami, and most recently for the London Suicide bombings. We mobilised teams of radiographers (27 in total) equipped with mobile C-Arm fluoroscopy, CR and DR imaging and dental radiography within 24 hours. The teams worked 12 hour days to identify the deceased and locate vital forensic evidence.

So – why the international study?



Above: Mark Viner (r) with Prof Nazeema & Mr Hoossain Ebrahim in Pretoria.

Below: X-ray facilities in forensic mortuary in Durban, South Africa.



I was curious to see what the situation was like in other countries. In the UK, until very recently, radiographers have not been very aware of the role of radiography in forensic medicine, but I thought that this may not be the case elsewhere, and was keen to learn from the experience of others.

You chose quite a mixture of countries – why was that?

I wanted to compare countries with different levels of technology, different crime rates, different radiography training programs etc. In the end I picked three for the main part of my study; South Africa, Argentina and the USA, and a fourth (Australia) for a short visit while on vacation.

And what did you find?

As I expected, the need for forensic imaging varied greatly from country to country and from centre to centre within each country. In South Africa, for example, there are currently very high levels of gun crime – ballistic labs consider it fairly routine to deal with upwards of 11,000 cases per annum. The requirement for forensic radiography to retrieve ballistic material from the deceased is great and, due to volume, speed is of the essence.

In common with many developing countries, access to appropriate equipment is limited. In most cases,

only the regional forensic departments of pathology can justify the on-site availability of radiography, and fluoroscopy is the method of choice. Outside of these centres, radiology is performed at the local hospital or, in some cases, simply not utilised at all due to logistical problems of arranging the examination.

At the University of Cape Town, they have been using a revolutionary type of pencil beam digital x-ray scanner called a Statscan. This machine (which is mainly marketed as a shock trauma application) was developed in the diamond mines of South Africa for detecting diamonds being smuggled out by the workers. It is both low dose and delivers a head to toe digital image in seconds – ideal for forensic applications.

Are radiographers actively involved in forensic work?

In most hospitals, radiographers will be involved the forensic examinations that occur as part of a normal clinical

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workload – assault, NAI, etc. Outside of the major cities, they may get asked to perform the occasional post mortem examination for the pathologist and this will be undertaken within the hospital department.

The forensic morgues were, until April 2006, under the control of the police. Radiography (in most cases using mobile C-Arm fluoroscopes) is undertaken by mortuary technicians, policemen or pathologists, many of whom have received no specific training. Although South African radiographers and radiologists are interested in forensic imaging, they are not actively involved in providing the service, although it is likely that this will change following the transfer of responsibility for the mortuaries from the Police to the Department of Health. The South African Society of Radiographers is very keen to address this issue and is working with the universities and technikons to establish training programs for radiographers to support this work.

The situation in Argentina is very different. In the main cities, the institutes of legal medicine are well supported by trained X-ray technologists and radiologists. The main centre in Buenos Aires has a team of three radiologists and eight technologists working within a “forensic imaging” department. The department not only undertakes examinations on the deceased, but also assault, non-accidental injury, industrial injury compensation cases, etc., on living subjects. This is quite a unique situation, and the team there have a wealth of experience in forensic imaging which they use as the basis for training courses for radiographers in Argentina.

As well as the more “routine” forensic cases, Argentina has a well developed team of forensic anthropologists and archaeologists who are trying to locate and identify the remains of the thousands of people who disappeared during the last military regime. Radiology plays an important role in the investigation of skeletal remains and the team in Buenos Aires are often called upon to assist in these cases.

Outside the major cities however, the situation is very different. Instead of medico-legal centres under the jurisdiction of the judiciary, smaller, police-run forensic morgues undertake the bulk of the work with x-ray support either provided by local hospitals or mobile radiographers or in some cases by untrained police technicians. The major problem throughout Argentina is the lack of resources. Most of the available equipment is working well beyond its expected life and even simple items, such as cassettes, are difficult to replace.

So what did you find in the United States?

I spent just under four weeks in the USA visiting Medical Examiners’ offices, hospitals, universities and community colleges and also attended the American Academy of Forensic Sciences meeting in Seattle, where I presented a paper about the forensic radiography response to the London Suicide Bombings.

There is a real wealth of forensic experience in the USA and I was keen to find more about the role of radiography

and the role of the technologist. What I didn’t expect to find was such a wide degree of variation. In the UK we look upon the USA as one large country, and assume that its laws and regulations will be very similar from state to state. I was surprised to find that there is such a wide variation between states, and that there are some states with very little regulation regarding who can undertake an X-ray examination.

The USA has a relatively high level of homicide due to gunshot injuries, and this, coupled with well organised Medical Examiner or coronial systems, makes it relatively easy to justify on-site radiography facilities in the Examiner’s offices. As a result, whilst the utilisation is greater, there is not the same degree of integration between radiology and forensic pathology that there would be in the UK or Argentina, for example.

In a lot of cases, the average radiologic technologist does not have an opportunity to become involved in the examination of the deceased, and their main exposure to forensic cases comes through clinical cases resulting from assault, NAI, etc.. In most cases, my findings relating to forensic radiography in the USA reflected the level to which radiographers had become involved in the work of the ME offices. As a result I saw some of the best examples of forensic radiography practice and, sadly, some that were not so exemplary.

In the majority of cases, the quality and level of use of radiography was proportional to the degree of input from technologists and radiologists. In some centres, particularly in those states with less stringent regulations, the radiography in the ME offices is undertaken by morgue technicians with little or no training in radiography or use of ionising radiations. In some cases, the lack of knowledge and input from radiographers and radiologists has led to the purchase of unsuitable equipment and poor design of radiography areas, thus compounding the problems. As a result, while they are doing a fantastic job in the circumstances, they do not have the knowledge to contribute knowledgeably to the forensic process or to correct errors in image quality. They are however all keen to learn more, and would benefit from some basic training or regular input from radiologic technologists.



Above: Radiographer Mr Paul Laudicina demonstrates the X-ray facilities at the Coroners office in Du Page county Illinois.

In direct contrast to this, I was privileged to meet several technologists who have not only become involved in working with forensic teams, but through their dedication and enthusiasm have been changing the perception and use of medical imaging as a forensic tool amongst other forensic professionals.

In Alabama I was privileged to meet Dr Gil Brogdon, Emeritus Professor of Radiology at the University of South Alabama and author of the definitive text on forensic radiology. I put it to him that there appeared to be a very wide variation in the level of usage and standards of medical imaging in support of forensic investigation, not only within the United States, but also world-wide.

He agreed that the use of radiology was very patchy and that quality was often poor due to lack of knowledge and training on the part of those undertaking procedures. He felt that, in many cases, the development of forensic radiology was being hampered by lack of awareness of basic imaging principles and the opportunities offered by modern technology. Even the introduction of simple quality control procedures for imaging and processing equipment could have a significant effect on the information obtained and the forensic investigator's confidence in using radiology as a valuable tool.

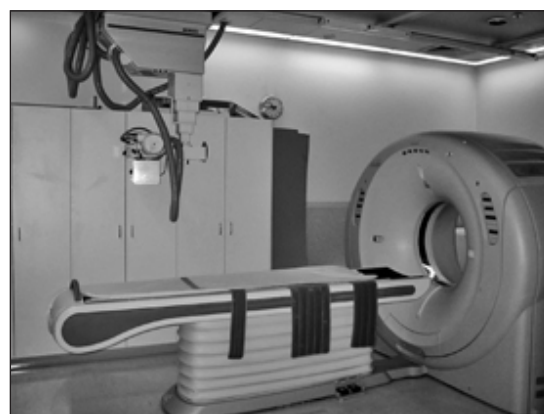
I was fortunate to visit many other centres across the United States and met with many technologists, radiography educators, radiologists, Medical Examiners and their staff, all of whom were immensely helpful and very interested in my study. My travels in the USA helped to re-enforce my view that where ME's work closely with radiologic technologists and radiologists they are finding that medical imaging can increasingly provide answers to many of their investigative questions.

Did you say that you had also visited a centre in Australia?

Yes, we stopped over in Australia at New Year to take a break and to visit relatives. But I couldn't resist the opportunity to take a look at what many people are saying could be the future of forensic radiology. At the Institute of Forensic Medicine in Melbourne, Australia they have recently installed a multi-slice CT scanner that has now replaced their CR imaging suite. All cases are examined by CT scan prior to autopsy and they are finding CT invaluable in gathering additional information very quickly.

What are the advantages?

CT offers the opportunity to undertake total body imaging demonstrating both hard and soft tissues. It is non-invasive and in some cases of sudden but non-suspicious death it may be possible to determine the cause of death without recourse to autopsy – this makes it much more acceptable to relatives particularly where there are religious or cultural sensitivities. CT also offers the opportunity to gather evidence from the soft tissues that may be difficult to detect at autopsy where the invasive nature of the procedure may actually de-



stroy evidence.

The CT unit at Melbourne is participating in the "Virtopsy" project, which is examining the possibility of using imaging methods in place of autopsy. Others are also undertaking this research including centres in Switzerland, Denmark, Japan and the UK as well as the Armed Forces Institute of Pathology in the USA.

So what do you think are the main issues for Radiographers & Radiologic Technologists?

There are clearly significant opportunities for radiographers to become more involved in forensic work. However, the current situation in many parts of the countries that I visited is that this work is not being undertaken by trained personnel. In such places, standards of imaging technique, processing quality control, radiation safety and health and hygiene are compromised and it is almost inevitable that the forensic investigation is less thorough as a result. In centres where radiographers and radiologists are routinely involved, the use and contribution of medical imaging within the forensic investigation highly valued.

Radiographers are the trained, regulated experts in the use of medical imaging and we have a responsibility to educate others to ensure that those using ionising radiations do so safely and effectively and have received appropriate training in both imaging techniques and forensic practice. With the increasing use of more advanced imaging techniques our involvement becomes even more critical and we must move swiftly to prepare ourselves for the challenges ahead.

So – how can radiographers get involved?

To be honest, the best starting place for radiographers with an interest in forensic imaging is within their own imaging department. A forensic examination can arise from many circumstances; assault, non accidental injury in any vulnerable group, examination of suspected drug traffickers, age determination in cases of identity fraud, negligence cases etc.

The first question that radiographers should ask themselves is "Would my examination protocols and procedures stand up to scrutiny in a court of law?"

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Deep inside Kenya: A Radiographer with a difference

Report by Longino Mucheusi, Chairman Society of Radiography in Kenya

AS she divulged deep into her story, I got transfixed and actually forgot I had an appointment at Kenyatta National Hospital at exactly 2pm, and on she continued: "The following day at 7.30am, I met the then Laikipia District Commissioner (DC) and floated the idea to him. He told me that he could not believe his ears and eyes because all his life he thought 'x-ray people' dealt with machines only in isolation and could not touch the community. I decided not to wait for a second chance to create a first impression. I swore to change the minds of leaders and community at large by using my mind and body to hoist high the flag of radiographers. That is Eunice Kagendo, a radiographer in Nanyuki-Laikipia District in the expansive Rift Valley Province of Kenya. As I sat in my office at the SORK National Office in Nairobi talking to this lady, I slowly realised that I was not just talking to an ordinary person, but someone with drive, vigor, persistence and a consistency that surpasses ordinary human imagination.

As simple as she is, believe it or not, she has changed the lives of people in the small, dusty but busy town of Nanyuki, one of the last resting outposts of the former colonial settlers from the large ranches and wheat fields. She qualified as a Diagnostic Radiographer 20 years ago – before her mother retired from active dancing and domestic marathons in her own words. Based at Nanyuki District Hospital, she

is a graduate of the Society of Radiographers 14th Upper Wimpole Street, London in 1980 October.

Sometime in 1999, Eunice Kagendo realised that the patients she x-rayed and who later got admission into the hospital wards for follow-up treatment were either being put 2, 3 or sometimes 4 on one bed or slept on the floor. This is because bed occupancy was only 12 for male and 12 for female patients in the hospital. Being who she is – someone who does not look at things passively – she quickly thought that this encouraged cross-infection, stress and depression to the patients and staff. She also observed that when the staff got sick and required admission, there was no separate room for them, but they were always put together with the general public. This she strongly believed made the other patients lose confidence with the staff.

With all these eating up her head, Eunice consulted the medical officer of health (MOH) Dr L.M. Mbutia with the idea of starting a welfare organisation in the hospital to see to the comfort of the patients and staff with the goal of putting up a new ward. Dr L.M. Mbutia was impressed with the idea and gave the authority to start one and also authority to seek help from the community to build an amenity ward. Hence the meeting with the Laikipia District Commissioner at 7.30am in the morning when most of us are still at our breakfast table preparing to go to work.



Left: The President of the Republic of Kenya H.E Hon. Mwai Kibaki planting a commemoration tree during the official opening of the Grand Ward on 27th January 2006 through the efforts and initiative of Eunice Kagendo.

Above: Eunice Kagendo (2nd right) being honoured by the German Red cross Society, through the Kenya Red Cross Society, which donated medical kits for Emergency response to Nanyuki District Hospital.

“The MOH and the DC proposed that I should be the manager and co-ordinator of the monetary and other support pledges that would be received and that the project should be fully community based and self-help. I knew in my heart that I had started on something but was not sure of the outcome. I started writing letters of appeal for building materials, technical manpower, manual and transport.”

Eunice shocked herself when she started receiving positive responses from the following:

- The Department of Defence Kenya gave her authority to use military machinery, fork lifters etc for the construction work. Lorries, bulldozers, and tankers were also provided to move earth and ferry water to the site at the district hospital. This included vibrators, fuel, military technical personnel, drivers, masons etc. To crown it all, a Land Rover lined with red velvet was provided to mobilise the radiographer Eunice Kagendo in her co-ordination activities. In her own words, “Imagine I.” She couldn’t believe it. All the above was made possible through the program of ‘Military Aid to Civil Society’ under direction from the Chief of General Staff (CGS). She quips as she narrates, “Imagine a call from the chief of General staff (CGS) of the Republic of Kenya to a Radiographer, wow!”
- The Prisons department gave 10 Prison wardens and 21 Prisoners everyday to aid in the construction work. Including transport and other labour facilities worth KES 200 000 (US\$2600).
- Nanyuki Municipal Council donated material worth KES 260,000 (US\$3500) and 2 transport tipper lorries.
- The East African Women League did plumbing worth KES 300,000 (US\$4000).
- The Likii River Farm (a horticultural and flower farm) gave one hundred bags of cement.
- Laikipia county council donated Murrum and hardcore worth, KES 210,000 (US\$2800).
- The Nanyuki Community gave technical and manual labour plus doors and windows. Eunice and her team were able to approach the community through community outreach programs at the bus parks and church functions.
- The Constituency Development Fund, which is funding approved by the National Parliament did the roofing.
- Lewa Down Conservancy Marathon sponsored by Safaricom Kenya helped in the finishing by donating forty nice metal lockers and sixty beds.
- Nanyuki PCEA (Presbyterian Church of East Africa) lead by Elder Kuraru Macharia used to pray for Eunice and her project everytime they met for Christian fellowship.

As if that was not enough, Eunice gathered courage from the prayers and wrote to the

President of Kenya to assist in the project. This generated a lot of political heat in Laikipia East Constituency, but only because the politicians did not expect a radiographer to be community oriented or have a genetic master’s degree in fundraising, co-ordination and organisation.

The project that she started in 1999 was only concluded late 2005. During the 6 years she was soliciting for support for the project from different diverse quarters, she was involved in a serious road accident on her way from Nairobi where she had gone to see the managing director of Kenya Charity Sweepstake. She suffered fractured ribs, head injury and left ankle joint which cost a lot of money to treat without getting any assistance from the ministry of health or the local Member of Parliament (MP). The MP later claimed all the glory for the project. She kept a very low profile till towards the end of the project when her committee together with her local MP the Member decided to invite the Head of state to officiate at the opening ceremony. And on the 27th, January, 2006 her efforts were crowned when the President of the republic of Kenya H.E. Hon Mwai Kibaki came to officially open the immaculately built modern hospital ward serving female in-patients.

She was given honours and her name was engraved on the wall of that new ward. She was also nominated to be the chief organiser for that grand opening ceremony. The Permanent Secretary Ministry of Health, the Director of Medical services, the Assistant Minister of Health and the Rift valley Provincial Medical Officer were all present. She is disappointed that the Chief Radiographer in the Ministry of Health was conspicuously missing, who she feels should have emphasised to the Head of State that a radiographer grade one had put Nanyuki District Hospital on the President’s diary. She disappointedly notes that she has not even been given a letter of appreciation to show to her children and future grandchildren. But she is sure one day she will

Continued on the next page



Eunice Kagendo, (3rd left) always there with the community donating foodstuff and other items.

Continued from the previous page

have something to tell the Almighty God on how she used her talent and abilities on earth.

With all these, I can only conclude that Eunice is no ordinary radiographer. Her CV tells it all: She is the chairperson Kenya National Association of Parents (KNAP) Laikipia Branch, Vice Chairperson of the Kenya Red Cross Society (KRCS) Laikipia Branch, Vice-chairperson of Mount Kenya home for rehabilitation of the needy(NGO), Vice-chairperson Mount Kenya investors SACCO – a Savings and credit co-operative society. She is also a member of the Central Region Network of NGOs and Secretary of Lidmma Disaster Group(CBO). She has trained through

Kenya Red Cross Society in; Disaster prevention, preparedness, response and management; Branch management; Policy analysis and implementation; Advocacy. She has been honoured by the German Red cross Society by a donation to Nanyuki District Hospital of Medical kits for emergency response worth KES 500,000 (US\$6700).

Eunice is community oriented, a Christian, who loves reading and dancing for Jesus Christ. As I rise up from my seat to try and salvage my appointment at Kenyatta national Hospital, I also notice that she is dark, beautiful and proud. And she joyously announces for all to hear,” I love my country Kenya.” And of course being 1 hour behind schedule, I miss my appointment!!! But do I regret it? ☐

Forensic Radiography

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One of the most important principles in any criminal investigation is the “chain of custody” that links a piece of material evidence to the scene of a crime. If that evidence is, for example, the nature of the injuries sustained by a victim of assault, then it is important that there is a chain of evidence, documenting any medical examination (which may include radiographs) of the victim, accurately recording important details such as identity of the subject, date and time and details of any witnesses to the examination, and that any evidence produced (eg X-ray films) has been kept securely and its whereabouts documented from the time of its production to the time of any trial.

All imaging departments should have suitably robust policies and procedures as part of the requirements to maintain medical confidentiality, but sometimes they are not rigidly adhered to. Radiographers with an interest in forensics would do well to start by examining their own practice and that of their department.

One of the more common examinations that radiographers may become involved in is in the examination of children or elderly patients who are suspected to have been the victims of non-accidental injury. Any department undertaking such cases should have a robust procedure for these examinations that not only addresses the issues of the chain of evidence, but also details the projections and sequence of films to be taken. It is not appropriate for a single film “babygram” to be used in such cases, as vital forensic evidence may well be missed, and an appropriate examination sequence should be used.

When it comes to the examination of deceased subjects, radiographers should try and find out what the existing procedure is (if at all) for the medical examiner or pathologist to obtain X-ray examinations of the deceased. Often, MEs or pathologists will welcome any interest from radiographers and radiologists. It should be remembered however, that in many countries, there are inadequate resources to address the health needs of the living, and the needs of the deceased are even more poorly resourced.

Often though, the advice of a trained radiographer regarding simple factors such as good maintenance of processing equipment, selection of appropriate exposure factors, appropriate radiographic technique, attention to radiation protection rules etc can dramatically improve the quality and usefulness of the examination.

What support is available to radiographers?

The Association of Forensic Radiographers is open to radiographers, technologists, radiologists and through associate membership to other forensic professionals including pathologists. The association has recently launched its website www.afr.org.uk which offers information, draft protocols, research tools and support to members.

Is AFR membership only open to UK residents?

No – we have members in the UK, Australia, South Africa, Argentina, Iraq, Canada, & The Philippines and we are in the process of setting up a branch in the United States, where we have had a lot of interest from technologists. We have also had expressions of interest in setting up national branches from South Africa and the Republic of Ireland.

We work with international organisations such as the United Nations, The Centre for International Forensic Assistance and the International Forensic Centre of Excellence both in responding to incidents and in order to develop policy and standard operating procedures. We have also been working closely with ISRRT to try and address forensic issues on an international level, particularly in the light of global and regional mass fatality incidents such as the Tsunami, Hurricane Katrina, Terrorist and War Crimes Investigations and are hoping to establish an international committee to develop policy, training & education and organise conference programmes, contributing to international conferences, such as ISRRT World Congress, etc.

Anyone interested in joining the Association of Forensic Radiographers should contact membership@afr.org.uk for an application pack. A website is under construction at www.afr.org.uk ☐

World Radiography Day: UK



DEPARTMENTS all over the UK took part in this year's World Radiography Day which was sponsored by Philips. Held on 8 November last year the event gave radiographers an opportunity to publicise their role in the health service and the importance of the work that they do.

They were helped by the SoR's free promotional packs which contained stickers, posters, fluffy 'bugs' and a range of recruitment leaflets and materials.

□ Radiographers at St Johns Hospital, Livingston, arranged a display in the main reception area of their department to attract the attention of all visitors and staff. On show were photos of all the imaging modalities used in the department.

□ House of Commons on the 8th November, when the winners of UK Radiographer of the Year and Radiography Team of the Year were announced. Prizes were presented by Professor Mike Richards, National Cancer Director. The competition and the celebratory event were organized by the SoR and sponsored by Fuji-Film.

□ The photographs show the Radiographer of the Year, Susan Carter, receiving her certificate from Prof. Richards. The radiography team of the year was the Weston Park Radiotherapy department from Sheffield.



New Roentgen X-Museum

Report by Uwe Busch, PhD, Deputy Director, the new Roentgen X-Museum

WILHELM Conrad Roentgen – born in Remscheid-Lennep, world renowned inventor and researcher, brilliant physicist and receiver of the first Nobel Prize. His work revolutionized medical diagnostics and paved the way for numerous technological applications in modern science and technology without which our modern world would be inconceivable. An extraordinary personal and historic achievement – and yet Roentgen's life and work represent much more: a timeless universal message for creative thinking, the positive driving force behind all cultural and social developments as well as behind technological progress and innovation.

The freedom to integrate that which was already known using an interdisciplinary approach and to create something new, the ability to bundle his knowledge, eg. assimilating ideas from photography and cathode ray research in order to discover X-rays, qualifies him as a prototype for the modern innovator and makes him a leading figure in science and a synonym for creative thinking.

It is on the foundations of this quality that the concept and master plan for the new Roentgen Museum in Remscheid, Germany are based. At the same time its potential will be increased in many respects by creating a museum which will foster Roentgen's spirit of discovery and enquiry, guiding the visitor through an exciting and at the same time easy to understand scientific experience. As a modern educational facility it will follow the hands-on-science approach thus allowing fun and interest to develop interactively along side

investigation and experimentation and encourage potential creative and innovative skills on a long term basis. In addition the museum will serve as a cultural and social focal point offering a qualified platform for research, industry and the public.

A positive paradigm shift

With this repositioning a strategic extension of the museum's scope, significance and sphere of influence will be involved. This means that the Roentgen Museum will undergo a transformation from being a specialised museum of encyclopaedic character to a modern technical, scientific thematic museum. This new orientation to and interpretation of the history and diversity of the subject matter will appeal to a broad national and international audience who will be able to share the fascination of the applications ranging from those of everyday familiarity to hi-tech. This will encourage the individual visitor to think about questions of modern scientific research and awaken his or her continued interest. With this change the museum succeeds in combining both its tasks - safekeeping and renewal. This does not merely consist of reconstruction and explanation of specialized contexts for the visitor. Not only is the visitor supplied with answers but also questions to take home with him, and is stimulated to review and broaden his intellectual capacity and ways of perception. In short a museum which quenches one's thirst for knowledge and awakens one's curiosity - and here we have come full circle back to Wilhelm Conrad Roentgen.

Open to the Future

The museum's future target groups are school children, students of all ages as well as young people and families. It's educational conception thus functions by multilayered processing of the subject matter exhibited thus achieving maximum accessibility for all age groups and educational backgrounds. Ranging from 'popular science' to 'specialist' the contents are ready and waiting on various levels of media to be discovered actively or interactively. In terms of the museum this will be implemented by activities ranging from 'adventure trails' for children and young people to multi-media archives for the visiting specialist. However, all with same purpose and that is to let the spark of enthusiasm to be passed



on, winning over new disciples for the heritage Roentgen left us.

Museum with more value

The Roentgen Museum is not only a substantial marketing element and outstanding cultural facility enhancing the identity of the town of Remscheid but also an institution of worldwide significance for Roentgen's work and impact. The Remscheid council's decision to implement the master plan to redesign the Roentgen Museum as of the middle of 2004 is a clear signal that the 'brand' Roentgen will be kept, converted and safeguarded. Safeguarded in two ways because apart from the conversion of the core product extracurricular learning and further education will achieve an active and attractive contribution to the scientific and medical communication of knowledge. It is clear that in order to achieve such an ambitious project a great deal of human and financial effort is required. As the initiator the Society of Friends and Supporters of the German Roentgen Museum with support of The Rhineland Regional Council (LVR) have provided the initial funding for a new concept. After the successful presentation the project has been included in the regional grants program 2006 which will provide for the first constructional phase. In order to carry out the complete master plan fund-raising and instruments of public private partnership such as sponsorship of specific themes are prepared. Furthermore, any ideas and especially material contributions would greatly help towards the success of the project. Those of us who are involved in the theme in their work every day and wish to see that radiology receives wider acceptance among the population will benefit especially. A goal which also without doubt, is in the interests of the German Roentgen Society for whom the Deutsche Roentgen Museum will prove to be an important institution.

Going on-Line again

The re-opening of the first part of the new Roentgen-X-Museum will take place on March 23-25, 2007. We are looking forward to welcome our international guests and saying thank you for your patience for the long period of being out of service.

Next steps

The development planning of the next part of the renewal of the Roentgen-Museum is in work. Successive we are going to realise our vision of the new Roentgen-X-Museum during the next years. We would be very thankful for any support of our ambitious project.

Further information you can find soon on our website www.roentgen-X-museum.de □



A Bridging Program for Internationally Educated Radiographers

By Brendan J. Corr, DSR(R), A(Ont),

Liaison, Student Success, The Michener Institute for Applied Health Sciences, Canada

This paper describes essential components of a successful bridging program for qualified international health professionals developed at The Michener Institute for Applied Health Sciences, Toronto, Ontario, Canada. The original project was funded through generous grants from the Ontario Ministry of Training, Colleges and Universities.

This is essential information for radiographers contemplating emigration to Canada.

Introduction

The Government of Ontario recognised in early 2000 that there were significant staffing shortages in various professions across the province and that individuals who had immigrated to Canada and who were qualified in their profession in their country of origin were unable to practice their professions as a result of various barriers which prevented their entry to practice.

Through the Ontario Ministry of Training, Colleges and Universities, “bridging” programs were funded to overcome those barriers and bring these individuals into their appropriate place in the Ontario workforce.

In 2002, The Michener Institute for Applied Health Sciences was funded for bridging programs in five disciplines:

- Medical Laboratory Sciences
- Diagnostic Cytology
- Radiological Technology
- Magnetic Resonance Imaging, and
- Respiratory Therapy

Entry to practice for each of these professions is regulated in Ontario by the Regulated Health Professions Act¹ and Colleges were established in 1991 to permit self-regulation within these professions.

This paper will describe the process created to bridge qualified international health professionals seeking registration with the College of Medical Radiation Technologists of Ontario (CMRTO)².

Registration Process

International Health Professionals (IHPs) who completed a course in Radiological Technology outside Canada and who wish to register with the College in order to practice in

Ontario must submit the appropriate form and documentation to the Registration Committee of CMRTO. This Committee will review the documentation and, if the applicant's program meets the criteria set by the College to be a program in medical radiation technology in the specialty, issue an “Order” to the applicant allowing them to proceed to examination. These “Orders” are lengthy documents written in legal terminology but there is a summary of requirements at the end of the document under the title “Order”.

The following is an example of a summary “Order”

The panel of the Registration Committee directs the Registrar to issue a certificate of registration in the specialty of radiography to [Client Name] after he has completed the following requirements, in the order set out:

- i. submit a TOEFL with a minimum score of 500 for the paper-based test or 173 for the computer-based test, and TSE with a minimum score of 40;
- ii. review the appropriate statutes, regulations, and policies dealing with the practice of medical radiation technology, radiography, in Ontario [list of appropriate legislation] and provide evidence of having completed the CMRTO Legislation Learning Package;
- iii. provide evidence of having completed training in cardiopulmonary resuscitation for adults, children and infants at an appropriate institution or organization, or having completed a Basic Rescuer (Level C) program in cardiopulmonary resuscitation from the Heart and Stroke Foundation of Canada or its equivalent from a comparable organization;
- iv. successfully complete the written examination given by the CAMRT for the specialty of radiography;
- v. submit a signed confirmation of currently meeting the requirements of Sections 3(1)1, 3(1)2 and 3(1)3 of regulation 866/933 immediately prior to a certificate of registration being issued;
- vi. and submit the annual registration fee;

and that this process be completed prior to [EXPIRY DATE based on five year window from date of last clinical practice].

If the applicant is successful in the CAMRT examinations in the appropriate time-frame and has met all other requirements imposed by CMRTO, he/she will be registered with CMRTO and legally entitled to practice their profession in Ontario. An additional benefit of this process is that the applicant, by virtue of passing the CAMRT Examinations, will be legally entitled to work in any Province or Territory in Canada, with the exception of Quebec, where further language proficiency in French may be required.

Historically, only approximately 20% of IHP candidates were successful in this process leading to registration in Ontario, one of the factors prompting the creation of the bridging program through The Michener Institute.

Barriers to Success

The Access & Options (A&O) team at The Michener Institute determined that the following barriers to success existed and contributed to the 80% failure rate:

Language/Communication

Even if IHPs had taken their instruction in English, language still constituted a major barrier to success in the registration process. The available tests (TOEFL/TSE) did not in fact test their ability to communicate within their profession. A&O worked very closely with a communication consulting company (LCRT Consulting, Language Curriculum Resources Training, Toronto) to develop profession specific tests for Speaking, Listening, Reading and Writing, using the standards described by Canadian Language Benchmark Testing (CLBT), and which have now evolved into the Michener English Language Assessment (MELA).

Where an applicant's language skills were found to be below CLBT Level 6 they were advised to take appropriate language classes.

Certification Examination

The CAMRT certification examination is competency based and multiple choice. It is also entry-level (designed

to test new graduate's knowledge). There are two examinations in one day, each three hours in duration and each with approximately one hundred and twenty five questions.

Practice Issues

While radiological technology tends to be more homogeneous than other professions in practice across the world (eg. standard views and projections are used universally), there are real differences in:

- Terminology
- Combinations of routine views
- Autonomy
- Decision-making
- Degree of interaction with patients
- Relationships with other health care professionals
- Accountability, competence and collaboration
- Knowledge gaps in original training, and
- Employer and College expectations

Social Issues

Clients arrive in Canada from widely divergent social systems and are unfamiliar with the practical realities of life in Canada. Briefly, some of the issues we have identified include:

- Perceived morality
- Relationships with the opposite gender
- Gender equality and sexual orientation preferences
- Form of government
- Relationships with government agencies
- Religious and political freedom
- Dress
- Resumes and interview techniques
- Role of the Regulatory Colleges
- Provincial legislation

Program Solutions

All the courses or assessments offered as part of the program in radiological technology for international health professionals are designed to address and, where possible, overcome the identified barriers. Essentially, the program is

Continued on the next page

Table 1

Discipline	Speaking	Listening	Reading	Writing
Radiography	8	8	8	7
Medical Laboratory	7	9	8	7
Respiratory Therapy	8	9	8	8

Continued from the previous page

Table 2

CBL Score	General Descriptor
10	Performance is fully appropriate; language skills are not a barrier
9	Performance is fully adequate; language skills are strong, with only some inaccuracies
8	Performance is adequate; language skills are mostly effective but contain a number of errors or inaccuracies that sometimes impede communication. Will benefit from advanced language training.
7	Performance is minimally adequate, can perform the tasks, but does not fully achieve the objectives. Will require some language support in the program.
6	Performance is weak, often unable to complete the task fully. Will require full language support in the program.

divided into three distinct but interrelated sections:

1. Assessments, professional, language and Basic Radiographer Skills
2. “Soft” instruction, dealing with social and/or practice issues, and
3. Review of technical materials and terminology

Assessments

Written Professional Assessment

Clients are required to write an examination similar to that offered through the CAMRT. This examination is multiple choice and competency based and consists of 120 questions over a 2 hour time frame. At the time of testing, we spend approximately 25 minutes showing clients how to deal with a “bubble” card and fill in their answers properly. This was required simply because the vast majority of clients have never taken a multiple choice examination before.

Michener English Language Assessments (MELA)

Clients are evaluated on reading, writing, speaking and listening. The results are shown as Canadian Language Benchmark Test scores - as part of the research and development part of this project we determined that the following scores are required if a client is going to be able to communicate effectively in clinical practice within the profession:

Clients who fall below these minimum requirements are referred to appropriate language development resources and encouraged to return when their skills are at an acceptable level.

The following chart provides a general description of the level of proficiency identified by CLB scores:

Practical

As part of our ongoing search for barriers to success, we introduced a Basic Skills Assessment as part of this process. Clients are given a requisition for various common

examinations and their performance evaluated by faculty members. The examinations were:

1. Thoracic Spine
2. Lumbar Spine
3. Wrist, and
4. Tibia & Fibula

Once again, these assessments were not used to determine whether a client would be able to work with us but to help create the “road map” to success. Certain critical tasks essential to the success of the examination were simply recorded as completed or not.

“Soft” Instruction

We quickly identified that there were serious shortcomings in the “soft” skills required for practice in Ontario - these include knowledge of legislation, standards of practice, regulated health professions themselves, public expectations, social skills and understanding the importance of codes of ethics.

Some of these issues are so important to success in the Canadian Workplace that we have made the courses mandatory for clients who wish to participate in clinical internships.

We addressed these issues as follows:

Preparation for Practice in Canadian Healthcare

Many of the issues are trans-discipline and these sessions are offered to all clients in joint session. Offered over thirteen evening sessions (approximately thirty-nine hours in total) topics covered include:

- a. Learning styles
- b. Study skills
- c. Canadian Health care system
- d. Law and legislation affecting health care professionals
- e. Professionalism in Health Care
- f. Health Care ethics
- g. Minority/Special Interest Groups

Simulated Clinical

The content of this fifteen hour course was based on the Critical Tasks identified by CAMRT in their Competency Profile for Radiological Technology⁴, CMRTO Standards of Practice 5 and the CAMRT Code of Ethics 6.

Other components in this course address differences in communications and relations with patients, issues surrounding appropriate questions to elicit information from patients, touching patients, documentation of findings, communication with other health care professionals and communicating opinions to appropriate personnel.

Strategies for Competency Based Examinations

This twenty hour course deals with multiple choice competency based examinations and relates the questions to appropriate text references. The sessions include the process of answering competency based questions (which require that information from multiple subject areas can be accessed simultaneously), creating these questions, reviewing possible answers and committing to a selected answer.

Technical/Profession Reviews

All these courses are designed as reviews of essential materials. They are not introductory and expect that the clients have substantial knowledge of the subject areas. Where a client identifies a knowledge gap, they are expected to research the topic on their own and ensure that they are familiar with it.

Each session is six hours and generally offered on a Saturday or Sunday to accommodate various employment situations.

- a. Electronic Image Management
- b. Positioning (Basic)
- c. Positioning (Advanced)
- d. Quality Assurance
- e. Basic Radiation Sciences
- f. Patient Care
- g. CT
- h. Image Critique
- i. Interventional and Special Procedures

Summary

Canada has a long history of welcoming immigrants, especially those qualified in a profession in their country of origin – we are truly a multicultural society and have recognised that we have an obligation to assist new immigrants in the path to success in their adopted home. My involvement with Access & Options over the past several years has been challenging and, ultimately, rewarding. The outline contained in this paper is designed to ready potential immigrants for their transitional journey, partly by preparing you in advance with this important information and, on your arrival, providing the information and support essential to your success. □

The importance of conventional X-ray diagnostics in toxiradiology

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Aim

The aim of this article is to demonstrate the use and importance of conventional x-ray diagnostics in toxicoradiology. The presented cases may occur not only in specialised toxicology centres, but in all types of departments in hospitals and health centres.

Discussion

The prevalence of accident related injuries and cases of suicidal attempts are high in Hungary. There is only one specialised Toxicology Department available in the country, (Péterfy Hospital, Dept. of Clinical Toxicology, Budapest, Hungary). The majority of such cases outside of Budapest are first diagnosed and treated in local clinics and hospitals. Depending on the clinical circumstances, these patients may eventually be transferred to the specialised department in Budapest.

In this article several cases are presented and discussed highlighting the importance of general X-ray in this special clinical area. They have been drawn from a collection from two hospitals, the Clinical Toxicology Department of Péterfy Hospital and the Dept. of Radiology and Oncotherapy of Semmelweis University, Budapest, Hungary.

Case I: Iron pill

Iron pills have a special X-ray sign. The conventional native abdominal X-ray examination shows the X-ray absorb-

ing pills much better (Figure 1). Fluoroscopy can help in detecting the superimposition of the pills and their number since the patient can be examined in different angles. Iron tablets can cause systemic intoxication and local corrosion injury. Intoxicated patients have pale skin, cyanosis and hyperventillate because of acidosis. Large amount of iron, causes gastroenteritis necrotisans, which involves pain, diarrhoea, brown and bloody vomit.

Case II: Mercury

Despite the everyday belief, small amount of swallowed or soft tissue contact of elemental mercury does not cause intoxication and does not absorb (Figures 2-3). It is simply discharged by the body. If a thermometer breaks and you breath in a small amount of mercury gas, if you touch it, or if you eat the small drops of mercury, no intoxication reactions are going to show up. On the other hand, compound mercury, (eg. mercury salts), can cause acute mercury intoxication through inhalation or by swallowing it. High concentration of metallic mercury vapour generates acute fulminant chemical pneumonitis following penetration of



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

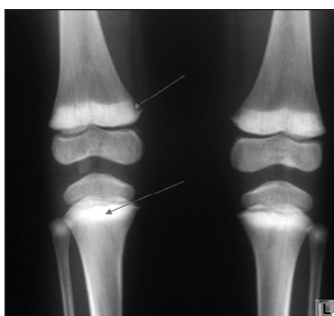


Figure 7

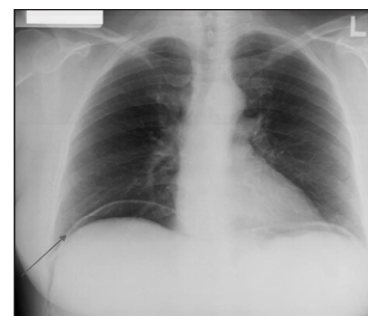


Figure 8

the alveolar membrane. Intravenous mercury compounds cause local necrosis or embolism.

Case III: Paraquat

Paraquat is considered as a total weedkiller; spraying any part of a plant will destroy it. It is produced with emetic and smelly components to prevent per-os complications by the people working with it. Although it is widely used, occupational hazards are not so often experienced, but accidental usage or suicidal intents are much more dominant.

As a concentrated solution, it causes corrosive injury of the mouth, pharynx, esophagus and stomach. Corrosion of the mouth is observed on the 5th day following swallowing of Paraquat.

If it doesn't cause death in 24 hours, fibrotic degeneration of the lungs will manifest causing respiratory failure. It will appear after three or four days because of the destruction of the alveolar structure (Figures 4-5).

Case IV: Lead

Skin, gastrointestinal, and pulmonary intoxication by lead is possible. Already small amount of lead (eg. fishing accessories) may result in serious intoxication with colic like abdominal pain, convulsion, coma or even death. Early symptoms of lead poisoning are tiredness, headache, aching bones and muscles, loss of memory and appetite, and sleep disturbance. Immediate extraction of lead through surgical methods may be performed.

Absorbed lead accumulates in blood, soft tissue and in bones as non-soluble lead-phosphate (Figure 6). High concentrations of lead are deposited in growing bone, the greatest concentration of lead occurs in the metaphysis. Thus, in children, this deposition affects the distal femur, distal radii and both ends of the tibia, these are the most rapidly growing bones. Lead poisoning results in increased lead deposition in the trabeculae of the metaphysis, appearing as opaque lead lines on radiographs

(Figure 7).

Case V. Corrosive fluids

Corrosive fluid intoxication may occur by coincidence or by suicidal intentional drinking.

Endoscopic examination is the first choice to see the level of injury. Barium swallow X-ray examination does not have specific signs in the acute stage, however, perforation may already be seen. Only water soluble, non ionic contrast media can be used in these examinations. An indirect sign can be the free abdominal gas seen under the diaphragm in the standing position (Figure 8).

Late signs are the strictures of the physiological narrowings of the oesophagus (Figure 9). The most commonly affected areas are the antrum (hour-glass stomach) and pylorus (Figure 10). After two to four weeks, necrotic parts can be seen on the mucous membrane of the stomach and esophagus.

Case VI: Heroin lung

Heroin lung is a non cardiogen lung oedema, which can be caused not only by the use of heroin, but also by metadon, a synthetic form used during heroin distraction, causing a

Continued on the next page



Figure 9



Figure 10

Continued from the previous page



Figure 11

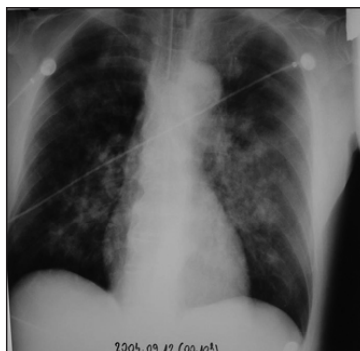


Figure 12

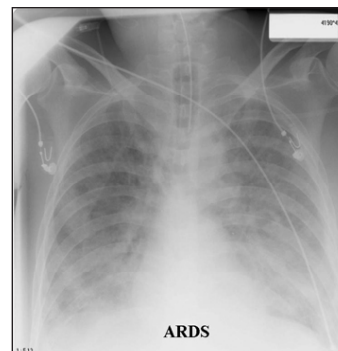


Figure 13

longer effect than heroin.

The clinical signs of heroin lung are: haemoptysis or pink sputum, cyanosis, breathing insufficiency and pinched consciousness.

The radiological picture includes the typical blobby-noddy shadow (Figure 11). The contaminant materials of the consumed form of heroin cause the destruction of the alveolar membrane leading to a gradient change of pressure. Heroin lung can be seen within two hours of intoxication of heroin and six to twelve hours following metadon overdose.

Case VII. Submersion

The primary reason of submersion is when someone is overconfidence but can not swim, or when someone is distressed or under intoxication.

Secondary reason may be the following:

- reflex effects: loss of diver reflex, laryngospasm
- trauma: vertebra fractures, skull trauma
- illnesses: epilepsy, abnormal heartbeat

The etiology of sweet water submersion is low osmotic pressure; fast absorption is typical for sweet water, resulting in hypervolaemia, haemolysis, electrolyte shift, ventricular fibrillation, hypotonic hyperhydration and washing out of the lung surfactant (Figure 12).

Complications which may occur: ARDS, abnormal heartbeat, brain oedema, pneumonia, and nephropathy (Figure 13).

Conclusion

The majority of toxicology cases are initially diagnosed by the clinical symptoms and by the use of conventional X-ray. The follow up of these cases also involves X-ray on the long run. In our experience conventional X-ray has an important role from among the modalities of medical imaging. It is important to be familiar with the variety of toxicology cases and the proper methods applied through the use of conventional X-ray.

Africa

Kenya



Hamjambo ISRRT Community! The Society of Radiography in Kenya (SORK) had the honour of hosting RASCO 2006 where it became apparent that the Kenya Government had finally recognised the role SORK was playing in continuing professional development and the advancement of the radiography profession in Kenya.

This should be seen as a step in the right direction.

RASCO 2006 (see separate report in this issue) was such a success that it is now attracting participation from far and wide. This has been the vision of the current SORK council; provide a forum for radiographers within the region to interact and exchange ideas, views and solutions to the myriad challenges and problems strangling the radiography profession in Africa. We hope this event is both etched and entrenched your respective calendars of events.

Our operations have greatly improved with the employment of a permanent secretariat staff. The fruits of this are now evident. This leaves office bearers to concentrate more on policy as opposed to administrative matters. Our membership is now updated and it is our hope soon to encourage our members to consider ISRRT associate membership; this will not necessarily increase monetary gain but most important, is the proximity association with the international community.

During RASCO 2006, the proposed BSc. Radiography programme was discussed at length by Dr. G. Onditi-Elias of the Moi University. A steering committee consisting of eminent personalities from the radiology/radiography profession in the country. Some of you may have already been contacted for advice and valued input. SORK shall still endeavour to engage the international community to midwife this noble initiative.

The clamour and momentum for a legislative framework to regulate radiography in Kenya is still on and has reached fever pitch. The government has indicated intention and willingness to speed up the enactment of the draft Kenya Radiography Bill.

We hope that all you had a great time during the 14th Congress in Denver, SORK is elated by the election of one of their own in absentia to the ISRRT management Board. This writer is now the Regional Director for Europe Africa. We wish the new Board and Regional committees the best as they undertake their new capacities.

Long live the Roentgen Family.

Caesar Barare

South Africa



New Representative for Society of Radiographers of South Africa

I was recently elected to represent the Society of Radiographers of South Africa (SORSA) on the ISRRT. This came about as my predecessor Dr Fozy Peer was elected as the Director: Public Relations on the Board of Management of the ISRRT in 2006. We wish Fozy well with this new and exciting position.

New CPD program

As of Jan 2007, all radiographers in South Africa will have to participate in a new Continuous Professional Development (CPD) programme. Practitioners are expected to obtain 30 continuous educational units (CEU) per year. All health professions in South Africa now have to partake in this new CPD programme. This is a pre-requisite for registration with the Health Professions Council of South Africa (HPCSA). SORSA supports this programme as it will ensure that radiographers stay abreast of developments in their profession.

New qualifications structure for South Africa

The Standards Generating Body, a sub-committee of the Professional Board for Radiography of the HPCSA, has developed a new four year qualification for all four disciplines in Radiography Education namely Diagnostic, Radiotherapy, Nuclear Medicine and Ultrasound. The new qualification is now tabled for approval at the Ministry of Health as well as the HPCSA, after which it will be forwarded to the South African Qualification Authority, who in turn will evaluate it and once approved, forward it to training institutions for curriculum. This process will hopefully be completed by 2007/8 and the new four year training introduced in 2009.

15th World Congress

The local organising committee of SORSA, in conjunction with the ISRRT, is organising the 15th International ISRRT World Congress to be held in Durban in April 2008. The theme of this congress is: "Interweaving global images". It is said to be an exciting and very informative congress. Radiographers are invited to attend this congress, the first international congress ever hosted in Africa.

Aladdin Speelman

ISRRT representative for the Society of Radiographers of South Africa

The Americas

Barbados



The members of the Barbados Association of Radiographers are delighted at the success of their International Radiographers Week 2006 celebrations. The activities were very well organised and executed and there was good support from members and well-wishers of the association. There was an excellent response to the educational sessions, topics presented were:

- A Serous Endometrial Carcinoma Case Study by Mr Rajesh Tiwari, Therapeutic Radiographer.
- Radiographer-led Image Reading by Mr Sean Richardson Medical Medical Imaging Practitioner.
- The Thomas Jefferson Training for Trainer's Ultrasonography initiative by Dr Graham Thomas, Consultant Radiologist.
- Breast Imaging by Dr Peter Jolly, Consultant Radiologist.

We were honored by the presence of Mr Sergio Guilbaud, Education Director of Radiologic Sciences at the Long Island College Hospital and Miss Rosario Lopez. Mr. Guilbaud was the featured speaker at the Association's dinner which culminated the week of celebrations. Other events, the church service, the radiographic quiz and the Book 'n' Bag sale were also successes.

In the President's Report presented at the 2006 Annual General Meeting, Mr Ian Weithers, using as his theme 'The Rite of Passage', chronicled the first fifteen years of the Association's existence. He highlighted the BAR's achievements, the challenges faced and its shortcomings and offered his vision of future role and direction of the organisation. Special mention was made of achievements such as the election of Mrs B. Patricia Johnson to the post of ISRRT Vice-President (Americas) and Mr Sean Richardson as the Americas representative on the ISRRT Public Relations Committee; the success the BAR has achieved in hosting international conferences/workshops and the presence of several BAR members at the ISRRT 14th World Congress. The commitment and dedication shown by members of the BAR over the years was acknowledged.

Also at the AGM, a new Executive Committee was elected to manage the affairs of the Barbados Association of Radiographers. Mr Ian Weithers was re-elected President and other members of the Executive include Mr Rajesh Tiwari - Vice-President; Ms Kim Adams - Secretary; Miss Alison Rimple - Treasurer; Miss Aziza Garraway - Public Relations Officer; Miss Margot Ogilvie - Assistant Secretary/Treasurer; Mr Derlwyn Wilkinson - ISRRT Council Member and Mr Hammond Brewster - Floor Member.

The new executive has already embarked on the task of drafting a program of activities for the coming year.

On behalf of the Executive and Members of the Barbados Association of Radiographer I wish the ISRRT Community a Happy, Prosperous and Healthy 2007.

Derlwyn H. L. Wilkinson
Council Member

Canada



First of all, greetings and wishes for a healthy happy 2007 to all ISRRT member Associations from the CAMRT.

There is great news for those of you who may be interested in moving to work as a medical radiation technologist in Canada and had previously found this to be an onerous task. Back in May of 2005, the Canadian Association of Medical Radiation Technologists (CAMRT) received funding from the Canadian government to study the assessment and certification practices for internationally educated medical radiation technologists (IEMRT's) who wished to work in Canada. Objectives of this project were to first of all determine information about the Canadian labor market for MRT's in terms of the numbers of jobs available and those anticipated in the not-too-distant future. The next step was to identify the challenges and barriers IEMRT's experience through our certification process. As a result of this project, the CAMRT has just recently provided a detailed document in which the gaps in the certification process have been identified. This document also outlines the resultant recommendations, twenty-two in total as a matter of fact, that will reduce barriers and establish support systems for IEMRT's wishing to access the CAMRT certification process. The labor market study determined that there are over 16,000 MRT'S qualified to work in Canada-11,905 radiological technologists, 1,777 radiation therapists, 1,711 nuclear medicine technologists, and 618 magnetic resonance technologists. There are substantial human resource shortages of medical radiation technologists that is certainly anticipated to only get worse as more medical radiation technologists reach retirement age. Thirty-five percent of the MRT workforce is over the age of forty-five. When broken down by discipline, radiological technologists stand out as 46% are over the age of forty-five. Some provinces in Canada have much higher vacancy rates than others. Hopefully those ISRRT Associate Members who are interested in coming to live and work in Canada will read my information above and will please contact the CAMRT at www.camrt.ca. or pass this information on to colleagues you may know who are interested in doing so.

This year's CAMRT Annual Conference and General Meeting will take place in our beautiful capital city of Ottawa, June 8-10, 2007. I sincerely hope there will be many ISRRT members who will be able to join us for our educa-

tional and scientific events. More detailed information will be provided on both the CAMRT and ISRRT website.

Rita Eyer

Canadian Council Member

Asia/Australasia

Australia



The Australian Institute of Radiography has had another busy year with a focus on further developing a professional profile.

The year has seen the Board of Directors continue to review various processes and structure of the Institute with assistance from working groups and members. A marketing and promotions company has provided facilitation and advice on progressing a vision for the future of the Institute.

The AIR has a new website which has a new “face” and structure at www.air.asn.au. Please access it to see what is happening in Australia. Our upcoming national conference is being held in Perth, Western Australia from 8-11 March and details are available on the website. We would welcome all our colleagues from around the world to this the 4th ASMMIRT, so hope you can attend.

To Council members from the Asia/Australasian region, I hope to hear from you with suggestions for seminar projects within the region.

On behalf of all AIR members I would like to send our best wishes to our colleagues around the world.

Pam Rowntree

Councillor for Australia

New Zealand



I hope you had a productive 2006 and are looking ahead to the challenges of 2007. I enjoyed meeting up with

many of you again in Denver

and benefited from the wide range of education opportunities on offer.

During the previous six months there has been activity in the following areas:

- The role expansion research is continuing and pilot studies are underway in a number of areas; MRI cannulation, pat-

tern recognition, image interpretation.

- The NZIMRT supported celebrations of World Radiography Day on the 8th November 2006 around the country by providing themed promotional materials including posters, stickers, balloons and lanyards. The focus for this year was to support our international colleagues and some fundraising events have yielded about \$500 so far to go towards supporting a representative from one of the developing countries in our region to attend the 2008 World Congress in Durban. We also did a drive to increase the number of ISRRT Associate members within the Institute and these now number over 100.
- The NZIMRT held another very successful annual conference in Wellington from the 17th - 20th August 2006.

In the next year activity will be undertaken to try to establish a Pacific Island communication group.

Please go to the NZIMRT website – www.nzimrt.co.nz – to check out information on the following: professional updates, upcoming conference information and Continuing Professional Development material.

Jo Anson

ISRRT Council Member

Singapore



Singapore celebrated its inaugural Radiographers' Week (4-11 November 2006). The celebrations consisted of the inaugural Radiographers' Family Day (4 November), the World Radiographers' Day (8 November) and 2 Public Forums held at the National University

Hospital (8 November) and Singapore General Hospital (11 November). An event of this proportion was celebrated for the first time in 48 years of SSR history. Our profession was also brought to light to the public by the coverage of a few radio stations and an article was published in the “Mind your Body” section in the Strait Times on the 1 November 2006. In this issue, a recap of the week's event will be shared with everyone.





The first event held in conjunction with Singapore's Radiographers' Week was the Radiographers' Family Day. The event was held on a wonderful Saturday morning at Bishan Park 1. The festivities were held from 7:00am till 12:00pm. The event was graced by our Guest-of-Honour Mr. Khaw Boon Wan, Minister for Health and the representative of the International Society of Radiographers and Radiological Technologists (ISRRT), Ms. Tan Chek Wee, Public Relations Officer for the region of Asia/Australasia.

The event started early in the morning where participants registered and await the arrival of the Guest-of-Honour. Fellow participants caught up with old friends and colleagues from different institutions while waiting. Old ties were renewed as new ones merged. People were mingling with excitement as they share experiences and update one another of their current status. As the Guest-of-Honour arrives, the minister and the ISRRT representative were then escorted to the stage area to be the ceremony.

A welcoming address was given by the SSR President, Mr. Michael Ong. Five groups of medals were conferred and presented by the Guest-of-Honour to people who had been nominated for their dedication and contribution towards the profession and above all, for their service to the community of Singapore. The medals awarded are the SSR K. Vaithilingam medal, the SSR Platinum, Gold and Silver medals, and the SSR Courage medals.

The SSR K. Vaithilingam medal is presented specially to individuals whom have an excellent and illustrious Professional record as well as sterling achievements. One must contribute extensively to the SSR and the Radiography profession both locally and internationally. The K. Vaithilingam medal is the highest medal of honour to be presented in the history of SSR. The SSR platinum and gold medal is presented to individuals whom have served in the SSR EXCO and had contributed extensively to the profession for at least 15 or 10 years respectively. The SSR silver

medal is awarded to individuals whom have served 5 years or more, and have also served with the SSR EXCO whom have meritorious contributions. The SSR courage medal is presented specially to individuals whom have demonstrated unwavering courage and dedication in serving Singaporeans in the face of adversity and threat. Brief citations were also read to honour the recipients' contributions to the society and the profession.

The award recipients are as below:

SSR K. Vaithilingam Medal:

- Dr. Tyrone Goh (General Manager, NHG Diagnostics)

SSR Platinum Medal:

- Mr. Ng Hon Wing
(Pioneer SSR, Singapore General Hospital)
- Mr. Lee Wai Sum
(Pioneer SSR, Singapore General Hospital)
- Mr. N. K. Das
(Pioneer SSR, Tuberculosis Control Unit, Tan Tock Seng Hospital)
- Mr. Martin Chew Boon Keng
(Partner and Managing Director of MediTech Innovations)
- Mrs Magdelene Choong (Pioneer SSR)

SSR Gold Medal:

- Mr. Chin Jin Hon (Manager, School of Health Sciences, Nanyang Polytechnic)
- Mr. Ng Chee Chiang
(A Founding Pioneer of the MSRC)
- Mr. Tay Ngiang Soon
- (Senior Manager, Singapore General Hospital)
- Mr. Lim Chye Kwee
(Manager, Changi General Hospital)
- Mr. Yeap Kway Seng
(Manager, Gleneagles Hospital)
- Mr. Tien Sin Leong
(Manager, National Neuroscience Institute)
- Mr. Charles Chan
(Manager, KK Women's and Children's Hospital)
- Mr. Gary Tan
(Assistant Manager, Singapore General Hospital)
- Ms. Chew Pheok Geok
(Manager, National Cancer Centre)

SSR Silver Medal:

- Ms. Tan Sai Geok
(Senior Lecturer, School of Health Sciences, Nanyang Polytechnic)
- Mr. Julian Gan
(Immediate Past President, SSR)

SSR Courage Medal:

- Ms. See Chai Lee
(Sonographer, Thomson Medical Centre)
- Mr. Jaime Delacion Javier
(Radiographer, Singapore General Hospital)
- Mr. Ramaelito Javier
(Radiographer, United Kingdom)

Fiji



The Fiji Society of Radiographers is assisting our Ministry of Health in the presentations of the Draft Radiation Health Bills & Medical Radiation Technologists bill. The 2005 Radiation Protection Survey helps us a lot in providing examples from other countries to the members of

the sector committee who will report to the sitting of parliament in February 2007.

India



The Indian Association of Radiological Technologists organised its 8th National conference for the Radiological Technologists for two days from November 11-12, 2006 at Pune (Maharashtra) in India. The theme of this conference was "Education and Training-Key to Radiology", this

conference was hosted by Faculty of Imaging Sciences, Symbiosis Department of Health Sciences (a constituent of Symbiosis International Educational Centre Deemed University) with Ms. Rachna Murdeshwar as chairperson. More than 350 delegates from different parts of India comprising of radiological technologists, radiographers, radiologists, medical physicists, educationists, nursing staff, representatives of trade and trainee students attended this conference.

This conference was inaugurated by Mrs Vidya Yeravedkar, Joint Director Symbiosis International Educational Centre, Deemed University and eminent radiologist from New Delhi Prof. S.K. Bhargava was the guest of Honour on this occasion.

Wide ranging topics covering conventional radiography, interventional radiology, newer imaging modalities, radiological physics, radiation protection, quality assurance in radio-diagnosis and radiotherapy apart from innovative teaching in radiology as well as future of radiological technology and manpower development were discussed including a large number of scientific posters were displayed. To give a unique taste of Maharashtra style hospitality, delegates were taken to sprawling Gokul Lawn for dinner and dance

which was really a wonderful experience enjoyed by all. During the conference a souvenir comprising of main



India Conference Opening



India souvenir release

events which were held were also released. Main conclusion reached was that there is an immediate need to have a registration council for radiological technologists/radiographers in India to stop the mushrooming of unauthorized X-ray clinics as well as X-ray training centres etc.



India IART Members

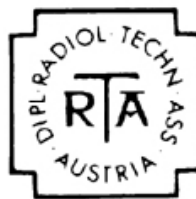
On the first day of conference in the evening executive committee meeting of IART office bearers was held, whereas on the last day after the end of the conference general body meeting of the IART members was also held. Apart from other discussions the participants were also informed to put extra efforts so that the next 16th Asian conference / 9th National conference of IART which is to be held on 15th November to 18th November 2007 at PGIMER, Chandigarh should be attended by a large radiological fraternity both from India and abroad. For which due publicity is being given both by way of print and electronic media. Also a poster of first announcement will be sent to ISRRT and Asian/other national society council members for publication in the forthcoming issue of ISRRT newsletter as well in their respective national association/society journals and websites.

S.C. Bansal

Council Member, www.iart.org.in

Europe

Austria

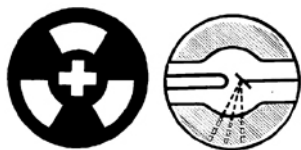


In Austria the education for radiographers/radiological technologists has changed. In Wiener Neustadt (Lower Austria) and Graz (Styria) the Bachelor Degree study programs have started.

Look at www.fhwn.ac.at (University of applied science Wiener Neustadt) to see these new changes.

Michaela, rtaustralia@gmx.at

Finland



The year 2006 has been once again busy in Finland. The Society of Radiographers in Finland organised many further educational courses during 2006. The very first post graduate screening mammography course was organised by the society and 19 radiographers got their specialised diplomas. Our society organized 18 days of further educational training on various subjects, including the national congress "Radiografiapäivät", which was held in Helsinki, with the local Uusimaa Radiographers Society.

The Society also started courses on clinical radiography as a joint project with the Oulu Open University, aiming towards the Masters degree. These lectures were held in Helsinki and 50 radiographers participated in these. Organising something this big took a lot of effort, both financially and physically, from the society and its voluntary board members.

We finished all the clinical audits according to the national requirements. In Finland we have approximately 500 various types of health care centres, hospitals and private clinics using medical radiation and on top of that 29 nuclear medicine departments and 10 hospitals with radiation therapy. All these places using medical radiation have now been audited. According to the national legislation these clinical audits has to be carried out by a third party, every five years - so this means we can "rest" a short while before the next round starts. The Society of Radiographers in Finland plays an important role in these clinical audits, we have been actively involved in developing the method. We are one owner among the 20 other owners of this partly commercial company, which carries out these audits. At the present there is only one company in Finland working on clinical audits.

This in my last report to you, as I was elected to ISRRT board in last World Congress held in June in Denver. Society of Radiographers in Finland has chosen a new Council Member for ISRRT. Our new representative is Mr Marko Paananen. Marko is working as a senior radiographer in Lahti Central Hospital, in southern Finland. Marko is in charge of all the international relations, he will be representing Finland at ECRRT and NSR meetings.

Thanking you for your support and I am looking forward in working hard as a director of professional practice in ISRRT.

Päivi Wood

Society of Radiographer in Finland

Hungary

Following the well deserved summer holidays, Hungarian radiographers spent two days early September last year in

the capital of Hungary, Budapest. The meeting was the annual national congress organised by the Society of Hungarian Radiographers. The venue took place in a comfortable environment close to the city center. The congress was structured to provide not only a section for presentations by radiographers, but a refresher course which focused the diagnostics and therapy of breast cancer.

Germany was host of the 7th Central European Symposium of Radiographers and Radiological Technologists. The Hungarian group, (25 delegates), contributed with four scientific presentations and two posters.

September brought the start of a new era in radiography training in Hungary. The implementation of the Bolognese process has become a reality. Four institutions have introduced B.Sc. programs in Radiography. Students can partake their studies either in a fulltime program or in a distance learning program. Hopefully the next step, the introduction of the M.Sc. program, will be finalised by the time the first B.Sc. students finish their studies, giving them the opportunity to continue their studies on a Masters level.

The World Radiographers Day was once again commemorated by Hungarian radiographers in November. A scientific program was organised, focusing on the diagnostics and therapy of the respiratory system. The presentations by well noted medical doctors covered all disciplines associated with the thoracic region of the human body.

The Society looks forward to the coming of the new year with new challenges and new projects. We wish all our fellow organisations and societies across the world a happy and successful New Year.

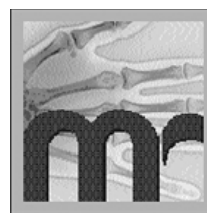
Csaba Vandulek

International Relations

Society of Hungarian Radiographers

hungarian_radiographers@yahoo.com

Sweden



The annual Radiological week was held in September last year and was well attended by personnel of all categories, including secretaries and assistant nurses, among the usual participants, radiographers, nurses, radiologists and medical physicists.

The next Radiological week will mainly be held in English as it is a Nordic Congress and participants are expected from all over Europe but mainly from the Nordic countries. Nordic Congress is held every second year in a Nordic country.

The AGM of the Swedish Society of Radiographers was held in conjunction with the Radiological week and this saw three new board members and a change of Chairman. Bodil Andersson the outgoing chairman well serves as vice chairman to Gunnela Örnberg the new Chairman. The board is working very hard to fulfil the purpose with a

new organisation which includes e.g. an international body, a scientific body and a body responsible for different kind of courses. The international body will work closer to the Swedish Association of Health Professionals and try to find a new strategy of co-operation to strengthen the radiographers' profession.

During the year a number of courses were held, CT for radiographers, Quality Assurance, Radiation Protection and Image Optimisation, Skeletal Radiography and a course for Managers and Department Heads, all of these courses are of a high standard and are very popular.

Education; there are nine universities with programs for radiographers or radiological nurses and they are working hard just now to adjusting their curriculum to conform to the Bologna declaration. Every university is also going through a national assessment by the Swedish National Agency for Higher Education.

There is a common project in the Nordic countries planning a Nordic Masters in radiography - NOMAR.

Bodil Andersson
Council Member

Turkey

2006 was generally beneficial for Turkish radiographers. The Society of Turkish Medical Radiological Technologists held a seminar in Istanbul in January last year. There was good participation of approximately 150 colleagues. The Seminar topic was Radiation Protection, a certificate was given to all participants.

TSMRT is working in coordination with the Health Ministration and other government organisations to re-structure professional standards. Comprehensive work has been started about 97/43 Directive by the Health Ministration. Another is with Educational Standartizaion. TSMRT prepared a report and it was given to the Higher Education Council. We hope the improvements will be in place by the start of the new educational year.

TSMRT for the first time officially celebrated World Radiography Day on November 8 in the capital city Ankara. There was a display about the history of radiography (the past, today and the future perspectives).

Turkish National Radiotechnology Congress will be held in 28-30th October 2007. All Colleagues can join to our national congress.

Havva Palaci

United Kingdom

2006 was another very busy year for the Society of Radiographers (UK). Much work is carried to raise the profile of radiographers as a profession, and also as an influence to future health care policy. Effective communication between the Society and its members is one of the key aims



and to this end much work has been carried out to continually improve the SoR website. This site can be accessed by members, and contains material for both professionals and non-professionals, including information on careers, conferences and publications.

From 2006 radiographers in the UK are required to maintain an up-to-date portfolio of CPD as a condition of registration with the Health Professions Council. Members can access a section which is called CPD Now which is a tool which has been developed to help facilitate and plan their professional development and learning needs

Non-members can access current profession documents. A number have been developed this year and these include; i) the revised Royal College of Radiologists and Society and College of Radiographers Joint document on Skill Mix; ii) Industry Standards for the Prevention of Work Related Musculoskeletal Disorders in Sonography; and iii) Medical Image Interpretation & Clinical Reporting by Non-Radiologists: The Role of the Radiographer and iv) Health Care Associated Infections (HCAIs): Practical guidance and advice. Some of you may find these documents of interest to your practice.

In 2007 the UK Radiation Oncology Conference will be held in Edinburgh 19-21 March, and the United Kingdom Radiology Congress will take place in Manchester from 11-13 June. These are excellent opportunities to update your skills, learn from current research, and network with other radiographers. We look forward to meeting you there!

As many of you know Radiography is the international peer-reviewed journal of diagnostic imaging and radiation therapy. One of its main aims is to promote excellence in the profession of radiography by its commitment to publication of research, by its support for education, and by its encouragement and dissemination of best practice. I wish to pass on our congratulations to Ann Poulous, and Don McLean who are based at The University of Sydney, Australia, for a paper entitled The application of breast compression in Mammography: A new perspective which was recently awarded the prize for 2004. This is an indication of the world-wide dissemination of research and practice which can be achieved by presenting your research in an international arena.

If you wish to find out more about the documents, conferences etc please use our website, www.sor.org. And finally, on behalf of the radiographers in the UK I would like to wish you all a successful, and fulfilling 2007.

Sandie Mathers
UK Council Member

coming events

2007

March 8-10
(AIR) ASMMIRT

Perth Western Australia

March 9-13
ECR

Vienna, Austria

March 19-12
UK Radiation Oncology Conference
Edinburgh, UK

March 24-25
Breast 2007
Sydney, Australia

May 2007
Nordic Congress
Malmo, Sweden

June 11-13
United Kingdom Radiology Congress
Manchester, UK

June
CAMRT Annual Conference
Ottawa, Canada

June 1-4
ASRT/AERS Annual Conference
Albuquerque, N.M.

September 12-16
PACORI 2007
Kampala, Uganda
Sept 12-13 for pre-conference
Sept 14-16 PACORI 2007
Registration fees:
Radiographers \$100.00
Nurses and Students \$50.00
Radiologists \$200.00
www.ecurei.com and go to the PACORI 2007 icon

October 28-30
Turkish National Radiotechnology Congress
Turkey

November 15-18
16th ACRT & 9th NCIART
Chandigarh, India

2008

April 24-27
15th ISRRT World Congress
“Interweaving Global Images”
Durban, South Africa

Deadlines

The deadlines for receiving material for publication in the two issues each year of the ISRRT Newsletter are January 1 and July 1.

ISRRT WEBSITE

The ISRRT website carries up to date addresses of all member societies. Visit the ISRRT website at: www.isrrt.org
Here you can find information on the ISRRT and details of future meetings.

Comments on the newsletter

You are invited to comment on the presentation and contents of the newsletter and make suggestions for future issues. Your comments will be considered by the Editor and her Committee.
email: bullard@deepbluedesign.com.au

1st Announcement



16th

ACRT
ASIAN CONFERENCE OF RADIOLOGICAL TECHNOLOGISTS

9th

NCIART
NATIONAL CONFERENCE OF INDIAN ASSOCIATION OF RADIOLOGICAL TECHNOLOGISTS

November 15th-18th 2007



Emerging Technologies - Newer Solutions



Department of Radio-diagnosis & Imaging
Postgraduate Institute of Medical Education & Research, Chandigarh, India

CONFERENCE SECRETARIAT
MR. S.C. Bansal
(Chairperson)

16th ACRT and 9th NCIART
Department of Radio-diagnosis and Imaging
PGIMER, Chandigarh 160012, India
Tel No: +91-09815033388, 2756389
Fax : +91-172-2745768, 2744401
E mail: iartindia@yahoo.com
Website:www.iart.org.in

Authors Instructions

Submission details for the ISRRT Newsletter

Articles should deal with subjects of common interest to all radiographers and radiological technologists.

The Editorial Committee may decide not to publish an article if they see it not suitable to the content of the ISRRT Newsletter.

All articles must be sent in the English language. However, other languages may be considered with the permission of the Editor and her committee.



Types of articles

1. Full-length papers, with a maximum of 2000 words, on research, modern developments, historical achievements, education, management, and health and safety. A summary of about 100 words and three key words may be translated into one of the main languages such as French, Spanish, German, Portuguese, Japanese or Chinese to facilitate colleagues for whom the English language is difficult. If the article is in another language then the summary and keywords must be in English. References from books should include the surname and initials of the author(s), year of publication, book title, publisher's name, and the city and country of publication.
2. Short articles and technical notes of no more than one page including diagram, table or photograph. A summary in another language of about 30-50 words is welcome.
3. Letters to the Editor will be considered for publication.
4. News from other countries.
5. Reports of meetings.
6. Announcements of forthcoming events.

Presentation

Always keep in mind that the ISRRT journal is a "Newsletter" containing information on ISRRT activities and articles of common interest to colleagues throughout the world. Reports should, therefore, be kept short and the language easy to read.

To assist the Editor in the layout and production of the newsletter, the following format must be used.

Submission of material

Articles should be submitted in electronic form, preferably in MS Word using Times or Helvetica. All charts, diagrams, illustrations and photographs need to be saved as separate files. The author should retain a copy of the submission as the Editor cannot accept responsibility

for loss or damage. Send all submissions to either the Secretary General or the Editor. If it is not possible to send your submission via e-mail, please use discs (floppy, ZIP or CD-ROM). Contact details are published at the front of the newsletter.

Photographs, illustrations, graphs, charts & diagrams

Computer generated illustrations, graphs, charts and diagrams should be high resolution and saved as separate files (either .eps, .tiff, .PDF or .jpeg format) for publishing. PowerPoint files are not accepted. Original negatives and radiographs will not be accepted for publication unless otherwise already photographed and scanned.

Instructions for Board and Council Members

Council members are requested to send in the following information regularly.

- Short reports of ISRRT meetings and special activities in the field of medical imaging, radiation therapy and radiation protection.
- News from members countries which should have a heading containing the name of the country only, ending with the authors name and role.
- Coming events, please include any congresses, conferences and meetings which would be open to radiographers all over the world.

Advertisements

Advertisements for the *ISRRT Newsletter* and inquiries should be sent to the Secretary General (see address under ISRRT Officers of Board of Management).

Deadlines

The deadlines for receiving material for publication in the two issues each year of the *ISRRT Newsletter* are January 1st and July 1st .

memberships

Membership

Full membership of societies is open to national societies of radiographers or radiological technologists with similar objectives to the ISRRT. These are: "to advance the science and practice of radiography and allied sciences by the promotion of improved standards of education and research in the technical aspects of radiation medicine and protection".

Corporate Membership

Corporate membership is open to all organisations wishing to support the work of the ISRRT and who would otherwise not be eligible for full membership. This includes commercial companies, regional or local professional organisations, governments, hospitals, universities and colleges. Corporate members receive certain benefits including preferred space at ISRRT organised technical exhibitions, priority opportunity to participate in ISRRT sponsored educational activities, preferential advertising opportunities in ISRRT publications and official recognition in the ISRRT Newsletter. In addition, hospitals, universities and professional associations can apply to host ISRRT organised seminars and workshops. Details of Corporate membership are available from the Secretary General. We express our appreciation for the

continued support of our Corporate members and invite other industry and professional leaders to offer their support to the advancement of international radiation medicine. Current Corporate members are:

- GE Healthcare Ltd., Bio-Sciences, UK
- Durban Institute of Radiography, Department of Radiography, South Africa
- Shimadzu Medical Systems, Rydalmere, Australia
- Toshiba (Australia) Pty Ltd., Adelaide, Australia
- Joint Review Commission on Education in Radiologic Technology, Chicago, USA
- Agfa-Gevaert N.V.
- ELEKTA Inc, Norcross, USA

Associate Membership

Associate membership provides the opportunity for individual radiographers to learn more of the activities of the ISRRT. they do this by receiving a copy of the Newsletter that contains reports on all ISRRT activities and upcoming events. Associate members also receive advance notice of Conferences and Congresses and receive a small rebate on registration fees at these ISRRT meetings. in addition many of our member societies allow ISRRT Associate Members to register for their national conferences at the same preferred members rate if they reside outside the country of the Conference.

APPLICATION FOR ASSOCIATE MEMBERSHIP

Please complete in block letters and return to:

ISRRT, 143 Bryn Pinwydden, Cardiff, Wales CF23 7DG, Wales, UK

Title (please tick) ☐ Mr ☐ Mrs ☐ Ms ☐ Miss ☐ Dr ☐ Other

Family name(s): _____

Given Names (s): _____

Address: _____

I wish to support the work and objectives of the ISRRT and hereby apply for Associate Membership.

I enclose payment of

Pounds Sterling	US Dollars	Canadian Dollars	Euro
<input type="checkbox"/> 1 year £ 6.00	<input type="checkbox"/> 1 year \$12.00 US	<input type="checkbox"/> 1 year \$14.00 Cdn	<input type="checkbox"/> 1 year 12 Euro
<input type="checkbox"/> 3 years £16.00	<input type="checkbox"/> 3 years \$30.00 US	<input type="checkbox"/> 3 years \$38.00 Cdn	<input type="checkbox"/> 3 years 30 Euro

I am a member of my national society which is: _____

My specialty is (please tick one or more):

☐ Imaging ☐ Therapy ☐ Nuclear Medicine ☐ Education ☐ Management ☐ Ultrasound

Signature: _____ Date: _____

Please make payment by cheque, bank draft or money order, payable to "ISRRT".

I would like to support:

☐ ISRRT Development Fund and include a donation in the amount of: _____

☐ World Radiography Educational Trust Fund and include a donation in the amount of: _____

Name: _____

Address: _____

Signature: _____

Date: _____

Donations to Secretary General ISRRT,
Mr Alexander Yule
143 Bryn Pinwydden
Pentwyn, Cardiff Wales CF23 7DG
United Kingdom

Names and addresses of member societies and ISRRT Council Members

Australia Australian Institute of Radiography
P.O. Box 1169, Collingwood, Victoria 3066
Tel: 61-3-9419 3336 Fax: 61-3-9416 0783
E-mail: air@air.asn.au
Website: www.air.asn.au
Council Member: Ms Pamela Rowntree
Email: p.rowntree@qut.edu.au

Austria Verband DRTA Österreich,
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2700, Wiener Neustadt, Austria
Tel: + 43 699 1749 8367; Fax: +43 2622 321 2685
Email: office.rtaustria@gmx.at
Web Site: www.rtaustria.at
Council Member: Ms Karin Haller
Email : isrtrtaustria@gmx.at

Barbados Barbados Association of Radiographers
c/o X-ray Dept, Queen Elizabeth Hospital
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Tel: 246 426-5378 Fax: 246 429-5374
Email: info@imagingandtherapy.bb
Web Site: www.imagingandtherapy.bb
Council Member: Derlwyn Wilkinson
Email: bar@imagingandtherapy.bb

Belgium Medical Radiological Technicians of Belgium,
Avenue des Paquerettes, 23
B - 1410, Waterloo, Belgium
Tel: 32 64 55 71 99 Fax: 32 64 55 71 99
Email: mrtb@skynet.be
Council Member: Mr Eric Bertrand,
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Email: ericbertrand2@tiscalinet.be

Belgium Vereniging Medisch Beeldvormers
VMBV/Philippw Van Laer,
Beukendref 96, 9080 Lochristi, Belgium
Email: vmbv@mail.be
Council Member: Mr Patrick Suvé
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Email: Patrick.Suvee@hologic.be

Benin Organisation Des professionnels
En Imagerie Médicale Du Bénin
02 BP 8125, Cotonou
Tel: (229) 39-02-99
Council Member: Mr Antoine Agbo
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Botswana Radiological Society of Botswana
P.O. Box 80789, Gaborone, Botswana
Tel: (267) 585475; Fax: (267) 585475
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Council Member: Mrs Avis N. C. Bareki, address as Society
Email: avis@it.bw

Burkina Faso Association Burkinabe du Personnel
Paramédical d'Electro-Radiologie
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03 BP 7022 Ouagadougou 03
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Poste 506 & 590
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Council Member: Mr Landry Power Kabore, address as Society
Email: kaboreissaka@yahoo.fr

Cameroun Association Camerounaise du Personnel
Technique d'Electroradiologie Médicale
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E-mail: czambou@yahoo.fr
Council Member: Mr Justin Paul Charles SEE
Email: justsee@fr@yahoo.fr

Canada Canadian Association of Medical Radiation
Technologists,
10th Floor, 85, rue Albert Street
Ottawa, ON K1P 6A4
Tel: 613 234-0012; Fax: 613 234-1097
Email: cshields@camrt.ca
Web Site: www.camrt.ca
Council Member: Rita Eyer
Pt. 1110-234 Ronald Street
Winnipeg, Manitoba
R3J 3J9, Canada
Email: jreyer@shaw.ca

Croatia Croatian Association of Engineers of Medical
Radiology,
Mlinarska 38, 10000 Zagreb
Tel: 00 385 1 4669771
Fax: 00385 1 4669772
Email Soc: hdimr@zg.hinet.hr
Web Site: www.hdimr.hr
Council Member: Mr Nenad Vodopija
Vlascika 15, 10000 Zagreb
Email: Nenad.vodopija@vmskola.hr
nenad@hdimr.hr

Cyprus Pancyprrian Society of Diagnostic &
Radiotherapy Radiographers
c/o Mrs Maria Kyriakides Radiotherapy Depart.
Nicosia General Hospital, Nicosia -1450
Tel: 0035722801495; Fax: 0035722303471
Email: mariakyriaki@yahoo.com
Council Member: Mr Achilleas Kalaidjis, address as Society
Email: kalaidjis@logos.cy.net

Names and addresses of member societies and ISRRT Council Members

Czech Republic	Czech Radiographers Society Sekretariat SRLA CR Na Zlate Stoce 14 370 05 Ceske Budejovice, Czech Republic Email: info@srla.cz Website: www.srla.cz	France	Association Francaise du Personnel Paramedic d'Electroradiologie 47 Avenue de Verdier, 92120 Montrouge Tel: 33-1-49-121320; Fax 33-1-49-121325 Email: webmaster@afppe.com Website: www.afppe.com
<i>Council Member:</i>	Mr Cestmir David, address as society Email: cestmir.david@medicon.cz	<i>Council Member:</i>	Mr Philippe Gerson, 1 Rue des Couloirs 92260 Fontenay-aux-Roses Email: philgerson@aol.com
Denmark	Foreningen af Radiografer i Danmark H. C. Orsteds Vej 70, 2. tv. DK 1879 Frederiksberg C Tel: 45-3537-4339; Fax: 45-3537-4342 Email: frd@radiograf.dk Website: www.radiograf.dk	Gabon	Association du Personnel Paramedical d'Electroradiologie du Gabonais BP 13326 Libreville
<i>Council Member:</i>	Mr Johnny Jensen, Dragebakken 289, 5250 Odense SV Email: Johnny@radiograf.dk	<i>Council Member:</i>	Mr Apollinaire Mberagana, address as Society Email: samuelrokossa@yahoo.fr
El Salvador	Asociación Salvadoreña de Técnicos en Radiología e Imágenes Diagnósticas 6a calle poniente y 6a ave. sur reparto 6a calle, 3-8 bis #4, Santa Tecla Email: oc.astrid_es_rad@yahoo.com.mx	Gambia	The Gambia Association of Radiographers and Radiographic Technicians c/o X-Ray Department, Royal Victoria Hospital Banjul, The Gambia
<i>Council Member:</i>	Mrs Elizabeth Ventura, address as Society Email: oc.astrid_es_rad@yahoo.com.mx	<i>Council Member:</i>	Mr Abdou Colley, address as Society
Estonia	Estonian Society of Radiographers Sillutise 6, Parnu 80010 Tel: 372 44 7312; Fax: 372 44 73 102 www.eroy.ee	Germany	Deutscher Verband Technischer Assistenten in der Medizin e.V. Spaldingstrasse 110 B, D-20097 Hamburg, Tel: 0049 40 2351170 Fax: 0049 40 233373 Email: info@dvta.de Website: www.dvta.de
<i>Council Member:</i>	Ms Piret Vahtramae Sillutise 6, Parnu 80010, Estonia Email: piretva@ph.ee	<i>Council Member:</i>	Susanne Huber Email: susanne.huber@dvta.de
Ethiopia	Ethiopian Radiographers Association P.O. Box 21850, Addis Ababa Tel: 15-50-76	Ghana	Ghana Society of Radiographers P.O. Box a602, Korle-Bu Teaching Hospital, Accra Tel: 685488 Email: gsradiographers@yahoo.co.uk
<i>Council Member:</i>	Mr Napoleon Bogale P.O. Box 56324 Addis Ababa, Ethiopia Tel: + 251 09 239768 Email: napi_bog@yahoo.com	<i>Council Member:</i>	Mr Steven Boateng, address as society Email: stboateng2000@yahoo.com
Fiji	Fiji Society of Radiographers P.O. Box 17415, Suva, Tel: 679-3215548 Email: jsalabuco@govnet.gov.fj	Greece	The Panhellenic Society of Radiotechnologists, 73 Sokratous Str., Athens 104.32 Tel: 30 1-522-8081; Fax: 30 1-522-8081 E-mail: pasta@mailbox.gr Website: http://get.to/pasta
<i>Council Member:</i>	Mr Jone Salabuco, address as Society Email: jsalabuco@govnet.gov.fj	<i>Council Member:</i>	Mr Dimitris Katsifarakis 36 Feraiou Str., 143.42 Filadelfia, Athens E-mail: dimitka@panafonet.gr
Finland	The Society of Radiographers in Finland PO Box 140, 00060 Tehy, Finland Tel: 358 9 54227 521; Fax: 358 9 61500 267 Email: toimisto@suomenroentgenhoitajaliitto.fi Website: www.suomenroentgenhoitajaliitto.fi	Hong Kong	Hong Kong Radiological Technicians Association, P.O. Box 73549 Kowloon Central Post Office Kowloon, Hong Kong Tel: 852 3517 5451 Fax: 852 3517 5199 Email: hkrt1965@yahoo.com Website: www.hkrt1965.com
<i>Council Member:</i>	Mr Marko Paananen, address as society mafka@phnet.fi		Mr Apollo Wong, The Department of Radiology, Kwong Wah Hospital,

Names and addresses of member societies and ISRRT Council Members

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Hungary	Society of Hungarian Radiographers National Health Institute Dept. of Radiology 1135 Budapest, Szabolcs u. 33 - 35. Tel: 06-1-350-4764 Fax: 06-1-350-4765 Email: hungarian_radiographers@yahoo.com Website: www.mrae.hu <i>Council Member:</i> Ms Katalin Lukovich Email: klukovich@ogyik.hu	Ivory Coast	Association Nationale des Techniciens d'Imagerie Médicale de Côte d'Ivoire 21 BP 854 Abidjan 21 Email: antim_civ@yahoo.fr <i>Council Member:</i> Yai Kouame Boniface 18 BP 720 Abidjan 18 Tel: 225 21253793 Fax: 225 07052526 Email: kwame_boniface@yahoo.fr		
Iceland	Icelandic Society of Radiographers Felag Geislafrædinga, Borgartuni 6, 105, Reykjavik, Iceland Tel: 354-588 9770; Fax: 354-558 9239 Email: geislar@sigl.is Website: www.sigl.is <i>Council Member:</i> Mrs Katrin Sigurdardottir, address as Society Email: katrinsig@hive.is	Jamaica	Society of Radiographers (Jamaica) P.O. Box 38, Kingston 6 Tel: 809-977-2388; Fax: 809-977-2388 Email: societyofradiographers@yahoo <i>Council Member:</i> Miss Claudia Tavares Radiology West, 34 Market Street, Montego Bay, Jamaica Email: tech-one@cwjamaica.com		
Iceland	The Icelandic Nurses' Association of Radiological Nurses Heidarlundur 6, 210 Gardabaer Tel: 565-6350 <i>Observer:</i> Mrs Gudrun Thorstensen	Japan	Japan Association of Radiological Technologists, 31st Floor, World Trade Center Bldg. 2-4-1 Hamamatsu-cho Minato-ku, Tokyo 105-6131 Tel: 3-5405-3612 Fax: 3-5405-3613 Email: y_oyama@jart.or.jp Website: www.jart.jp <i>Council Member:</i> Mr Kazumasa Kumagai, address as Society Email: Kumagai@jart.or.jp		
India	Indian Association of Radiological Technologists, Department of Radiodiagnosis, PGIMER, Chandigarh 160012 Tel: 91 172 27476389 Fax: 91 172 2745768 Email: iartindia@yahoo.com Website: www.iart.org.in <i>Council Member:</i> Mr S. C. Bansal H. No. 388, Sector 38-A, Chandigarh 160036, Tel: 91 172 2691295 Mobile: 00 91 981503388 Email: scbansal38@rediffmail.com	Kenya	Kenya Association of Radiographers P.O. Box 30401, Nairobi 00100 Tel: +254 20 2714826, +254 723 976285 Email: kenyaradiographers@yahoo.com <i>Council Member:</i> Mr Charles Omondi PO Box 90231 Mombasa Kenya Tel: +254 725848273/254 314201 Ext. 3219 Email: comok2004@yahoo.com		
Ireland	The Irish Institute of Radiography 28. Millbrook Court, Kilmainham, Dublin 8, Tel: 01-3530106-790433 Fax: 01-3530106-790433 Email: info@iir.ie Website: www.iir.ie	Korea	Korean Radiological Technologist Association, 250 Yang Jae -Dong, Seocho-Ku, Seoul 137-130 Tel: 82-02-576-6524/5; Fax: 82-02-576-6526 Email: krta@krta.or.kr Website: www.krta.or.kr <i>Council Member:</i> Mr Jeong-Kyu Lee, address as Society	Latvia	Latvian Society of Radiographers Institute of Radiology 13 Pilsonu Street, Riga, LV 1002 Latvia Tel: 371 7144635 Fax: 371 7144635

Names and addresses of member societies and ISRRT Council Members

	Email: nms@parks.lv <i>Council Member:</i> Ms Elita Rutka, address as society Email: elitaru@hotmail.com	<i>Council Member:</i> Mr Dooshiant Jhuboolall 41 Rue des Fauvelles, 92400 Courberioie, France
Lebanon	Lebanon Society of Radiographers The American University of Beirut-Medical Centre, School of Radiography PO Box 11-0236, Beirut 1107-2020 Tel: 01961 1 35000 ext: 5070 E-mail: moufidaassi@hotmail.com <i>Council Member:</i> Mr Ghassan Wadih Merheb, address as Society	Mexico Federacion Mexicana de profesionales Tecnicos en Radiologia e Imagen, Asociaion Civil, Juan Badiano No. 21, Colonia Seccion XVI, Delegacion Tlapan, C.P. 14080 Tel: 52 55-73-29-11, Ext.1236 Fax: 52 55-73-09-94 Email: fmptrimex@yahoo.com.mx Website: www.fmptri.org.mx <i>Council Member:</i> Mr Bernardo Santin Meza, address as society
Macau	Macau Radiology Association PO Box No.: 9013, Macau Email: mra@macau.ctm.net www.home.macau.ctm.net/~mra <i>Council Member:</i> Mr Kok Leong Kei Email: klk@macau.ctm.net or klk@ssm.gov.mo	Nepal Nepal Radiological Society P.B. No. 5634, Central Office, Kathmandu Tel: 977 1 427 6232 Email Soc: nerads2006@gmail.com <i>Council Member:</i> Mr Shanta Lall Shrestha, address as Society
Macedonia	Macedonian Society of Radiological Technologists c/o Miroslav Kostadinov, Institut za Radiolgija Klinichki Centar Vodnjanska 17, 1000 Skopje, Macedonia Tel: 389 2 115069; Fax: 389 2 1 66974 Email : rentgen@vnet.com.mk E-mail : mariokostadinov@yahoo.co.uk <i>Council Member:</i> Mr Zdravko Damjanovski, 32 Victor Villas, Great Cambridge Road London N9 9VP, United Kingdom Email: zak@zdravko.freeseve.co.uk	The Netherlands Nederlandse Vereniging Medische Beeldvorming en Radiotherapie, Catharijnesingel 73, 3511 GM Utrecht Tel: 31-302318842 Fax: 31-302321362 Email: info@nvmb.nl Website: www.nvmb.nl <i>Council Member:</i> Ms Sija Geers, address as Society Email: s.geers@nvmb.nl
Malaysia	Malaysian Society of Radiographers c/o Department of Diagnostic Imaging Hospital Kuala Lumpur, 50586 Kuala Lumpur Tel: 03-2906674 Fax: 03-2989845 Email: ms_radiographer@yahoo.com www.groups.yahoo.com/group/ms_radiographers <i>Council Member:</i> Salmah Ahmad Jabatan Pengimejan Diagnostic Hospital Kuala Lumpur, 50586 Kuala Lumpur. Email: ms_radiographer@yahoo.com	New Zealand New Zealand Institute of Medical Radiation Technology, P.O. Box 25-668, St. Heliers, Auckland Tel: 0649 379 3059 Fax: 0649 379 3029 Email: nzimrt@nzimrt.co.nz Website: www.nzimrt.co.nz <i>Council Member:</i> Joanne Anson Email: Joanne.anson@midcentral.co.nz
Malta	Society for Medical Radiographers-Malta PO Box 9, Malta Tel: 00 356 2595 1772 Fax: 00 356 2124 4975 Email: srm_malta@hotmail.com www.e-radiography.org/ <i>Council Member:</i> Mr Miguel Pace Email: pace_miguel@yahoo.co.uk	Nigeria The Association of Radiographers of Nigeria, 2-4 Taylor Drive, Medical Compound, P.M.B. 1068, Yaba, Lagos Tel: Sec: 053-254165/8 Ext. 2263 Email: arn@execs.com <i>Council Member:</i> Mrs O.O. Oyedele, Radiology Dept. Univesity College Hospital, Ibadan, Oyo State Email: sumbooyedele@yahoo.com
Mauritius	Mauritius Association of Radiographers 131c Murray Avenue, Quatre-Bornes Tel: 464-2790 Email: rboolkah@intnet.mu	Norway Norsk Radiografforbund Raadhusgate 4 N-0151 Oslo Norway Tel: 47-23 100 471; Fax: 47-23 100480 E-mail: nrf@radiograf.no Website: www.radiograf.no <i>Council Member:</i> Mr Jan Sorbo, address as society E-mail: jansorbo@online.no

Names and addresses of member societies and ISRRT Council Members

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