

**“WORKSHOP ON RADIATION SAFETY AND QUALITY ASSURANCE IN
DIAGNOSTIC RADIOLOGY FOR RADIOGRAPHERS”**

On 14 March, 2013 From: 9.00AM to 5.00PM

At State Institute of Health & Family Welfare, Sheikhpura, Patna.

Organized by:

**DIRECTORATE OF RADIATION SAFETY
STATE HEALTH SOCIETY BIHAR**

Under Support from: ATOMIC ENERGY REGULATORY BOARD

Introduction

State Health Society, Bihar has created **Directorate of Radiation Safety (DRS)** to enforce the rules and regulations of the Atomic Energy Regulatory Board (AERB) in Bihar. After signing an MOU, AERB will delegate to the Directorate the authority to carry out the functions stipulated under rules 29, 30, 31 and 32 of the Atomic Energy (Radiation Protection) Rules 2004.

The Director of Radiation Safety has visited 7 Medical Colleges to evaluate the radiation safety status in the X-ray installations and observed that radiation safety and mandatory regulatory compliance are lacking in all the institutions. The work practices of the technicians indicated that they are unaware of the harmful effects of X-rays to themselves and others. The careless and potentially dangerous practices followed by the radiographers pointed to the dire need of refresher courses for making them quality and safety conscious. Hence, a one day workshop on Radiation Safety and Quality Assurance is being organized for the radiographers in Bihar.

About the Workshop

Directorate of Radiation Safety, State Health Society, Bihar announces a one day **“Workshop on Radiation Safety & Quality Assurance in Diagnostic Radiology”** for Radiographers, at State Institute of Health & Family Welfare, Patna on 14 March 2013.

X-ray, being an ionizing radiation, can be harmful to humans if not used responsibly. The USDHHS in its 11th Edition of the Report on Carcinogens, added x-rays and gamma rays to the list of “known human carcinogens”. The International Agency for Research on Cancer (IARC) found sufficient evidence of carcinogenicity in humans exposed to x rays and gamma radiation. The need to exercise greater caution in the use of x rays and gamma rays in medical procedures is obvious. If used judiciously and in controlled conditions, X-ray is a blessing to the humanity.

Any work involving ionizing radiation may cause some potential hazard. A regular CT Scan of the brain gives the equivalent in radiation of 100 chest x-rays! Depending upon the examination site and equipment quality, this dose can go as high as 4 to 5 fold. An important goal in diagnostic imaging is to achieve an optimal balance between image quality and dose to the patient. According to the system of dose limitation by ICRP it is essential that the dose to patient and radiological personnel is kept **As Low As Reasonably Achievable (ALARA)**.

Procedures available to control exposures to ionizing radiation are sufficient, if used properly, to ensure that radiation remains a minor component of the spectrum of risks to which we are all exposed. To a large degree the success of radiation protection program depends on the education of staff about radiation safety principles and the risks associated with exposure.

This Workshop is intended for 100 Radiographers working in private and public sector institutions in Patna Division (Districts: Patna, Bhojpur, Buxar, Kaimur, Nalanda and Rohtas). Workshop aims to motivate the 100 participants to imbibe the lessons they learn on radiation safety and quality assurance and bring them to practice at their home institution. The Directorate will strive to bring the best faculty for the workshop to enlighten the participants. A handout will be distributed to the participants to help them follow AERB guidelines in the purchase, installation, operation and maintenance of diagnostic X-ray equipments.

PROGRAMME

- 9.00 AM - 9.30AM : Registration
- 9.30AM – 10.15AM** : **INAUGURAL CEREMONY**
- Welcome** : **Shri P.J.Joseph**
Director of Radiation Safety
- Special Message** : **Shri Sanjay Kumar, IAS**
Secretary Health cum Executive Director
- Presidential Address** : **Shri Vyas Ji, IAS**
(Permission due) Principal Secretary, Health & Family Welfare
- Inauguration** : **Shri Ashwini Kumar Chaubey**
(Permission due) Hon'ble Minister for Health & Family Welfare.
- Vote of Thanks** : **Shri P.J.Joseph**
Director of Radiation Safety
- 10.15AM - 10.30AM : **Refreshment**
- 10.30AM – 04.00PM** : **SCIENTIFIC SESSION**
- 10.30AM - 11.15AM (F:1) : Radiation Safety Status in Bihar & Role of DRS
- 11.15AM - 12.00PM (F:2) : Evolution of Diagnostic Imaging Science
- 12.00PM - 12.30PM (F:3) : Interaction of Radiation & Biological Effects
- 12.30PM - 01.00PM (F:4) : Planning of X-ray & Regulatory Requirements
- 01.00PM - 01.30PM (F:5) : Tips for Good Radiography
- 01.30PM - 02.00PM : **Lunch**
- 02.00PM - 02.30PM (F:1) : Radiation Units & Personnel Monitoring Devices
- 02.30PM - 03.00PM (F:2) : Medical Exposures & Method of Dose Reduction
- 03.00PM - 03.30PM (F:3) : Quality Assurance of Diagnostic Equipments
- 03.30PM - 04.30PM (1-4) : Demo on Quality Assurance
- 04.30 PM - 05.00PM : **Evaluation & Refreshment**
- 05.00PM : **National Anthem**

Faculty:

- F-1: Mr.P.J.Joseph**, Director of Radiation Safety, State Health Society, Govt. of Bihar.
- F-2: Dr.S.D.Sharma, Ph.D**, Scientific Officer (F), Bhabha Atomic Research Centre, Mumbai
- F-3: Dr.Alok Kumar, Ph.D**, Head, Radiation Physics, Mahavir Cancer Institute, Patna
- F-4: Mr.V.S.Iyer**, Scientific Officer (F), Atomic Energy Regulatory Board, Mumbai
- F-5: Dr.Mithilesh Pratap, MD, DMRD, Ph.D**, Asst. Professor, NMCH & Secretary, IRIA.

Registration for the Workshop is free and will be closed at 6.00PM on 13th March, 2013. Seats are limited to 100 and will be allotted on first come first basis. Those desirous of participating in the Workshop may send e-mail to **drs.shsb@gmail.com** giving their Name, Designation, Institution, District and Mobile Number. Lunch, refreshment and Workshop kit will be complimentary for early registered participants. However, those reporting for spot registration will not be eligible for any complimentary services.

Convener: Shri P.J.Joseph,
Director of Radiation Safety,
State Health Society, Sheikpura, Patna-800014.
e-mail: drs.shsb@gmail.com Mob: 9470003024

Chairman: Shri Sanjay Kumar, IAS
Secretary, Health-cum-Executive Director,
State Health Society, Patna-800014