TECHNOLOGIST'S SECTION

## RADIOLOGY NURSING A CHALLENGE OR AN OPPORTUNITY?

Amin Rajani, Raza Sayani, Fahd Haroon, Nida Husain, Nahida Marfani

Department of Radiology, Aga Khan University Hospital, Karachi, Pakistan.

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#### Introduction

Since the dramatic discovery of Rontgen rays way back in 1895, the field of medicine has been un-rested: it has brought dynamic changes by bringing in the quality health care; resulting in the improving the quality of life of patients in general and society at large. Starting from simple diagnostic radiography and then expanding to fluoroscopy, which further enhanced its Rontgenoscopy from simple fluoroscopy into the domain of angiography to study the blood vessels and identify areas of problems and provide valuable information for vascular surgeons. During the period of World War II, valuable information from radiographs and angiograms helped in deciding to save or amputate the limbs of victim's sustaining injuries during the war. The advancement continued and with time field evolved with Ultrasound, CAT scan, MRI, Nuclear Medicine, Vascular and Interventional Radiology, Nuclear Cardiology, PET scanning, Computed Radiography, Digital Radiography, PACS and now the world is focusing on Global village through Tele-Radiology. Department of Radiology at AKUH started its operation in 1985 with general radiography, fluoroscopy, IVP, ultrasound and diagnostic angiography but over the year's spectrum of service has expanded. It has broadened its horizon from general radiography to the state of the art MRI, Nuclear Medicine, 64 slice MDCT, and Vascular and Interventional Radiology thus, providing support in almost everything which a generally versatile modern Radiology department should have, and all this is achieved by keeping pace with the changing trend of technology and along with the help of required, trained support staff.

The initial era of Radiology services at AKUH, started

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with support of six radiographers and one midwife, but as the department extended its services the workload and complexity of procedures also changed and with due course of time it was realized that to provide quality patient care and patient safety, rendering services with help of one midwife was not sufficient and thus, in 1990 the pattern of service changed by replacing it with qualified Registered Nurse. With the passage of time, an increase in volume and growing number of therapeutic procedures, It was strongly felt that one nurse was not sufficient and an additional nurse was also required, but soon that changed too and this addition now has reached to seven full time nurses covering all the areas of Radiology.

#### Role of Nursing in Radiology

Question must be coming to one's mind, what is role of nurses and infact seven nurses? To be honest we still feel we should have couple of more nurses to cover the services we offer. Radiology is a very exciting & challenging place for nurses to work, where nurses never know what to expect. RN Salimah used to say "At the beginning of the day WE may have only two scheduled procedures, but by the end of the day WE may end-up doing 8 interventional radiology exams in addition to other duties". Patient enter in the department with variety of health conditions from young pregnant women getting her 1st sonogram, to an aging gentleman present to get his carotid arteries evaluated for blockages through Angiogram, or a patient who is having a CT scan may develop a contrast media reaction. Thus where ever patients require nursing care throughout the department, nurses provide their services, two of the nurses are full time present in VIR, one in US intervention, one covering general anesthesia cases, be it of MRI, CT or US. One helps in patient education and giving appointments to patients

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Correspondence : Mr. Amin Rajani Department of Radiology, Aga Khan University Hospital, Stadium Road, P.O Box 3500, Karachi, 74800 Pakistan. Tel. No. 349300051 - Ext 2043 E-mail: rajani.amin@aku.edu

of US intervention, one covering biopsies in mammography and also extend support to NM, and two nurses cover recovery area, where patients get pre and post procedure care especially patients of Cardiac CT, Ultrasound Intervention and VIR procedures.

## Role Model

To create a viable impact and make difference nurse must demonstrate leadership and good communication skills and by emphasizing personalized and individualized patient care.



## Patient Advocate

Being patients advocate nurses educates and explains procedure to patient and family they also ensures that the patient's rights are respected.



# Departmental Emergencies and on-Call Coverage

Nurses deal with all emergency situations which arise in the department. A walk in patient having CT scan may end up with severe contrast media reaction and may go into respiratory or cardiac arrest or a patient having biliary intervention procedure may go into septicemic shock and would require immediate care. Or a trauma patient reaching emergency department at 2am and requires emergency embolization.



## **I/V Therapy Nurse**

On many occasions patients may require pre, per or post procedures the administration of medication as ordered by Radiologist. Along with this they also keep update the medications stock.

## Monitoring of Patient

The diverse range of procedures in radiology now requires continuous monitoring of patient pre-procedure during procedure and in recovery period. This usually occurs with patients coming for Cardiac CT, Ultrasound Intervention and VIR procedures.



## Assistance in Procedure

In VIR amongst the two nurses assigned, duty of one nurse is to scrub the patient for procedure and prepare procedure trolley and assist radiologists in the procedure, while the other is circulating nurse who prepares and provides required accessories for the procedures and monitors and records the patients vitals and gives medications on orders of performing radiologists.





## Liasion

Provide open line of communication b/w Radiology, patient care units, services, Radiologist and Physicians.



## Documentation

Wisely said, No job is finished till paper work is done and it's a mandatory that Nursing documentation is completed which means documentation is accurate, signed and dated thus it meets all legal requirements as well as support the patients during their follow-ups.



## Final Note

Internationally Radiology nursing is considered as a specialty and many nurses pre-plan and opt to take this as career of choice. Probably Radiology provides an avenue where one can expect the unexpected and window for learning can be explored in variety of domains. Though advance with latest technology and well skilled Radiologists and Imaging technologists it seems that without support of qualified and trained nurses, there will remain a big gap. Employment of skilled radiology registered nurses would improve the comfort of patients and ensure their safety.<sup>1</sup>

Despite having seven nurses we still feel that we should have a dedicated floor nurse covering Radiology floors who could observe patients and assists them while they wait for their turn in respective modalities, an another nurse to start shift services for patients staying late or done in emergency after working hours, like the patients getting intervention in ultrasound and patients getting IV contrast in CT and MRI. Keeping such diverse and dynamic role what would you say; is Radiology Nursing a Challenge or an Opportunity?

#### References

 Guidelines for Nursing Care in Interventional Radiology, The roles of the registered nurse and nursing support, www.rcr.ac.uk/docs/radiology/ pdf/GuidelinesforNursing.pdf