

# ETHICAL ISSUES IN INTERVENTIONAL RADIOLOGY PRACTICE

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**Abstract :** *Interventional Radiology is an exciting specialty on constant move, and has undergone a significant period of transition, particularly in last two decades. This sweeping transition has changed Interventional Radiology "from a Procedure-oriented specialty to Clinically oriented specialty". Ethical issues are always ever present in Interventional Radiology practices, just as in many disciplines of medicine and surgery. Ethical issues that are faced by Interventional Radiologists include a range of subject matter like importance of the written informed consent, litigation, turf battles, omissions and shortcomings in patient communication skills, battery, ongoing training and staffing issues, hazards of radiation etc. Indeed, shortcomings and potentially messy situations can be prevented by a combination of measures like maintenance of high standards in daily practice, continuous training, strict patient selection criteria, adoption of simple precautions and guidelines, observing adequate and clear communication and appropriate documentation of any procedure carried out along with a completed patient's consent form.*

**Key Words:** Ethical issues; litigation; consent; practice standards

## INTRODUCTION

Interventional Radiology is an exciting specialty, constantly on the move. Over the years, its vital role in clinical practice has been firmly established across medical institutions world over, assisting management of a variety of disease conditions. An Interventional Radiologist today, is not only involved in diagnostic radiology practice, but also participates in invasive procedures, either alone or as a member of a team.

## EVOLUTION BY TRANSITION

It is now increasingly clear that Interventional Radiology has undergone a significant period of transition, particularly in last two decades. This sweeping transition has changed Interventional Radiology "from a Procedure-oriented specialty to Clinically oriented specialty"<sup>1</sup>. Indeed the transitioning times in Interventional Radiology has generated a sense of excitement, and grabs the attention from all specialities. However, it must be however remembered that ethical issues is an important area that needs addressing. Ethical statements and guidelines have been developed by specialized bodies of Interventional Radiology, primarily for the benefit of the patient. Expectedly, "an Interventional Radiologist must recognize responsibility not only to patients, but also to society, to other physicians, to other health professionals, and to self"<sup>2</sup>.

## RANGE OF ETHICAL ISSUES

What are ethical issues that are faced by Interventional Radiologists today while incorporating invasive techniques in daily practice? This is indeed not an easy question to answer. They comprise a disparate range of issues, like importance of the written informed consent<sup>3</sup>, litigation, turf battles, omissions and shortcomings in patient

communication skills<sup>4</sup>, ongoing training and staffing issues etc. Now let us examine some of them.

## WRITTEN INFORMED CONSENT

Written informed consent entails "adequate communication with a written consent form mandatorily before any invasive radiological procedure. Patient should know in detail the benefits and the risks of the scheduled procedure and whether the proposed therapy is a new form of treatment or part of a randomized trial<sup>3</sup>." Written patient's informed consent clearly is an integral part of communication between physicians and patients. "The doctrine of informed consent requires that the patient must act voluntarily and in the light of adequate information in order to give legally valid consent to medical care<sup>5</sup>".

## MEDICAL LITIGATION

Medical litigation that arises in clinical practice is usually "driven by unfavourable outcomes and not by malpractice"<sup>6</sup>. Litigation can be prevented by a combination of measures like maintenance of high standards in daily practice, continuous training, strict patient selection criteria, adoption of simple precautions and guidelines, adequate and clear communication and appropriate documentation of any procedure carried out along with a completed patient's consent form.

## COMPLEX ETHICAL ISSUES

It must be remembered that Interventional radiological procedures often have important legal implications. "The patient should be informed well before elective invasive procedures ("informed consent") and the amount of detailed information which is requested to be given to the patient appears to be increasing. Reversal of this trend in the future is unlikely<sup>7</sup>". Radiologists must discuss their own procedures with patients and informed consent for radiological procedures cannot be left to clinicians. Complex questions

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that are often posed to the interventional radiologists in practice include “How much should the patient be told about the procedure?” and “Should all potential complications be explained?”.

### **ETHICAL ISSUES DURING NEW FORMS OF THERAPY**

Interventional radiological procedures occasionally involve new forms of therapy or new techniques, as a part of its continuous evolution. Special caution needs to be taken at such critical times, as Duda et al rightly express that “where new forms of therapy are attempted, the information should be even more detailed. In particular it is necessary to stress the experimental nature of the procedure”<sup>7</sup>. “A calm, clear, direct and properly documented disclosure of risks of a procedure is the best defense in any jurisdiction”<sup>8</sup>. “The interventionalist is likely to become an increasingly frequent defendant by virtue of several factors—the surgical and procedural nature of interventional radiology, sporadic complications that occur, unrealized expectations by patients, and the occasional need to alter initially planned therapy”<sup>9</sup>. Occasionally the radiologist is liable with regards to the indications of imaging studies, too<sup>10,11</sup>.

### **ETHICAL ISSUES RELATED TO BATTERY**

Another key ethical area in Interventional Radiology is a term called battery which denotes “unauthorized touching”. It encompasses a procedure on the wrong patient, or performance of a procedure without any consent or performance of a substantially different procedure from that for which consent was obtained. A recently coined variant term is a “technical battery” that describes a procedure performed is alleged to have exceeded the scope of the consent given<sup>9</sup>.

### **ETHICAL ISSUES RELATED TO RADIATION**

Interventional Radiology procedures have increased substantially. It would be prudent to take into account of potential occurrences of Radiation injuries. Currently, many fluoroscopically guided procedures are diagnostic as well as therapeutic. These imply greater fluoroscopic durations and greater patient radiation exposure<sup>(12)</sup>. While refinements in radiologic equipment have improved image quality and also reduce X-ray dose rates, there is a potential risk for an increased overall patient and operator exposure and possibility of radiation-induced injury.

### **ETHICAL STRATEGIES AND INITIATIVES**

When a complication occurs, a poor physician-patient relationship is often a setup for litigation or a potential moment for redressal. Once a problem is sensed, it would be skilful to intervene early to help prevent discord and potential legal action. After a complication has occurred, a practical and successful strategy would be to deal with honesty with the patient and family. Eventually the basic tenets of correct interventional radiology practices comprises of good patient care, communication, documentation, quality

assurance, and follow-up<sup>9</sup>.

### **TURF STRUGGLES AND INCURSION BY OTHER SPECIALITIES**

Turf struggles in interventional radiology is a common problem experienced world over. It can assume as “competition with surgeons who use traditional surgical procedures, and competition with non-radiologists who use techniques similar to those employed by radiologists”. Typical examples quoted in literature includes “vascular surgeon who rarely permits the diagnostic angiographer to perform angioplasty on his patients” and “cardiologist who performs peripheral angioplasty while usually bypassing both the surgeon and the radiologist”<sup>13</sup>. Turf battles are “distasteful in part because of the inherent selfish motivations involved: usually money or power”<sup>13</sup>. A survey showed that vascular and interventional radiology procedures were being infringed on by other specialities to a substantial degree. Neither the presence of a fellowship-trained vascular/interventional radiologist nor the presence of a dedicated interventional radiologist protects a group from incursion by non-radiologists into interventional radiology<sup>14</sup>.

### **CONCLUSION**

Interventional Radiology is an evolving speciality, where the practice involves new and difficult areas, new technical advances, increasing number and complexity of imaging techniques, their efficiency and the need for multidisciplinary approach. Ethical issues are always ever present in Interventional Radiology practices, just as in many disciplines of medicine and surgery.

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