An Invitation

Dear Doctor,
You are cordially invited for the release of

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Ethics in Surgery

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Ethics in simple terms is right conduct or righteousness. Ethos are certain values regarded as right for a culture or group of persons.

Every profession has its own code of conduct or ethics. These ethos or codes guarantee an expected level of professional conduct and service to the public and guide the professionals. It is said that if ethics is followed in spirit, the need of legislation is minimized.

Bioethics is broad based discipline concerned with ethical issues related to biology, biotechnology, medicine or health related life sciences.[1] Physicians or clinicians or individuals who are part of health care system of human beings are expected to follow moral/ethical code of conduct. Medical ethics are moral principles governing the practice of Medicine.

To recapitulate, the modern medicine stands on the four pillars of biomedical ethics or Belmont's principles. [2]

a) Autonomy

b) Beneficence

c) Non mal -feasance (primum non-nocre)

d) Justice

In spite medical health care having well developed & evolving ethical standards, there were no well defined or specific addresses to ethical issues faced by Surgeons till early 19th century. Surgical fraternity faces its own special challenges in ethics & hence it evolved with the needs. Surgeons are unique breed of human beings with special ethical & legal rights to harm an individual through surgical intervention to obtain cure or better health. This itself makes surgeons much more responsible and sensitive to ethical issues relating to surgical care & subsequent outcome of the process. A patient and family of the patient willingly submit for the injury, pain, disfigurement with a hope of cure, giving extreme power to the hands of surgeons with full trust. [3] With rapid progression in surgical care, technology, biomedical research and surgical innovations, surgeons are now powered with innumerable options of interventions which also have brought hoards of questions and debates regarding the appropriate ethical use of the power obtained.

History & development of surgical ethics

Surgical ethics is as old as surgery itself. Ancient Indian texts like Charaka Samhita, Ashtanga. Sangraha, Ashtang Hriday and Sushruta Samhita extensively described the expected norms or behavior of physician or Vaidya which included all the present principles including professionalism.[4,5]

Sushruta, in his treatise, extensively described surgical ethics grouping them into

a) General ethics

b) Professional and academic ethics

c) Pre, per & post operative ethics

d) Ethics in research or experimental surgery

e) Professional code of conduct.

He addressed the majority of present standard guidelines which encompassed major principles of ethics, surgical training, developing professionalism by inculcating required knowledge, skills and most importantly attitude with altruism remaining as the basic tenet. [6]

Egyptian & Hammurabi's medical texts had their own written codes of conduct.

Hippocrates, who is considered as father of modern medicine, clearly described the ethics to be followed by physicians which reflected all the basic principles of Medical ethics. [7]. Hippocratic oath too has evolved over time with the changing ethos and scientific developments. Surgery was not a specialty when this original oath was developed. Surgery was often mentioned to be shunned. It was silent on surgical interventions.

The seeds of surgical ethics as a unique component of medical ethics began with John Gregory and Thomas Percival explicitly specifying the moral values required by a surgeon in nineteenth century .America then had surgery as specialty mainly governed by market needs and cut practices, often leading to unethical and unnecessary interventions at the cost of patient safety. American College of Surgeons was started to discourage at practice & encourage ethical practice of Surgery. [8]

The first initiative was by the American College of Surgeons in 1913. With the advent and wide spread use of anaesthesia, reasonable antisepsis and asepsis, the scope of surgery widened significantly luring many young medical graduates to practice surgery without adequate training. Franklin Martin, a surgeon from Chicago & others established American College of Surgeons to address ethical & quality related issues in 1913. He denied membership to known fee splitters & incorporated pledge to all American College of Surgeon's entrants with main focus of patient's welfare. [8]

One of the early written guidelines specific to Surgeons was proposed by Australasian Surgeons Association in 1993 and described explicitly code of conduct for surgeons with professionalism as one of the most important character of surgeon. [9]

Now the surgical ethics has evolved into a specialty in itself, attempting to address ethical issues related to being Surgeons.

Professionalism & ethics for a Surgeon

"Professional competence is defined as the habitual and judicious use of communication, knowledge, technical skills cleaning reasoning, emotions, values and reflection in daily practice for the benefit of the individual and the community being served."[10]

Professionalism includes the following character in every clinician. The main features of a professional are altruism and good patient surgeon relationship form cornerstones of good practice.

A true professional would be the one who has a

a) Strong and appropriate clinical competence.

b) Is altruistic in nature (placing the patient's benefit foremost against the physician's choice).

c) Good communication skills.

d) Commitment to quality and excellence.

e) Sound understanding of ethics & is accountable & humane

f) Accepts Fiduciary obligations

g) Responsive to societal needs empathy

h) Respect to patients culture & beliefs & colleagues.

i) Has the ability to deal with ambiguity & complexity.

j) Open to criticism & understand limitations.

The other expected attributes are

a) Punctuality

b) Well organized

c) Professional appearance with good hygiene

d) Modesty & humility

e) Courteous

f) Has a positive attitude & focused

g) Pursues continuous improvement or a lifelong learner

Professionalism in medicine implies that it is a moral Endeavour requiring persistent and uncompromised application of behavioral and ethical standard in combination with scientific training and ability to care Humans with compassion.

The American college of surgeon explicitly describes the expected behavior & gives broad based code of conduct [11]

"The Fellow of American College of Surgeon commits to:

a) Serve as effective advocates to patients needs.

b) Disclose therapeutic options including their risk and benefits.

c) Disclose and resolve any conflict of interest that might influence the decision of care.

d) Be sensitive & respectful of patients with an understanding of vulnerability during peri-operative period.

e) Fully disclose adverse events and medical errors.

f) Acknowledge patients psychological, social, cultural and spiritual needs.

g) Encompass within our surgical care the special needs of terminally ill patients.

h) Acknowledge & support the needs of families &

i) Respect knowledge, dignity and perspective of other health care professionals.

j) Provide the highest quality of surgical care

k) Abide by the values of honesty, confidentiality & altruism.

l) Participate in lifelong learning, maintain competence throughout the careers.

m) Participate in self regulation by setting maintain & enforcing practice standards.

n) Improve the care by evaluating its processes and outcomes.

o) Inform public on subjects within the expertise.

p) Advocate strategies to improve individual & public health by communicating with government, health care organizations & industry.

q) Work with society to establish a just, effective efficient distribution of health care resources.

r) Provide necessary surgical care without regard to gender, race, ethnicity, disability, religion, social status or ability to pay & participate in educational programs regarding professionalism."

The code of ethics & professionalism of American Association Academy of Orthopedic Surgeons addresses the issues similar to ACS with addition of responsibility towards maintaining healthy life style & avoid substance abuse. It also clarifies regarding surgeons rights of choosing patient and withdrawing from providing service. It specifies that Orthopedic Surgeon should handle the procedures only in areas in his competency ambit. This code also touches upon ethical principles related to care of athletes & discourages prescription of performance enhancers & unnecessary services. It discourages itinerant surgical care. [12]

Medical council of India in general describes the moral and fiduciary responsibility of the clinicians without specific address to surgical fraternity.

Surgeon–Patient Relationship

Surgeon patient relationship is 2nd pillar for of surgical ethics.

Though legally surgeon patient relationship is of contractuarial structure, this contract is based on trust and confidentiality, clear understanding of the consent, clarification of any conflict of interest and empathy. The most important aspect of the relationship is respect towards autonomy of patient. Autonomy here implies the right of patient to make choices about his/her treatment or surgical care and the surgeon has to accept the patient's preferences. This includes respecting the choice which may not be the Surgeons preference or may not be most preferred choice as per existing evidence. Refusal of the treatment also needs to be respected and accepted even if it is inappropriate and detrimental to the health of the individual.

The effectiveness of respecting autonomy of the patient depends on obtaining informed consent.

Valid informed consent is dependent on the detailed information given to him which should includes

1. The surgical condition and need for surgery
2. The details of proposed surgery in lay terms & the process in detail.
3. The expected outcome of the procedure or intervention
4. Expected & unexpected hazards of surgery
5. Alternative treatment options
6. Outcome of refusal for the proposed treatment.

The appropriate way to obtain consent would be by interacting directly with the patient or his surrogate. In Indian context, patient, his family & possibly few relatives need to be taken into confidence and adequate informed consent obtained. The IC should include the social aspects, cultural view point and importantly financial aspects in low resource settings & the details should include expected range of expenses which are anticipated in reasonable process setting.

The dialogue should happen in a conducive atmosphere and should be taken by operating surgeon himself. During the process it should be ensured that the patient and the surrogate have understood the process, are able respond and agree completely there should be adequate time gap to encourage them to take their own decisions. The patient and attendees should be encouraged to ask clarifications and questions. These should be clarified to maximum level possible.

Apart from verbal communication, written information in local language comes handy for patients to review the dialogue and take decision. Whenever the indicated procedure entails multiple options of treatment or multiple methods for same intervention, the pros & cons of each option should be discussed without bias carefully avoiding indirect coercion by discouraging the

other choices implicitly. The information and discussion should be described factually depending on scientific evidence without getting into medical jargons.

The explicit details are described in the earlier edition. [13]

After coming to a decision, it is always better to review the decision by repeating the decision orally and confirming before putting it across for documentation. The informed consent forms have various components which should be meticulously filled to prevent any legal problems.

While documenting consent by patient and family members, it is prudent to note the name of the attendee, his/her relationship with the patient and document their consent by signature.

A brief note on the case paper regarding the discussion held with, decision arrived is a prudent action which has significant weightage in legal process. Dissent or non acceptance, various options suggested should also be entered. Informed Consent can be given by any individual above 18 yrs of age with reasonable level of understanding. Consent from children should follow Gillicks Law.[14] Informed consent for any surgical procedures carries more ethical obligations in comparison with non surgical intervention due to the inherent risks associated with the intervention unlike non surgical management. Surgeons have special and more responsible role in obtaining IC due to the immense powers rested with them & faltering in utilizing this power can do greater harm. In such situations, the focus should be the best possible option form patients point of view than the skills & expertise of the surgeon.

Obtaining consent in emergency situations is always a special challenge to surgeons, especially when the individual is incapacitated due to injury, accidents or illness and absence of responsible care givers. In such a situation, with the limitations of autonomy, intervention has to be done with sole intention of benefitting the patient in critical or life saving situations. When there is no responsible surrogate, state or representative of the state who could be head of the institute, local law implementers like police officials or judiciary take the place of surrogates. In such a situation the system trusts the surgeon, his competency and altruistic approach giving power to his decision.

However it should be clearly understood such a power is not continuous or unlimited, but to an extent of time till the patient improves with review of decision and further course of action. In practical situations, a responsible surrogate may discuss and decide further course of action. The ethical responsibility of surgeon is great here in explaining the status of individual, need for timely intervention done and future course of management including prognosis with appropriate unbiased suggestions.

Special groups like children, mentally unstable individuals need special consideration. They can be given reasonable explanation regarding planned procedure for better co-operation even though their parents/legal guardians/are expected to give formal consent. During the process of obtaining Informed Consent, special issues related to gender, ethnicity and religious background should be kept in mind with adequate sensitivity and respect to their ethos.

Informed consent process specific to Indian context should address the gender and religious issues without any bias. Since 70% Indian population spends out of pocket expenses for health care, financial disclosure in detail greatly helps the patient and his care givers. It often influences the choice of treatment methodology too. This is very essential when the procedure is likely to be of high risk, technically challenging & involves use of advanced technology for surgery. In such situations apart from giving the details of expenses likely to be incurred for uneventful recovery, details of likely expenditure in case of need for prolonged care, intensive care and multiple interventions if complications develop. Explicit explanation in such situations may appear apparently detrimental in the early phase of decision making, but the Surgeon gains the trust of patient in bargain. A well informed patient and his family are great support for further outcomes.

Timely review and regular appraisals of the status of patient is also one the ethical responsibility of surgeon especially in terminal/illnesses and poorer than expected recovery. These appraisals and discussions should happen in unbiased non coercive atmosphere with empathy. Any biased suggestions can jeopardize doctor patient relationships. Aggressive treatment when prognosis is poor or discouraging the patient and care givers with negative recommendations are unethical. Information should be factual and the decision should be left to the receivers.

These sort of ethical dilemmas are often faced by surgeons working in peripheral centres where there is still an element of paternalistic attitude due to lack of awareness by patients. In such situation the surgeon has great ethical responsibility of doing the best possible keeping in mind the social, religious and financial status of patient and support team.

The limitations of autonomy and IC are exposed in the event of serious illness & impending death where patients are incapable of making decisions. Though the general principle of accepting to do what is appropriate in the best interest of patients, is agreed upon, there is significant grey zone when it comes to defining what is the best interest. In countries with good awareness, advance directives regarding further course of action are accepted. The patients & surrogates are free to prepare written wills or informal directives taken act as directives. Advanced directives in various areas are prepared by a team of ethicists, lawyers & legislators.

These wills attempt to address issues like mechanical ventilation, resuscitation, artificial nutrition etc.

Another major grey area bringing significant ethical dilemma is stopping of life sustaining therapies in the absence of any clinical evidence of recovery or better prognosis. USA & other developed countries have accepted withdrawal or withholding life sustaining treatment if it is clearly established that there is no benefit whatsoever. Supreme Court of India also favoured stoppage of life sustaining therapy in the absence of any benefit in March 2018, but this needs to be converted into act by the parliament till then stoppage remains unethical in Indian scenario [15]

However in the absence of any clear advance directive by the patient or his care givers, it is prudent to discuss the matter factually without any bias towards continuation of care or withdrawal of life support, leaving the decision to care givers. In the Indian scenario, apart from ethical dilemma related to continuation of life support, financial status also plays a major role with financial ethics need to be considered individual case wise. In the event of continuum of such treatment, apart from the expenditure born by the individual/family distributive justice has to be considered keeping in mind the hospital, social & financial resources.

In such situations, a common discussion with the caregivers, patient if possible with hospital management, spiritual advisor and an independent consultant will often resolve the dilemma and decision can be taken in concurrence with care givers.

Ethical issues for the surgeon regarding palliative care:

Surgeons all over the world are integral part of palliative care team. They support palliation in the form of palliative surgical interventions which mainly focus on quality of life than quantity or prolongation of life. The role of opiods, holistic pain management and concept of hospice initiated by Dame Gicely Mary Saunders formed the basis.[16]

In 1975, Surgeon educator J Engelbert Dunphy addressed the concept of non abandonment of terminally ill patients and contributed significantly in developing palliative as speciality. [17]

Now palliative care is an established speciality. Surgical interventions for evident improvement in quality of life are ethically acceptable. The dilemma arises when indications are not clear, quality of life improvement may be meager and endurance of palliative procedure becomes more painful than the outcome. The risk benefit ratio has to be applied and discussed on case to case

basis and the needs of the patient. Decisions for such interventions need clarity in understanding by the patient and care givers. It needs thorough understanding by the Surgeon, the palliative care team and the expected outcome in terms of quality like ability to eat, ability to move and pain free sleep or routine chores. Hence it needs customized care.

Surgeon & errors, disclosure of errors

Errors in judgment, surgical technique, care and errors in system are the causes of morbidity and mortality many times. Though the errors are discussed traditionally in mortality & morbidity meetings world over, it is part of confidential discussion & proceedings. The main reasons analysed for the delay in recognition and action regards is attributed to a) inadequate data about the incidence of adverse events, (b) inadequate practice guidelines or protocols and poor outcome analysis, (c) a culture of blame, (d) a need to compensate "injured" patients, and (e) difficulty in truth telling [18]

Ethically patient or care givers are entitled to know the details of error, whether the error is in judgment, technique or system. However said and done, disclosure is a difficult task. Non disclosure leads to erosion of trust and sows seeds for legal actions. Open disclosure of the error in a factual manner and suggested further course of action has to be undertaken. Apprehension regarding initial response can lead to further damages in surgeon patient relationship. Similarly disclosure of other colleagues' error needs careful review and needs to be addressed factually.

Ethics in biomedical research

The general principles of ethics in biomedical research have evolved from 1st international treatise in 1947 as Nuremberg Cole. World Medical Association formulated guidelines in 1964 and revises it as per needs and better understanding continuously. The latest revision was done in 2016 at Geneva. Various regulatory agencies world over are working and recommending ethical guidelines for research on human beings. Indian council of Medical Research, ICMR has been the torch bearer and principal agency in India to formulate ethical guidelines in biomedical research.

It has been revising the guidelines in consonance with global & local issues & latest guidelines were issued in 2017. [19]

"The general principles stated by ICMR as published in the National Ethical Guidelines for Biomedical and Health Research involving human participants ,published by ICMR in 2017 are based on the four basic principles ie, autonomy, beneficence, non-malfeasance and justice.

"They are divided into 12 general principles which state as follows.

1. Principle of essentiality whereby after due consideration of all alternatives in the light of existing knowledge, the use of human participants is considered to be essential for the proposed research. This should be duly vetted by an ethics committee (EC) independent of the proposed research.

2. Principle of voluntariness whereby respect for the right of the participant to agree or not to agree to participate in research, or to withdraw from research at any time, is paramount. The informed consent process ensures that participants' rights are safeguarded.

3. Principle of non-exploitation whereby research participants are equitably selected so that the benefits and burdens of the research are distributed fairly and without arbitrariness or discrimination. Sufficient safeguards to protect vulnerable groups should be ensured.

4. Principle of social responsibility whereby the research is planned and conducted so as to avoid creation or deepening of social and historic divisions or in any way disturb social harmony in community relationships

5.Principle of ensuring privacy and confidentiality whereby to maintain privacy of the potential participant, her/his identity and records are kept confidential and access is limited to only those authorized. However, under certain circumstances (suicidal ideation, homicidal tendency, HIV positive status, when required by court of law etc.) privacy of the information can be breached in consultation with the EC for valid scientific or legal reasons as the right to life of an individual supersedes the right to privacy of the research participant.

6. Principle of risk minimization whereby due care is taken by all stakeholders (including but not limited to researchers, ECs, sponsors, regulators) at all stages of the research to ensure that the risks are minimized and appropriate care and compensation is given if any harm occurs.

7. Principle of professional competence whereby the research is planned, conducted, evaluated and monitored throughout by persons who are competent and have the appropriate and relevant qualification, experience and/or training.

8. Principle of maximization of benefit whereby due care is taken to design and conduct the research in such a way as to directly or indirectly maximize the benefits to the research participants and/or to the society.

9. Principle of institutional arrangements whereby institutions where the research is being conducted, have policies for appropriate research governance and take the responsibility to facilitate research by providing required infrastructure, manpower, funds and training opportunities.

10. Principle of transparency and accountability whereby the research plan and outcomes emanating from the research are brought into the public domain through registries, reports and scientific and other publications while safeguarding the right to privacy of the participants. Stakeholders involved in research should disclose any existing conflict of interest and manage it appropriately. The research should be conducted in a fair, honest, impartial and transparent manner to guarantee accountability. Related records, data and notes should be retained for the required period for possible external scrutiny/ audit.

11. Principle of totality of responsibility whereby all stakeholders involved in research are responsible for their actions. The professional, social and moral responsibilities compliant with ethical guidelines and related regulations are binding on all stakeholders directly or indirectly.

12. Principle of environmental protection where by researchers are accountable for ensuring protection of the environment and resources at all stages of the research, in compliance with existing guidelines and regulations."

The surgeon as a researcher needs to have clarity regarding the "genuine equipoise" or essentiality of the research. The next area relevant to surgeon is the necessary expertise or competency in conducting the research. Majority of research conducted directly by the surgeons often falls into the "Surgical innovation category".

The areas which often directly relate to surgeons are

a) Device trials

b) Surgical interventions.

Medical device, as per description of ICMR guidelines 2017 [20] is" A Medical tool which does not achieve its primary action in or on the human body by pharmacological, immunological or metabolic means but which may be assisted in its intended function by such means". It may be an instrument, apparatus, appliance, implants with software or accessory or material or any other article intended by its manufacturer to be used in humans for

a) Detection, diagnosis, prevention, monitoring

b) Treatment or alleviation of any physiological condition or state of health or illness

c) Replacement or modification or support of the anatomy or congenital deformity

d) Supporting or sustaining life

e) Disinfectant or contraceptive

Clinical trials involving such materials like meshes, valves, stents, clips etc fall under this category. These trials have to be conducted as per guidelines Good Clinical Practice Guidelines. The safety trials in animals should be present. The methodology of using should be clearly described and benefits should outweigh the risk. These devices should be provided free of cost or at reduced rates if expensive. Adverse reactions should be reported immediately. Adequate post trial follow up and greater duration of follow-up are required for implants within the body.

Good understanding regarding status of implant, possibility of removal or permanent implants should be communicated well and factual documentation of outcome is essential. This is one area where there can be conflict of interest to recommend or not if the surgeon conducting trial has devised or is part of manufacturing team. Clear understanding regarding Conflict Of Interest minimizes litigations.

In the event of serious adverse event or injury due to implant, justice is essential. Adequate further free treatment, compensation or support is essential. Devices used internally are categorized as high risk and need appropriate justice/compensation or both considering the indications, damage and disability due to the said implant.

Surgical interventions

Research in Surgical interventions should follow all ethical guidelines of the research. If the study is related to establishing superiority of one procedure against another, adequate animal studies should be conducted with appropriate references. If the study is initiated with totally new method, there should be scientific backing against standard surgical practice either by animal studies or simulation data to establish safety and efficacy of the proposed procedure. If the study proposes modification, it should be compared with the conventional method. In the event of study related injury, appropriate free treatment and compensation must be provided.

The concept of sham surgery is mentioned to be abandoned due to its evident ethical issues. Unlike placebo based randomized control trial of drugs, no surgery is without risk or injury. It is permitted rarely now if there is genuine need with strong scientific support. The participant should get the appropriate information regarding the sham surgery at the end of trial.

Surgical innovations

Majority of the research conducted by surgeons falls into the category of innovations. The proposed intervention intends change in the technique, modification in existing procedure, use of different tools etc for an existing procedure. Most of surgeons are innovators due to circumstantial needs and develop their own innovations to improve technique, reduce time and mainly to reduce cost.

Any such innovation needs appropriate clinical trials and comparative studies to prove the efficacy or otherwise. Regulation of such minor innovations is still preliminary in India. Only a surgeon can tell what is true research or modification of technique or innovation.

Financial ethics for surgeons:

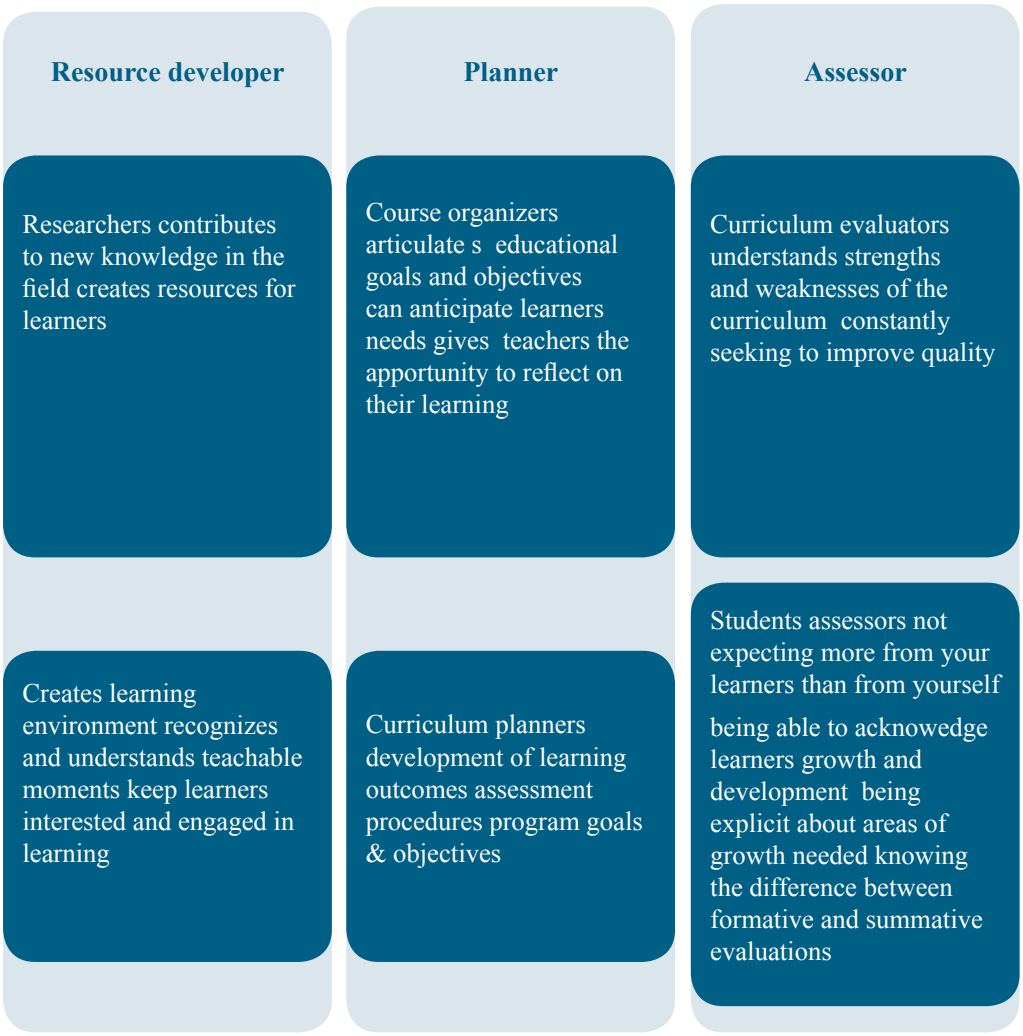
In the era of good awareness regarding various components of Surgical care and interventions, appropriate information regarding the costs incurred and the charges to the patient is mandatory

for surgeons. Surgeons form key component in financial information delivery to patients and add significantly towards decision making. In countries like UK and Australia, majority of the cost is borne by the state or the private insurers. Even in developed countries like Australia significant variation is observed in costs for the same procedures in the similar clinical settings[21] Extensive analysis have shown main reasons for this variation is lack of upgrading of the fee reimbursement by the state according to the procedure , cost incurred and inflation. In addition, it is an ethical binding on the part of Surgeons individually or as the member of the system to collect reasonable fee. However this is a grey area and interpretations of what is reasonable is not clear. No patient should be at disadvantage because of the vulnerability and end up losing their entire life time savings, mortgaging their assets or losing the retirement benefits. Emergencies should not drain the patient or the care givers' resources to the extent that loss of health or life appears alternate option than ending up in major debt. Strengthening of public health care, appropriate use of resources and confidence building in the system reduces financial crisis in long term.

Ethical obligations of a surgeon as an educator, team leader

The surgeon as an educator is often called as Academic Surgeon. He/she has multiple roles to fulfill. The twelve roles of a Medical teacher described based on the Harden &Crosby's Model

Facilitator	Role Model	Information Provider
Mentors have a long term commitment to mentees development Coaches the mentee and doesn't provide answers to problems has own personal development as a result of the relationship	On -the-job role models, demonstrate the skill or behavior, commenting on what was done and explaining how and why it was donesilently articulate values in multiple settings is consciours of the personal qualities that promote healing-compassion, honesty & integrity	Lectures, content experts understands adult learning theory and pedagogy student centered approach
Learning facilitator establishes an effective learning environment involves learners in diagnosing their own needs establishes rapport with learners	Teaching role modeling being aaccountable for behaviors, even in difficult moments being explicit about what is personality and what can be learned	Clinical & practical teacher recognizes and provides teachable moments shows enthusiasm for practice and teaching is able to learn from mistakes and be both reflective and articulate about it



Adapted from Harden, R.M & Crosby, J (2000), Wright, S.M. & Carrese, J.A. (2002), Kaufman, DM (2003), McLean, Cilliers & Van Wyk (2008)

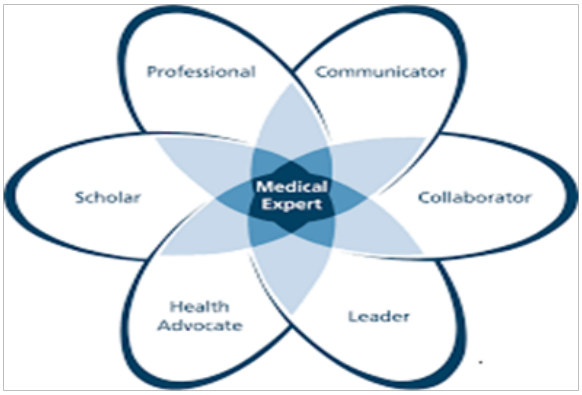
are relevant to the Surgical educator too.[22] In addition, surgeon has a major ethical obligation of ensuring appropriate outcome and patient safety during hands on training of Residents.

Among the twelve attributes described for a medical teacher, the most essential role is of mentorship or accepting the responsibility of mentoring on a long term basis. One of the equally important component is being role model. Surgical training mostly depends on role modeling. It is generally accepted that the end product as a surgeon often reflects the values and skills of the teacher. A conscious effort on part of the surgical teacher to practice and inculcate honesty, integrity, being accountable in difficult situations, open mind to accept mistakes and learn by reflection are considered as highly expected attributes. In addition to these characters Surgical teacher has an equal and important ethical obligation of maintaining and protecting patient safety during hands on training of the residents. Though it is a practice to delegate graded responsibilities depending on the competencies of the residents during surgical training, it

should not compromise the outcome or safety.

Apart from being direct facilitator, all the surgeons in various capacities are team leaders. Training of the team and effective delivery of the process depends on the training imparted by the leader and team spirit.

Canadian Medical Council[23] was one of the earliest organizations to describe the various roles wherein the role of a surgeon or a medical expert extends to being a team leader, health advocate and collaborator for the benefit of patient and community as a whole. These expected attributes were included in the core competencies and are part of majority competency statements of various organizations all over the world.



The surgeon as a team leader, team member, collaborator and health advocate:

Similar to the Canmeds document, various roles of Surgeons are explicitly described by the RACS [24] Royal Australasian College of Surgeons. It stresses upon the role of team leader, collaborator and health advocate. Surgeons are expected to lead the team in establishing, training and improving the health care in various capacities. Surgeons are expected to collaborate with different specialties for the optimum care to the patient, work with different agencies towards improving health care, change the outdated regulations and whenever appropriate work towards improving public health policies.

References:

1. *www.bioethics.mso.edu/whatisbioethics*
2. *https://www.hhs.gov/ohrp/sites/default/files/the-belmont-report-508c_FINAL.pdf accessed on 11/10/2018*
3. *Surgical ethics and law. In Ch no11, Bailey &Love's, Short Practice of Surgery 26th ed. Eds Williams NS, Bulstrode CJK & O'Conell RP. pp155.*
4. *Tawalare KA, Nanote KD, Gawai VU, Gotmare AY. Contribution of Ayurveda in foundation of basic tenets of bioethics. Ayu 2014;35(4)pp-366-70. DOI: 10.4103/0974-8520.158982, [Downloaded http://www.ayujournal.org on Wednesday, August 22, 2018, IP: 117.221.5.240]*
5. *Francis CM, Medical Ethics: Some basic issues ,Ch no 1 in Medical Ethics. Pub :Jaypee Brothers. Ist edn N Delhi -India 1993.pp 04.*
6. *Das B, Burman PK, Kalita D, Surgical ethics then & now. Int-J-Ayu Pharm Chem.2017,Vol 7, (1) pp 1-7.*
7. *Francis CM, "Codes of Conduct , Oath of Hippocrates" in Ch no 2, Medical Ethics. Pub;Jaypee Brothers. Ist ed. N. Delhi 1993 India. pp 23-24.*
8. *Namm JP, Siegler M, Brander S, Kim TY, Lowe C, Angelose P. History and Evolution of Surgical Ethics: John Gregory to the Twenty-first Century. World J Surg (2014) 38:1568–1573. DOI 10.1007/s00268-014-2584-1*
9. *Tung T, Claude H, Organ JR. Ethics in Surgery, Historical Perspectives .Arch Sur(2000)135.pp10-13.Accessed from .WWW.ARCHSURG.COM.on 22/08/2018.*
10. *Epstein RM, Hundert EM. Defining and assessing professional competence. JAMA. 2002;287(2):226–235*

11. *https://afmc.ca/pdf/Amercollsurg. pdf code of professional conduct*

12. *"Code of Medical Ethics and Professionalism for Orthopedic Surgeons". Adopted by AAOS, American Academy of Orthopedic Surgeons American Association of Orthopedic Surgeons in 1988, last revised in 2011.*

13. *Mathew.S. Consent for the Surgeons. In Contemporary Surgery. Vol 2 Ed by Abraham.SJ, Kumar A. (2018)pub by Micro Labs Ltd. Bangalore India.pp 203-222.*

14. *https://en.wikipedia.org/wiki/Gillick_competence.Accessed on 10/10/2018*

15. *https://en.wikipedia.org/wiki/Euthanasia_in_India accessed on 10/10/2018*

16. *Hall DE, Angelos P, Dunn GP, Hinshaw DB, Pawlik TM. in Ethics, Palliative Care,and Care at the end of Life.(2010) Ch 48,in Schwartz's Principles of Surgery.9TH Ed Pub by Mc Graw Hill USA.pp1753-1767.*

17. *Dunphey JE:Annual discourse-on caring for the patient with cancer. N Engl J Med (1976) 295:313 pp 313-319.*

18. *Krizek TJ. Surgical Error ,Ethical issues of Adverse events. Arch Surg. 2000;135(11):1359-1366. doi:10.1001/archsurg.135.11.1359*

19. *Statement of General Principles in Section I of National Ethical Guidelines for Biomedical and Health Research involving Human Participants.2017Pub; Director General ICMR New Delhi,India.pp3-4.*

20. *Clinical trials of drugs and other interventions. In Section 7 of National Ethical Guidelines for Biomedical and Health Research involving Human Participants.2017Pub; Director General ICMR New Delhi,India.pp78-82.*

21. *Hillis DJ, Watters DAK, Malisano L, Bailey N, Rankin D. Variations in the cost of Surgery: seeking value.MJA(2017);204(4). PP153-154.Doi:105694/mja16.0116-AMENDED –pdf https://www.mja.com-au/system/files/issues/10.5694mja1601161-AMENDEN.pdf-21/9/18.*

22. *Harden RM, Crosby J. AMEE Guide no:20 The good teacher is more than a lecturer-the twelve roles of the teacher. Medical Teacher(2000) ; 22(4) pp 334-347.*

23. *Frank JR, Snell L, Sherbino J, editors. CanMEDS 2015 Physician Competency Framework. Ottawa: Royal College of Physicians and Surgeons of Canada; 2015. www.royalcollege.ca/rcsit/documents/canmeds/canmeds-full-framework-e.pdf.*

24. *https://www.surgeons.org/media/24335322/2016-04-29_mn1_racs_code_of_conduct pdf-accessed on 21/9/18*