

Narrative Review

Ethics in Neonatal Anesthesia – A Tender Perioperative Care

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ABSTRACT

Medical ethics, a set of norms and values applied to the behavior of medical care personnel, has been evolving along with the scientific and technical development in the field of neonatology, surgery, and anesthesia. Regarding the anesthetic management of a neonate, an anesthesiologist is always in an ethical dilemma. On one side, anesthesia is a necessity for surgery, and on the other hand, knowing that these interventions may have untoward or adverse effects. Autonomy, non-maleficence, beneficence, and justice are the four basic principles of medical ethics, which are used in harmony with each other without any order of succession and along with virtues of compassion, integrity, honesty, truthfulness, and fairness provides an ethical decision-making framework for a tender perioperative care. Professionalism in the operating room and anesthesiologist – surgeon relationship is an integral part of the ethical concerns in neonatal anesthesia.

Keywords: Ethics, Beneficence, Non-maleficence, Justice, Autonomy, Neonates, Anesthesia, Surgery

INTRODUCTION

The role of an anesthetist in the care of a neonate is different from that of a neonatologist or pediatrician. The anesthetist only gets involved when a baby requires surgery and sees the neonate first, just before surgery in the preoperative area. Neonatal anesthesia requires a balance of ethics and best treatment, as they cannot express their own interests. Hence, keeping the four cardinal principles of ethics at the helm of decision making in mind is important to safeguard the interests of both the patient and physician.^[1]

CLINICAL ETHICS

Clinical ethics is the science or application of a moral code of conduct to medical practice, biomedical science, education, and/or research. They assist a physician in identifying, analyzing, and resolving ethical issues that arise in the course of clinical practice, as these issues occur commonly. It is very important for care providers to timely identify. The four key principles of medical ethics – autonomy, beneficence, non-maleficence, and justice, which when applied at decision-making, help resolve many ethical issues as explained below:^[2-5]

1. Medical indications: Beneficence is the key word, that is, treatment should benefit the patient while causing no harm (non-maleficence)

2. Patient choices: Here, the keyword is autonomy, which is the patient's right to decide, in balance with the best treatment with the best outcome
3. Quality of life
4. Other concerns: It is significant to take note of legalities involved, issues of whether justice and fairness, patient's paying ability, and insurance claims, are taken heed of in the process of treatment, as these can influence decision making.

ETHICAL RESPONSIBILITIES OF NEONATAL PHYSICIAN

The neonatal physician is required to perform right actions in the best interest of their patients such as constructive and respectful relationship with parents; leadership direction with an open, questioning culture to the working team; educational experience and model of professionalism to trainees in accord with institutions mission, data maintenance and review practices; moral discretion in resource use to society; and moral conscience to oneself.^[6] Neonatal anesthesiologist as a perioperative physician should fulfill these requirements with sincerity and honesty.

PATIENT CARE MODEL

A model of patient care that has professionalism, cognitive and technical expertise, and ethics at its core shows that the

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defining virtue for health-care professions is “caring.” In such a model, professional virtues (compassion, trust, integrity, and conscientiousness) are integrated with patient care, which involve knowledge, skills ((interpersonal, communication, medical, and technical), and ethical principles.^[7]

ETHICAL DILEMMAS FACED BY ANESTHESIOLOGIST

As a rule, the “magnitude of problems and risks is inversely proportional to the gestational age,” and it is very important that measures that prevent further iatrogenic complications are incorporated into the patient care.^[1] This can be easily achieved if the anesthetist follows the principles of beneficence, that is, do only what will be beneficial to the patient, non-maleficence, that is, *primum non nocere* (do no harm, which includes pain, suffering, discomfort, disability or death from treatment or disease), autonomy, that is, patient’s right to decide (in neonates, parents are endorsed to do so), and justice (social cooperation), that is, while making decision on behalf of the patient, anesthetist’s duty is the interest of the neonate, as they are unable to express themselves, while healthcare benefits are justly distributed in the society (note – justice is defined as promoting the greatest good for the greatest number in distribution of resources (macroallocation) while providing equal or fair opportunity to each individual (microallocation)).^[1]

PROFESSIONALISM IN THE OPERATING ROOM

Apart from the physician’s competence, adherence to the ethical principles, professional responsibilities such as accountability, maintaining trust, diligence, and communications skills, resolution of existing and prevention of potential conflicts is necessary to optimize care and safety of the neonates in the surgical room. There should be easy and universal access to healthcare and fair distribution of limited resources.^[8]

THE SURGEON-ANESTHESIOLOGIST RELATIONSHIP

Achievement of the best quality of care, highest safety level, and best outcome for the patient is only possible by a joint team of surgeon and anesthetist sharing the responsibilities during the perioperative management. Mutual respect for competencies and clearly defined roles are prerequisites for this relationship. One must have full or essential knowledge of bioethics and should be able to practice humanism.^[9] All must agree to risk stratification and optimization of patients for surgery, an effort to start the cases on time while monitoring both surgeon and anesthetist and disciplining them when late. There should be truthfulness and honesty regarding case scheduling, duration of surgery, and frequent communication for updates during a procedure. The

anesthetist should be informed of all surgical decisions taken, especially when a new technology is being applied.^[10] An ideal environment is one in which all participants (patients, staff, nurses, colleagues, residents, students, and other personnel) are treated with respect. Discrimination, whether on race, age, gender, sexual preference, disability, religion or bullying behavior and harassment must be banned in the professional work place and must be reported to the relevant authorities.^[8]

ETHICAL CONCERNS IN NEONATAL ANESTHESIA

Regarding the anesthetic management of a neonate, an anesthetist is always in an ethical dilemma. They arise from the need to provide anesthesia, use of drugs to provide analgesia, application of monitoring equipment, and possible intensive care (which the neonate should not be deprived of), knowing well that these interventions may themselves have some side effects. Some of these concerns are as follows:

- (i) During decision-making, regarding what anesthesia technique and drugs to be used and whether additional procedure such as invasive monitoring be used
- (ii) Expert opinion be taken or not. At any stage in the perioperative care of the surgical baby, regarding the surgical or medical diagnosis, need for special investigations, and even when administering anesthesia, if the need is felt, one must not hesitate in seeking expert opinion in the patient’s best interest
- (iii) Responsibility of care-This is an important issue in neonatal management. Many other specialists and staff members are involved in the management of a neonate besides the parent or admitting unit. Who will be responsible must be decided beforehand. In a surgical neonate, this responsibility lies with the admitting physician or surgeon
- (iv) Pain management-There is no doubt that newborns and neonates including premature, do feel pain and exhibit similar adverse stress responses as children and adults to pain. Hence, they should receive adequate pain relief during anesthesia for surgery for a favorable post-surgical outcome
- (v) Blood transfusion – It is an established fact that blood transfusion is not without any danger. In the case of the neonate, consent must be obtained from the parent or surrogate decision maker. However in Jehovah’s Witnesses, where blood transfusion is refused, appropriate arrangements must be made, especially if surgery is associated with major blood loss
- (vi) Taking consent – This important aspect of pre-operative care comes under different heads such as consent, implied, informed, deferred, and continuing consent. Parents must be provided with all relevant information. Consent must be properly documented and signed by the parents

(vii) Record keeping-All treatment, management and consent, record of anesthesia, drugs and dosages used, monitoring (invasive, non-invasive) undertaken, vital parameters, intravenous fluids used, and any intraoperative events must be documented and saved.

CONCLUSION

Good ethical practice in neonatal anesthesia begins with a thorough knowledge and understanding of the details related to each case on an individual basis, critically examining and involving the four basic principles of bioethics: autonomy, beneficence, non-maleficence and justice, and constituting a balanced framework of decision making for tender perioperative care of tiny vulnerable patients. A delicate balance with respect to beneficence and concern to do no harm (non-maleficence) in every individual case helps greatly in the perioperative period.

Ethical approval

The Institutional Review Board approval is not required.

Declaration of patient consent

Patient's consent was not required as there are no patients in this study.

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Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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