Perioperative medicine and medical care By the Surgical Operations Master (Anesthesiologist)

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Abstract

Knowing of what matters and what matters most, Perioperative medicine matters more than ever ([1])

There is a growing worldwide awareness of perioperative Medical care ([2]) Comprehension of perioperative patients safety comfort and well fair, As well as helping surgeons to perform successfully and timely an ever increasing multitude of surgical procedures may necessitate rewriting of Medical texts By contemporary Anaesthesiologists in a purposeful manner that aims specifically at Patients health, safety, and post operative welfare,

Why Anaesthesiologists?

In contemporary Medical and Surgical practices the Anaesthetist is a clinical Physiologist, Clinical Biochemist a clinical physicist, clinical pharmacologist as well as a competent physician. Anaesthetists have cumulated vast expertise about the patient care minute by minute during the course of operative procedures.

They are involved in:

- appropriate patients placing and locations of equipments,
- anticipation of possible complications and avoiding it.
- insuring safety speed and through understanding of what the patient is going through
- preparing for the post operative demands
- Post operatively managing pain
- a resuscitator and a role in early discharge of patients

The concern about productivity of operative theatres in sophisticated communities and developed countries alike is the concern of all health care providers. Whether it is Governments, Insurance companies, Private health institutes are undoubtedly under some form of pressure to expand Vertically as well as horizontally, Vertically by continuous process of modernization and rendering new technological facilities for the people they care for. And horizontally by spreading the services to wider sectors of populations in the face the growing demands.

- The Vertical and Horizontal progresses demands
- Ideal utilization of surgical operative room's resources
- Ideal timing for admissions to hospitals
- Promoting the rates of hospital beds patients turnover
- Designating responsibilities to the most skilful and who knows how

Orienting Health care providers by the role of Anaesthetic practices in contemporary Medical and Surgical practices is a mandatory role of every concerned about the ultimate productivity of HCO (Health care organization)

In my article titled taking Anaesthetic practice a few steps higher, My prime concern was about the specialty of Anaesthesia with regards to

Maintaining Anaesthetist Cinical medical competence, traditionally the work load on the Anaesthetist had limited his time for maintaining competence in Medical science that undoubtedly reduces the interest of new generations of

physicians from joining this specialty, It would also have negative impacts on the patients under the Anaesthetist care if his tasks shrinks to a physical burden.

Providing for patients by the most competent know how in the perioperative settings,

Economizing on the perioperative resources

I did envision the future arrangements for what modern Operating departments should be like, I simply had the analogy of Labour ward in a modern Obstetric unite, That is intimately linked to Two major departments, An antenatal and a post natal.

I am still hoping to see an OR with a preoperative and post operative wards functioning together as a modern Operating department under an Operation master.

Patients who are scheduled for surgical procedures would be admitted to the Preoperative wing where the Anesthetist would care from the minute go with a comprehension more than most of what the patient would be going through during surgery.

Comparing this speculation to the classic routine of pre operative admission to a surgical ward would expose hundreds of advantages for the patients the surgeon the anesthetist and to the Healthcare providers.

Brief Example

An obese patient may have several attempts of peripheral venous cannulation by nurses, paramedics and phlebotomist. To name the least of demerits, Patients stress, Waste of resources, was of time and above all making Anesthetist and patients distressed for not finding a venous access to induce his patients safely.

Should this patient have been admitted under the care of anesthetist in a preoperative ward the merits would include , Establishing rapport between anesthetist and patients, Secure a very mandatory venous access, Pleasant experience to patients, Appropriate fluid therapy if that may be required.

Now it is becoming an absolute necessity to establish the foundations of perioperative medicine.

Perioperative medicine includes anaesthesia, acute postoperative pain treatment, labor pain treatment, surgical intensive care, resuscitation, emergency medicine, and trauma medicine. Evidence-based Medicine is the process of systematically finding, appraising, and using contemporaneous research findings as the basis for clinical decisions.

Evidence-based Perioperative Medicine is about rational decision making in perioperative medicine: What should be recommended to patients? Which interventions should be purchased? What are the research priorities

Perioperative medicine as a medical subspeciality
Perioperative medicine addresses the medical care of the surgical patient and focuses on the patient's status before, during, and after the actual surgical procedure.[1]

Only an Anaesthetist with good medical knowledge would be capable to manage medical illness during the perioperative period, assess operative risk, and respond to complications.

That is if the time and expense factors were taken in considerations.

The past two decades have seen burgeoning interest in perioperative medicine, an interest that has spawned medical research and an impressive collection of literature pertaining to this once-obscure topic, particularly with regard to surgery-related cardiopulmonary issues.[2,3,4,5,6] Clearly, perioperative medical care is now well recognized as an integral component of overall case management for surgical patients. Furthermore, with regard to the patient's ultimate outcome, the importance of perioperative medical care is widely appreciated by surgeons, anesthesiologists, and internists alike. To put things into perspective, the clinical significance of perioperative medical care is demonstrated by one older study,[7] which showed that approximately 80% of postoperative deaths on the surgical service were attributable to underlying medical conditions, whereas only 20% of the deaths were due to surgery or anaesthesia.

The Practice of categorising Perioperative care as a medical subspecialty had in some centres proved useful with regard to surgical interventions outcome. Yet I am speculating that having this task performed by the Anaesthetist, In the preoperative ward and under one roof particularly if attended by the very same Anaesthetist who would anaesthetise the patient.

The most common statements from a consulted physicians - Avoid Hypoxia and Hypotension, Becoming a naive assumption about the vast medical knowledge of the anesthesiologists, And it is far from helpful in the

perioperative management,

What about consulting Cardiologist, Endocrinologist or Chest physicians?

I think it would be a lot easier than current situation because the visiting physician would find all his patients in one location, He or she would be examining and advising on a specific problem by a specific answer, Saving time that is the most precious commodity in perioperative settings.

There would be more appropriate setting for implementing hospital standard policies and procedures. Patients would be more confident in associating with one (Operative master)

From admission to discharge.

Past Problems Requiring Solution

The current system of outpatient preoperative assessment and management at KFMC is essentially identical to that of most other facilities: Patients scheduled for surgery were referred to the preoperative medical evaluation and “clearance” for surgery if the surgeon had specific concerns regarding underlying medical conditions. (The reality, of course, is that no one can clear a patient for surgery; instead, the duty is to evaluate the patient's medical status, assess operative risk, and ensure medical optimization for surgery.) That manifested a number of problems, the most prominent of which is the last-minute outpatient surgery cancellation. In. This circumstance resulted in completely lost time in the operating suite, a loss which had obvious financial impact as well as impact on surgical access. A subsequent case-by-case review of these cancellations may be due to unforeseen causes and were not preventable (ie, patient failed to keep the appointment, patient became ill with flu, or doctor became ill and thus had to postpone surgery); other cancellations were due to known patient conditions that were not addressed sufficiently before surgery (eg, congestive heart failure, chronic obstructive pulmonary disease, diabetes). This latter group of cancellations is felt to be preventable.

In addition, the previous system led to less objective problems:

Surgeons and anesthesiologists still dissatisfied with Residents preoperative assessment and preparation of patients with complex medical problems, Resident physicians were frustrated by the difficulty of trying to perform adequate preoperative evaluation on the present surgical wards with little background or training in perioperative medicine.

There also existed inconsistent postoperative medical care for patients who remained in-house after surgery, particularly in high-risk cases.

The Solution: A suggested Perioperative Service These problems should prompt search of a solution. a perioperative medicine service whose primary goals were to evaluate and optimize high-risk cases preoperatively (thus minimizing last-minute surgery cancellation and lessening the burden on the primary care physicians) and to provide consistent in-house medical care for these same patients postoperatively.

Results of Implementing the New Service

The outpatient preoperative referral and evaluation process for KPBF patients is completely centralized. All referrals are channelled through the preoperative medicine clinic, which became operational in May 1999. The primary care department has since been relieved of performing preoperative evaluation, and, in general, the primary care physicians have been pleased by this development. Surgeons and anesthesiologists invariably are more satisfied with the current system of outpatient preoperative evaluation and by postoperative inpatient follow-up. The number of scheduled surgical procedures cancelled on the day of surgery has diminished markedly. In the year 2000, only 344 (3%) of 11,426 surgical procedures were documented as cancelled on the scheduled day of surgery; this figure represents a reduction of more than half compared with 1997, when about the same number of surgical procedures were scheduled but more than 800 were cancelled. (Rate of same-day cancellations for 2001--3%--was identical to the rate for 2000.)

The Preoperative Medicine Clinic

In general, the surgeon is the one who refers patients for preoperative medical evaluation. (A few referrals to the preoperative clinic come from anesthesiologists, primary care physicians, and subspecialists.) The referral process is simple: The surgeon writes “medicine preop” on the hospital from the emergency department or urgently from a clinic and who require inpatient medical care are automatically assigned a medicine team that provides care jointly with the surgeon. (At KPBF, the medicine teams consist of hospitalists and rotating clinicians who see patients during hospital rounds.) Perioperative consultation can still be requested on any surgical inpatient and is used mainly to

address particular perioperative problems or to assist with medically complex patients having major surgery.

Special Projects of the Perioperative Medicine Service

A major benefit of having a dedicated perioperative service is its focus on improving hospital wide perioperative care. To that end, several projects are in progress or have been completed at our medical center. For more than a year now, the perioperative service has both emphasized and advertised implementation of prophylactic beta-blocker therapy for surgical patients with clinically diagnosed coronary artery disease or with major risk factors for coronary artery disease. Prophylactic beta-blocker therapy is progressively becoming the standard of care at our institution just as it is nationwide.[8,9,10]

Management of chronic anticoagulation for surgery has been standardized for our outpatients, and guidelines for inpatient management are currently being distributed.[11,12]

The Bellflower Perioperative Pocket Manual, [13] a convenient inpatient guide to medical care of surgical patients, was locally produced in September 2000 and was widely disseminated to physicians at our medical center.

This manual has proved to be a convenient, useful resource to surgeons, internists, and anesthesiologists. A second, updated edition is planned for 2002. A quick and easy Medical Release for Dental Procedure [14] form has recently been made available to all our primary care clinics. The form contains guidelines and recommendations (ie, for use of local anesthetic, antibiotic, and anticoagulant medication) that are easy to scan and apply according to the patients' diagnoses.

Outpatient preoperative evaluation done by the use of protocol (ie, not requiring an actual clinic visit) has now been implemented successfully for two years. The protocols are designed specifically for low-risk surgical procedures (eg, cataract surgery, procedures for foot or ankle) or for patients at low surgical risk (for example, those with hypertension, obesity, or hypothyroidism but no other major surgical risk factors). I initially screen all referrals to the preoperative clinic by reviewing computer-listed diagnoses and medical transcriptions; cases categorized as low-risk on the basis of patient characteristics and type of surgery are referred to the caseworker, who in turn interviews the patient by phone. I do the final chart review and assessment and make recommendations; these activities complete the protocol-based process. Retrospective review of more than 200 protocol-based cases, done from November 1999 to November 2000, found the process safe and reliable with no documented problems related to the protocol process itself. Nearly 20% of all preoperative evaluations done by the preoperative clinic are protocol-based, and this process has both saved time and improved clinic access without compromising patient care.

CONCLUSION

The perioperative medicine service at KFMC would be a successful, innovative practice and would be a pioneer nationally and internationally. This article elucidates the genesis, structure, and benefits of this novel service. In my opinion, the system within which we work is ideal for such a service, particularly given few factors:

- Very ambitious leadership, Team work, Available informational infrastructure;
- Familiarity and working relationships with surgeons and anesthesiologists
- Consultant Anaesthetists based services;

To create such a service is certainly not an easy task; it requires collaboration between both the medicine and surgery departments as well as ultimate dedication of anesthesiologist. However, the beneficial outcome of creating a perioperative medicine service will more than likely be worth the effort.

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