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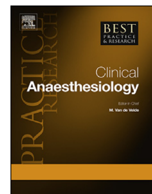

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Administrative structures: Options for achieving success in perioperative medicine

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Without the appropriate administrative structure, even well-thought-out strategic plans or detailed process improvement initiatives will fail. Developing a strong foundation for governance and leadership is a critical element of any high-functioning organization, and it applies just as well in the perioperative setting.
Yet, perioperative patient care teams and operating room (OR) management structures can be very complex, due to relationships both within the OR and between the OR and other departments. Frequently, reliable management of the perioperative process is lacking.
We aim to provide an overview of the structural and elemental components and roles of perioperative management teams, as well as the administrative structure that guides them, since effective perioperative care teams and OR leaders are of paramount importance for any successful hospital.
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> *"Good governance never depends upon laws, but upon the personal qualities of those who govern. The machinery of government is always subordinate to the will of those who administer that machinery. The most important element of government, therefore, is the method of choosing leaders."*
>
> *Frank Herbert*

Introduction

Governance and leadership are to an organization what an engine is to an automobile. Without well-functioning governance, neither will perform optimally [1]. Without administrative structure and infrastructure, even a well-considered strategic plan or detailed process improvement initiative will fail. Leadership is a critical element of any high-functioning organization [2].

Committing the time and effort to build your organization's foundation and get it right is worth the investment and will pay back over time. Effective governance and leadership are likely to become even more important for organizational vitality, as the speed of change in the healthcare environment accelerates [3].

Surgical services are typically the most profitable area for a hospital. With revenues often exceeding two-thirds of a hospital's total, these services have become the lifeline sustaining hospitals in a turbulent healthcare market. Unfortunately, the culture and management structure for surgical patient care in many hospital-based settings has not adapted adequately to meet these challenges in recent years [4,5]. A transformation may be necessary, starting in the surgeon's office and extending across the patient's entire surgical care continuum. This transformation will require novel collaborative processes that include interventions in leadership, operational management, and process improvement [6–8]. It has also been shown that process improvement can be accomplished through the combined efforts of surgeons, anaesthesiologists, and hospital staff [7,9].

Over the past decade, manufacturing principles such as Lean and Six Sigma have been applied to various areas of healthcare, including the operating room (OR) [10]. Although time-consuming, process mapping, and close examinations of each step of the patient journey – from the preoperative visit to postoperative discharge – can have multiplicative benefits, extending from cost savings to maintaining the focus on improving quality and patient safety [11].

In 1999, the Institute of Medicine issued a report that changed how health systems, providers, and researchers understand the occurrence of medical errors [12]. One factor identified as a common contributor to medical errors is the fragmented nature in which healthcare is delivered. The teamwork and communication challenges in healthcare manifest the problem of coordination neglect in organizational systems [13]. Interventions and reforms vary but frequently include efforts to improve the coordination of care delivery [14]. Consequently, research on how to improve teamwork and streamline the siloed approach to produce a more coordinated system is needed in the perioperative environment.

With this collection, we aim to provide a descriptive overview of the structural and elemental components and roles of perioperative management teams, as well as the administrative structure to guide them.

Definition of the perioperative patient care team

There is no universally accepted definition of the perioperative patient care team; it depends on how the healthcare entity is organized and varies significantly from country to country and from one institution to another. A common feature, however, is that the perioperative patient care team is active not only within the confines of the OR but in a wider array of services around the OR. Additional important areas in the perioperative environment include a preadmission testing (PAT) or comprehensive preadmission consultation unit, an ambulatory services unit (ASU), a post-anaesthesia care unit (PACU), and an OR management team. In addition, many other people and teams have an indirect relationship with the patient and contribute very important services supporting the common goal of ensuring a safe, comfortable, and effective perioperative environment. The relationship and duties of

perioperative staff members vary according to the size and extent of the actual facilities and the number of people employed. No person's job is insignificant. Each staff member has important functions to perform, and the slowest cogwheel in the process can slow down the entire system.

Management structure–OR management

The perioperative environment is an entity that spans several departments within the total hospital organization. It is a high-cost centre of the hospital, but it is also responsible for the majority of revenues. For the optimal coordination of all these activities, a formalized OR management structure is of utmost importance, at least in bigger institutions, and has proven to be a gamechanger [15].

Historically, either surgeons or anaesthesiologists have acted as medical managers in ORs. These individuals have focused primarily on ensuring that facilities have met medical standards of care. OR directors, in contrast, have typically come from nursing services, and these individuals have usually been given the task of improving turnover and other metrics of performance in the operating suite. Unfortunately, the objectives of nurses who are OR directors may not reflect the objectives most significant for the facility, as they tend to focus on the reduction of under-utilized OR time and nursing labour costs, instead of total revenue and economic contribution margin to the facility [16].

In smaller hospitals, a perioperative nurse manager often takes on the role of OR manager and directly supervises personnel. In other situations, one nurse may manage more than one clinical service, such as the OR, PACU, ASU, special procedures room, or central processing department. The bigger the hospital and its OR unit, the more common it is to have a formal OR manager running the unit. The OR manager can have different roles and backgrounds; there is no "one-size-fits-all" solution. Most commonly, OR managers have a background in anaesthesia or nursing, rarely in surgery [17,18].

An OR manager should have strong knowledge of nursing practice, specialized knowledge of OR techniques and management, and knowledge of business and financial management. The OR manager should possess leadership skills, in order to supervise and direct patient care within the perioperative environment according to established principles and professional standards [19]. This includes interdisciplinary collaboration, planning, organizing, staffing, directing, and controlling, plus the processes of problem solving, decision-making, coordinating, and communicating [1,20,21]. Managers must work towards a culture in the OR that minimizes the human factors affecting the safe performance of patient care [19]. A continual appraisal of actions and outcomes should focus on accountability for patient and team safety, even if it means losing some productivity [22]. Table 1 lists possible models of OR leadership.

Presently, the operations officer model is most commonly seen in bigger institutions and has proven to be efficient in daily practice. This model only can provide the power and competence to coordinate the activities of the different stakeholders in the OR environment.

The other models, like the call attending or charge nurse model, do not reflect the importance and responsibility of this job. It is impossible to fulfil the role of OR manager without the appropriate

Table 1
Models of OR leadership and respective advantages and disadvantages.

Model	Advantages	Disadvantages
Call attending in charge (surgeon or anaesthesiologist)	- Easiest to implement - Burden shared by all attendings	- Many different ways to do it - Not everyone wants to do it - Suitable for small structures only - No managerial background
Charge nurse runs board	- Objective third party - Consistent, small number	- Different perspective from doctors - Subject to bullying - Work in shifts - Managerial background not consistent
Operations officer model	- Consistency among members - Small familiar group - Stakeholder buy-in up front	- Big responsibility - Must always be available - Strong managerial background needed

professional background, without the power to govern, and without the proper allocation of time to fulfil this challenging endeavour.

Management structure–perioperative care team management

While there is no clearly defined difference between OR management and perioperative care team management, the OR manager at a larger institution may hold some variation of the title Director of Perioperative Services or Assistant Vice President, in order to express his extended role as leader of the entire perioperative process. A Director of Perioperative Services usually comes from a different background than an OR manager. The most common background is nursing or anaesthesia (MD) with a strong managerial focus. Because of the magnitude of the administrative duties, actual supervision of personnel may be delegated to line managers, charge nurses, or anaesthesia group leaders.

Perioperative leadership

It is essential that professionals designated as leaders (i.e., physicians, administrators, and nurses) understand and can communicate the vision for the entire service line [3]. All members of the OR or perioperative care team should recognize the group's vision and understand their respective roles [22]. High levels of trust and transparency are required between partners and should be easily recognizable throughout the organization [23].

A "dyad model" that leverages the skills of clinicians and non-clinicians (e.g., administrators) can be an effective healthcare leadership strategy [23,24]. Such a model has been shown to be an excellent method for governing many service lines. However, simply putting dyad partners at each level of the organization will not guarantee success. Careful consideration should be given to the architecture of the leadership model in order to appropriately distribute governance over the entire care spectrum and at a level commensurate with the size, scope, and complexity of the program. Once the organizational structure is created, careful attention should be paid to choosing the right people for each role and position [22]. Table 2 lists skills that a perioperative director/OR manager should have to be successful.

Effective OR leadership can help increase hospital revenues in direct and indirect ways that will vary depending on the specific organization. Many people in a hospital have some interest and/or involvement in the OR activity: administrators, nurses, medical doctors (surgeons, anaesthesiologists), ancillary personnel, patients, healthcare administrators, politicians, and many others. For most of them, the OR may be an area of interest, but it is usually only one among many others. Besides the OR nurses, one group which has a specific interest in OR activities are the anaesthesiologists. Their goal – as well as the goal of the hospital – is to improve efficiency in the surgical care process and guarantee that patients' safety and efficiency are completely aligned. As anaesthesiologists are involved in all aspects of perioperative care, including activities outside the OR, they are obviously qualified for this job [25].

Leadership group

For many surgical centres, the best way to manage an OR or perioperative care team is not with a single leader but with a team of anaesthesiologists, nurses, and surgeons who work as one unit to tackle challenges [26]. Some institutions have installed a team leadership approach for surgical services. Such leadership changes can represent the most significant departure from the traditional OR management structure [27]. An example of a team leadership approach would be a Perioperative

Table 2
Skills that a perioperative director/OR manager should have.

Skills
Leadership experience with strong negotiation and conflict management skills
Excellent communication skills
In-depth knowledge of OR management
Emotional intelligence to cope with pressure and fatigue

Patient Care Team Committee, sometimes also called a Surgical Services Executive Committee, acting as a multidisciplinary leadership committee and functioning like a board of directors for surgical services. Creating such a committee can break down an entrenched and siloed culture and bring about lasting organizational transformation. A well-run Perioperative Patient Care Team Committee can be the key to successfully meeting the challenge of 21st-century surgical care. It should have a clearly defined structure and be "owned" and given its authority by the hospital administration. It should have different members than traditional committees. The traditional hospital OR surgery committee comprises medical staff (a group of surgeons and anaesthesiologists) and usually concentrates its efforts on peer review and medical staff issues. As a medical staff committee, it is not usually empowered to oversee or guide operations.

A Perioperative Patient Care Team Committee as described above should include four key stakeholder groups in surgical services: surgery, anaesthesia, senior administration, and nursing. Senior administrators should include the CEO and/or COO/CFO/CNO. For optimal committee performance, these C-level representatives should be expected to attend meetings with the same frequency as all other members. In many cases, senior leaders will be eager to attend once they are exposed to this collaborative leadership style and lively, informative discussions. Drawing on the Perioperative Patient Care Team Committee for strategic and operational advice can help leaders make better decisions.

Surgeons are the largest group on such a committee. They should represent an appropriate cross-section of specialties and include both employees and private practitioners. The participation of surgeons helps bridge the gap between surgical needs and hospital priorities.

Anaesthesiology members usually include an anaesthesiologist, who often serves as a medical director, plus one or two senior members in the department, such as the chairperson. The inclusion of the certified registered nurse anaesthetist (CRNA) group can be important, depending on the composition of the anaesthesia department. Nurses might include the director and frontline managers—usually two to three members.

Conclusion

Perioperative patient care teams and OR management structures can be very complex, due to relationships both within the OR and with other departments in the hospital. Several different professional and support groups are represented that often have infrastructures of their own that may compete or conflict with the ORs management hierarchy. Today, it is not uncommon to find little actual management of the perioperative care team and operating suite. An effective perioperative care team and OR management leadership are of paramount importance for a successful hospital. Perioperative leadership needs to have appropriate structures and clearly defined responsibilities.

Depending on the specific institutional setting, individuals from different professional backgrounds such as doctors (anaesthesiologists and surgeons), nurses, and administrators are suitable to lead perioperative processes. Anaesthesiologists with strong managerial backgrounds are probably most qualified for jobs in perioperative leadership due to their broad involvement in most steps of the process of a surgical patient.

The best administrative setting to manage an OR or perioperative care team is not a single structure but the establishment of an interdisciplinary group that understands how to lead as a team.

Practice points

- Effective perioperative care team and operating room management leadership are of paramount importance for a successful hospital.
- Successful management of the OR and perioperative process requires an adequate organizational structure, excellent leadership, and optimal interdisciplinary collaboration.
- Different administrative models and structures can be successful, depending on the specific institution.

Research agenda

- Leadership structure and influence on the profitability of OR unit has to be studied further.
- The most important leadership skills for perioperative care team leaders have to be defined.
- Incentives and forces driving interdisciplinary teams in operating rooms have to be identified.

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Declaration of competing interest

TJS and MML report no conflicts of interest

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