ABSTRACT

Control of clinical cost is becoming increasingly important in health care worldwide. Physicians should accept the limitation of resources and take responsibility to improve their clinical cost-reimbursement ratio. To achieve this, they will need basic education in clinic management to control and adjust costs and reimbursement, without impacting professional quality of care. Rational use of diagnostics and therapy should be implemented and frequently verified. Physicians are the only professionals that are able to integrate economics with health care. This is in the best interest of patients and will improve a physician's position, influence, and professional freedom levels within our hospitals.

Key Words: Clinical cost-control, Health economics, Cost-reimbursement adjustment, Professional freedom, Clinic management.

INTRODUCTION

Health care costs are progressively increasing worldwide. Western countries spend about 8% to 16% of their GNP on health care, which does not include additional out-of-pocket payments made by patients. The projected health-care costs for the United States in 2019 will reach 19.3% of the GNP.1 Medical progress generally correlates with expanding diagnostics and innovative therapies, leading to an increase in costs.2,3 New generation physicians tend to use the most innovative diagnostic techniques and therapies and do not worry about financial consequences. Nevertheless, running a successful clinic is not only based on excellent patient care, but also on good financial management.4

Hospitals have to avoid potential losses by overspending their revenues. Also, globalization makes cost of care more competitive at the international level; hence, patients will travel abroad for more cost-effective health care. Governments fear that increased health-care costs will prevent alternative use of taxes or limit private consumption.

Comprehensive and continuous cost-control is needed for medical clinics. Although this task is often undertaken by hospital administrators, the final decision about clinical costs and amounts spent on diagnostics and therapies is up to the clinical physician.5,6 Physicians are often left in the dark regarding internal costs and prices, reimbursement, and the actual cost-effectiveness of their departments.

There is a need for comprehensive process control and responsibility, and to integrate all medical, financial, organizational, and administrative aspects in a hospital, for higher cost-effective care. Cost-ineffective hospitals may face closure, compromising job openings and medical care in local areas. Additionally, hospitals in the red are unable to invest in infrastructure, new physician jobs, or new innovative care. Minimally invasive innovative procedures can especially increase the costs over standard minimally invasive techniques, hence the need to address the problem of cost-control, integration of costs and reimbursement and overall financial responsibility.2,3

Who should be responsible in today’s highly specialized hospitals for the overall financial process responsibility, rational use of resources, adjusting care to reimbursement and integrating costs into clinical care?
The main reason why physicians should take over this responsibility is because of their ability to combine the interest of different stakeholders in health care, balance their diverging interests and provide the best medical care for a defined reimbursement.

We propose a practical guide, divided into 10 steps, outlining how physicians can take over this task. This approach should encourage higher clinical cost-effectiveness within any health care system.

Financial Control by Physicians

The following statements are directed to any physician willing to be in charge of cost-control and interested in more cost-effective use of clinical resources for medical diagnostics and therapy. This list may serve as a basic blueprint to address these aspects in a typical clinical setting.

1. Health-Care Resources are Limited

Health-care costs are becoming increasingly higher and need to be controlled. Physicians have to understand and accept that resources are limited. Ignoring this fact is detrimental for physicians as well as their institution. Providing care at or above reimbursement level is counterproductive and should be changed. The often-seen attempt by some physicians—as self-acclaimed “lawyers of their patients”—to absolutely maximize the benefits for their patients regarding use of resources from health-care systems is in states with a democratic political system a contradiction. Because it is finally up to patients as citizen having the possibility to vote for or against spending resources in health care and on the other hand to accept the consequences of how health care is positioned and financially funded in their countries by their political bodies.

2. The Connection and Balance Between Cost and Reimbursement

Cost analysis is the first step to understand the variety of costs in a number of departments, such as medical and organizational staff, material costs, clinic internal and external costs, basic, direct and indirect costs as well as transaction and administration costs. Cost of care should always be considered in the context of revenues gained from the payer. Medical care can only be provided within the background of law and financial reimbursement. Depending on the resources available, physicians in both hospitals and office settings have to understand the implications of costs and reimbursement, to provide a restricted cost-to-revenue-adjusted best affordable patient care.

3. The Need for Basic Education in Hospital Finance

In recent years, physicians worldwide seem to have lost power and influence over organizational and economic aspects when compared with hospital administrators.

One reason for this is that clinic management including cost-control is not taught during medical school or residency. Today’s hospital systems are so complex that this type of knowledge cannot be acquired intuitively. Physicians with an interest in medical leadership are encouraged to take management classes or get an MBA degree to gain basic knowledge in hospital administration. Focus should be set on cost control, strategic management, and hospital economics. If the physician in charge is unable to fulfill this task, a dedicated member of the staff should be hired by the practice. Continuous internal training and education on financial aspects will help implement these targets into daily clinical routine.

4. Financial Responsibility

Hospitals are currently managed by a variety of highly specialized professionals but nobody has control of the full process. Administrative, financial, medical, and organizational processes often run parallel and separated, and no one is responsible for the overall financial result. We suggest that physicians should take over the overall responsibility. This may result in generating new job descriptions, such as Medical Clinical Managers, whose task would be adjusting and optimizing care, use of resources, and subsequent costs.

5. Requirement for Constant Flow of Information

Information in hospitals is often understood as power. The flow of important, concise information is usually limited in the hospital setting. Administrations also tend to consider data as too valuable to share with physicians. However, without cost and revenue data physicians will not be able to use their resources in the most cost-efficient manner. Data should be checked periodically before being handed to physicians. In addition, physicians have to define the data they need from administration to steer costs efficiently.
Examples of Data That Should be Checked Monthly are Given Below:

- **Performance data**
  - i. comparison of internal performance statistics with hospital or administration statistics

- **Indicator data**
  - i. number of cases treated per defined time interval
  - ii. case-mix index (average revenue per in-patient stay in DRG system)
  - iii. bed occupancy rate per ward (percentage)
  - iv. overall costs per patient divided into staff and material expenses

- **Accounts**
  - i. identification of incorrect bookings (as they frequently occur)
  - ii. search for monthly changes without comprehensible reason

- **Costs**
  - i. identification of clinic-specific cost drivers
  - ii. new first-time expenses on the list
  - iii. identification of cost outliers

- **Reimbursement and revenues**
  - i. comparison if all cases treated are reimbursed
  - ii. comparison of cost and reimbursement for the Top-10 cases
  - iii. monthly overall revenues divided according to medical service

6. **Cost Transparency**

Cost transparency is mandatory for any kind of financial steering in the hospital setting. This can be achieved by producing price lists for individual costs (laboratory parameters, medication, imaging, blood products, and others) and internal services (in- and outpatient consultation fees, and others). Comparisons with outside market prices should also be conducted (are hospital-internal services at or above real market price?). This information has to be made available to all clinicians and should be integrated into the daily clinical decision process. This way, physicians can decide how to use resources for diagnostics and therapies. Cost transparency alone increases cost awareness and has an immediate effect on cost control.

7. **Development of Tools for Clinical Cost Control**

The analysis of monthly financial reports by the hospital administration may not be satisfactory enough for effective cost-control. Information is often either compressed until it has limited meaning or the data has not been verified and may include mistakes. However, monthly routine reporting for expensive resources has been proven to be a valuable tool for more cost-awareness. Physicians have to develop their own tools for individual cost-control in their departments, depending on specific structure, service, and cost information.

8. **Cost-Reimbursement Comparison and Adjustment**

As for any business cost of medical care has to be compared with its reimbursement. Reimbursement can vary amongst different countries: with or without a physician fee, from flat to partial rate or full cost-reflecting. For an economically successful hospital the costs of care should be actively adjusted on average at or below the correlating reimbursement, without reducing quality and professional standard of care. If structural or systematic reimbursement mistakes are discovered they have to be revealed and addressed to politicians and the public to avoid a false steering of the health-care system. Examples of active clinical cost steering are optimization of costs and reimbursement for in- and outpatient chemotherapy, eliminating costs of expensive disposable instruments for laparoscopic procedures, developing cost-adjusted laparoscopic operation techniques for low-paid ambulatory care, eliminating hospital-internal process mistakes including improvement of documentation, identifying and optimizing minimally invasive operation techniques with better reimbursement, reimbursement of expensive in-patient medication, the importance of correct and accurate medical coding, analyzing and optimizing participation in clinical trials, management of inpatient febrile neutropenia, and identifying under-reimbursed breast implants in immediate reconstruction in breast cancer.8–19

9. **Compliance with Cost-Effective Measures and Development of Incentives**

If physicians are willing to increase their responsibility for financial aspects, additional resources are needed. Cost-effective medicine in the clinical setting can only be suc-
cessfully performed if implemented and accepted by the entire medical staff (unconditionally supported by the hospital administration). Therefore, such additional savings should preferably remain within the department where they were generated. This may generate incentives, which promote cost-effectiveness within the team, also in addition to enhance professional freedom and financial autonomy. Adequate incentives may include creating new positions for physicians to reduce overtime, investing in clinical infrastructure, promoting innovative therapies, funding research for academic institutions, and encouraging medical education and conference attendance. Personal financial incentives should be implemented with caution, as any additions to a physician’s income can influence decision making and lead to unintended results. One example is when department heads receive a substantial incentive to their salary (sometimes up to 50%), exclusively based on the financial success of their department.

10. Teaching Cost-Effectiveness in Medical Diagnostics and Therapy

Cost-effectiveness in medical care should be part of a physician’s training during medical school and throughout residency. A wise use of financial resources should be implemented to achieve the best medical care. Successful physicians will be able to balance cost-effectiveness with optimal care avoiding the excessive use of costly and unnecessary diagnostic tests and therapeutics. It is also important to understand the course of a disease, in particular cancer, and switching over to palliative care when aggressive therapy does not prolong or improve quality of life.

The interaction of cost-coverage and affordable medical care from a provider’s perspective is reported in Figure 1. The cost-unaffected section in the upper part would be ideal in the medical practice, but reality lies in the middle part of cost-conscious medical care. Physicians should decide the best affordable care, according to the resources available in their health-care system. One straightforward approach is to adjust processes and organizational aspects. An alternative strategy is to identify and apply more economical diagnostic and therapeutic options to high-cost medicine. A third approach is to adjust the use of resources to reimbursement which should still produce the best affordable care. Physicians are challenged to perform these adjustments without compromising quality of care. The bottom part of the diagram illustrates not-cost-covered medical care, an unaffordable option that will generate losses if no other or external resources and cross-financing are available. Although it might be unacceptable from a physicians’ point of view, in fixed flat-rate reimbursement systems this can occur even in first-world countries. Table 1 reports a list of questions for identifying or improving cost-covering medical care in minimally invasive procedures.

DISCUSSION

Hospital management is currently becoming more focused on the integration and balance between medical care and financials. Physicians are gradually acquiring business and administrative skills, for the management of hospitals, clinics, and health care organizations. Physicians with a business education might eventually replace the traditional hospital executives who often have limited knowledge of patient care. Many physicians in leadership positions have experienced that hospital executives commonly disregard both external and internal customers of the organization and rely on financial cuts and decreased services for cost containment. This situation might provide temporary financial success, but it is doomed to fail as a long-term strategy. We propose integrating financial management into medical practice without sacrificing quality of patient care.

Clinical physicians are not the only ones affected by the currently tight financial situation. A large number of doctors are joining hospital and health organizations as full time employees for financial and security reasons. Larger medical groups have the ability to negotiate better reimbursement with insurance companies, although market power is not a substitute for resource management within a hospital. Independent physicians are struggling to cope with the increasing cost of practicing medicine and to comply with the regulations imposed by the government and other agencies. They also benefit from cost and reimbursement benchmarking and are encouraged to adopt similar measures.

In addition to the active measures taken to perform cost-covering medical care, there is also a need to control external pressure to increase costs. Physicians often feel obligated to conduct diagnostic techniques and procedures for reasons other than the exclusive well being of patients. Legal matters or defensive medicine are only 2 examples of this issue. A recent global initiative has shown that the use of traditional procedures, diagnostic techniques, and therapeutics can reduce costs while maintaining a high quality of care. The task for each participating medical specialty society was to identify and discuss 5 different tests or procedures commonly used in
Figure 1. Interaction of cost-coverage and affordable medical care from care providers' perspective.
their field. This approach can lead to a more rational use of resources, while improving patient care quality.\textsuperscript{23}

CONCLUSION

Hospital finances at the micro level can be described in a practical manner, using a good dose of basic common sense. An increase in horizontal as well as vertical communication and transparency will greatly benefit medical practices. Physicians should feel encouraged to take over financial management and developing adequate solutions, as they are the only professionals able to integrate cost-effectiveness with the best medical care. We believe this strategy will be in the patient’s best interest and will overall benefit professional freedom.

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