Effective Hospital Materiel Management

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To one of the most influential
persons in my life, who taught
me the value of honest labor—
my mother Marygrace

Preface

The term *management* plays an important role in the materiel management concept, and management occupies a large time block in a materiel manager's day. This text is intended to provide today's and tomorrow's materiel managers with a guide to understanding the complexities associated with modern management concepts, strategies, and organizational realities. Throughout this text I have tried to blend concept and theory with practical application, combined with real experience, in hopes that the managers and administrators who read this text can relate this material to their own department and hospital situations.

This book is a natural follow-up to my book, *Hospital Purchasing and Inventory Management*, published in 1982 by Aspen Systems Corporation. The first work provided new and recently promoted employees with the basic principles and procedures associated with hospital purchasing and inventory control. The present volume is designed to continue that educational process for those in supervisory and managerial positions in materiel management.

Effective Hospital Materiel Management is oriented toward systems management. Chapter 1 begins with an assessment of the impact of prospective payment and the DRG system recently enacted into law by the federal government to control rising Medicare costs. A history of that legislation is provided, and the opportunities the legislation presents to materiel managers is explained. In Chapter 2, the concept and definition of materiel management are redefined to meet today's needs and the changing environment within which materiel managers must function. This new definition is oriented toward systems and management. Marketing and team development are critical topics also covered in this chapter.

In Chapter 3, we present the theory of systems and integrate the systems approach and logic with the management processes of planning, organizing, staffing, and controlling.

Productivity and quality assurance are introduced in Chapter 4. They are important topics, for they will have a significant impact on the management

decisions we will face in meeting the challenges of developing a more businesslike climate in health care.

Chapter 5 presents some practical approaches to operational budgeting, budget systems, and the traditional process associated with hospital budgeting, as well as to obtaining and maintaining the resources needed for a well-run department. Chapter 6 looks at the implications of capital equipment budgeting. Here, readers will find new information on conceptual proposals and feasibility studies and how they can assist in obtaining new capital resources.

Chapter 7 returns to the subject of DRGs and the need for good cost-finding methodologies. Included are methodologies for both manual cost finding and a new conceptual model for a hospitalwide computer application. The hospitalwide model is based on the information needs of accurate DRG cost finding and budget preparation. It is a conceptual representation of the type of management information system needed in today's health care environment and is modeled on the principles of manufacturing cost determination.

Chapter 8 provides a practical approach to managing a materiel management-oriented, cost containment program. Report formats and organizational approaches are detailed for practical application by the materiel manager.

Remodeling and construction projects and materiel managers' involvement are the subjects of Chapter 9. Practical information is presented on equipment planning and acquisition and on working with architects and interior designers; a systems approach to moving into a new facility is also discussed.

Chapters 10 through 14 cover the specific operational management and activities of central service, print shop, laundry, clinical engineering, and the pharmacy. Materiel managers and administrators will find the chapters on clinical engineering (13) and pharmacy (14) particularly interesting since they both deal with the problems associated with including these departments under the umbrella of materiel management.

Chapter 15 provides information on the types and content of administrative reports normally required by today's administrators. A useful guide to preparing departmental policy and procedure manuals is provided in Chapter 16.

A COMMENT ON THE APPENDIXES

Since the publication of my first book in 1982, I have received numerous requests for information on the preparation of job descriptions. In an effort to fill some of these requests, and to generate some standardization, job descriptions for many of the positions in those departments discussed in this text are provided in Appendixes A through V. These job descriptions have been developed to meet the wants and needs of one hospital and therefore have some limitations in their universal application to other hospital environments.

Appendix W, Specifications and Contract Documents, has been included to assist materiel managers involved in major construction projects. As with the job descriptions, these documents were developed to address a specific need, and care should be exercised in their universal application.

Finally, I hope this book will be beneficial to both the experienced and inexperienced materiel manager, as well as those soon to be managers. It is hoped that some of the information and concepts presented here will generate controversy and lead to healthy discussion among administrators and materiel managers, ultimately leading to a recognition of the importance of materiel management in the health care environment.

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I owe a special debt of gratitude to my staff at St. Francis Hospital—Raymond Lovato, JoAnne Leonard, and Marcie Arroyo—for putting up with the difficulties of my doing graduate work, writing this book, and trying to direct a very special materiel management department.

A very special thank you goes to my wife Donna, and my daughters Leslie and Catherine, for helping me through a critical part of my life.

And, finally, to Michael Brown of Aspen Systems, my thanks for his patience and understanding.

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Chapter 1

Materiel Management: Entering a New Era

There was a time when materiel managers felt lonely and frustrated in their efforts to bring credibility to their calls for cost containment. More often than not, their efforts were ignored by department managers, physicians, and administrators. Why? Prior to October 1983, hospitals had no real incentives for cost containment because reimbursement methods "rewarded" them with higher payments as costs rose. Some very strong lobbies in Washington, D.C., thwarted any efforts made by the federal government to impose cost containment legislation on the health care industry. In almost every instance during the past decade, when the rise in health care costs exceeded the inflation rate, hospitals and their related national associations trotted out some exemplary individual hospital efforts/programs to show how the health care industry was really working toward cost containment. These so-called industry examples tended to lower the demands from Washington. In reality, the individual examples were really nothing more than what some hospitals were doing based on their own individual concerns. National indexes told the true tale: health care costs nationally were continuing to escalate almost unchecked.

Despite industry efforts against mandatory cost control, the federal government continued to search for ways to restrain the budget growth of Medicare and Medicaid programs. Most of the federal government's efforts were limited to regulations intended as stopgap measures to solve relatively immediate budgetary difficulties.

LEGISLATIVE HISTORY

Public Law 92-603, the 1972 Social Security Amendments, authorized the Secretary of the Department of Health and Human Services (known at that time as the Department of Health, Education, and Welfare) to engage in experiments and demonstration projects to determine the advantages and disadvantages of

using a prospective payment system for Medicare providers. The primary goal of this work was to discover methods of determining payment rates that would have a long-term constraining effect on the cost of health care paid for by Medicare without reducing the quality of care. The cooperative project with the state of New Jersey became the best known one and part of the basis for a new legislative effort.

On August 19, 1982, the Congress passed the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982. Among its numerous measures relating to tax increases and tax reform were provisions directly relating to Medicare and Medicaid. At passage, it was estimated that the Medicare provisions of TEFRA would result in Medicare expenditure reductions of approximately $14.4 billion over a three-year period.

TEFRA also directed the Secretary of Health and Human Services, in cooperation with Congress, to develop a specific legislative proposal for a prospective payment system for Medicare providers. In December 1982, a proposal that addressed hospitals only was presented to Congress by the Secretary. This proposal was intended to ensure that the prospective payment system would:

1. be easy to understand and simple to administer
2. provide for quick implementation
3. ensure predictable payment for services for both hospitals and the federal government
4. establish the federal government as a prudent buyer of health care services
5. reduce the administrative requirements burden on hospitals and provide incentive rewards to hospitals that are operated efficiently
6. improve the quality of care as hospitals begin to specialize
7. limit the beneficiary liability to coinsurers and deductible payments authorized by Congress

On April 20, 1983, the Social Security Amendments of 1983 were signed into law, making the proposal a reality.

Of the preceding seven objectives, several deserve additional comments and explanation. The result of the first and second objectives has been the development of a payment system based on Diagnosis Related Groups (DRGs). Basically, Section 223 of the act classifies 467 illnesses, with reimbursement payments based on the average cost of treatment of those illnesses in nine regions of the country. Each DRG is assigned a specific weight—for example, 2.1255—based on the severity of service index, which was also developed. The Secretary of HHS determines the dollar reimbursement of a DRG with a specific weight of 1.0, and the total payment received by the hospital is determined. For example, the base reimbursement rate is multiplied by the specific weight of the final discharge diagnosis. That is, if the base reimbursement rate is $1,000, a DRG

with a specific weight of 2.1255 would provide the hospital with a Medicare reimbursement of $2,125.50. Actual reimbursement calculations, however, are much more complex because of the provisions for a four-year phase-in, bed size considerations, capital equipment pass-throughs, regional economic and salary considerations, and many other provisions that are best understood and explained by fiscal personnel. The key point here is that the federal government has shifted away from purchasing units of service and toward purchasing specific products that are defined by DRGs. Blue Cross and other private insurance companies are now and will continue moving toward this trend as a payment method.

The fourth objective has special significance for materiel managers in that the federal government has positioned itself so that it must be a "prudent buyer" of health care services. In 1965, the original Medicare Act mandated that hospitals act as prudent buyers of supplies, purchased services, and equipment. The 1965 prudent buyer provisions served as a foundation on which all materiel managers based their cost containment efforts. It is ironic that in another effort to reduce Medicare costs, the federal government has placed the burden upon itself to be a prudent buyer. Enforcement of the 1965 prudent buyer provisions to restrain costs was difficult if not impossible. TEFRA and the 1983 amendments are easily enforced, and once again the prudent buyer provision becomes key. For materiel managers, "the more things change, the more they remain the same" continues to ring true.

The fifth objective and the associated prospective payment system (PPS) has provided the major emphasis for hospitals working to reduce costs and achieve operational efficiencies. This objective will catalyze hospitals into finally recognizing that their survival and success will increasingly depend on the use of sound business practices. This is where materiel managers are going to have their greatest impact.

Entering a New Era

As we noted earlier, one of the consequences of TEFRA is the need for hospitals to establish a business climate for survival and success. This business climate will be based on the use of sound business practices, such as strategic planning, marketing, financial planning, and productivity improvement. Each of these subjects, as it applies to materiel management, is covered in detail later in the text.

While some materiel managers believe that establishing a business climate is solely the responsibility of the hospital's administration, I believe that materiel managers should adopt a more selfish attitude. Materiel managers who wait for the administration to create a business climate will probably be the same people loudly blaming the administration when they are out of a job because the hospital

has closed. The era of the PPS and DRGs presents each materiel manager with the opportunity to become a leader, innovator, and change agent.

Since the advent of the TEFRA legislation, numerous articles have been written touting the increasing importance of materiel management as a strategy for dealing with the cost and reimbursement implications of the prospective payment system. The common thread through almost every article is that materiel managers control 28 to 45 percent of the hospital budget. The key word here is *control*. Webster defines *control* as "to have the authority to direct or regulate." Based on this definition, materiel managers do not control 28 to 45 percent of a hospital's budget. In reality, typical materiel managers control only their own departmental resources, which amount to probably less than 1 percent of the typical total hospital budget. The other 27 to 44 percent of the budget is influenced by the materiel manager. Here the key word is *influence*, which is defined as "the act or ability of producing an effect without apparent exertion of force or the direct exercise of command." Based on current organizational practices in hospitals today, materiel managers certainly can influence a large percentage of the hospital budget. For materiel managers to gain true "control" of this same budget percentage, an administratively organized hospital structure, similar to the organizational structure described in Chapter 2, must be developed.

In addition to using the words *control* and *influence* differently, many authors give materiel managers too much credit when they write that they influence as much as 45 percent of the typical hospital budget. How much influence does the typical materiel manager have in expenditures for utilities, insurance, physicians' fees, legal services, and some other consulting contracts where significant amounts of money are involved? If more than 50 hospital materiel managers nationwide have any significant influence in these areas, materiel management has come a long way since the inception of the concept. While it is certainly true that materiel managers could have a significant impact in lowering costs in these areas, administrators must allow us to become involved in these areas first; that requires a considerable amount of trust and credibility.

Regardless of how much control materiel managers are perceived to have, the key question is, how can materiel managers expand their influence and become true change agents and innovators?

The computerization of inventory and purchasing activities is an especially important area. As hospitals move toward determining the true cost per DRG, the need for timely, accurate information will become critical. The information needs of decision makers is critical to the evaluation of services, and one of the key components of the evaluation process is materiel costs associated with individual DRGs. Computerization is also a key to improving the personal productivity of the materiel manager in accomplishing supply forecasts, supply utilization studies, supply audits of variable expenses, and tighter inventory management in the storeroom, pharmacy, dietary, and the like.

As the need grows to expand the materiel management information base, opportunities to increase and improve our interaction with physicians will arise. As physicians become more concerned about "their" hospital's survival, peer pressure to perform and conform will increase, thus opening the doors to additional opportunities to improve product standardization and reduce personal physician preference.

This same type of peer pressure will also afford materiel managers the opportunity to gain a greater share of the decision-making influence in clinical equipment purchases with other department managers and physicians. Previous studies have shown that materiel managers' influence in this area is and has been growing steadily. However, there is still a considerable way to go.

Administrators, chief financial officers, and department managers are also going to realize the benefits of moving unofficial inventories into the official inventory classification. The basic benefit will come from improved inventory control and incurring expenses at the time closest to actual use of whatever is purchased, and not when purchase or receipt takes place.

Metropolitan group purchasing, shared purchasing services, and multihospital group purchasing will also present opportunities for the materiel manager to achieve cost savings for the hospital. As groups move toward committed volume purchasing practices, standardization and other economies occur, thereby reducing the total cost structure for health care.

The area of new, alternative revenue sources will also present the materiel manager with new opportunities. Hospitals are pursuing the development of locally based health care systems, with the hospital functioning as the "hub." These strategies are driven by the related concepts of vertical integration and diversification, as hospitals search for new markets within traditional service markets, and by the desire to survive and succeed in an increasingly complex, competitive environment.

A relatively new development in the health care industry is the growing emphasis on diversification. Many hospitals are finding it necessary to redefine their historic role as providers of acute, short-term inpatient care. Hospitals are considering other service options and adding new programs and products, some of which are totally unrelated to their primary business of providing health care. These actions are being motivated by the desire (1) to increase revenue bases to assure financial survival, (2) to provide new services to meet community needs, and (3) to achieve better use of existing resources through less costly methods of delivering health care.

Hospitals are also recognizing the potential for cost efficiencies through vertical integration. The vertical integration concept relates to the flow of patients between facilities in a way that closely parallels the flow of component products between manufacturing firms. Vertical integration implies a more orderly arrangement and delivery of basic health care services that have traditionally been