To our Health Care Clients and Friends:

Healthcare provider organizations are searching for new strategies to increase overall operational efficiency and cost reduction outcomes. To accomplish this objective, the focus of supply chain management must extend beyond the transactional mechanics of traditional materials management to encompass both enterprise-wide and department-specific considerations that impact product selection, product consumption, clinical care delivery, patient outcomes, and management of non-salary expenditures.

When reviewing Supply Chain Management (SCM) operations, there are a myriad of aspects that require focused attention. We are going to review three – Performance Measurement, Inventory Integrity and Valuation, and Clinical Resource Management (CRM).

**PERFORMANCE MEASUREMENT**

Many healthcare provider organizations want to develop and advance a performance culture within SCM. This entails identification and development of specific SCM program offerings designed to support the objectives of the organizational mission, while at the same time, diligently measuring relevant metrics to assess the degree of organizational success in achieving and sustaining the desired operational and financial outcomes. To accomplish this objective, management and staff resources must understand what the organization wants to accomplish (the vision and objectives), how it is going to be accomplished (core tactics, programs offerings, services, and resource support), and what actions steps, including individual responsibilities, will be required to meet the desired goals.

We are all familiar with the enduring axiom “if you can’t measure it .... you can’t manage it”. Healthcare management executives are increasingly cognizant of the various strategies and toolsets available that utilize management information and comparative benchmarks to motivate and achieve sustainable operational and financial improvement results. But the question remains: Has the industry effectively defined performance metrics to measure SCM effectiveness? Some of the more common measures we recommend for use include:

- Supply Expense as a % of Total Operating Expenses (T.O.E.)
- Supply Expense per CMI adjusted discharge
- Supply Expense per CMI adjusted patient day
- Supply Expense as a % of Net Patient Revenue

Supply expense as a percentage of T.O.E. measures the relative intensity of supply utilization to support patient care delivery and daily operations. For better performing hospitals, this metric will range from 12%-15%.

The next performance measures, Supply Expense per CMI adjusted discharge and Supply Expense per CMI adjusted patient day factor in case mix index to account for differences in patient volume and acuity levels across hospitals. These indicators provide a more accurate measure of specialty service and surgical case intensity than the use of "total expenses". The industry average for supply expense per CMI adjusted discharge is $911$ and supply expense per CMI adjusted patient day ranges from $95 to $297. These performance indicators may be further enhanced by drilling down to measure supply cost by DRG.

Supply Expense as a percentage of Net Patient Revenue is one of the more widely used indicators to measure financial performance. This indicator is useful for measuring internal performance on a monthly basis. If the percentage is rising from month to month, it may indicate a change in supply management behavior (e.g. pricing, use of new supplies, emerging technologies, changing consumption patterns, etc.) with no corresponding increase in patient revenue. However, this indicator

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must be judiciously interpreted because it does not reflect regional and national variances in rates of reimbursement nor does it account for fluctuations in revenue performance. For example, if revenue performance is favorable, this indicator may cause the organization to underestimate the potential of supply expense reduction opportunities. Conversely, if revenue performance is unfavorable, supply expense reduction opportunities may be overestimated. The average for Supply Cost as a percentage of Net Patient Revenue is 17.8%, with a low of 10.5% and a maximum of 29.9%.²

INVENTORY INTEGRITY AND VALUATION

The majority of hospitals manage their medical supply inventories through the materials management information system (MMIS) or other departmental information systems. However, this practice is often limited to the general storeroom, central supply, pharmacy, and food service inventories only. Many hospitals do not manage unofficial inventories through automated systems. In addition, many of these inventories are not capitalized. These inventory holdings are expensed to the ordering department at the time of receipt and are found in supply intensive areas such as Catheterization Lab, Perioperative Services, Imaging, and Laboratory, and some support service departments including Environmental Services and Plant Operations. The hospitals that do not capitalize these areas usually have higher supply costs as a percentage of total operating expense and also have higher supply costs per CMI adjusted discharge / patient day.

The old adage, that inventory is inventory, doesn’t hold true in these cases. Without loading these unofficial inventories into an MMIS or other information system with acceptable inventory management capabilities, establishing prudent practices to manage inventory transactions, and measuring inventory turns, how does a facility know that they are getting optimal utilization of their assets? A recent survey by AHRMM found that the average Perioperative Services inventory turns at a rate of 5.66 times per annum, while the Catheterization Lab is turning inventory at a rate of 11.62 times per annum. The point is, if you’re not tracking these inventories, how can you measure the performance of your investment? The benefits of making unofficial inventories official are twofold. First, officially recording the value of the inventories provides a current snapshot of the inventory investment. For example, can you improve your portfolio by reducing inventory value and putting the funds invested to better use? Secondly, without tracking and monitoring inventories, how much higher is the cost of care per unit of service than it needs to be? How much are your expenses overstated due to inaccurate recording of transactions and outdates and or adjustments that haven’t been accounted for? How many times has your organization experienced fluctuations in on-hand inventory resulting from specials that a sales representative has offered at the end of the sales year, only to find out that the large quantity purchased sits underutilized? By establishing all inventories as official, monitoring turn rates on a routine basis, and holding departments accountable for variances, your hospital will be able to optimize the investment in on-hand inventory and the utilization of these assets.

CLINICAL RESOURCE MANAGEMENT

Recently, our Firm had the opportunity to work with a hospital whose clinical resource management program was floundering. This program utilized a multi-disciplinary committee structure to evaluate product standardization, product utilization, clinical preference, and patient safety opportunities to improve operational and financial outcomes. The organization’s committee was conducting routine, monthly meetings; however, they had lost their focus regarding their objective for improving clinical efficacy and supply quality while targeting opportunities to reduce supply expense.

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It is well documented that purchasing the best product in support of clinical outcomes and quality objectives can, in fact, reduce overall supply costs; a good example is EKG electrodes. This organization converted EKG electrodes to the lowest cost product without considering quality. Approximately 90 days after the implementation, they reverted to the original brand because the adhesive on the lower cost EKG pads wouldn’t stay in place on the patients. Consequently, consumption tripled and the anticipated cost reduction was eclipsed by an increase in overall expenditures. Concomitantly, the increase in clinician dissatisfaction coupled with increasing labor demands needed to apply and manage these sub quality electrodes undermined the reputation of the process.

The better performing committees use quality and clinical efficacy as their guiding principles and acquisition cost as just one of the determining factors in the decision-making process. Secondly, the better performing clinical resource management programs should have representation not only from the major clinical departments, supply chain management and ambulatory services, but also from executive management and the medical staff. Executive management and medical staff representation is tantamount to the committee’s success. Opportunities are going to be identified that represent significant clinical and economic impact (i.e. orthopedic and neurological implants) that will require medical staff buy-in to successfully implement and sustain any achieved outcomes. When an impasse regarding a committee recommendation occurs within the decision-making or implementation process, the executive team member can intervene with the appropriate parties to facilitate necessary communication, address concerns, resolve issues, and position the organization to achieve and sustain the desired outcome. Finally, for the committee to be successful, realistic goals must be established and reported on a monthly basis. Usually these goals are tied to the budget cycle and become an integral component of the organization’s financial projections. When the above criteria are adhered to, a better performing program can achieve a reduction in non-salary operating expenses of 5%-10%.

In closing, Supply Chain Management is an integral part of hospital operations and can, with effective leadership and utilization of performance measurements, significantly contribute to the operational and financial performance of your organization.

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We are pleased to have the opportunity to provide this information to you. If you have any questions regarding this issue or would like any assistance in determining its impact upon your operations, please feel free to contact Tom Montanaro (302-559-3499) or Jim Rapier (484-431-6737) or any other member of IMA Consulting at 484-840-1984.

Very Truly Yours,

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