AMBULATORY SURGERY: CRITICAL MANAGEMENT INDICATORS

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STATISTICAL ELABORATION

TABLE 1. SURGICENTER MONTHLY PERFORMANCE REVIEW

In highly technical aspects of society, such as a health care system, it is easy to become focused on the esoteric elements of the field or the system one is trying to manage. Intellectual curiosity leads to a desire to understand all elements of the system in an attempt to master the subject. However, this often leads to focusing on the parts that capture our attention versus the basic substance of the system: the hold instead of the doughnut. The hold captures one's attention, but the substance of the product is what surrounds it.

CRITICAL SUCCESS FACTORS

To avoid such problems in management, a concept termed critical success factors (CSF) was developed as a management tool. In the 1960s, the basic ideas of management by objectives appeared in the literature (Blake & Mouton, 1964; Herzberg, 1968; Likert, 1961; McGregor, 1960; Odiorne, 1965). Deegan (1977) brought the concept further and coined the phrase "key result areas." The basic precept of CSF is to concentrate on the fundamentals: the elements critical to the success of delivering the product or service. The concept emphasizes delineating the factors that are critical and understanding the fundamental factors that will help the business achieve success in areas of quality, financial performance, personnel, and any other factor that contributes to the success of that business.

By focusing on these fundamentals, CSF allow managers to measure consistently the execution of the business plan, evaluate the outcomes, identify problem areas or areas in which management intervention is appropriate, and adjust for any variances in order to execute the game plan of the business consistently. Managers can then ascertain the factors that they believe are critical for that business. Important is that those factors, once identified, are constantly measured. Also, they are measured over periods of time when trends can be observed for those data.

Each business has its own CSF. Many hospitals have incorporated CSF into their quality assurance program. CSF has a broad application and is a power tool when the following criteria are met:

- CSF must be quantified.

- CSF must be validated.

• CSF must be tried and fine-tuned, both from internal resources as well as external (consumers of the service).

• CSF must be consistently measured.

• CSF must be empirically derived.

Ambulatory Systems Development has found in over the past 10 years and in operating more than 40 surgery centers, both hospital-based and free-standing, 16 critical success factors as being the most critical to the financial viability and high-quality delivery of surgical services. These indicators, with actual data from a surgery center, are shown in Table 1.

Many of the factors are used in combination with one another, and some are used as free-standing statistics. The data act as a laboratory test does for a physician when trying to diagnose a problem with a patient. The data can indicate a particular problem if the statistic falls outside the normal range. The trained manager can draw several conclusions about what may cause that data to be outside the norm. The manager then may refer to other specific resource data to validate the problem and make necessary management interventions to correct it.

Ambulatory care businesses are typically small in terms of gross revenues and profit. Their margins can be quite high, and need to be, to deliver adequate return to the institution or owners. For this reason, constant monitoring of such a business is imperative. Most ambulatory care businesses, such as an ambulatory surgery center, are volume sensitive.

STATISTICAL ELABORATION

The first statistic in Table 1 deals with the total number of patients; the third statistic deals with the total number of procedures performed. These are two different data. Many times a patient has multiple procedures performed on him or her during one surgery. These two data combine to assist in assessing the average supply cost per case as well as the staffing required for the center.

The second CSF is the average number of patients per day. This is a statistic that is typically used for financial analysis. Break-even costs are typically calculated on number of patients per day. This is also critical for staffing.

Room utilization is also related to this particular piece of data. It is commonly thought that five outpatient surgeries per room per day are the norm. However, the author's experience suggests that most of the efficiently run surgery centers typically average seven to eight cases per day, depending on the mix of services using the surgery center. These data are based on a multispecialty surgery center rather than a single-specialty center. Many

single-specialty centers that are dedicated to short procedures, such as gastrointestinal and eye centers, can average more cases per day due to the proficiency of the surgeon not having to change equipment in the room and the short time taken by these procedures. The number of patients per day statistic is also significant when looking at the scheduling. This number is typically augmented by reviewing the cases per day by day of the week. The surgery center has heavy days and many times the average can be skewed by a particularly heavy day, followed by a particularly light day. For these reasons, the statistic is looked at very critically.

Staffing and supply costs are major factors to control in a surgery center, as is true with most ambulatory businesses.

Please go to the next page for Table 1.

Table 1. Surgicenter Monthly Performance Review

	August				Year		
	Actual	**Budget**	**Favorable (unfavorable**		**Actual**	**Budget**	**Favorable (unfavorable)**
1. Total no. patients	210	200	10		1,448	1,600	(152)
2. Average no. of patients per day	9.13	8.70	4.3		8.46	9.37	(.91)
3. Total no. of procedures	320	200	120		2,192	1,650	542
4. Gross revenue (from financials)	192,387	145,000	47,487		1,167,198	1,160,000	7,198
Per case revenue	916	723	191		806	725	81
Contractual allowance & bad debts	44,983	29,000	(15,983)		214,160	232,000	17,840
5. Net revenue (#4 discounts & allowances)	147,407	116,000	31,404		953,038	928,000	25,038
6. Net revenue per patient	702	580	122		658	580	78
7. Total FTEs for all staff	13.51	12.00	(1.51)		13.09	12.00	(1.09)
8. Staff hours per patient	12.38	8.00	(4.38)		13.83	8.00	(5.83)
9. Payroll expenses as % of gross revenue	17.61%	19.70%	2.09%		21.72%	18.93%	(2.79%)
10. Medical supply expense per patient (excluding lenses & implants)	89.44	80.00	(9.44)		82.35	80.00	(2.35)
11. Total medical supply expense per patient	89.44	80.00	(9.44)		82.35	80.00	(2.35)
12. Total expenses per patient*	797	787	(10)		629	580	(49)

13. No. or A/R days, uncollected	48	45	(3)		47	45	(2)
14. Operating income	(20,067)	(41.495)	21,428		42,109	(185)	42,294
15. Operating income per patient	(96)	(207)	111		29	(.12)	29.12
16. Operating income margin	(13.61%)	(35.77%)	22.16%		4.42%	(.02%)	4.44%

Instructions for completing numbers:

1. Includes all revenue derived from surgical charges, laboratory charges, and revenues from other sources.

7. Total hours worked in month divided by 173.3 hours.

8. Total hours worked in month including overtime divided by number of patients.

10. Includes expenses incurred for the purchase of medical, pharmaceutical, anesthetic, supplies, excluding intraocular lenses and other implants.

13. Average daily net revenue for past 2 months divided into accounts receivable.

16. Pre-tax net income from financials divided by net revenue (#5).

*Includes quarterly MD distribution and employee profit-sharing accrual.

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The fourth factor (Table 1.) deals with gross revenues, per case revenues, and contractual allowance and bad debts. These statistics are reported both in aggregate dollar amounts as well as an average revenue per case. This indicator often is an excellent measurement of the case mix occurring in the center. It is also used in financial analysis, particularly in regard to the aggregate net profit per patient. Factors 5 and 6 deal with net revenues and are obviously used for financial purposes. The contractual allowance figure above also assists in measuring the mix of health maintenance organization (HMO), preferred provider organization (PPO), and other contract cases. It

allows the manager a quick way of measuring the payer mix of the center.

Factors 7, 8, and 9 deal with staffing. They are typically used in combination with the number of procedures and total number of patients (factors 3 and 1). Though normative trends show that there is a very narrow range of acceptable staff-hours per patient, this can drastically be affected by the case mix (many times shown between the ratio of patients to procedures performed) and the total number of cases. To have a facility that is staffed safely, it must have a specific minimum number of staff members in the facility. These are considered fixed staffing costs. In ambulatory businesses, once this particular fixed cost is covered, the profitability increases exponentially. Staffing and supply costs are major factors that must be controlled in a surgery center, as is true with most ambulatory businesses. For this reason, 5 of the 16 indicators deal with staffing. These staff-hours per patient can be altered significantly by using permanent part-time and as-needed staff. The part-time personnel in a surgery center are critical to its staffing pattern. These people may work 3 or 4 days per week for a set number of hours, but they are as familiar with the center's operations as are the full-time staff members. The staffing CSF allow the manager a quick view of how well these part-time personnel are used.

Factors 10 and 11 deal with critical operating expenses. Lenses and implants are typically excluded from this statistic, because usually they are expensive and represent wide-ranging costs due to the various types of lenses and implants used in centers. For this reason, these costs skew the data dramatically. Heretofore, these supplies have been billed separately; now the lenses are incorporated into the Medicare cataract with intraocular lens implant (IOL) fee, However, on most income statements for surgery centers, lenses and implants are reported separately as revenue and as expenses. The rest of the medical supplies include all disposable items, all anesthesia drugs, all medical gases, and all supplies for providing the basic laboratory tests (typically a dip stick urine test and a hematocrit).

Using this statistic allows the manager to look into one of the five major causes of supply costs being too high: (1) price, (2) amount of supplies on the tray, (3) amount of time the supplies are reused safely, (4) use of generic drugs or multi-dose utilization of certain drugs, and (5) inventory control.

Factor 12, total expenses per patient, is calculated and typically subtracted from the net revenue per patient (factor 6) to gain a quick idea of profitability. The data (Table 1) show quarterly physician distributions and employee profit-sharing accruals in this particular expense. It is important that this factor include all expenses. If the outpatient center is hospital-based, there are typically other overhead items included as well as inter-company allocations usually associated with for-profit hospital chains. The important issue is that this factor reflect the total expense per patient of the

facility.

Factor 13, regarding accounts receivable days uncollected, is critical to the success of an outpatient business. Due to the small revenues as compared to inpatient revenues, collections in outpatient businesses must be monitored closely. Typically, payment is made within 60 days or less in most ambulatory surgery centers. This number can be significantly less than 60 days depending on the number of HMO or PPO contacts one has, because these institutions typically pay surgery centers between 30 and 45 days.

Factors 14, 15, and 16 deal with the profitability of the facility and are self-explanatory.

The purpose of the data is to give managers an overview of the critical factors for the success of their centers. The CSF can be used in setting goals and objectives for the center staff who have the most impact on the individual factors. Typically, directors of nursing have their performance goals tied to the cost per case and staffing goals. Business managers usually have their goals tied to the accounts receivable days, medical supply costs, and total expenses per patient. In an ambulatory surgery center, everyone is in sales, and often there is profit-sharing with the employees based on the number of cases performed and the profitability of those cases. Total profitability and the number of cases become a tangible indicator and an incentive for all of the employees. When the CSF are measured each month, everyone can see how he or she is doing regarding the profit-sharing plan, much like following the stock price of an investment in the newspaper. When this is done, individuals tend to focus not only on what they do but the success of the business as a whole.

The decision to use CSFs can be a powerful management tool. CSFs can assist in helping the manager monitor the business very closely and make appropriate adjustments. The factors do not tell the manager the answer, but tell the manager where to look. Focusing on critical factors for the success of the business allows the manager to address the fundamentals of that business, to build a consensus among the staff on which goals are important and to assist them with executing these goals consistently.