



Advancing Nurse Call: Managing Performance Improvement

Table Of Contents

Page 2: Introduction

Page 3: Prioritization in the Clinical Process

Page 4: Advancing Expectations

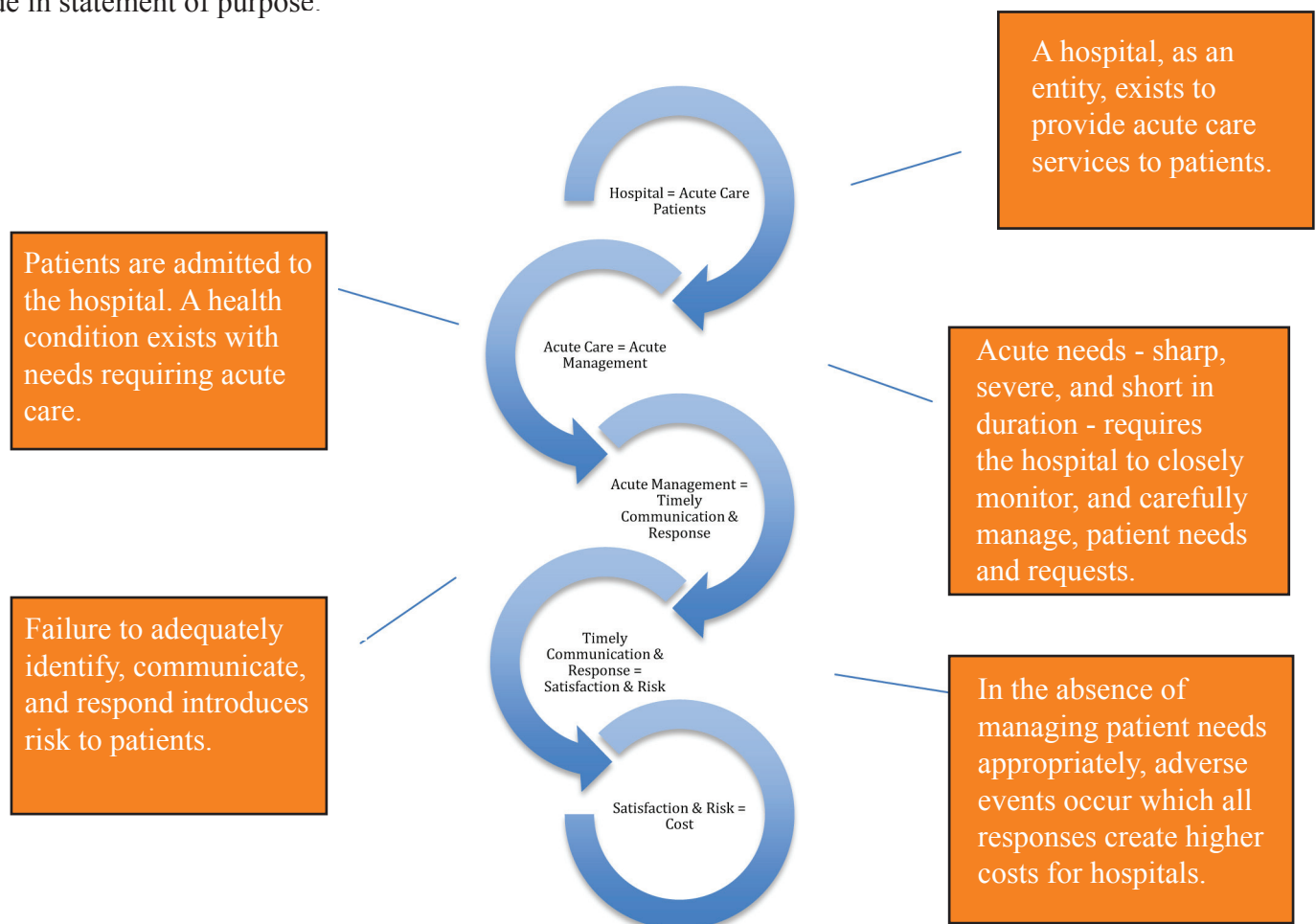
Page 5: Re-Balancing the Importance and Priority

Page 6: Establishing a Value Proposition

Introduction

Although core to the basic functioning of any clinical unit in the hospital, nurse call is over looked as a strategic component for managing business performance. The hospital's ability to manage patient needs and caregiver response is the **key differentiator** in determining the hospital's image and financial reward.

Obviously, it is a powerful assertion. But, consider the reality of the hospital as an entity in a purely logical cascade in statement of purpose.



Significant elements of a hospital's quality and financial performance are measured, or at a minimum, strongly indicated from data only found within nurse call and automated clinical alarms.

The time has come! Hospitals are able to achieve higher degrees of measurable performance. With only minimal effort, a hospital can move from nurse call to a patient communication platform: from initiate and respond to track and manage, from task management to performance management, from single events to trending and pattern recognition.



Dissecting the Value of Patient Communication Platforms

Prioritization in the Clinical Process

As a patient enters the hospital, there are four ways in which his/her needs are evaluated and action is initiated: clinical assessment, visual observation, physiological monitors, and direct patient request. Various members of the care team are involved. Various systems are engaged. However, the greatest attention by far, in time and resources, has been put into managing data surrounding clinical assessment and visual observations.

Clinical assessment establishes a baseline for the acute condition and an episode is born. Based on assessment results, a care path is established using accepted standards for condition specific, clinical interventions. Tasks are launched (meds, labs, imaging, surgery, etc). Electronic medical records drive the initiating action and delivery, while decision support algorithms identify risk and alternative suggestions. All are designed, in content and delivery, to be interactive in the workflow.

Visual observation is seen as the mainstay of caring for the patient. Physician and nurse rounding support clinical objectives with an intermittent measure of progress in condition. The same EMR and decision support systems capture clinical progress and suggest changes to the treatment plan.

The actions supported in today's EMR and decision support introduce two primary risks to hospital management information: self-reported and subjective. The majority of information used for analysis of past performance and projections of future measures is then based on the perspectives of the care teams. More reliable and predictable methods of capturing data are available. Systems designed to capture activity-based tracking underlying all of the exchanges between patients and caregivers can compliment management information.

Physiological monitors (automated clinical alarms) offer the objective measure in change (improving/declining) in patient condition. Devices and monitors signal significant physiological conditions and notify clinical staff. Some devices are very targeted and integrate directly with the communication device carried at the hip, while others generally broadcast audio-visual notification. Notification, acceptions/rejections and escalations can be tracked for staff member, time, and response.

Direct patient requests are initiated via nurse call. Throughout the patient room, there are buttons, pull cords, and sensors on equipment for initiating requests by patient and assisting caregiver staff. The communication devices ready for notification may rely on a centralized design for all communication or offer a dynamic assignment for notification, based on point of initiation and other simple categorization. As with patient monitors, these messages can be traced and the direction, re-direction, and responses can be identified from within the activity.

Today, the results of patient monitors and patient direct requests seemingly take a back seat in the prioritization and importance for management information. Yet the majority of direct patient care is initiated via these two methods. Even more interesting, data storage, modeling and retrieval for clinical assessment and visual observation has exploded, while nurse call and automated clinical alarms remains nearly non-existent.

Advancing Expectations

Effective patient communication platforms require systems to transact fast paced, real-time, fluid and dynamic methods of communication. The cascading transaction of communication (initiating request, categorization of need, and direct requests for response) requires a rich set of technologies to achieve baseline requirements of any patient communication platform.

Wired and wireless devices, voice and digital platforms, imbedded algorithms, middleware technology, software for communication exchange and sophisticated integration points have all come together to offer flexibility in meeting communication requirements. However, these technologies and design methods only focus on the immediate communication exchange. Of equal importance is the ability to store and retrieve data for improved decision-making.

Data models supporting the actual patient and caregiver experience are within the reach of current patient communication platforms. Two barriers exist in moving data models forward to compliment management information. First, many of the companies offering patient communication platforms still see the data as proprietary. With all of the HIPAA legislation and the push within EMRs, EHRs and HIEs to free hospitals of proprietary control, players involved in nurse call and automated clinical alarms development continue to create a cloud around ownership via basic uncertainty in its existence. Second, hospitals have the necessary framework to change the expectation and begin using this rich realm of data, but the value of the information has not been clearly understood in order to push the point.

Ultimately, the data belongs to the patient episode. A new frontier will open within the patient communication platform: **management information and business intelligence.**

One can look to the broader issues within healthcare as an expression of need. The simple act of punitive reimbursement with readmissions or sentinel events is an expression of need. Other drivers weave into hospital financial statements: accreditation, regulation, patient satisfaction surveys, staffing and resources, and risk management. Although these words reside at the highest level of organization focus, the activities associated with managing performance rest with patients and caregivers.

As a result, hospitals will either move to better manage by recognizing patient needs and acting in a timely manner, or the measures of quality and financial performance will suffer.

In short, we are what we do! Managing behavior is the only way to improve organization performance. The patient communication platform, if advanced to offer management information and business intelligence data, can provide clear and definitive insight once a care path is set.

Re-Balancing the Importance and Priority

From within the hospital room, the patient's primary contact with staff is via a red button or the clinical alarm that rings, dings and buzzes. Consider the isolation a patient must feel when a delayed response occurs. The logic cascade above suggests the very nature of hospitals, as acute care facilities, create an expectation and environment of immediacy. Patients are there because they are vulnerable.

Hospital administrators must grapple with the following questions related to patients:

- Does anyone know how many patient requests have occurred and why?
- How long does the patient wait? How long is too long?
- Does patient/family abandon the request and exit the bed? How long before that choice is made?
- What kind of anxiety does a persistently dinging alarm create for patients? Is the alarm important? Why does it ring, if it is not?

Hospital administrators must equally wrestle with caregiver concerns. Caregivers receive interruptions to activities throughout the day. Rings, dings, and buzz create physical, mental, and sensory fatigue.

- When care demands acute clinical focus, how can a nurse be attentive if constantly interrupted?
- How are requests categorized and prioritized?

- Who manages the volume of caregiver interruptions?
- How is sensory overload identified? Should redirection or additional staff be supplemented for a period of time?
- What risks occur for all patients if timely decisions are not made?

Clearly, administrators must constantly consider the cost in balancing safety and quality. Lean strategies promise improved performance, but few can articulate real time data methods for making timely decisions. The balance of supply and demand between patient needs and caregiver response is the key to managing in Lean.

- How will request volume be tracked?
- How sensitive and flexible is the immediacy of information? Have patient needs exceeded staffing levels?
- What types of needs are in backlog or competing for clinician time?
- How well are the natural trends associated with the daily activities of patients waking, eating, toileting and shift changes understood on the floor?
- Can objective information suggest the right type and cost of intermittent staff support need?

Managing the aggregate of floor activities creates significant challenges, and then sentinel events compounds it. Regulators, reimbursors and accreditors are pressing for answers.

- When an event occurs, was data available to identify the warning signs of risk?
- Were signs acknowledged and responded to at the patient bedside?
- Was the event avoidable? What conditions hindered adequate caregiver response? Can the real operational changes reduce future events?

Moving clinical behavior from its current reliance on subjective information is necessary. In all of the above questions, the quality of management directly impacts hospital quality and financial measures. Pushing resources onto the floor to avoid risk is an ineffective and unnecessary increase cost if resources cannot be clearly justified in timing, purpose and assignment. Exercising lean notions or other management strategies too aggressively without objective data only increases risk for the hospital.

Establishing a Value Proposition

There are three primary customers in nurse call and automated clinical alarms systems: patients, caregivers, and hospital administration. Each customer has an equally important set of needs that must be considered and met in the technology choices. The value proposition for each constituency can only fully be derived through a better understanding of customer needs and expectations.

As with all vibrant and evolving markets, leaps in technology allow for equal sized leaps in customer expectations. Patient communication is emerging onto an entirely new landscape with the opportunity to reset customer desires and expectations. The advent of wireless and decentralized communication has offered interesting changes within the clinical unit. Some of those changes offer great advantages and others offer increased stress in an already chaotic environment.

Not to worry though, the next wave of advancements will offer better methods of managing and improving performance once again. The new frontier is the data and the hidden power of the information.