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A 30-Year Retrospective
Degrees of Difficulty in Decreasing LOS

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ABSTRACT

Purpose: In an attempt to avoid future revisionist history, the author offers a 30-year retrospective (1986–2016) on the evolution of strategies to reduce length of stay (LOS). She and her colleagues have been involved from the onset by developing tools such as critical paths, roles such as clinical case management, and operational systems for managing measureable outcome-driven care from the bedside to the boardroom.

Primary Practice Setting: Acute care hospitals.

Findings/Conclusions: The LOS for all inpatients has changed dramatically from 1970 (average LOS = 7.8 days) through solidly between 2005 and 2012 (average LOS = 4.5 days in 2012) despite a significant increase in the average age of hospital inpatients (C. J. DeFrances & M. J. Hall, 2007; A. Weiss & A. Elixhauser, 2014). For patients 65 years and older, who comprised 38% of all inpatients, the decrease has been more drastic: from 12.6 days in 1970 to 5.5 days in 2005–2010 (CDC/National Center for Health Statistics, 2010). With the exception of hospitalists and case management staff, acute care hospitals have essentially doubled productivity without adding additional direct care full-time equivalents! Described in terms of "low-hanging" to "high-hanging" fruit, this article outlines the classic methods used to reduce LOS and concludes with some implications of LOS for health care reform. The U.S. health system could not have accomplished this feat without case managers and social workers.

Implications for Case Management: Acute care services should be very proud of their achievements and use their reputation to empower their work for the next frontier, which will be reducing cost per case, especially in risk contracts. Everything old seems new again.

Key words: *case management strategies, critical paths, length of stay, low-hanging fruit*

National efforts in the United States to decrease length of stay (LOS) over the last 30 years occasionally use consultants' pervasive analogy to fruit; that is, how to target that "low-hanging," easy to pluck off, excess in LOS from the good old days when a patient stayed at least 10 days after a myocardial infarction (most of them on strict bed rest) and when surgical patients stayed in acute care until they could not only return to work but also mow the lawn! Researchers have attributed the reduction in LOS for all ages to a number of factors (see Figure 1), citing:

> the shift in Medicare cost-based to the prospective payment system in the early 1980's, greater development and coverage of post-acute alternatives to hospitalization, the growth in utilization review programs, and the increased enrollment in managed care programs. Also important were advances in technology and drug therapy (including anesthesia and pain relief) that assisted in earlier diagnosis and treatment of acute conditions, safer and less invasive surgical interventions, and shorter postoperative recovery times. (DeFrances & Hall, 2007, pp. 2–19)

Although some hospitals are still working on decreasing the more obvious barriers to achieving a shorter LOS, many have now moved to broader and more fine-tuned methods to continue the trend downward. These newer strategies can be grouped into those that aim at "mid-level" and "high-hanging" fruit. They can provide a guide to hospitals that need to keep working the puzzle of balancing cost and quality for purposes of improved throughput, pay for performance (P4P), decreasing readmissions, and other targets. The three "levels of fruit," with the general years in which they were a focus, and three sets of increasingly difficult interventions for overcoming ever-more subtle barriers are listed in Figure 2.

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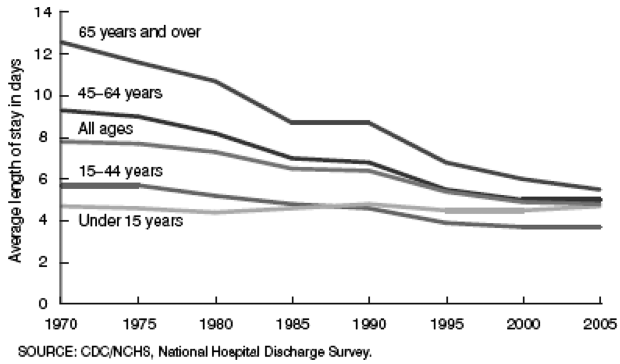

FIGURE 1
Center for Disease Control: NCHS, National Hospital Discharge Survey: 1970-2005. All permission requests for this image should be made to the copyright holder (Center for Disease Control and Prevention).

It is important to note that all of the strategies for overcoming barriers to LOS are overlapping, interdependent, and require continuous attention. Therefore, it is never too late to implement any, or all, of them at any time.

1986–1996: Strategies for "Low-hanging LOS Fruit"

It is obvious from the chart on Figure 3 that Japan never committed fully to reducing LOS. Japan has the highest hospital LOS for all diagnoses of any country in the world. In 2000, it was 25 days, and in 2009, it was 18.5 days. The chart shows a conceptual comparison of U.S. versus Japanese practice patterns (Organisation for Economic Cooperation and Development, n.d., p. 1).

Focus on Process/Continuous Quality Improvement and Clinical Paths

Early strategies to decrease LOS have become tried and true methods over the last quarter century. These strategies required a lot more collaboration between disciplines, departments, and administrators than most organizations had experienced previously to Diagnostic Related Groups (DRGs; payment by DRGs). Critical paths, developed originally at New England Medical Center Hospitals (Now Tufts Medical Center) in

High Difficulty/"Highest-hanging fruit":
Requires change in subtle care patterns and Case Manager as Care Team Leader
- Basic Care: skin, nutrition, mobility, PAIN, cognition
- Increase Physical Therapy availability or special teams for regular ambulation
- PharmDs on units for rounds, Med Rec, teaching
- Critical Thinking by care-giver nurses
- Skilled management of family expectations/many Family meetings
- Focus on front end of care: Initiate treatment immediately in and after ED
- CareGraph™ Clinical Outcome Progressions
- Complex Care Rounds led by Physician Advisor and CM Director
- Centralize bed placement and liaisons through system
- Make each patient's Benefit Profile available to CMgmt
- Standardize patient education content across sites

Medium Difficulty/"Middle-hanging Fruit":
Requires Hospital Administration and CM collaboration with MDs
- Physician Advisor to Case Management Dept
- RN Case Management in the ED
- Reduce fragmented physician coverage
- Initiate Palliative Care
- Counseling about PEGs and Trachs
- Complex Care/"Long Stay" Rounds
- Performance Improvement for Hi LOS DRGs
- Find alternatives to over-utilization
- Well-managed Hospitalist Service with contracted deliverables
- INTENSIVISTS
- APNs, preferably unit-based
- Standard order sets

Low-level Difficulty/"Lowest-hanging Fruit"
Collaborative Practices author CareMaps™/Critical Paths
Reduce the last day of stay day
- Increase availability of labs and test results
- Key Departments such as stress tests open longer and weekends
- Daily Huddles and/or Care Coordination Rounds on each unit
- Electronic Discharge Planning software
- Case Management RNs and SWs onsite weekends and holidays
- Rapid Medicaid applications

Discharge patients to IRFs, LTACHs,SNFs and home care agencies

FIGURE 2
Interventions that address degrees of difficulty reducing LOS. APN = advanced practice nurse; CM = case management; DRG = Diagnostic Related Group; ED = emergency department; IRF = inpatient rehabilitation facility; LOS = length of stay; LTACH = long-term acute care hospital; PEG, percutaneous endoscopic gastrostomy; RN = registered nurse; SNF = skilled nursing facility; SW = social worker. Copyright The Center for Case Management. All permission requests for this image should be made to the copyright holder (Center for Case Management).

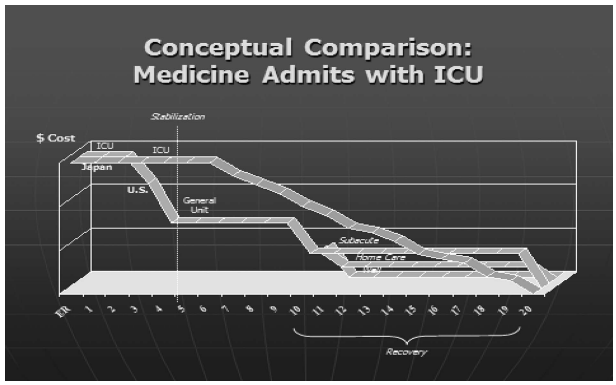

FIGURE 3
Comparison of U.S. and Japanese length of stay, 2001. ICU = intensive care unit. Copyright The Center for Case Management. All permission requests for this image should be made to the copyright holder (Center for Case Management).

Boston, MA, became the visual representation of the effort to plan care delivered by the key disciplines for specific DRGs or homogeneous patient populations. For example, using the three methods of critical paths (Zander, 2002, p. 101), enhanced utilization criteria, and selected clinical case management by experienced nurses, the extreme excess days were picked off from the relatively controllable case types; that is, orthopedics, open heart surgery, and chest pain.

Kaizen and continuous quality improvement processes initiated by industrial engineering consultants were just starting to take hold in health care at the same time became a process through which multidisciplinary teams could discuss their contributions to patient outcomes. They used processes such as flowcharting and care-mapping to describe current and better sequenced care interventions. For example, they discussed (some albeit reluctantly) to change intravenous drugs to oral drugs, whenever possible, to initiate earlier extubation and ambulation and to aggressively treat the pain of sickle cell in the emergency department (ED). In fact, multidisciplinary teams got so good at resequencing aspects of patient care and transferring patients to home care, subacute units, and acute rehabilitation facilities (which all ramped up for the challenge), Medicare cracked down on short-term acute care hospitals with the initial transfer DRGs in 1998 so that the Centers for Medicare & Medicaid Services (CMS) could not be billed twice for the full payment (DeLuca & Centafont, 2012).

Once hospitals got into the groove of reducing LOS, some hospitals went too far as they began experimenting with less than a 2-day LOS for normal births.

> According to figures that came out in Congressional hearings, the median length of stay for postpartum women across the US has dropped almost 50 per cent from 1970 and 1992—from four days to less than two days for a vaginal delivery. "Within the last three years, stays have decline from 48 hour to 24 hours. Some women were even required to leave the hospital in as little as eight hours after delivery," according to Debra Kuper writing in the *Marquette Law Review* in 1997. (Thomas, 2011, p. 2)

As in the limbo game, we all began wondering "how low could we go?"

Variance from clinical paths became a way to understand barriers and individualize approaches to specific patients in the progression of timely care. Although variance was originally introduced by Karen Zander at New England Medical Center as a way to individualize clinical paths to patients, the process was misinterpreted as a way to assign blame and solely a process improvement mechanism under an industrial engineering framework.

Eventually understanding variance as a quality issue and using it for changing medical, nursing, and therapy practices took the form of "avoidable days" in the utilization review (UR) sphere. Avoidable days were days within the LOS that could be skipped with better practices by departments such as physical therapy and ones that conducted stress tests to rule in/out Myocardial Infarctions, physicians, and case managers themselves. They were assigned by case managers and continue to be addressed as performance improvement initiatives by astute UR committees and hospital administrations. For example, hospitals began to require that departments such as laboratories and Radiology be open longer hours, including on weekends. Home care began accepting patients later into the day and, in some cases, on weekends for a first visit. New software began to made results of laboratories and test available sooner than ever.

To offset concerns about loss of quality as LOS decreased, several methods were adopted. The most important of these methods was the use of formal and ongoing collaborative practice groups to keep an eye on the changes and make sure that quality processes and outcomes were upheld. The best approach was to require that the collaborative practice groups that served as the original author teams for critical paths remain an active group to track the success and decrease new barriers to clinical outcomes by working with administration and the community. Ideally, their new or reorganized, synergistic care interventions were incorporated into revised critical path documents. However, without the advantage of software to accommodate the high-maintenance demands to keep paper pathway documents up to date, many hospitals abandoned the paper methodology and counted on the new breed of case managers to maintain the pressure to reduce LOS.

Because the usual recovery phase was all but amputated by DRGs from the acute care stay, hospitals started to conceptualize their mission as

intervening in that extremely vulnerable phase beginning at the crisis of injury or illness and ending with the concept of stabilization. When the patient stabilized from the surgery or medical interventions, ideally described by standardized clinical outcomes, he or she was considered basically ready for discharge or transfer. The most difficult skill to teach clinicians, then and now, is how to think and describe in writing both standardized and individualized outcomes. Unfortunately, even after 30 years, the LOS (i.e., number of days reimbursed by specific payers) is better known than the list of outcomes that constitute an individual patient's optimum use of an acute care stay. The original critical paths required measurable outcomes in four categories:

1. Health: Physical and mental
2. Absence of complications common to that population
3. Knowledge (patient and family)
4. Function (role—such as parent, return to work; physical functions—such as ambulation)

Along with LOS, hospitals renewed the procedure known as review of "medical necessity," not just for patients reimbursed by commercial payers but also for Medicare and Medicaid recipients; that is, hospitals became somewhat more aggressive with providing intense services only for the truly ill. Nurse case managers started to be viewed as an expanded enterprise that should not only conduct classic UR but could also begin to integrate review as well as care coordination functions with discharge planning (DP) staff (characteristically social workers who had been relegated to this function in lieu of clinical social work) for a more informed handoff somewhere between admission and discharge or transfer.

Making the last day of stay as short as possible was another strategy engaged to get at the low-hanging fruit. Methods in this category include having prescriptions ready and clipped to the order sheets, preparing chart copies for the receiving level of care, confirming transportation plans with families, ambulances, and so forth. Some methods that were harder to implement and not so successful were the campaigns to "discharge by 10 a.m." and the brief, but usually ineffective, proliferation of "discharge lounges" for patients waiting for transportation.

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Payer Information DATA DASHBOARD
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Payer	*% Cases*	*% Days*	*% Charges*	*CMI*	ALOS
Medicare	26.63%	32.95%	32.97%	1.68	7.60
Managed Medicare	8.99%	10.24%	10.17%	1.65	7.00
Medicaid	9.21%	13.29%	11.29%	1.47	8.86
Managed Medicaid	11.26%	9.28%	6.83%	1.00	5.06
Blue Cross	27.52%	19.87%	21.85%	1.30	4.43
Other Commercial	14.62%	13.07%	15.62%	1.46	5.49
Self Pay	1.76%	1.28%	1.63%	1.37	4.46
Totals	100.00%	100.00%	100.00%	1.44	6.14

FIGURE 4
Payer information Data Dashboard. ALOS = average length of stay; CMI, case mix index. Copyright The Center for Case Management. All permission requests for this image should be made to the copyright holder (Center for Case Management).

As some hospitals closed and others planned on reduced capacity, the challenge of shorter LOS continued. With a finite number of acute care beds available and patients constantly filling the EDs of every hospital, the mantra became how to increase flow and capacity within the hospital. In other words, care was accelerated and so were the amount of "bed turns." It was not and still is not unusual for nursing units, especially surgical ones, to experience turnover as high as half of their patients each day. New methods to reduce LOS included having the case management department staff available in a somewhat smaller capacity on weekends and holidays. Other relatively simple but necessary advances were providing uninsured and self-pay patients with immediate applications for Medicaid.

Once patients were admitted to an inpatient stay, some old strategies became new again. Instead of overall LOS, hospitals started to segment their data so they could study their LOS by payer in a Data Dashboard. An example is shown in Figure 4. Newer Data Dashboards have more data on them, such as "readmission rates," hours and days on the "observation level of care," and average cost per case per payer.

Drilling down LOS data by DRGs or otherwise defined homogeneous populations always leads to a range of more strategic approaches to LOS. In fact, the Medicare LOS is the most obvious indication of the veracity of the case management department because it demonstrates a proactive approach on the part of that service. The opposite can be seen in the hospital described in Figure 4, which has a case management department model that segments UR functions to nurses and DP functions exclusively to social workers (rather than a partnership), does not focus on Medicare patients' medical necessity, care coordination, and

potential discharge needs from admission, does not include direct contact with patients in the role, and has major sociocultural and community resource deficits.

Discharge planning processes continue to leave much room for getting at the middle batch of low-hanging LOS fruit, even after 30 years! Daily DP rounds or their more powerful cousin, care coordination rounds, have once again become mandatory in many hospitals and have shown major success. Case managers and social work partners are learning how to simultaneously develop Discharge Plans A (ideal) and B (fall-back plans) for every patient. Sometimes, they need Plans C, D, and E as well! Another method to accelerate this process, especially as post-acute placements are sought, is to use automated DP/match software. Many advantages, not the least of which is speed, have been shown from discharge placement software.

By the end of the 20th century, almost every hospital administration in the country finally knew what a DRG was and had at least cursory understanding of the challenges and implications of managing a tight, yet clinically appropriate, LOS for each patient. As a result, the entire hospital started to study new ways to get to the hanging fruit, only this time, *to engage the physicians*.

1996–2006: Strategies for "Middle-Level Hanging Fruit"

Focus on Physician Engagement

When it became generally understood that physicians responded proudly and competitively to data that accurately measured and mirrored their practice patterns, hospitals began a series of data-crunching about individual physician practice patterns. With incredible speed once the right query was submitted to information technology, hospital administrators could study spreadsheets showing MDs by volume of admissions, LOS, cost per case (utilization), readmissions, and other factors. Further analysis of physician order entry patterns revealed utilization and discharge ordering practices.

Physician-specific data, either anonymous or identified, began to be fed back to physicians individually and in their practice groups in the form of "report cards," "practice profiles," and other titles. The goal for physicians accepting managed care contracts was one of self-regulation, whereas the goal of hospitals was one of influencing cost consciousness. Physicians did not tend to perceive the early feedback from hospitals as helpful, although this method frequently had some effect on lowering LOS. Otherwise, progress on aligning MDs with LOS goals would have been even slower.

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Even today, there remains ambivalence, if not extreme reluctance, on the part of hospital administrators and physician chiefs concerning how much to align with physicians about financial goals. A palatable term has become "increasing flow and capacity" rather than "decreasing LOS," but the ambivalence can be seen in three main areas: (1) the remaining tokenism of some UR committees, (2) administration's reluctance to create a robust physician advisor position with specific responsibilities to assist the case management department, and (3) the reluctance of administration to discuss financial concerns of the hospital with physician-lead quality/performance improvement initiatives. Community hospitals, highly dependent on physician referrals, are understandably the most cautious in this regard because they rely on business from their community physicians. Yet, they, more than others, suffered from specialty surgical hospitals begun by physicians, which removed lucrative surgical business and also lowered the hospital's case-mix index, resulting in smaller Medicare payments.

On the plus side, there has been progress made by many organizations for putting LOS and quality goals in the contracts of hospital-paid physician leaders and attending physicians, such as hospitalists and contracted ED physicians. Indeed, hospitalists became

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an important component of acute care during this national phase of conquering LOS. Hospitalists may manage more than 75% of a hospital's inpatient population. Their ready availability to inpatient staff and incentives for LOS, volume, and throughput was a definite plus to hospitals' acceptance of the new role.

Engaging physicians in LOS goals often required appealing to the practice of evidence-based medicine and "best practices," published and promulgated at conferences around the same time period. The emergence of best practice and quality indicators/core measures running parallel to the growing interest in appropriateness, efficiency, and effectiveness is probably not a coincidence. A "tipping point" (Gladwell, 2000) definitely occurred during this period. Under the umbrella of "best practice" and evidence-based medicine, certain medically prescribed or dependent interventions began to be taught. For example, The Institute of Healthcare Improvement's bundles of evidence-based care began in 2001 (Resar, Griffin, Haraden, & Nolan, 2012, p. 1) and was important nationally and eventually worldwide as hospitals tried to understand what really leveraged LOS and ensured quality as well. These concise ways to transmit and implement best practices made the balance between cost and quality more acceptable to all clinicians. These well-labeled clusters of combined interventions continue to permeate the environment surrounding not only physicians but also nursing, which, as a group, has been historically quick to pick up on innovation if physicians are supportive of them.

Research gave rise to evidence, which gave birth to a handful of important processes that have been shown to create the best clinical outcomes for a given diagnosis. The Center for Case Management was the first to group best practice processes by DRGs to create Critical Indicators for Evidence-based Practice (Parmer, 2000). The Joint Commission for Accreditation of Healthcare Organizations identified quality measures in 2002, which were "closely linked to positive patient outcomes" (The Joint Commission's Annual Report, 2013, p. 26). In May 2001, The Joint Commission announced four initial core measurement areas for hospitals: acute myocardial infarction, heart failure, pneumonia, and pregnancy/related conditions. They simultaneously worked with CMS on the first three diagnoses. Both important organizations have worked "to precisely and completely align these common measures so they are identical." The aligned manual, *Specifications Manual for National Hospital Inpatient Quality Measures* (The Joint Commission, 2013), is to be used by both and includes a data dictionary, measurement information forms, algorithms, and so forth (http://www.strokeregistry.org/wp-content/uploads/2013/10/History-of-CMS-Core-Measures.pdf).

In addition, P4P programs by payers began to financially reward hospitals for delivering evidence-based processes. For example, the Premier, Inc., study performed in conjunction with CMS of 20 hospitals challenged to improve quality of care using core measures showed that the higher the quality of care (as defined by core measures), the fewer the resulting overall costs; that is, $1 billion in savings, 3,000 fewer deaths, 6,000 fewer complications, 6,000 fewer readmissions, and half a million fewer days in the hospital (DiConsiglio, 2006, p. 1).

These initiatives and specific standards have taken hold and captured the attention of a majority of clinicians and administrators in acute care. This was indeed a positive advancement for case management. LOS placed in the context of a balance of cost and quality is a strong goal with little to be said against it. Although many patients require substantial adjustments (such as medications) from "evidence" due to factors such as age, comorbidities, and the right to refuse the advice of health care professionals, the evidence gives everyone a starting point. The physicians, nurses, and other clinicians might not have been motivated by implementing methods that solely helped the hospital and payers save money, but they could see firsthand immediate results of using best practice interventions for their patients.

To gain a complete picture of their significant operations, hospitals began to understand a full range of important cost and quality targets. These are classically displayed and reviewed in the format of a Data Dashboard and have been used at the individual, product line, hospital, and system levels. These data displays, if well-constructed, truly help an organization get and keep its bearing as it implements new plans, such as hospitalists.

Joining hospitalists and surgeons during this period were a growing number of nurse practitioners and/or physician assistants who helped facilitate care. In addition, case managers were often assigned specifically to hospitalist services to facilitate care coordination and DP. However, contributions to the cost–quality–satisfaction balance by case managers and nurse practitioners were frequently not acknowledged in studies from this time period.

Importantly, these years also marked growing awareness of the fact that the Conditions of Participation (COP) for Medicare and Medicaid patients required a utilization plan and a utilization committee, both that needed approval by the Medical Executive group of each hospital. UR committees must have physician leadership and members and began to have increased meaning for physicians. An important addition to the CMS COP and engagement of physicians about LOS goals were the increased appointments of effective physician advisors to the hospital's case

An important addition to the CMS COP and engagement of physicians about LOS goals were the increased appointments of effective physician advisors to the hospital's case management department. Physician advisors were the liaison between hospital administration via case management activities and the vice-president of Medicine or CMO (chief medical officer) and practicing physicians.

management department. Physician advisors were the liaison between hospital administration via case management activities and the vice-president of Medicine or CMO (chief medical officer) and practicing physicians. Some of their specific duties include consulting with case managers and physicians about the application of medical necessity criteria to specific patients, participating in physician education and the UR committee, and preparing denials and appeals for reimbursement.

During this time period, hospitals also began to see the need for case managers to join social workers in the ED. Once again, financial reasons drove the implementation of the four main role responsibilities: (1) working with ED and admitting physicians to determine level of care (inpatient vs. observation), (2) reminding physicians and nurses to document core measures, severity of illness, and present on admission conditions, (3) discharging patients directly to other services (such as home care, equipment, therapies) rather than a hospital bed, and (4) developing case management plans to be implemented when a frequent utilizer of the ED presented for care. This rationale continues to be confirmed in even more strident ways.

2006–2010: Strategies for "High-hanging LOS Fruit"

Focus on Basic Care

The third era in the evolution of the hanging fruit is advancing the focus from the education and management of physicians beyond physician order-dependent interventions to the basic care required to help patients maximize their acute care stay. Basic care includes elements such as ambulation, nutrition (fluids and foods), cognition, pain control, skin integrity, bowel and bladder functioning, and safety precautions. Basic care includes both the physician orders for specific interventions and the multidisciplinary staff members who not only carry out those interventions but, most importantly, also evaluate whether their own independently initiated interventions are effective.

The greatest responsibility for basic care belongs to nursing services. Unfortunately, nursing has been under major duress for the last decade, rendering registered nurses (RNs) not as available to deliver basic care. To name a few reasons, nursing staffing has been downsized, 10- and 12-hr shifts do not provide continuity of care day after day by the same RN, and the majority of hospital nurses do not have degrees higher than the associate degree level. In addition, the amount of serious medications per patient has multiplied and the time to get to know a patient on key units such as EDs, intensive care units, and step-down floors has been drastically shortened. There are ever-increasing priorities and projects, as well as new regulations such as medication reconciliation. Paradoxically, what is good for case management goals is often perceived as negative for and by nursing; for example, shorter LOS creates more "bed turns" with new patients and less familiarity with them for care delivery nurses. The discharge process from beginning to end necessitates many calls and filling out many forms.

Nurses are pulled in many directions simultaneously. In a study, nurses on two medical-surgical units "admitted to routinely omitting important elements of patient care (ambulation, turning, feedings, patient teaching, discharge planning, emotional support, hygiene, intake and output, documentation, and surveillance) for which they expressed guilt, frustration, and regret" (Steefel in Kalisch, 2006). These basic care elements are precisely the activities that help patients respond their surgery and/or medications, assist the attainment of physiological stability, and start to move them toward recovery. Nurses' aides provide the bulk of basic care in hospitals today. RNs may "own' the patient for one or two shifts in a row, but longer-term relationships between nurses and their patients and families occur only in certain inpatient clinical settings, such as oncology or rehabilitation. In addition, physician work and coverage schedules can be broken up and switched around so that no one specific physician "owns" the patient either. Between fragmented nurse and physician schedules, the LOS of each patient is difficult to track and may be disrupted. In addition, if a patient's pain or nausea or needs for oxygen cannot be stabilized, the patient cannot be transitioned to another level of care. Therefore, their LOS will increase until the clinical situation is solved.

Another central dilemma for hospital personnel is the need to help patients and their families with

difficult decisions such as the introduction of a PEG (percutaneous esophageal gastrostomy) tube, a tracheostomy, or another round of chemotherapy. On another plane, although really not diametrically opposed, is the need for counseling about comfort measures, palliative care, and hospice (Dunn, 1990). It is well known that these measures can make the difference in life and death, comfort, and also LOS.

So, now we are at the heart of the matter, right where basic care is paced, determined, delivered, and evaluated day by day, hence the designation of "high-hanging fruit" because it is difficult to reach and very subtle in its entrenchment. It includes problems with fragmentation of responsibility, lack of latest clinical knowledge, and extreme clinical complexity. It is all about the diagnosis and management of complications, comorbidities, and problems caused by being in the hospital: pain, nausea, cognition, hospital-acquired infections, mobility, family expectations, and other dilemmas.

2010–Present

Focus: Readmissions as Victims of LOS Success?

LOS has been significantly reduced, but readmissions to acute care have increased in focus. Is this a direct cause-and-effect relationship or are there other factors? As in everything else about health care, there are many other factors besides LOS at play that should be understood. Although the industry is still on a learning curve about risk factors that might point to a potential readmission, there are some key characteristics such as cognition, health literacy, and a history of severe mental illness that influence readmissions as well as revisits to EDs. Unfortunately, patients' families often continue to be an afterthought or a bother, rather than the primary link to a successful recovery.

The author's underlying concern is whether the current LOS targets set by hospital administrators allow enough time to know patients and their families well enough to formulate a safe, smooth, and sustained discharge plan. Another concern is whether patients have truly stabilized medically before the physician writes the discharge order. Reducing the high and embarrassing volumes of readmissions to acute care from home, home care services, and skilled nursing facilities is the "crisis du jour." It is a cause that health care providers intuitively embrace because readmissions are often a direct measure of lack of quality. Projects to reduce readmissions resonate with most clinicians, although finding sustainable solutions can be a huge endeavor. Similar to the causes of high LOS, readmissions are multifactorial in cause and require multidisciplinary and system-wide changes to correct. Effective remedies will definitely include case management services.

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Conclusion: LOS in "Highly Reliable" Hospitals

Hospitals are now focused on finding that balance between LOS and readmissions because there are huge financial and public (due to data transparency) penalties from CMS if they do not. The challenge will be for hospitals and health systems to develop and *support a systematic clinical approach for each and every patient*, rather than only those patients involved in a small pocket of an innovative program or in a few diagnostic categories. Highly reliable hospitals, a phrase used by Dr. Mark Chassin, President and CEO of The Joint Commission, are those that consistently meet safety and quality standards.

Standards for case management in a highly reliable hospital are outlined in the following text (Zander, 2012, p. 3).

What Every Inpatient and Family Should Receive From Case Management and Social Work Services

1. Support of nationally published Patient Rights and dignity.
2. Accurate factual information regarding this admission communicated in a timely and accurate way to all members of the current treatment team in acute care and the next level of care.
3. Empathy for the patient and family story surrounding this admission, regardless of payer, socioeconomic status, specific circumstances that precipitated the need for care.
4. Advocacy for and teamwork that directly addresses unique, individual needs.
5. Coordination of timely, strategic interventions that result in outcomes that are important to the patient and, if possible and legal, the family.
6. Assessment within 24 hr of admission of "demographics," "risk stratification," and "attribution if readmission."

What will it take for hospitals to find the LOS/positive patient experience versus readmission/negative patient experience balance? The immediate answer is that the acute care hospital must take control of care and care transitions for at least 30 days of the initial "recovery" period, if not the full 90 days included in CMS's Bundled Payment Care Initiative. Hospitals can only accomplish this goal through a case management/care coordination engine, an electronic medical record and scheduling software, and new alignment strategies with physicians.

7. Procurement of funding and detailed arrangements for a safe, smooth, and sustained transition to the next level of care that will promote recovery, restoration, the highest level of wellness possible, or a comfortable death; that is, provision of options to meet activities of daily living and instrumental activities of daily living.
8. Immediate access to social work services as needed or requested for skilled support during the crisis of the hospitalization including family meetings and decisions regarding health care for the near future.
9. Liaison between the immediate health care team and the payer and payer regulations.
10. Access to financial planning if needed or requested.
11. Information about who to contact if needed postdischarge until under care of the accountable person of the next level of care.
12. Data collected from the patient and family clinical and experience with clinical management of their care will be evaluated in detail and in trended data to improve the clinical outcomes and inpatient experience of others.

What will it take for hospitals to find the LOS/positive patient experience versus readmission/negative patient experience balance? The immediate answer is that the acute care hospital must take control of care and care transitions for at least 30 days of the initial "recovery" period, if not the full 90 days included in CMS's Bundled Payment Care Initiative. Hospitals can only accomplish this goal through a case management/care coordination engine, an electronic medical record and scheduling software, and new alignment strategies with physicians. Five basic building blocks should include:

1. Outcomes rather than an arbitrary LOS will define clinical stability and readiness for transition to the next level of care: This change will require the definition and description of standardized and individualized clinical outcomes *per patient* rather than a targeted LOS. We will be able to set the outcomes because we will know the patients and their families better than we do now.
2. Within an accountable care organization, reduce or eliminate dependence on medical necessity criteria and increase the use of flexible clinical outcome progressions on a patient's individualized written critical path/treatment plan across 30 or more days postdischarge.
3. Mandatory use of physician order entry (CPOE) *for each hospital day* while in the hospital based on evidence but adapted to the individual patient's clinical condition.
4. Assessment of every patient and family by case management services upon (or before) admission to determine needs and risks.
5. Standardized patient education content across the same health system in which the patient is engaged: Patient and family education will be initiated in acute care but continued in more depth as long as necessary to reach compliance, adherence, or self-management behaviors.

We are clearly not picking fruit anymore. Instead, we are evolving an infrastructure of protein!

References

CDC/National Center for Health Statistics. (2010, July 1). *CDC/NCHS National Hospital Discharge Survey*. Atlanta, GA: Centers for Disease Control and Prevention.

Chassin, M. (2012, March 1). *IHI audio conference promo*. Cambridge, MA: Institute for Healthcare Improvement.

DeFrances, C. J., & Hall, M. J. (2007, July 12). 2005 National Hospital Discharge Survey. In *Advanced Data from Vital and Health Statistics* (No. 385, pp. 1–19). Atlanta, GA: Centers for Disease Control and Prevention.

DeLuca, B., & Centafont, D. (2012). 2 areas to be aware of on RAC review of transfer DRG payments. *The ForensiCorp Focus, 1*(8).

DiConsiglio, J. (2006, November). Back-to-basics measures saves lives. *Hospitals and Health Networks*, *80*(11), 62–64.

Dunn, H. (1990). *Hard choices for loving people* (5th ed.) Lansdowne, VA: A & A Publishers Inc.

Gladwell, M. (2000). *The tipping point*. Boston, MA: Little Brown.

Kalisch, B. (2006). Missed nursing care: A qualitative study. *Journal of Nursing Care Quality*, *21*(4), 306–313.

Organisation for Economic Cooperation and Development. (n.d.). *OECD iLibrary*. Retrieved December 12, 2015, from www.OECD-ilibrary.org

Parmer, M. (2002). *Critical indicators for evidence-based practice*. Wellesley, MA: The Center for Case Management.

Resar, R., Griffin, F. A., Haraden, C., & Nolan, T. W. (2012). *Using care bundles to improve health care quality* (IHI Innovation Series white paper). Cambridge, MA: Institute for Healthcare Improvement.

The Joint Commission. (2013). *Specifications manual for National Hospital Inpatient Quality Measures*. Oakbrook Terrace, IL: Author.

Thomas, L. (2011). *Maternity care evolves to embrace family*. Retrieved December 12, 2015, from http://kaiserpermanentehistory.org/tag/length-of-stay

Weiss, Z. A., & Elixhauser, A. (2014, October). Overview of hospital stays in the United States, 2012. In *H-CUP Healthcare Cost and Utilization Project* (Statistical Brief No. 180). Rockville, MD: Agency for Healthcare Research and Quality.

Zander, K. (2002, December). Integrated care pathways: eleven international trends. *Journal of Integrated Care Pathways*, *6*(3), 101–107.

Zander, K. (2012, Spring/Summer). Highly-reliable case management. *The Center for Case Management: New Definition*, *27*(1). Retrieved from www.cfcm.com

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