

illum Med.



CareUpdate: The Future of Healthcare Communication

Prepared by: Peter Antkowiak, M.D. & Darragh McNicholas, M.A.



Timely, accurate communication is central to delivering quality healthcare. CareUpdate enables meaningful, real-time communication between patients, their social support network, and their healthcare providers with potential for application across the industry from hospitals to nursing homes.

CareUpdate and Patient Satisfaction

Due to financial incentives from public and private insurers there is a growing urgency among hospital executives to improve patient satisfaction when admitted to a hospital or interfacing with the healthcare system. Centers for Medicare & Medicaid (CMS) reimbursement is now directly linked to patient experience. Private payer incentives increasingly reflect the CMS model. CareUpdate (CU) positively influences patient satisfaction by enabling patients and their families to receive timely, meaningful updates from the entire care team. This directly improves hospital reimbursement.

The Hospital Value Based Purchasing Program (VBP) determines compensation for hospitals based on quality performance indicators of patient care, quality, and efficiency. The total amount allocated to value-based incentive payments in FY 2017 is estimated to be approximately \$1.8B. Patient “Experience of Care” as assessed by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey composes 25% of the VBP, representing \$450M in possible annual reimbursement directly tied to patient satisfaction. Acute care hospitals account for the largest share of Medicare spending, and the VBP program reaches over 3,000 hospitals across the country.

HCAHPS scores reflect patients' perspectives on several aspects of care, including: communication with doctors and nurses, responsiveness of hospital staff, communication about medicines, and discharge information. Annually, a hospital can lose or gain an estimated average of \$500K to \$850K as a result of HCAHPS scores. Studies have shown that communication with nurses and doctors are two of the most influential factors directly impacting HCAHPS scores. This significant and growing threat to annual revenue has strengthened interest in tools that enhance patient satisfaction.

CareUpdate (CU) enables care teams (physicians, nurses, therapists, etc.) to communicate directly with both patients and families throughout a hospitalization thereby directly improving HCAHPS communication scores. Patients and families feel genuinely engaged and connected with their care teams through CU's unique mobile platform. This allows patients and families to exhibit better understanding of goals of care, treatment plans, and significant outcomes. Moreover, CU enabled communication with care teams beyond the initial hospitalization in transition to long term rehabilitation and home care further enhances patient satisfaction with the care experience. Satisfaction can be further improved by secondary gains using CU, examples of which include:

- Maintaining patient engagement.
- Reducing readmission rates.
- Allowing for clarification and improvement of discharge planning.

CU's impact on HCAHPS scores will directly increase hospital revenue—Press Ganey estimates that a hospital with an annual revenue of \$120M that improves patient satisfaction can realize an additional \$2.2M – \$5.4M per year.

CareUpdate and Value Based Reimbursement

Both CMS and private insurers are increasingly focused on value-based reimbursement. Two examples of initiatives that will be directly impacted by implementation and use of CareUpdate are:

1. Bundled Payments for Care Improvement
2. Hospital Readmission Reduction Program

Bundled Payments for Care Improvement (BPCI)

On Oct. 1, 2013, the Center for Medicare and Medicaid Innovation (CMMI) officially launched the Medicare BPCI initiative. Under this voluntary pilot program, hospitals, post-acute providers, physician group practices and other organizations assume risk for total spending relative to a target price for up to 48 clinical episodes that begin with an acute-care hospital stay. In this model, organizations enter into payment arrangements that include financial and performance accountability for episodes of care.

Absolutely essential to profitability and successful implementation of bundled payments is coordination of care among patients and their social support network in all stages of treatment, discharge planning, and long term care.



There are significant dollars at stake. Every patient enrolled in a bundled payment program can have a large financial impact on a practice or hospital, particularly if they have a re-admission or an adverse event. For example, post-acute care and readmissions account for nearly 40% of Medicare spending for 30-day congestive heart failure episodes and 37% of spending for joint replacement episodes. CareUpdate is uniquely positioned to enable providers to integrate care with patients and their families. Using CU to frequently communicate with high-risk patients, highlight important treatment reminders, and re-engage patients along the spectrum of recovery will significantly limit adverse events and readmissions, thereby driving dollars to the owners of the bundle (physician groups and/or hospitals).

Physician engagement is also a key variable that positively influences revenue in bundle-based payment models. Technology to catalyze clinician engagement will be crucial for value-based reimbursement to succeed, as the primary challenge identified by many payers and hospitals in achieving profitability through value-based reimbursement is clinician engagement. Provider interests will be well served by CU: clinicians will achieve higher volume

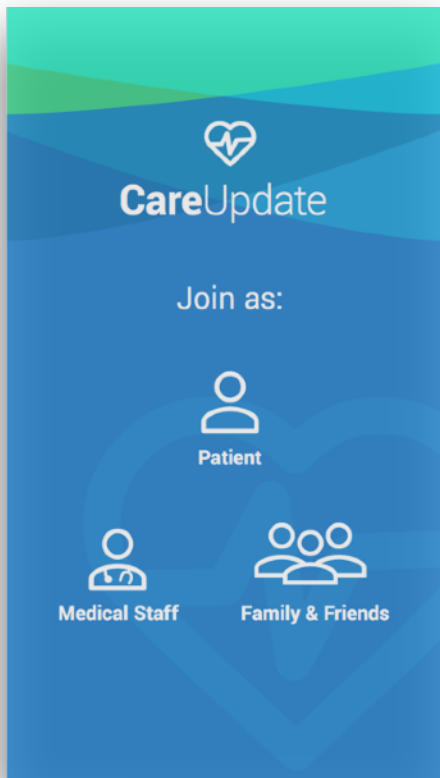
by retaining satisfied patients; improved communication through CU may reduce malpractice claims (better patient satisfaction can reduce substantial malpractice litigation and costs, which amounts to an estimated \$53,000 in case preparation costs and \$173,000 in payments per lawsuit); and efficiency gains will be achieved for physician providers through minimizing unnecessary redundancy in communication to patients and families (a direct benefit identified in illumMed's own survey of over one hundred nurses across ten institutions). Thus, CU will provide clinicians with an intuitive, useful tool that will improve engagement with families and patients from admission through discharge. This will improve outcomes, patient retention, and drive cost savings—all leading to increased revenues for physicians, outpatient practices, and hospitals.

More than 1,600 organizations were participating in BPCI as of October 2015 including 415 acute care hospitals, 305 physician groups and 723 skilled nursing facilities taking on risk for more than 14,000 clinical episodes. A few states are testing bundled payments in Medicaid programs; this segment is particularly poised for growth as states are under

direct pressure from taxpayers to hold down Medicaid costs.

Supporting practice and hospital success with bundled payments is a rapidly growing industry that is projected to parallel the expanding growth of value based payment models.

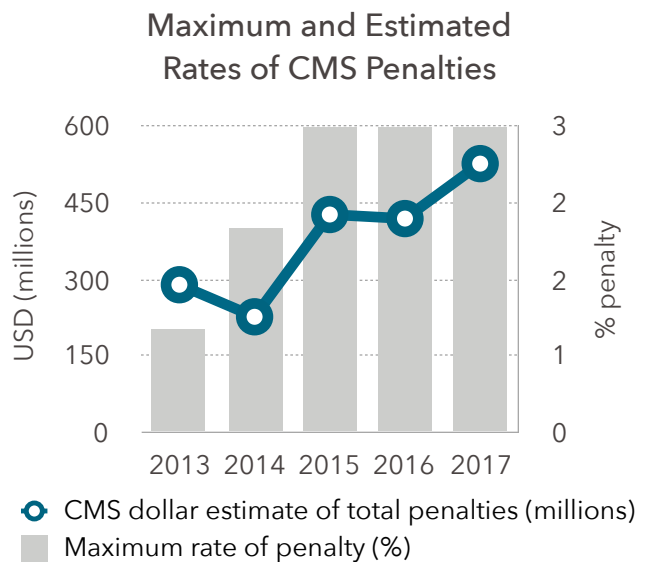
CareUpdate is uniquely positioned at the forefront of reimbursement trends as value-based payment models become increasingly substantial forms of reimbursement across public and private payers.



Hospital Readmission Reduction Program

This program provides financial incentives to hospitals to reduce unnecessary hospital readmissions which are costly and usually due to a lack of coordination between providers, inadequate discharge planning and poor follow-up with patients.

In FY 2013, the first year of the program, the maximum penalty was 1% of the hospital's base Medicare inpatient payments, this increased to 3% when the program was fully phased-in by 2015. Total Medicare penalties assessed on hospitals for readmissions will increase to \$528M in 2017, \$108M more than in 2016.



Key criteria in reducing readmission rates have been studied extensively. Reports have discussed several strategies including:

- Beginning care management and discharge planning early, targeting high-risk patients, and ensuring frequent communication across the care team.

- Enhancing coaching, education, and support for patient and family self-management.
- Maintaining close contact with high-risk patients after discharge through telephone calls, tele-monitoring, or similar practices.

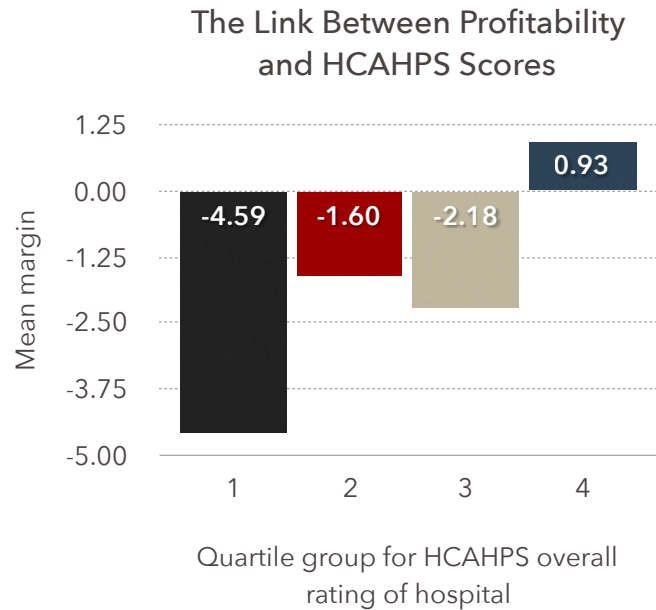
CareUpdate directly achieves these goals.

With CU providers can establish an early connection with patients and their families. This connection will be maintained throughout the patient’s hospital course. Once discharged, CU will facilitate a continuity of care by maintaining a line of communication between the provider and the entire family network. Use of the application’s collaborative communication platform will improve medication compliance, strengthen patient/family engagement, facilitate discharge planning, enhance follow-up appointment reminders, and ultimately reduce readmission rates. This is a direct and powerful benefit of CareUpdate that aligns with CMS incentives and helps hospitals to avoid readmission fees, thereby increasing their bottom line.

Value-based reimbursement models are being actively implemented across the healthcare industry. A survey from the Health Care Transformation Task



Force shows that 41% of its provider and payer members have implemented value-based care reimbursement toward the end of 2015, a rise from the 30% of members who had adopted value-based care protocols by 2014. As this trend continues, CareUpdate will be at the forefront of maximizing value-based reimbursement for providers and hospitals



CareUpdate and the Hospital Marketplace

Value-based payment models increasing hospital reimbursement based on patient satisfaction represent a larger trend sweeping across the healthcare system. When surveyed, a majority of healthcare executives say patient experience and satisfaction is one of their top three priorities. They are hiring “chief patient experience” officers and teams of consultants to improve their HCAHPS scores. In an era of increasing competition and consumerization, hospitals are beginning to focus on patient loyalty the same way that other consumer-

centric industries have for decades. This is for good reason, there is a direct link between HCAHPS scores and profitability: only hospitals in the top quartile for patient ratings showed positive profit margins based on Press Ganey data from 3,035 U.S. acute-care hospitals.

Shifting trends in insurance structure and healthcare delivery empower consumers to make decisions about where and how they receive care. Hospital executives are increasingly realizing that discharged patients not only need to leave the hospital healthy, they need to feel satisfied with their experience. This is essential so that the next time they or someone in their family seeks medical care they will be inclined to return to the same facility. Patient loyalty is impacted by negative post-care experiences, which in turn impact the bottom line. Loss of a lifetime household healthcare expenditure is estimated to be \$1.5M+ for hospitals and \$1.0M+ for physician-related expenses. Thus, one dissatisfied patient puts a significant amount of revenue at risk.

CareUpdate directly improves the retention of patients, family members, and friends. With CU, hospitals will be able to:

- Maintain a network of patients and their primary contact members that will remain directly accessible through mobile and electronic means well after hospital discharge.
- Continually engage patients and their social network through automated updates or emails via the CU platform.
- Use the CU network for direct advertising to patients and family members through strategically targeted ads.

CareUpdate will directly enable hospitals to achieve improved engagement, loyalty, and retention of patients and families well beyond their initial hospital visits—a powerful advantage that will directly increase a hospital’s revenue and marketability.

CareUpdate Across the Healthcare Industry

While much of this report is focused on hospital reimbursement, patient satisfaction, retention, and perception of care is equally influential across the healthcare spectrum in outpatient settings and in the long-term care market (home health, assisted living, nursing care, hospice). Private corporations in the long-term market are incentivized to offer the best technology and tools for patients in their facilities as this drives revenue. CMS has also increased incentives for patient satisfaction by implementing a “Five-Star Quality Rating System” that allows consumers to directly compare long-term care facilities. CU will offer a direct competitive advantage to facilities in the long-term care market by allowing consistent, timely communication between the care team and patients/families, thereby driving growth and revenue to long term care and rehabilitation facilities.

Outpatient medicine is also ultimately a service industry. Experts consistently recognize that

developing an effective patient satisfaction strategy for outpatient practices should involve broad solutions for enhancing patient interaction and communication. Retention of patients is critical in the outpatient setting where care delivery models designed around customer convenience, like retail walk-in clinics, pose a competitive threat to traditional outpatient practices. As in the hospital and long-term care settings, CU will directly improve patient satisfaction with care by enhancing communication, engagement, and connectivity with their outpatient care teams. The competitive advantage of the CU platform extends well beyond

improved patient satisfaction. CU will allow outpatient clinics to:

- Maintain contact with patients and their families after a single interaction or annual visit thereby improving patient/family engagement and retention.
- Send timely updates about appointments, prescriptions, or care plans that will improve compliance and outcomes.
- Share targeted marketing materials or advertisements.

Conclusion

CareUpdate is a unique, powerful platform at the forefront of several intersecting trends in the healthcare market. It will provide powerful advantages to hospitals, outpatient clinics, and long-term care facilities by improving patient satisfaction, bettering communication, and strengthening engagement. The return on investment for practices that use the CareUpdate platform is meaningful and consequential. CareUpdate's adoption across the healthcare industry will change the future of provider, patient, and family communication.



References:

1. Boccuti C. "Aiming for Fewer Hospital U-Turns: The Medicare Hospital Readmission Reduction Program." The Henry J. Kaiser Family Foundation, 2015. January, 2015.
2. Boehm, L. "The Rise of the Healthcare Chief Experience Officer" 2016 Research Report. Vocera Communications, Inc. <http://solutions.vocera.com/rs/742-LCM-112/images/wp-2016CXOResult.pdf>
3. Buhlman, N. The time to prepare for value-based purchasing is now. White Papers for Hospitals. 2011.
4. Carman, K. "Patient and Family Engagement: A Framework for Understanding the Elements and Developing Interventions and Policies." 2013 Health Affairs32: 223-231.
5. Centers for Medicare & Medicaid Services: "HCAHPS Fact Sheet" August 2013. www.hcahpsonline.org.
6. Centers for Medicare & Medicaid Services. "Hospital Inpatient Prospective Payment System (IPPS) and Long Term Acute Care Hospital (LTCH) Final Rule Policy and Payment Changes for Fiscal Year (FY) 2017" August 2016. <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2016-Fact-sheets-items/2016-08-02.html>
7. Centers for Medicare & Medicaid Services. "Bundled Payments for Care Improvement (BPCI) Initiative: General Information" <https://innovation.cms.gov/initiatives/bundled-payments/>
8. Centers for Medicare & Medicaid Services. "Five Star Quality Rating System" March 2017. <https://www.cms.gov/medicare/provider-enrollment-and-certification/certificationandcompliance/fsqrs.html>
9. Centers for Medicare & Medicaid Services. "Hospital Value Based Purchasing" September 2015. https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/Hospital_VBPurchasing_Fact_Sheet_ICN907664.pdf
10. Charmel, P. Building the business case for patient-centered care, Healthcare Financial Management, 2008, vol. 62 (pg. 80-5).
11. Hall, M. "Looking to Improve Financial Results? Start by Listening to Patients" Healthcare Financial Management, October 2008.
12. HCAHPS: Patient's Perspectives of Care Survey. US Center for Medicaid and Medicare Services. 2012. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS.html>
13. Institute of Medicine. "Crossing the Quality Chasm: A New Health System for the 21st Century." Washington, DC: National Academy Press, 2001.
14. Mechanic, R. American Hospital Association: "Medicare's Bundled Payment Initiatives: Considerations for Providers" January 2016.
15. Prey, JE. Patient engagement in the inpatient setting: a systematic review . J American Medical Informatics Association 2014 ; 21 : 742 - 750.
16. Rozenblum, R. "Patient-centred healthcare, social media and the internet: the perfect storm?" BMJ Quality & Safety. February 2013.
17. Rozenblum, R. "The patient satisfaction chasm: the gap between hospital managements and frontline clinicians." BMJ Quality & Safety 2012. November 2012.
18. The Health Care Transformation Task Force. "Progress Report Shows Nearly 40% Increase of Members in Value-Based Payment Arrangements" April 2016. <http://hcttf.org/releases/2016/4/12/healthcare-transformation-task-force-reports-increase-in-value-based-payments>