

CASE STUDY: MedsTracker excels in physician adoption at Valley Medical Center

MedsTracker®

Electronic Medication Reconciliation

MedsTracker has earned the exclusive endorsement of the American Hospital Association.



"The interdisciplinary team utilized a collaborative approach to gather requirements, manage expectations and to develop clear, measurable outcomes that allowed us to celebrate our successes. Valley went from zero to 91 percent reconciled at discharge after three weeks, and we continue to see improvement and gain user acceptance."

Paul Hayes, RN, Executive Vice President

"The fact that it has been embraced by our entire staff speaks for itself! The design team has been willing to work closely with us and adapt to our needs. The technical staff has provided in-depth training and constant availability to assist doctors requiring help. They have backed us at every step and have traveled with us down a path that has culminated in improved safety for our patients and a process of medication reconciliation that has been widely accepted by our very diverse staff."

John L. Bondi, MD

Valley Medical Center

Valley Medical Center (VMC), located in the suburbs south of Seattle, is the oldest and largest public hospital district in the state of Washington. It includes a 303-bed acute care hospital and a dozen clinics, with more than 16,000 inpatient discharges and over half a million outpatient visits each year.

VMC houses one of the busiest Emergency departments on the West Coast, with close to 75,000 annual visits, and is home to a family practice residency program affiliated with the University of Washington School of Medicine. VMC is long-recognized for its culture of quality and innovation:

- The Joint Commission's Gold Seal of Approval™ for Stroke Care
- Five-Star Rated by HealthGrades for Back and Neck Surgery (without fusion), Spinal Surgery, Joint Replacement Surgery and Total Knee Replacement
- Top 10 "Best Places to Work in Healthcare" in the nation by *Modern Healthcare* magazine

Executive Summary

"The breakdown occurs when nursing prepares one list and the physician prepares another. The patient may tell the nurse something, but not the physician, or vice versa, and nobody knows there is a difference because the two lists are on paper...."

Problem

Valley Medical Center (VMC) is a thriving, award-winning suburban hospital committed to quality patient care. When The Joint Commission first initiated the new patient safety goal for medication reconciliation in 2005, it prompted Valley Medical Center to carefully review its medication reconciliation processes; from admission, through transfer, to discharge.

As with most multi-vendor hospital environments, analyzing the med rec flow uncovered deficits: incomplete and inaccurate home medication histories, gaps in communication to the next provider of care, and unintentional duplication or omission medication errors. Paper-based systems were prone to error due to legibility issues; electronic solutions lacked integration, leading to redundant and inefficient systems that wasted clinicians' time.

Dewey Howell, MD, PhD, a physician in residency and already an established software developer, had experienced firsthand the frustrations of electronic tools that impeded clinician workflow. He resolved to create a med rec solution that worked with clinicians rather than against them, that supported the process by thinking like a clinician—while ensuring patient safety and regulatory compliance.

Solution

Dr. Howell engaged the VMC medical staff and IT staff to create a physician-friendly, fully electronic, web-based medication reconciliation product. One of the first issues identified was the need to simplify the compilation of medication lists. Using First DataBank's National Drug Data File (NDDF) Plus™ and OrderView Med Knowledge Base™, combined with an intuitive user interface, MedsTracker more easily and completely populates the home medication history, then reconciles it with new admission medications on a single screen. MedsTracker also provides intuitive clinical decision support through relevant safety alerts. At discharge, MedsTracker reconciles inpatient and home medications on one screen, creates electronic prescriptions, notifies the patient's primary care physician of the changes in regimen, and provides simple, lay language printouts to help improve patient understanding and compliance.

Results

Valley Medical Center went live with MedsTracker on April 3, 2007. Elated to have a med rec tool that understands and respects clinician workflow and improves patient safety, physicians flocked to MedsTracker. VMC enjoyed unprecedented physician adoption. Three weeks after implementation, more than 91 percent of discharges were successfully reconciled with MedsTracker. Today, VMC continues to demonstrate clinician efficiency and improved accuracy in reconciliation. The average time to complete the reconciliation events is less than 3.5 minutes, and the accuracy of the home medication list is 85 percent. HSTM Research scores in discharge readiness have soared, with percentile ranking going from the 40s and 50s in 2007 to the high 80s and low 90s in 2008 and 2009. Discharge follow-up calls reveal patients have less confusion and fewer questions about medications since the implementation of MedsTracker. These results have contributed significantly to high clinician adoption and ultimately, improved medication safety for patients.

"The staff at Design Clinicals has been innovative and responsive to physician and staff needs for a system that narrows the margin of error, simplifies processes and is user-friendly. I could wish that all patient safety initiative solutions worked so smoothly."

Elaine Lobdell, RN, MS, Vice President Quality Services

MedsTracker®

At a glance

- Extremely favorable physician adoption rates, often above 90 percent
- Saves clinicians valuable time, with medication reconciliation averaging less than three minutes
- Documented* improved patient satisfaction with discharge

*Press Ganey, HSTM Research



Design Clinicals
Healthcare IT solutions that work

Who we are


Design Clinicals Inc. is a health care information technology company dedicated to providing leading-edge

tools to improve the delivery of patient care. Founded in 2005 by practicing physicians and hospital IT professionals, Design Clinicals offers innovative, intuitive software solutions that enhance communication, improve workflow, increase patient safety and ensure regulatory

compliance. Our highly adaptive products integrate with any hospital information system, with proven, superior clinician adoption rates.

Contact us

For more information, visit www.DesignClinicals.com or call 1-888-633-7320 ext. 108.

Patient Discharge Medication Instructions	
Your discharge medications are as follows:	
NEW	LISINAPRIL (for HIGH BLOOD PRESSURE) (also known as Prinivil, Zestril) 2.5 milligram oral 2 times per day NEXT DOSE DUE: 6/5/08 12:00
Continue	Aspirin (for HIGH BLOOD PRESSURE) (also known as Adult Aspirin EC Low Strength, Analgesic, Bayer Childrens Aspirin) 81 milligram every day NEXT DOSE DUE: 6/5/08
Change	Protonix (for HEARTBURN) (also known as PANTOPRAZOLE) 40 milligram oral every morning NEXT DOSE DUE: 6/5/08 08:00
PLEASE STOP ALL OF THE FOLLOWING MEDICATIONS: 	
STOP	Lipitor (for HIGH CHOLESTEROL) (also known as ATORVASTATIN) 20 milligram oral every day