

Case Study:

**MedAptus Charges in Hand™ Solution
at The Lahey Clinic**

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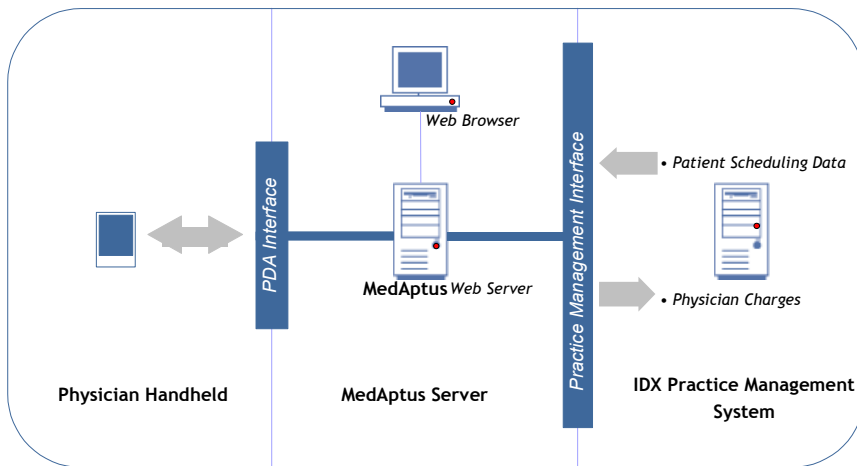


The implementation of the MedAptus Charges in Hand™ solution at The Lahey Clinic resulted in the elimination of lost charges, reduction in the time to charge capture to less than one day and reduction in the average days to payment by more than 10 percent.

BACKGROUND

The Lahey Clinic has long been a leader in clinical innovation and operational efficiency. Like many healthcare providers, Lahey recognized that information flow at the point-of-care was the key to complete and accurate coding. The expected result would be an improved revenue cycle, reduced claim denials, improved operational efficiency and enhanced compliance.

The leadership of the Lahey Clinic recognized current market challenges and the opportunity to use handheld applications to improve their revenue capture, create a paperless process and support more complete, accurate and compliant billing. Following an extensive analysis of available product offerings, Lahey selected the MedAptus solution and went live with the first group of physicians



Charges In Hand™ Enterprise Edition

in 2001.

HISTORICAL PROCESS

Although the Lahey Clinic is an efficient organization, they have been constrained by the traditional paper-based coding and revenue capture process that is pervasive throughout healthcare. Physicians record patient diagnoses (ICD-9 codes) and services provided to patients (procedure/CPT-4 codes) by

The Lahey Clinic

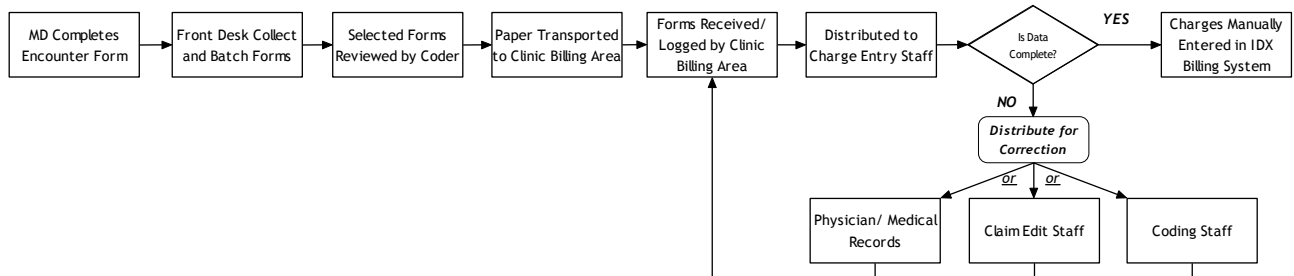
The Lahey Clinic is a world-renowned nonprofit multi-specialty group practice of 450+ physicians and 4,000 support staff. Lahey Clinic provides primary and specialty care at Lahey Medical Center in Burlington, MA, Lahey Clinic Northshore in Peabody, MA, Lahey Lexington in Lexington, MA and community-based practices in 30+ towns throughout Massachusetts. Lahey Clinic in Burlington encompasses a hospital and an ambulatory care center serving more than 3,000 patients each day. Lahey is a teaching hospital for Tufts University School of Medicine and Harvard Medical School and maintains residency and fellowship programs.

MedAptus Solution

The Charges In Hand™ mobile coding solution is housed on a handheld computer device that is used by physicians to capture charge data required for billing at the point of patient service, the visit. As depicted in the diagram on this page, the system consists of a handheld computer and application server, connected by a wireless network, which work together to eliminate traditional paper transfers of data. The solution includes data integration with registration and scheduling systems so that patient-specific demographic and schedule information is available at the time of visit, and with billing systems to transfer coded charge data at the completion of the visit.

completing encounter forms that list the most common codes for their group. These forms are batched each day and forwarded to the clinic billing area for review, edit and entry in the billing system. This paper-based process is time consuming, resource intensive and fraught with the potential for missing, incomplete and/or inaccurate data.

Historical Charge Capture Process



The flowchart above presents the historical charge capture process at Lahey. While efficient relative to processes at many other organizations, it is burdened by the dependence on paper.

- The process of entering a charge in the billing system typically involves 6-7 people handling the paper encounter form and takes several days.
- Missing, incomplete and/or inaccurate data is not typically identified until reviewed in the clinic billing area several days after the patient was seen.
- Since charges are not entered in the system for at least several days, it does not allow for an automated process for reconciling patients seen with charges captured until several days after the service was provided.
- Requires physical transportation and controls for tracking the paper forms in each step of the process.
- The number of billing codes for procedures and diagnoses and the rules surrounding allowable combinations of codes are exceedingly complex and cannot be reflected on an encounter form.

“Having a system that minimizes denials, because the information is as accurate and complete as possible is extremely important in today’s world to ensure you will be paid as quickly as possible.”

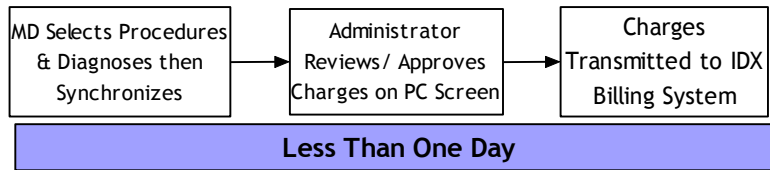
Sanford Kurtz, MD
Chief Operating Officer
The Lahey Clinic

MEDAPTUS SOLUTION

The MedAptus solution dramatically streamlined this process into a few simple steps.

1. The physician wirelessly receives patient census and scheduling data.
2. At the close of the visit, the physician selects diagnoses and procedures associated with the patient encounter.
3. The completed encounter is wirelessly transmitted to the application server.
4. The charges can be reviewed/edited by administrative staff before being transmitted to the IDX billing system.

Revised Charge Capture Process Using MedAptus



The software assists the physician by providing him/her with a complete set of diagnoses and procedures from which to choose, an E&M coding wizard to assist in the selection of the most appropriate Evaluation and Management code level, and a comprehensive set of local and national rules. Charges selected by physicians are edited on the device for appropriateness against these rule sets. If rule violations are identified, the physician is provided with an on-screen notification and tools to help them understand and resolve the issue.

The operational process has been changed to completely eliminate paper from the process of charge capture for professional services. Documentation of procedures and diagnoses is done once - by the physician - rather than by both the physician and the charge entry staff, thereby decreasing the potential for data entry errors. The decision-making is performed by the physician at the point-of-care, when the patient encounter information is most accessible. The software provides the physician with the controls, tools and rules that facilitate more accurate coding, ordering of codes, and code linkage.

STUDY RESULTS

To quantify the impact of the MedAptus solution, Lahey conducted a detailed study comparing the performance of an initial group of physician users in three areas:

- Recovery of lost charges
- Time from the patient encounter to entry of charges in the billing system
- Time from the patient encounter to receipt of payment

The study group included 15 physicians representing 4 clinical departments and compared data from 3-month periods prior to and following deployment of MedAptus. The findings were as follows:

- There have been no charges lost following implementation of the MedAptus solution for charge capture.
- The average time from the patient encounter to entry of charges in the billing system was reduced to less than 1 day.
- The average time from claim submission to receipt of payment was reduced by over 10 percent or a reduction of 4.2 days.

“A patient comes in, they appear on my screen, I tap on the patient, I tap on the code and that’s it... This is just another tool I use like a stethoscope and a pen. It is just another part of the things that are in my pocket that I use to take care of my patients.”

Paresh C. Shah, MD
Chairman, Health Information Technology
Department of General Surgery
The Lahey Clinic

	Prior to MedAptus	Using MedAptus	Percent Improvement
Lost Charge Percent	1.1%	0%*	
Average Days to Charge Entry	2.29	0.46	79.9%
Average Days From Claim to Payment	35.3	31.1	11.9%

* Over 22,000 encounters were monitored with no lost charges

"It has a dramatic effect on improving the efficiency of the hospital as an organization. It reduces our costs of operating which get directly translated into reducing the costs of healthcare overall."

Paresh C. Shah, MD
Chairman, Health Information Technology
Department of General Surgery
The Lahey Clinic

THE FUTURE

Currently, there are over 100 users of the MedAptus solution at The Lahey Clinic with an aggressive plan in progress to rollout to all physicians throughout the organization.

Lahey is also working with MedAptus as a development partner for additional clinical and administrative applications that will be integrated with *Charges in Hand™* and deployed throughout the Lahey system.