

## Lawrence General Hospital Significantly Improves Emergency Department Efficiency and Compliance



Lawrence General Hospital is a single acute care facility with 102 licensed inpatient beds located north of Boston in Lawrence, Massachusetts. Despite its modest size, the hospital's Emergency Department sees more than 68,000 patients each year — more emergency patients than many Boston hospitals — making it one of the five largest EDs in Massachusetts. Lawrence General is the first hospital in Massachusetts to become a Level III Trauma Center based on guidelines established by the American College of Surgeons.

### Improving department efficiency

In May 2006, the hospital opened a \$20 million “state-of-the-art” ED, tripling the size of the department. Kim Downer, R.N., manager of emergency services, noted that the new ED changed the perception of the hospital as well as the expectations of patients. “Patients equate bigger with being faster,” she said. But, like many emergency departments, patient throughput was a key challenge for Lawrence General Hospital. Long wait times posed not only a safety issue, but were a major contributor to patient dissatisfaction.

Length of stay and door-to-doctor times are among the key metrics by which Lawrence General's emergency department measures its efficiency.

### Quick Profile

#### Lawrence General Hospital

##### Institution profile:

Single-facility with 102 licensed beds, 41 emergency department (ED) beds and 68,000 annual ED visits. Approximately 70-75% of patients are covered by some form of government insurance.

##### Key business/clinical drivers:

Need innovative ways to address departmental throughput. Manage department budget knowing that many federal and state funded programs are in flux or being cut.

##### Picis solution:

Picis ED PulseCheck® implemented in February 2005.

##### Interoperability:

McKesson with the following integration points: ADT, service master file update, charge master file update, EMR outbound, inbound lab and radiology results, facility billing, order entry and inbound order status.

##### Results:

- Reduced door-to-doctor times by 32 minutes
- Decreased length of stay (LOS) by 40 minutes
- Decreased left without being seen (LWBS) from more than 5% to 0.5% within seven months
- Captured \$1.9 million in lost IV charges over a seven month period.



- ▶ The hospital captures important milestones in ED PulseCheck and analyzes the data on an ongoing basis. This information led the hospital to add a number of mid-level practitioners to their staffing mix.

Downer and her team have also used this data to implement a Rapid Medical Evaluation process, the first of its kind in the state of Massachusetts. During the 3:00 – 11:00 PM shift, where the department sees half of its daily volume, a physician is placed in triage. Those patients with minor complaints are treated by physicians right in the triage area. While this new process initially represented a major cultural shift for nursing and medical staff as well as patients, it has reaped significant results. As a result, 20-30 patients per day can be sent home without having gone beyond triage. This rapid evaluation process has also had a carry-over effect and positive impact on the night shift, improving throughput.

Using ED PulseCheck, part of the CareSuite® family of high-acuity solutions, the hospital has enjoyed the following results:

- Reduced door-to-doctor times by 32 minutes
- Decreased LOS by 40 minutes
- Decreased LWBS from over 5% to less than 0.5%

### Supporting quality and compliance initiatives

In 2008, Lawrence General embarked on a quality initiative to address intravenous (IV) infusion charge capture to ensure improved compliance with CMS guidelines and recover lost revenue. “We knew we had some concerns about properly documenting the up and down times for IV infusions,” said Downer. Using ED PulseCheck, the nursing staff can easily

document IV up and down times. In the initial seven months of this quality program, the hospital captured \$1.9 million in lost IV infusion charges. “That represents almost \$400,000 in net revenue to our hospital,” said Downer. She added, “We have also improved our charting compliance to 85% and continue to get better. We could have never have done this without ED PulseCheck.”

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### Advanced daily planning

Before implementing ED PulseCheck, the hospital utilized a traditional white board. It was difficult to keep updated, was only available in one location and often displayed inaccurate information. “The ED PulseCheck system has revolutionized trying to keep track of patients. It also allows me to make decisions about staff and resources utilized,” says Downer. “I could have never done this before with a whiteboard.”

Downer is using many of the reports in ED PulseCheck to manage the ED. Each morning, when arriving to work, she looks at the timeline report, daily activity reports and nursing productivity reports. These reports help justify staffing needs. The hospital has adjusted staffing patterns based on data from the system. By better aligning staff with patient volumes, Downer has seen a decrease in the payroll line of her budget, particularly during off-peak times. By the same token, she has been able to justify staffing overages

when the department is busy.

When asked how ED PulseCheck has helped her in her job, Downer replied “As a manager, you have a lot of gut feelings about things. But the system has made my job a lot easier...more concrete. It allows me to do a more accurate assessment of my staff and systems because I have real numbers.” ■

### About Picis

Picis is a global provider of innovative information solutions that enable rapid and sustained delivery of clinical, financial and operational results in the acute care areas of the hospital. These high-acuity areas include the emergency department, operating and recovery rooms, and intensive care units. Picis offers the most advanced suite of integrated products focused on these life-critical areas of the hospital where the patients are the most vulnerable, the care process is the most complex and an increasing majority of hospital costs and potential revenue are concentrated. Headquartered in Wakefield, Massachusetts with European operations in Barcelona and London, Picis has licensed systems for use in more than 1,700 hospitals in 19 countries. More information is available at [www.picis.com](http://www.picis.com).



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