Reforming the ED: A New Vision for Emergency Medicine

By John E. Whitcomb, MD, Philip Troiano, MD, Paul Coogan, MD, Len Wilk, George Hinton, Rebecca Long, RN, and James Casanova, MD, MBA, CPE, FACPE

In this article...

Examine the many changes that a hospital undertook in order to cut down traffic through the overcrowded emergency department.

One of the Gordian knots of American medicine is overcrowded hospital emergency departments. Virtually every emergency publication has been crying out for relief without significant change being implemented. Aurora Health Care embarked on a different emergency services path at its downtown Milwaukee hospital, Aurora Sinai Medical Center.

As we prepared to create changes in our emergency services, a few basic principles were agreed upon.

• First, we would follow not only the letter but the intent of the law. We would comply with EMTALA and also go the next step. Every patient would be seen, evaluated and for those with non-emergencies, a place would be found where their problem could best be managed—a medical home.

• Second, we would be insurance blind.

• Finally, we would never place our care providers in situations in which they felt uncomfortable.

Our first question was, “Can we really change the process?” Prior to the initiation of our program, it was the common belief of the physicians involved that EMTALA law required that all patients be seen and treated.

In fact, EMTALA law calls for the evaluation to see if an emergency medical condition exists, and stabilization within the capabilities of the institution prior to transfer. If an emergency medical condition does not exist, then the obligation of the institution does not exist under EMTALA law.

This is an important issue to understand right up front. Emergency physicians have argued, “But we have now done 95 percent of the work. It only takes a few seconds to fill out the script and the discharge instructions and the patient leaves happy.”

What this argument fails to address is that it encourages the use of the ED for any condition, and it supports the fragmentation of American medical care. We needed to focus on not just any medical condition but on a medical condition that is of sufficient severity to reasonably be expected to place the health of the individual in serious jeopardy, serious impairment of bodily function or serious dysfunction of any bodily organ or part.

The word is serious. The emphasis of the law is not on all medical conditions, but serious conditions that risk serious impairment of body or functions. The house of emergency medicine has generally not embraced this nuance.

If an emergency does not exist, what’s next? Is it acceptable to render medical care of lower quality with worse outcomes if, in fact, care is provided in the ED and the patient suffers from the subsequent fragmentation and uncoordinated nature of that event?

The answer is no. Fragmented care is worse care. In a landmark study in New York City, John Billings, a professor of public policy from NYU showed that primary medical care in the ED is worse care.

This study showed that medical care in New York City could be provided to safety net patients in various venues. However, when patients used the ED as their primary source of medical care, there were some situations in which chronic illness resulted in as much as an 800 percent increase in hospitalization for such diagnoses as asthma.

With that information in hand, senior leadership at Aurora Health Care made the commitment to opt for a change and to do it with full administrative support. This would not be an ED program but an institutional program. It would not address behavior in just one venue but rather in the entire organization.
What's an emergency?

The next critical step was to identify a community standard for what constitutes an emergency medical condition (EMC). What did the community consider an emergency medical condition to be? What is considered serious?

Focus groups of prior emergency patients living in the hospital-adjacent zip codes were conducted by payer mix. Straightforward questions were posed. What’s the ED for? When should you go? Should you use the ED for a sore throat? A work excuse? An STD check? A sore back? A child with a fever? Have you personally used the ED for those things? If so, why?

The focus groups found a remarkably sophisticated audience. In fact, strong opinions were held by customers in all payer groups—commercially insured, government funded and uninsured—that the ED should not be used for minor problems.

A singular exception existed for children. No one had any problem with a child being taken to an ED. Reasons for such ranged from concerns about the competency of parents to the subtleties of pediatric diagnoses, and to the need to care for a vulnerable population with lifetime implications ahead.

Unique to most participants was that many had used the ED for exactly the conditions they felt that strong prohibitions should exist. The lack of access, direction by family or the doctor’s office, rudeness of doctor’s office staff, the competition between work and availability of alternatives, the convenience of emergency services, the perception that quality was higher in the ED because more tests were done, personal histories of family or friends with lives were saved in the ED were all cited as reasons for why simple problems like colds had been reasons for visiting an ED. “My doctor told me to go,” was not an uncommon statement.

With a list of community established emergency medical norms, the task force felt reasonably confident that the clinical team could decide when one of the established conditions was indeed present or not in a “serious” manifestation.

The decision was made to start gently, with the most minor of clinical scenarios and situations, all drawn from the information obtained in focus groups. Medical screening would start with urinary infections,

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back pain, STD checks and requests for work excuses.

Prior to initiating the program, several other critical components had to be in place. The determination of an emergency medical condition should be done with great care. This spoke directly to what was the core mission of the ED. Prior experience and language had always argued for the model of the “safety net.” This model has been widely discussed in emergency medicine and has much to commend it. A safety net is there to catch you when you fall.

But is it the right model? Certainly the task force wrestled with the core philosophy of what we were about. We want the ED to be all about safety, but not in a passive fashion. Like the air traffic control system, our goal is to be proactive, to seek something more, to be assisting and directing who takes off, who lands, when, where, and at what airspeed.

To serve the interests of our patients, we needed to partner with our customers and seek what we knew to be in their best interests. We needed a medical home to direct them to. An air traffic controller doesn’t release a plane until there is a landing slot at the other end. We needed landing slots, in addition to the multiple layers of safety built into our approach.

A document was produced defining our safety goals, our medical home commitment, and the multiple “looks” that we would give a patient. This became the basis for our training of staff from admitting clerks, physicians, nurses and the remainder of the institution.

The importance of alignment cannot be underestimated. Prior to the initiation of the project, the administrative team also made the decision that the time was right to develop a cohesive set of incentives to drive physician behavior.

Prior contracts in most EDs give independent physicians autonomy to bill for services provided. This autonomy has worked to date in many EDs. However, it was felt that the concept of fee for service based on piecemeal work did not fit adequately with a safety and medical homes model.

Just like the airport does not pay its air traffic controllers on a piece work basis, the ED should be focused on best outcomes for the patient, free from the concerns about an individual episode of care and more focused on the patient’s medical need.

The decision was made at Aurora Sinai to speak from a common voice without conflicting incentives around safety and units of service. With this in mind, contracts were crafted with great attention to several key components.

• First, in order to recruit and retain talented and competent emergency medicine physicians, salaries would have to be market competitive.

• Second, rewards and compensation would be based on critical outcomes. Administrative and clinical teams working together would decide those key outcomes.

Layer seven in our seven layers of safety was having a destination. Emergency medicine physicians could not direct patients to medical homes if those homes did not exist. In order to succeed, we would have to have destinations first.

Examination of the daily census indicated that as many as 70 percent to 80 percent of patients had some sort of insurance, albeit the majority (80 percent) were government funded, primarily by Medicaid. With insurance came the incentive for destinations to see and welcome these customers.

A dialog was entered into with our local providers who were interested and willing to see new Medicaid patients. Several private clinics were identified with policies and procedures put in place to ensure easy and rapid triage. Barriers were explored. Subsidies were provided when considered appropriate to increase hours of access.

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<th>Key Concepts for Aligning Physicians with Hospital</th>
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<td>1. Physician salaries must be market competitive.</td>
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<td>2. Rewards would not be based on units of service.</td>
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<td>3. Majority of salary would be safe and guaranteed, based on hours of service.</td>
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<td>4. Bonuses based on outcomes.</td>
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<td>1. Low acuity chief complaint</td>
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<td>2. Triage by RN: lower acuity by triage criteria</td>
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<td>3. Normal vital signs</td>
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<td>4. No critical exclusions</td>
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<tr>
<td>5. Normal physical and history</td>
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<tr>
<td>6. Treating team all in agreement</td>
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<td>7. Destination available</td>
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Help for uninsured

What about the uninsured? Careful examination of the community identified a network of places and destinations, some charitable, some institutional and some governmental. A patchwork of resources existed to develop a variety of destination tools.

As an example, the local publicly funded STD clinic provided antibiotics for treatment. For that particular diagnosis, that became a viable destination. But what about the very desperate uninsured? Err on the side of the patient. Those folks would need treatment, at least the first time and for serious conditions.

One significant weakness of the ED model is that different providers follow one another on a rotating basis. Patients are not assigned to a provider but rather are seen by whomever is available next.

With 20 different providers, a patient could visit the ED 21 times before having a repeat. That necessitated a methodology for summarizing and communicating the nugget of patient care needed and negotiated from one visit to another. The medical record often does not contain this nugget in an easily retrievable fashion, nor does it focus on the importance of that one key point.

If it is in the medical record, it is too difficult to find it in the forest of bullet points required for billing purposes. In our model, informatics systems were changed to allow the chart to be flagged with plans of care so that each physician could be rapidly alerted to the need to adopt and follow the intended plan of care.

Physicians noted that all of their internal “tapes” and “scripts” from their prior practice model revolved around completing a visit with a single episode of care. The refocusing on evaluating the whole patient, their ongoing medical needs, their medical home needs, their barriers to achieving those needs were all new topics that would require new language tools and ideas to become embedded. The decision was made to start small.

Three very simple diagnostic groups were selected. Requests for work excuses, obvious URIs and STD checks in asymptomatic persons were the first three simple ideas in which redirection and triage out would be used.

The URI’s were on the list as home care and simple instructions were all that was needed. This would

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<td>2. Dementia</td>
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<td>3. Munchausen’s</td>
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<td>4. Drug Seeking</td>
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<td>7. Chest pain</td>
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<td>8. Frequent Visits</td>
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<td>9. Dialysis</td>
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Importantly, a regional Federally Qualified Health Clinic (FQHC) was approached as a medical home destination. Being several miles from the hospital provided a barrier to easy access, but being in the heart of the community that needed service provided a strong argument to support it.

The FQHC also had a financial model that would bring new health dollars into the community. Instead of competing for a shrinking pool of fixed dollars, the cost plus accounting methodology of the FQHC would allow it to succeed with otherwise difficult financial underpinnings.

What the FQHC needed before it could expand hours was a reliable increase in patient volume. The hospital needed available clinic hours before the ED could refer patients. A grant to the FQHC bridged that gap to allow hiring personnel and opening urgent care access on site with extended evening and weekend hours.

Equally important were private entrepreneurial practices, some on the hospital campus that also agreed to take patients with Medicaid on a walk-in basis, including weekends and later in the evenings. Financial subsidies were also provided to these practices to lengthen their hours and access times.
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Where Does it Hurt?

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Find out what it really means to have a medical breakthrough.
Fortuitously, an entrepreneurial company, Global Health Direct, entered the marketplace in Milwaukee. Their computer program allowed us to access appointment availability at clinics and to make appointments while patients were still in the ED.

The ability to offer a patient an immediate appointment with a scheduled time and place was a significant contribution to the success of initial efforts. Monthly meetings with the local FQHC prior to the initiation of the referral process had shown that about 10 percent of patients showed up for appointments when given the traditional discharge note and the phone number for the FQHC with an admonishment from the ED staff.

With the ability to hand an appointment slip to a patient, show

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<td>8. Minor condition</td>
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remove the immediate burden of finding a medical home for this group.

STD checks could be referred to a public health clinic that could provide treatment and was relatively proximate. Work excuses raised the issue of who can determine when you are safe to return to work, and who knows you well enough to define you as ill. This would be a primary provider.

Hyperusers were defined initially as patients using the ED more than 25 times. Many of these patients had a variety of medical problems but virtually all had mental health issues as part of their presenting problem. These patients were targeted for specialty services from a caseworker.

Their charts were the first to have an electronic identification flash on admission to the department.

The variety of plans of care used to manage these patients would roughly equal the number of patients, as each plan required careful individualized attention.

What worked was the notification of the whole department to a plan of care, a monthly committee meeting that reviewed subsequent visits with compliance with plans of care, feedback to physicians who were expert at managing those plans, notification to nursing and including nursing staff when creating the plans of care.

### Making appointments

A referral tool was also needed. The identification of destinations for appointments was considered a high priority. Meeting with multiple clinics and individual physicians became challenging.

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It was soon found that front desk presentation and nursing triage did not account for a complete and adequate listing of emergency medical conditions. As previously documented in the emergency literature, some patients with low-level acuity complaints would be admitted, and some patients arriving to high acuity complaints would be treated in the ED. We asked our medical staff to make the decision regarding the presence or absence of an EMC on every patient and to document the reasons in the medical record. Every patient would be seen and a specific notation on the chart would indicate whether an EMC existed, with a why or a why not entered.

For example, elevated blood glucose is a medical condition. Would 200 mg/dL be an emergency? Would 300 mg/dL? We asked our medical staff to make the decision regarding the presence or absence of an EMC on every patient and to document the reasons in the medical record. Every patient would be seen and a specific notation on the chart would indicate whether an EMC existed, with a why or a why not entered.

Rates climbed to as high as 70 percent one month, with an eventual 30 percent to 40 percent long-term show rate.

While this might be considered poor, in the context of the prior 10 percent results, it was deemed a significant success. Considered in the context that many of our referred patients had self-limited illnesses that would have been resolved by 24-48 time window, 40 percent was considered a success.

The ED leadership team decided to use the concept of an emergency medical condition (EMC) for what it sounds like, emergencies. What were “non-EMCs”? These would be diagnoses that did not need immediate treatment and would be better served with a long-term relationship, had no immediate risk, had a designated time and place for management and care. Designating a diagnoses as a “non-EMC” would require nuance and judgment.

For example, time of day with access to care might matter. A UTI seen at 10 a.m. in the morning on a weekday with an accepting physicians office open, no fever and no systemic symptoms might be referred to the office.

That same patient on a Saturday afternoon might require treatment in the ED. Many medical conditions are real conditions, but might not represent an element of danger. Their need for treatment would be real.

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Call the police

The police were a particularly focused issue. It had been the habit of the police department to bring a large proportion of newly arrested patients to the ED for a pre-arrest medical screen.

With collaboration with the police leadership team, we were able to assist them in understanding that our referral program would have a “disconnect” with their desire for a physical examination. Police protocols were internally developed to capture most newly arrested persons within the police department’s own internal medical screening protocols.

Tracking results was essential.

The new process at Aurora Sinai took about three months to fully implement. After that, it took about three months of clinical experience for staff to start feeling comfortable.

As the graph shows, starting about month six, our census began to drop dramatically as the community began to realize that the ED was not a place for primary care.

In summary, Aurora Sinai was a vulnerable, urban, safety net hospital in 2004. Besides the new process in the ED, the hospital instigated multiple other changes so that it could return to economic viability.

Within five years, the hospital was revenue neutral and still present to serve the community. Another nearby community hospital serving the same population continued to have unsustainable losses and closed.

Prior to 2004, the hospital had had five complaints and reviews for EMTALA concerns. In the following five years, the hospital only had one referral to state of Wisconsin reviewers for EMTALA review, which was settled in the hospital’s favor. It was a complaint not originating in the ED.

Over the course of the subsequent five years, the hospital proceeded to be rapidly adapting to CMS quality measures. It was listed among the nation’s best in pneumonia for two years in a row by CMS measures. Patient satisfaction, which had been in the range of 22 percent top box in the year 2004, improved up to 46 percent top box by 2009.

The perception of customers in the ED demonstrated that the changes we made met with customers’ approval. The changes made at Aurora Sinai inspired the leaders of metro Milwaukee to begin collaboration between all the major health systems.

This initiative has sparked the successful Milwaukee Collaboration. The Milwaukee Collaboration is now collaborating with the IHI Program for reducing avoidable ED visits.
References


