## Perfecting Emergency Department Operations

**April 28-29, 2014 · The Charles Hotel · Cambridge, MA**  
*All meetings will take place in the Longfellow Room, located on the Lobby Level of the Hotel.*

### Day One · Tuesday, April 28, 2015

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<tr>
<th>Time</th>
<th>Topic</th>
<th>Lecturers</th>
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<tr>
<td>7:00AM - 8:00AM</td>
<td>Registration and Continental Breakfast</td>
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<tr>
<td>8:00AM – 8:20AM</td>
<td>Introduction to IHI</td>
<td>Derek Feeley</td>
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| 8:20AM - 8:50AM | Introductions and Objectives                                        | Jody Crane, MD, MBA, FACEP  
Kirk Jensen, MD, MBA, FACEP  
Kevin Nolan, MStat, MA |
|                 | In this opening session, the objectives and agenda for the seminar will be reviewed. Reasons for focusing on ED operational improvement, including the business case, will be discussed. After this session, participants will be able to:  
• Understand the objectives of the seminar  
• Describe why to do the work of ED operational improvement |
| 8:50 AM - 9:35 AM | Getting to Improvement: An overview of Key Strategic Concepts        | Kirk Jensen                     |
|                 | Patients and providers alike regard waits, delays, and dissatisfaction as a normal and expected part of getting and giving ED patient care. However, patient safety, ED and hospital revenue, staff satisfaction and patient satisfaction are all negatively affected when patients, information, and materials do not move efficiently through the Emergency Department. This session will introduce the following key strategies for improving patient flow: demand and capacity management, real-time monitoring of patient flow, forecasting, queuing theory, the theory of constraints, managing variation, appreciation of a system.  
After this session, participants will be able to:  
• List key strategies for improving ED patient flow.  
• Identify useful mental models for flow and operations-setting the stage for the tactics to follow.  
• List key strategic concepts to improve ED patient flow. |
| 9:35 AM - 11:35 AM | Applying Critical ED Improvement Principles                         | Jody Crane and Kevin Nolan       |
|                 | An approach to ED operational improvement applying Queuing Theory, Lean Concepts and Tools, and the Theory of Constraints will be discussed to improve reliability, quality, and timeliness of care in the ED. The |
importance of a patient-centered approach, increasing value, eliminating waste, and promoting flow will be highlighted. Participants will be asked to complete an exercise based on a case study. After this session, participants will be able to:

- Understand flow as it pertains to Lean Healthcare.
- Understand the basic characteristics of a queue.
- Understand the impact of variation in healthcare.
- Understand the impact of server utilization on service times.

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<th>Time</th>
<th>Event Description</th>
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<tr>
<td>11:35 AM - 12:20 PM</td>
<td><strong>Operational Strategies for the Front End/Lower Acuity Patients</strong> &lt;br&gt; <em>Kirk Jensen and Jody Crane</em>&lt;br&gt;&lt;br&gt;This session will present principles, models, and design elements, customized to your patient volume and your patient mix, for efficiently caring for lower acuity ER patients. A case study to illuminate the strategies will be included. After this session, participants will be able to:&lt;br&gt;- Describe strategies based on ER volume that can be implemented in your ER to efficiently treat low acuity patient (i.e. Levels 4, 5 and some 3s).&lt;br&gt;- Identify specific strategies that could be applied in your ED</td>
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<tr>
<td>12:20 PM - 1:20 PM</td>
<td><strong>Lunch and Optional Tour of IHI Offices</strong>&lt;br&gt; <em>Lunch will take place in the Kennedy Room.</em></td>
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<td>1:20 PM - 1:50 PM</td>
<td><strong>Operational Strategies for the Front End/ Lower Acuity Patients (con’t): Case Study</strong></td>
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<td>1:50 PM - 2:50 PM</td>
<td><strong>Operational Strategies for ED Throughput</strong>&lt;br&gt; <em>Jody Crane</em>&lt;br&gt;&lt;br&gt;Many operational improvement efforts are focused on the front end or back end of the emergency department. This session though will present principles and design elements for efficient patient flow through the ED. Topics such as staffing, ancillary services, pods and teamwork, scribes, and information technology will be included. After this session, participants will be able to:&lt;br&gt;- Describe strategies for improving flow within the emergency department&lt;br&gt;- Implement ideas for improvement in your ED</td>
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<td>2:50 PM - 3:05 PM</td>
<td><strong>Break</strong></td>
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<td>3:05 PM - 4:05 PM</td>
<td><strong>Operational Strategies for Psychiatric ED Patient</strong>&lt;br&gt; <em>Kirk Jensen, Karen Murrell, MD, MBA, and Yener Balan, MD, FAPA</em>&lt;br&gt;&lt;br&gt;This session will discuss how deploying an operations management approach applied to the special needs of the psychiatric patient, training staff to “see through the patient’s eyes”, linking to community resources, and tracking improvements can enhance overall flow and improve the patient and ED staff experience. After this session, participants will be able to:&lt;br&gt;- Describe the real challenges of serving behavioral health patients and discuss countermeasures&lt;br&gt;- Identify the opportunities to improve the flow of and service to behavioral health patients</td>
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Optimizing ED Flow: Implications for ED Design

Jody Crane

This session outlines and defines key challenges, opportunities, and constraints within the emergency department and the way successful principles can be designed into the ED. After this session, participants will be able to:

- Describe the design at Stafford Hospital to improve ED performance
- Identify key design principles to facilitate patient flow in the ED

Summary and Adjourn

Day Two · Wednesday, April 29, 2015

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<tr>
<td>7:15 AM - 8:15 AM</td>
<td>Continental Breakfast</td>
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</table>
| 8:15 AM - 8:30 AM | Introductions to Day 2  
  Kevin Nolan, Kirk Jensen, Jody Crane                                                      |
| 8:30 AM - 9:15 AM | Operational Strategies for the Back End/ Accelerating Admissions from the ED  
  Kirk Jensen                                                                 |
  This session will overview the problems and opportunities for discharges and transitions within the ED or within the hospital. Although the focus will be on actions under the control and influence of the ED, the overview of an approach to improve hospital-wide patient flow will be included. The application of “Fast Tracking” design principles to high acuity patients will also be discussed. After this session, participants will be able to:
  - Understand what can be worked on within the ED to facilitate admissions.
  - Understand the potential improvement to hospital-wide flow by focusing on specific patient streams.
| 9:15 AM - 10:00 AM | Operational Strategies for Observation Patients  
  Kirk Jensen and Jody Crane                                                                 |
  Just as segmenting flow in emergency departments has transformed the patient experience, Observation Units and Clinical Decision Units are transforming inpatient flow, streamlining care and improving quality. This session will highlight the critical elements of successful observation strategies and explain the important role they play in hospital-wide flow. After this session, participants will be able to:
  - Describe the elements of successful observation strategies
  - Identify opportunities to improve patient flow in your hospital through the use of Observation Units and Clinical Decisions Units |
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| 10:00 AM - | **Break**  
*Reminder: Hotel check-out is at 12:00 PM.*                                      |
| 10:30 AM   | **Improving ED Flow - Front to Back: Kaiser South Sacramento Case Study**  
*Karen Murrell, MD, MBA, Chief Emergency Medicine, Kaiser South Sacramento* |
| 12:00 AM   | **Lunch**  
*Lunch will take place in the Kennedy Room.* |
| 1:00 PM -  | **What’s New? Innovations in Emergency Medicine**  
*Jody Crane, Kirk Jensen, and Karen Murrell* |
| 2:00 PM -  | **Execution for Improvement**  
*Kirk Jensen and Kevin Nolan* |
| 2:45 PM -  | **Summary and Adjourn** |

**Improving ED Flow - Front to Back: Kaiser South Sacramento Case Study**  
*Karen Murrell, MD, MBA, Chief Emergency Medicine, Kaiser South Sacramento*  

This session will describe the improvement journey of Kaiser South Sacramento. The focus will be on the key interventions made and the results achieved. After this session, participants will be able to:
- Describe the execution strategies used at Kaiser South Sacramento to achieve results
- Identify a few ideas that could be tried in your emergency department

**What’s New? Innovations in Emergency Medicine**  
*Jody Crane, Kirk Jensen, and Karen Murrell*  

In the current health care environment, the role of emergency departments and emergency department staff is changing. In this session, innovations, some sustaining and some disruptive, will be discussed. Topics will include telemedicine and patient-administered diagnostics, free standing EDs, integration of ED physicians and hospitalists, EDs as the cornerstone of care bridging inpatient and outpatient medicine, and the treatment of the chronic pain patient. The session will be a fluid, directed discussion about how these innovations can improve our healthcare system.  

After this session, participants will be able to:
- Understand how others have dealt with key issues in their emergency departments
- Relate the pros, cons, and impact of the issues discussed

**Execution for Improvement**  
*Kirk Jensen and Kevin Nolan*  

Organizations can have good ideas and the will to make changes but fail in their improvement efforts due to the lack of skilled execution. Important components of executing projects will be discussed in this final session. After this session, participants will be able to:
- Share some thoughts on disciplines that can assist in execution
- Use the portfolio of disciplines to make improvements in your ED