Emergency Medicine: changing a hospital, medical school and community

Shkelzen Hoxhaj, MD, MPH, MBA, FACEP, FAAEM
Chief, Emergency Medicine
Baylor College of Medicine

Chief, Emergency Services
Ben Taub General Hospital

Baylor College of Medicine

Harris County Hospital District
Agenda

- Background/ History
- Advances in the Last 2 years
- Operations- Metrics/ Data
- Community/ Education
- Closing
- Q&A
History of EM

- ACEP formed in 1969
- First EM residency program 1970
  - University of Cincinnati
- EM recognized by the AMA in 1975
- EM recognized by ABMS in 1979
- Now there are more than 50 academic EM departments and 150 EM residency programs
EM Training in Houston & TX

- Only 1 EM residency program in Houston, the 4th largest city in the US
- The greater Chicago and Philadelphia areas have 8 EM programs or more each
- The State of TX has only 6 EM programs
- Large gap in the supply of EM docs in TX
ED Visits per Person

Note all the red and yellow boxes!
Number of EM Docs per Person

Note all the white boxes!
Background: EM at BCM/ BTGH

- One of only 2 top 50 medical schools without an EM residency program
- No EM in Baylor’s Curriculum
- Historically BTGH was 7 different specialty silos operating in the EC
- World Class Trauma Care
- Limited Faculty Supervision and Teaching of Residents
- Fragmented Patient Care
- Prior attempts to start EM failed
T-2 Years (2008)

- EM docs Recruited to help start an EM Training Program
- We needed EM Boarded Docs (only 1 existed)
- Specialty silos needed to be merged
- Patient care had to be more efficient
- Resident supervision had to be improved
- ACGME duty hours being reduced, thus less residents in the EC
T-1 Year (2009)

- EM made a Section in Internal Medicine
- Salaries were not at AAMC standards
- EM model of care plan was developed with the support of HCHD and AMS and BCM
- Reality- Shallow pool of Academic EM docs in TX
- Reality- it takes 9+ months to recruit EM docs from out of state (TX licensing is a long process)
T-0 Year... Now where are we?

(2010)

- We now have 22 EM boarded Doctors
  - 5 are double boarded, many with fellowships
- EM PIF Submitted in July ’09, RRC site visit in Dec ’09, Approval Feb ’10, Residency start July ‘10
- Hired 14 EM mid-level providers to help supplement areas uncovered by residents
- Partnership with Nursing to Improve BTEC
BT EC/ Hospital Operations Improvements

- EC Optimization (10 IT Initiatives)
- EC Service First
- EC Admission redesign
- Partner with Case Management - Observation
- EC provider Orientation
- Re-engineering of EC patient arrival
- Scheduling Nursing to Volume
- Improving Charge Capture

- Lobby Manager
- Patient Tracking
- Triage Redesign
- Throughout Management
- Patient Transport
- Boarding Room
- Discharge Lounge
- Supply Management
- Audit Process
- Increased night staffing by faculty
BT EC/ Hospital Operations Improvements… continued

- Triage Express Care
- Right Care reimplementation
- Urgent Care process redesign
- EPIC ASAP Implementation
- Chart Management
- Bedside Labs (I-Stat)
- T-system documentation
- New EC Monitoring
- STEMI Protocols
- CAP Protocols
- HIV Screening
- Radiology TAT
- Expedited Triage Care Guidelines
- Interdisciplinary Rounds
- Monthly EC updates
- Service Excellence Cmte
- QA/ PI Cmte
- Post-resuscitative hypothermia
- Wireless team communication
EC Total Length of Stay

EC Total Length of Stay

Hours

Jan '09  Feb  Mar  Apr  May  Jun  Jul  Aug  Sept  Oct  Nov  Dec
Month

EC Total Length of Stay
Triage to Bedding Time

![Graph showing the trend of triage to bedding time over months from January 2009 to December 2009. The graph displays a downward trend with decreasing minutes over time.]
Left Without Being Seen (LWBS)
EC Ambulance Diversion Time

![EC Ambulance Diversion Time Chart](chart.png)
Patient Satisfaction

EC Patient Satisfaction Scores

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
</tr>
<tr>
<td>45%</td>
</tr>
<tr>
<td>50%</td>
</tr>
<tr>
<td>55%</td>
</tr>
<tr>
<td>60%</td>
</tr>
<tr>
<td>65%</td>
</tr>
<tr>
<td>70%</td>
</tr>
<tr>
<td>75%</td>
</tr>
<tr>
<td>80%</td>
</tr>
<tr>
<td>85%</td>
</tr>
<tr>
<td>90%</td>
</tr>
</tbody>
</table>

Quarter '09

Percentage

Quarter '09

1st Qtr  | 2nd Qtr  | 3rd Qtr  | 4th Qtr Prelim

40%  | 60%  | 80%  | 90%
EM Involvement at BCM

- Faculty on GMEC, Curriculum, Student Affairs and Admissions Committees
- Teach/ precept PPS, LACE, APEX, IPS
- Elective in EM: 25-30 students a year
- EMIG from 40 members to 255 students
  - Work study, Cadaver labs, Mentoring, Lectures
- Business of Medicine Elective
  - Partner with HCMS and UTH- more than 100 students/ yr
- Teach Simulation/ Procedures
Community Service

- Demonstrate the wonderful emergency services HCHD and BCM provide to the Community
- Work with “Day in the District” and HCHD Foundation
- Work with “The Baylor Partnership”
- Work with the HCMS “Mini-Internship Program”
- Multiple Media Relations venues
In Closing…

- EM specialists are much needed in Texas—we need more GME funding!
- EM is a relatively new specialty/discipline but important in quality/state-of-the-art front-end care
- Operations management and continuous quality improvement are crucial to improved service and throughput
- Hospital wide engagement is crucial…crowding is not an EC problem, it’s a system problem!
Thank You!

hoxhaj@bcm.tmc.edu