

STEMI System Implementation from the Hospital Perspective

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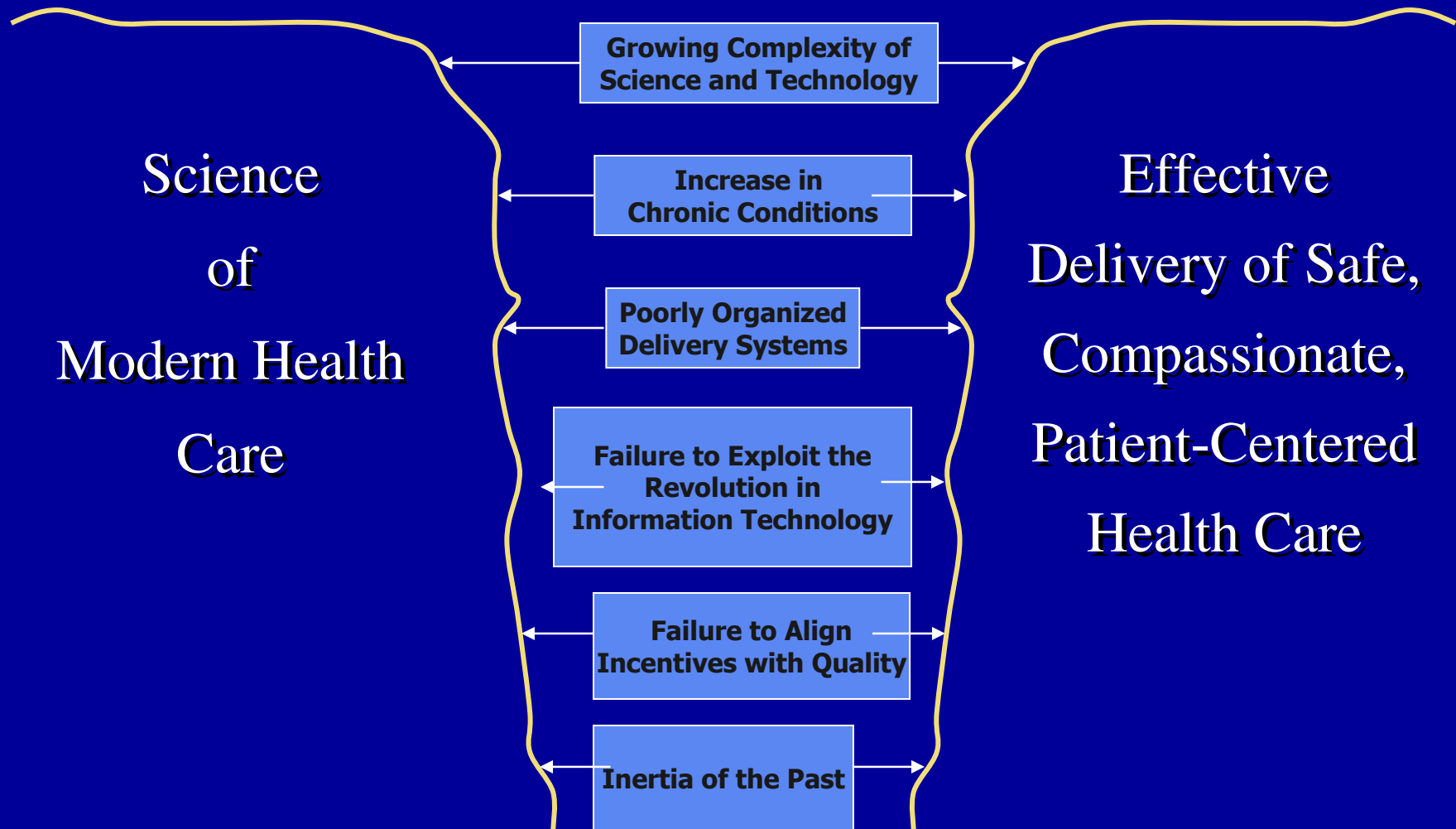
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No Conflict of Interest to Disclose



The Quality Chasm: Why does it Exist?



Six Aims for Improvement

1. Safe
2. Effective
3. Timely*
4. Patient Centered
5. Efficient*
6. Equitable

STEMI Guidelines



AMERICAN
COLLEGE of
CARDIOLOGY
FOUNDATION

American Heart
Association. 
Learn and Live™

ACC/AHA Pocket Guideline

Based on the ACC/AHA Guidelines
for the Management of Patients
With ST-Elevation Myocardial Infarction

Management
of Patients With
**ST-Elevation
Myocardial
Infarction**

Antman, et al JACC 2004;44:671-719

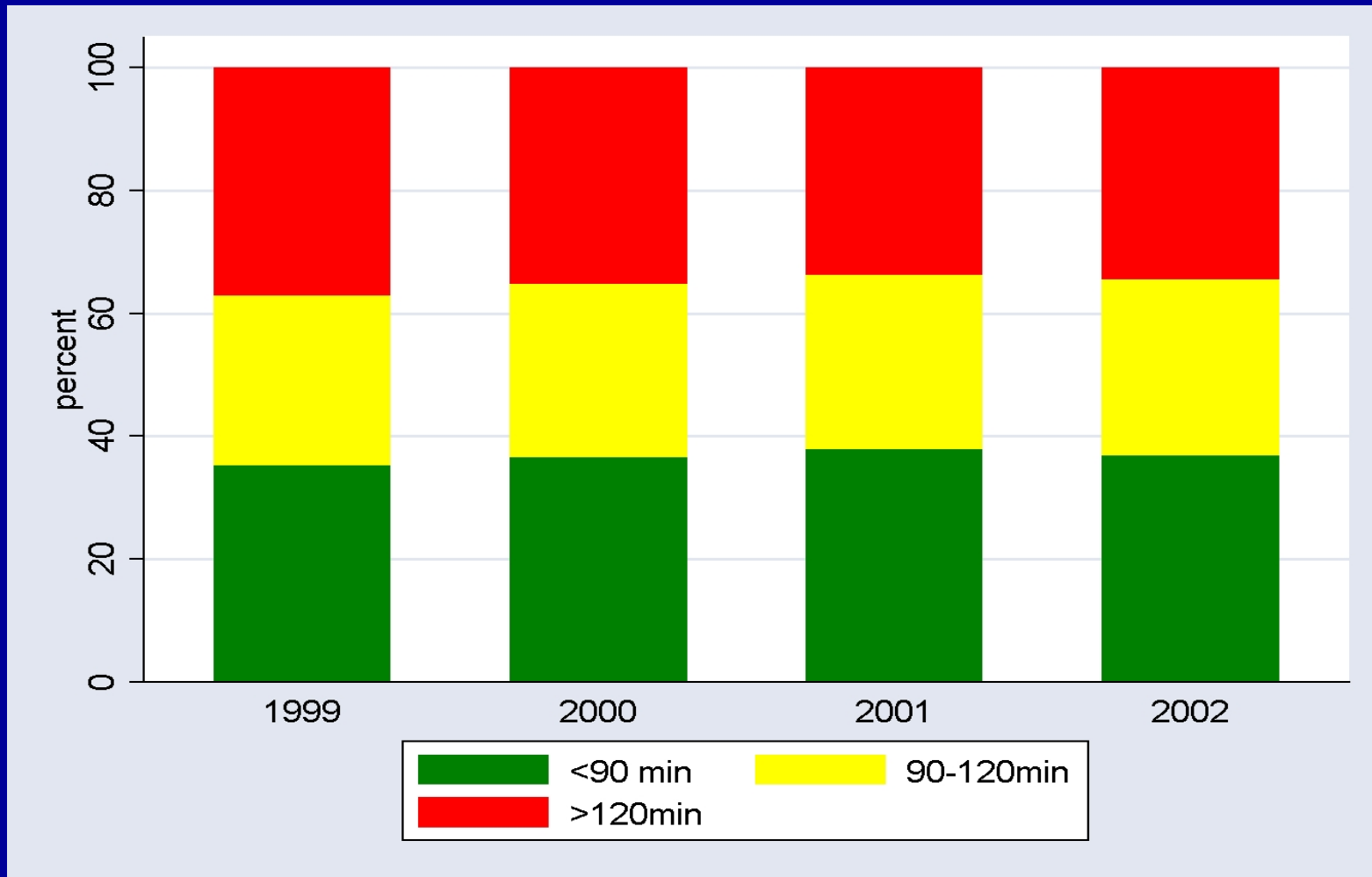
July 2004

TIME Recommendations

- 1999 RECS: Class 1A
 - Door to Needle 30 min
 - Door to Balloon <90 min+/- 30min

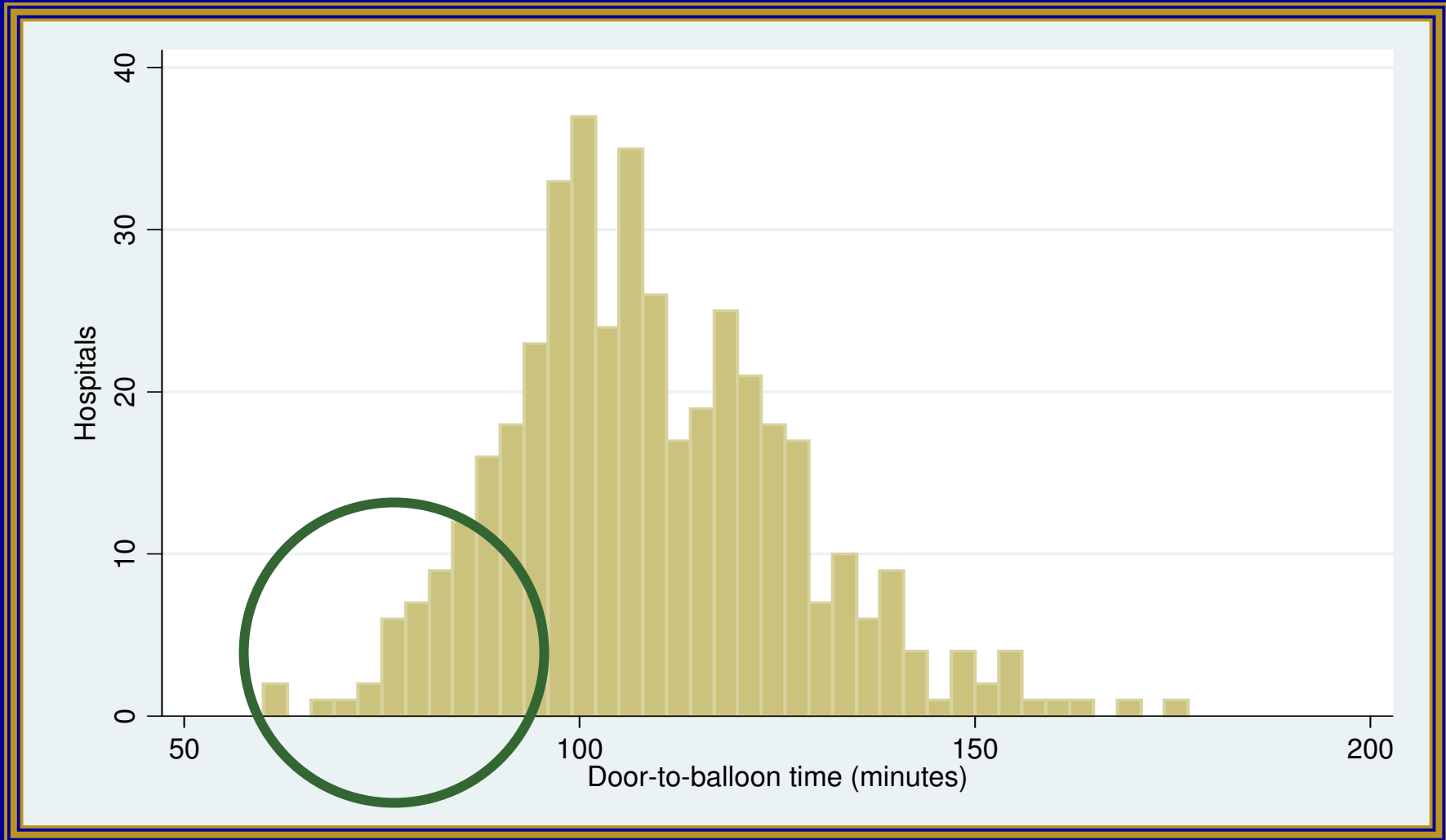
- 2004 RECS Class 1A
 - Door to Needle 30 min
 - Door to Balloon < 90 min

Percent of Hospitals Meeting Median Door-to-Balloon Times Guidelines



McNamara et al., *JACC* 2006

How do the best hospitals do it?



Source: National Registry of Myocardial Infarction, 2005

Creating a System for MI Care

- Create common goals based on evidence-national guidelines, e.g. D2B
- Design care tools that emphasize goals
- Create methods to measure performance (registries)
- Create a method to feedback results (registries)
- Reformulate the aims
- Sustain the Gain

Evidence-based Strategies that Reduce Delays



1. ED physician activates the cath lab
2. One call activates the cath lab
3. Cath lab team ready in 20-30 minutes
4. Prompt data feedback
5. Senior management commitment
6. Team-based approach

Pre-hospital ECG to activate the cath lab if feasible

ACC D2B Initiative: web based, interactive, tools, resources

Key strategies associated with reduced D2B times

Strategy	% of hospitals	Minutes saved
EM physician activates the cath lab	23	8.2
Single call to the operator	14	13.8
Pre-hospital EKG	9	15.4
Cath lab team expected within 20-30 minutes	13	19.3
Real time data feedback to ED and cath lab	42	8.6
Attending cardiologist always in hospital	4	14.6

Bradley et al, *NEJM*, 2006



An Alliance for Quality

A Guidelines Applied in Practice Program



- Move beyond 90 minute controversy and help hospitals focus on speed and consistency.
- Disseminate results from research on “how” to improve.
- A national D2B campaign
 - Visibility
 - foster needed organizational commitment

Challenges

- Improving logistics of STEMI care
 - Regional strategies, coordination with EMS and among hospitals
 - Improved protocols at sending and receiving hospitals
 - Improved recognition of STEMI for walk-in patients.
 - Improved measurement and feedback on patients who are transferred.
- RACE and VHAC initiatives

30-30-30 Goal

E2B_{≤90} Conceptual Framework

- < 30 minutes for Emergency Med Services (EMS)
- < 30 minutes for the Emergency Department (ED)
- < 30 minutes for the Cardiac Cath Lab (CCL)



www.E2Bchallenge.com ⇒ Industry supported QI-initiative
launching October 15 at EMS Expo.08 in Las Vegas