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Stroke Awareness for Healthcare Organizations

The Joint Commission's Stroke Disease Specific Certifications

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Disease Specific Reviewer for The Joint Commission

Objectives

1. Compare & contrast different levels of stroke certifications
2. Identify benefits of each level of stroke certification
3. List requirements in meeting standards for stroke certification
4. Introduce Robust Process Improvement and Yellow Belt Framework

Stroke Certifications

- Acute Stroke Ready Hospital
- Primary Stroke Centers
- Thrombectomy-capable Stroke Center (proposed)
- Comprehensive Stroke Center

Framework for Disease Specific Care

Certification Participation Requirements

Standard Development in Categories

1. Program Management
2. Delivering or Facilitating Clinical Care
3. Supporting Self-Management
4. Clinical Information Management
5. Performance Measurement


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Benefits of Certification

- Improve quality of care by reducing variation in clinical processes
- Provides framework for program structure and management
- Creates cohesive clinical team
- Promotes culture of excellence across the system

Additional Benefits

- Objective assessment of clinical excellence
- Facilitates marketing, contracting, and reimbursement
- Strengthens community confidence in the quality and safety of care, treatment, and services
- Recognized by select insurers and other third parties
- Can fulfill regulatory requirements in select states


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Acute Stroke Ready Hospital

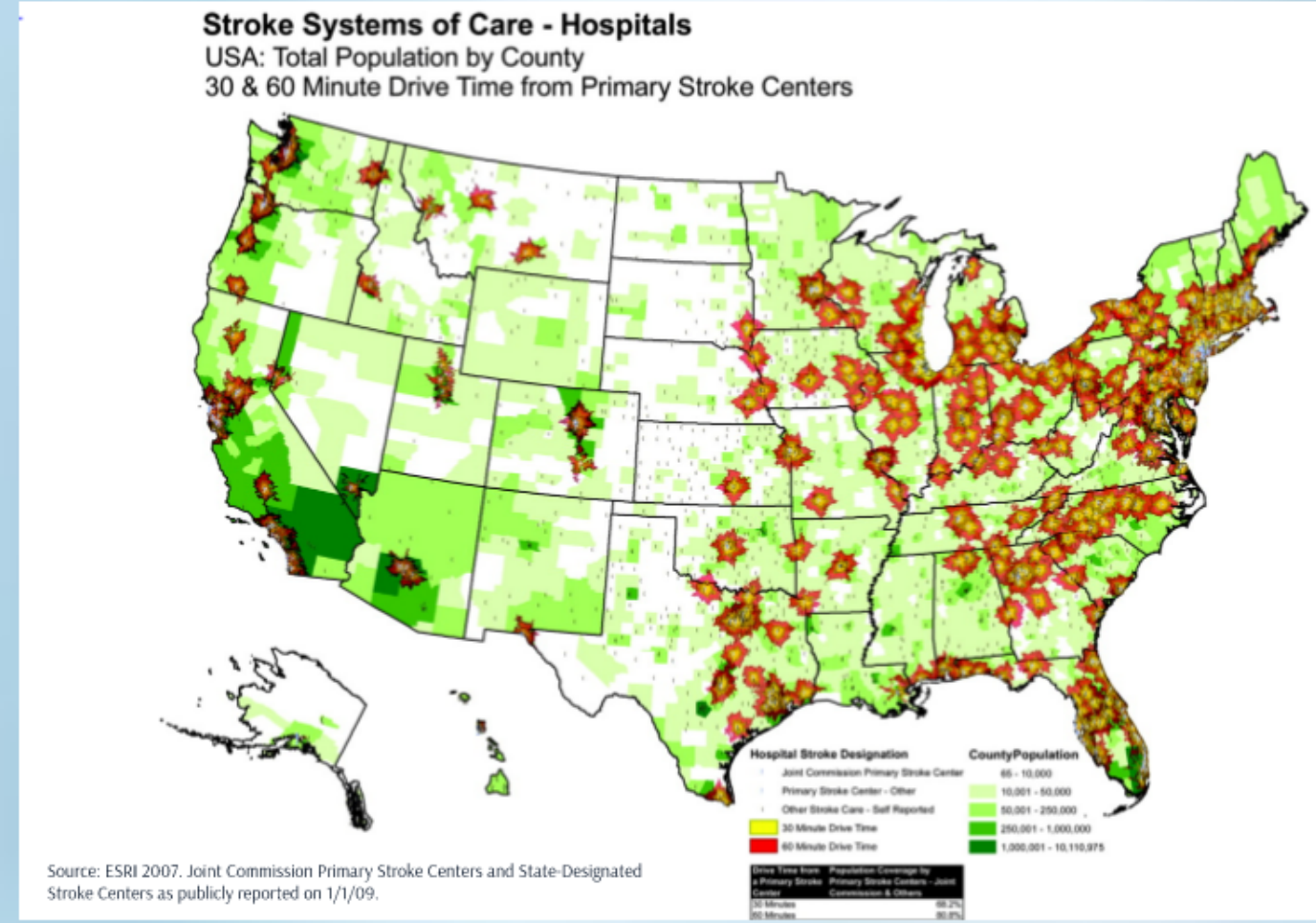
1st ASRH certification - 2015
To Date:
- 28 ASRH
- 18 States

Formation and Function of Acute Stroke–Ready Hospitals Within a Stroke System of Care Recommendations From the Brain Attack Coalition

Mark J. Alberts, MD; Lawrence R. Wechsler, MD; Mary E. Lee Jensen, MD; Richard E. Latchaw, MD; Todd J. Crocco, MD; Mary G. George, MD; James Baranski, BS; Robert R. Bass, MD; Robert L. Ruff, MD; Judy Huang, MD; Barbara Mancini, RN; Tammy Gregory, BA; Daryl Gress, MD; Marian Emr, BS; Margo Warren, BA; Michael D. Walker, MD

Integral role in stroke system of care

Focused on facilities:
- Serving the need of small and/or rural communities
- Limited staffing and resources
- Collaborative with Primary and Comprehensive Stroke Centers



Source: ESRI 2007. Joint Commission Primary Stroke Centers and State-Designated Stroke Centers as publicly reported on 1/1/09.

Program Management

Organization's Support
Leadership role definition
Leader accountability - Appointed medical director

Knowlegeable Acute Stroke Team 24 x 7
- Physician + Nurse/Nurse Practitioner/Physician Assistant
- Access to physician consultant privileged in stroke diagnosis and treatment

Program Management

Collaborative Interdisciplinary Team

- ED Practitioners
- ED Manager
- Liaison to PSC or CSC
- EMS - Radiology - Lab - Case Management - Rehabilitation Services - Palliative Care Team

Program Management

Adoption of Clinical Pactice Guidelines

- 24/7 CT and lab capable
- IV alteplase on formulary

Written guidelines for admission, transfer, or discharge of patients

Written transfer protocols with PSC or CSC or comparible care

- Neurosurgical services within three hours

Delivering or Facilitating Clinical Care

Annual Education and In-services Activities

- Medical Director = 4 hours
- ED Practitioner = at least 67% receive education on acute stroke protocols
- ED Staff = 2 educational activities as defined by the organization

Delivering or Facilitating Clinical Care

For patients staying at organization:

- Develop individualized plan of care based on patient's assessed needs
  - Higher level of need
  - Palliative or hospice care
- Self management of disease and risk factors
  - Asssess barriers
  - Assess willingness, readiness to engage in activities

Performance Measurement

Telemedicine initiated within 20 minutes of ED provider assessment
Patient Satisfaction

Development of Four (4) Performance Measures for PI

- Dysphagia screen
- Door to Measures
  - ED practitioner within 15 minutes
  - CT within 25 minutes
  - CT interpretation and lab results within 45 minutes
  - IV alteplase < 60 minutes
- Complication
- Disposition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Primary Stroke Center

First Primary Stroke Center – 2003

To Date:

- 1111 PSCs certified
- 50 states

Initially based on the recommendations for Primary Stroke Centers published by the Brain Attack Coalition and American Stroke Association statements for stroke

Brain Attack Coalition

American Heart Association | American Stroke Association

Program Management

Provides for uniform performance of care, treatment and services for defined populations

- Subarachnoid hemorrhage
- Intercerebral hemorrhage
- Acute ischemic stroke
- Transient ischemic attacks

Program Management

Stroke Designated Beds

In addition to CT/Labs 24/7:

- Capable of cardiac studies and imaging

PSC with Neurosurgical Services on site:

- Functional operating room with full staff within 2 hours

Delivering or Facilitating Clinical Care

Annual Education and In-services Activities

- Designated Core Stroke Team = 8 hours
- ED Practitioner = at least 80% receive education on acute stroke protocols
- ED Staff = 2 educational activities as defined by the organization

Delivering or Facilitating Clinical Care

Protocols in place for transitions of care post-hospitalization

- Includes patient and family participation in goals and plans

2 Required public educational events

Performance Measurement

- Focus on Outcomes
- Required internal or external benchmarking
- Quality department involvement in process improvement and analysis

Required Data Elements:

- Eight (8) Core Measures
  - STK 1 - VTE
  - STK 2 - D/C Antithrombotic
  - STK 3 - Afib on Anticoagulation
  - STK 4 - Eligible for Alteplase
  - STK 5 - Antithrombotic by Day 2
  - STK 6 - Statin Therapy
  - STK 8 - Education
  - STK 10 - Rehabilitation

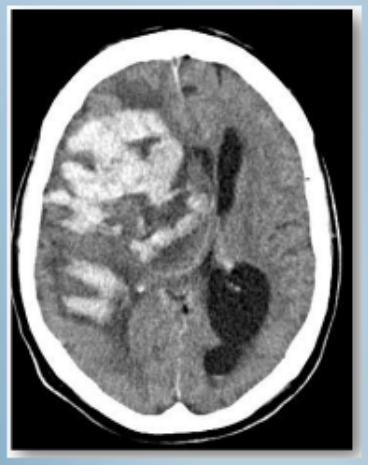
Performance Measurement

Two (2) additional quality measures (i.e. dysphagia screening, readmission, length of stay, door-in-door-out)

Process and stroke team response times in door-to-needle (DTN)
50% of DTN must be < 60 minutes

For PSC performing endovascular care:

- All cause death < 72 hours
- sICH < 36 hours

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Comprehensive Stroke Center

First Comprehensive Stroke Center – 2012
To Date:

- 126 CSCs certified
- 36 states

Focus on care for all types of stroke patients: Ischemic & Hemorrhagic

- Complex cases requiring advanced technology, specialized diagnosis and higher levels of treatment
  - Specific yearly volumes
    - 20 aneurysmal SAH
    - 15 clipping/coilings

Program Management

In addition to PSC Requirements…

24/7 availability for:

- Transcranial doppler
- Neuro Radiologist for imaging interpretation
- Performing aneurysmal coiling and clipping
  - Neurosurgeon and surgical team on call and onsite within 45 minutes
- Endovascular treatment of ischemic stroke patients
  - Neuro endovascular staff (MD, RN and Tech) on call and onsite within 30 minutes
- Neuro critical care providers with cerebrovascular expertise on site

Program Management

- Neuro Intensive Care beds
- Active enrollment in clinical research trials to advance the science of stroke care
- Ability to concurrently manage multiple complex stroke patients
- Physical and Occupational Therapy onsite 6 days and available on 7th
- Speech Therapy onsite 7 days

Program Management

Advanced Practice Nurse or Physician Assistant*

- Supports evidenced based practice*
- Nursing consultant
- Develops and delivers educational programs*
- Active in process improvement*
- Active in research

Active Team Members

- Pharmacy
- Case Management & Social Work
- Quality & Data Collectors

Delivering or Facilitating Clinical Care

Screening process for depression, cognitive decline, social issues

Education and In-services Activities

- **In addition to PSC requirements:**
  - Neuro ICU RN education must contain:
    - Neuro and cardiovascular assessment
    - Ventriculostomy and ICP management
    - Management of ICH and SAH
    - Thermoregulation
    - Intravenous vasopressors, antihypertensives
    - Ventilator management
  - All active team members require education specific to stroke

Performance Measurement

8 PSC Measures + 8 CSC Measures

- CSTK 1 - NIHSS
- CSTK 2 - mRS @ 90 days
- CSTK 3 - ICH/SAH Severity Score
- CSTK 4 - Anticoagulant Reversal
- CSTK 5 - sICH Complications
- CSTK 6 - Nimodipine
- CSTK 7 - Door to Groin
- CSTK 8 - Thrombolysis in Cerebral Infarct

Transitional Follow-Up

- Percentage of patients discharged home with follow-up phone calls

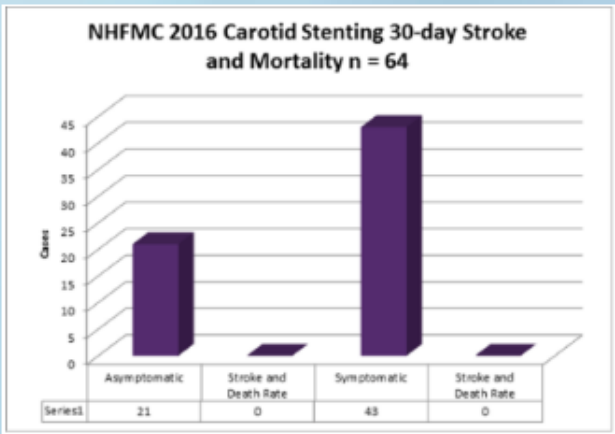
Performance Measurement

Procedural Outcome Measures

- 30 day symptomatic carotid endarterectomy/stent complication rate
- 24 hour post diagnostic angiogram stroke or death rate
- Post ventriculostomy cerebral spinal fluid infection rates

Multispecialty/multidisciplinary case/ peer review process

Public reporting of outcomes related to interventional procedures



A lower number is better.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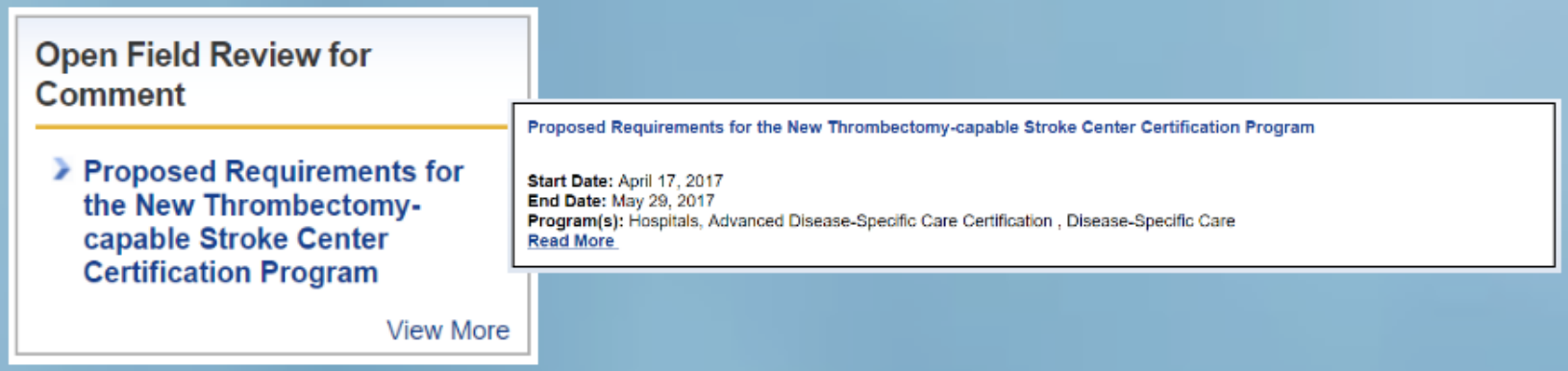
Thrombectomy Capable Stroke Center

Proposed Standards for Public Comment

New level of certification to ensure standardization and quality of care for ischemic stroke patients eligible for mechanical thrombectomy.



https://www.jointcommission.org/standards_information/field_reviews.aspx

Differences Between PSC and TcSC

Resource and Procedural Availability 24/7

- Capability to perform mechanical thrombectomy
  - MD/RN/Tech on call
- Dedicated neuro-intensive care beds
  - Neuro critical care providers on site (may be telemedicine)
- Catheter angiography
- CTA
- MRI/MRA including diffusion-weighted MRI

Delivering and Facilitating Clinical Care

Written agreement with CSC that allows for timely transfer 24/7

- Time parameters
- Transfer procedures

Documented reason why eligible patients did not receive thrombectomy

Performance Measures

8 PSC Measures plus:

- A minimum of two relevant patient care data elements related to mechanical thrombectomy for internal or external benchmarking
- Door to skin puncture for mechanical thrombectomy

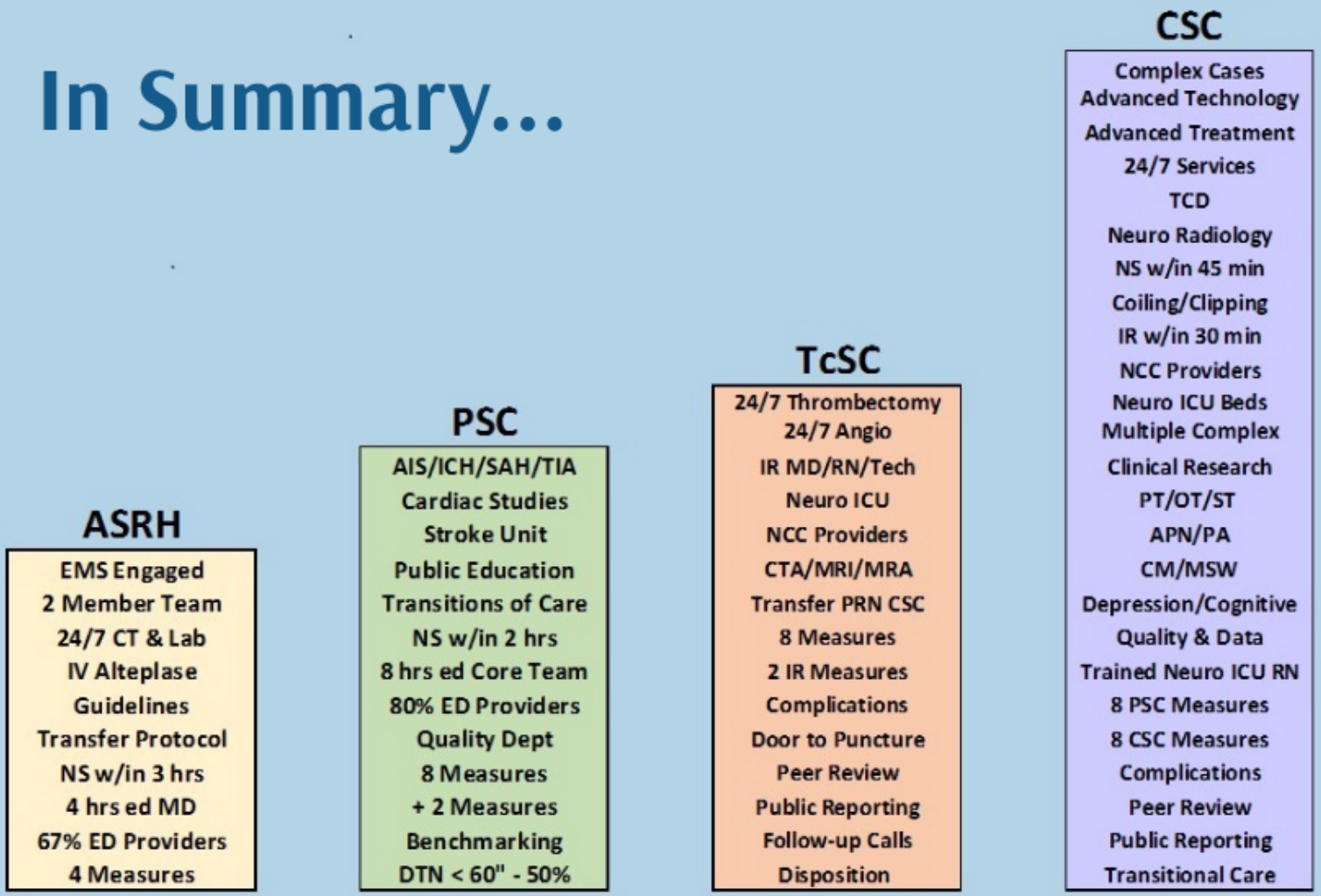
Outcome Measures

- All causes of death within 72 hours of mechanical thrombectomy
- sICH following mechanical thrombectomy

Performance Measures

- Multispecialty/multidisciplinary case/peer review process
- Public reporting of outcomes related to interventional procedures
- Percentage of patients discharged home with follow-up phone calls
- Disposition of patient

In Summary…


ASRH
EMS Engaged
2 Member Team
24/7 CT & Lab
IV Alteplase
Guidelines
Transfer Protocol
NS w/in 3 hrs
4 hrs ed MD
67% ED Providers
4 Measures
PSC
AIS/ICH/SAH/TIA
Cardiac Studies
Stroke Unit
Public Education
Transitions of Care
NS w/in 2 hrs
8 hrs ed Core Team
80% ED Providers
Quality Dept
8 Measures
+ 2 Measures
Benchmarking
DTN < 60" - 50%
TcSC
24/7 Thrombectomy
24/7 Angio
IR MD/RN/Tech
Neuro ICU
NCC Providers
CTA/MRI/MRA
Transfer PRN CSC
8 Measures
2 IR Measures
Complications
Door to Puncture
Peer Review
Public Reporting
Follow-up Calls
Disposition
CSC
Complex Cases
Advanced Technology
Advanced Treatment
24/7 Services
TCD
Neuro Radiology
NS w/in 45 min
Coiling/Clipping
IR w/in 30 min
NCC Providers
Neuro ICU Beds
Multiple Complex
Clinical Research
PT/OT/ST
APN/PA
CM/MSW
Depression/Cognitive
Quality & Data
Trained Neuro ICU RN
8 PSC Measures
8 CSC Measures
Complications
Peer Review
Public Reporting
Transitional Care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Robust Process Improvement

- Provides a systematic approach to solving complex problems

- Guides improvement teams to examine why processes fail to achieve desired results

Robust Process Improvement

Outcomes of RPI:

- Improved efficiencies
- Increased customer satisfaction
- Increased quality of products and services provided

Yellow Belt Framework

Yellow Belt Framework

What Needs To Be Improved?

Yellow Belt Framework

What Needs To Be Improved?

How Do You Know?

Yellow Belt Framework

What Needs To Be Improved?

How Do You Know?

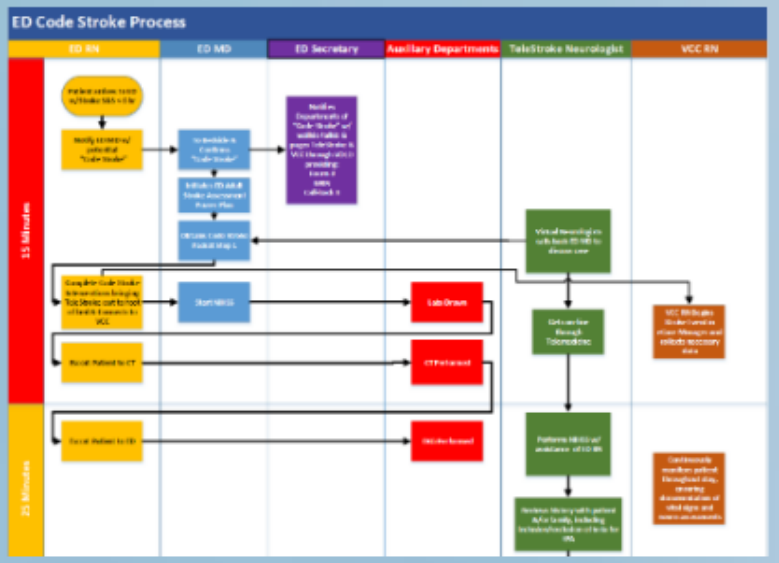
How Do You Get Others Involved?

Yellow Belt Framework

Yellow Belt Framework

What needs to be improved?

- Process Maps
- Identify threats if you do nothing
- Identify opportunities for success
- Project charter



How do you know?

- Voice of Customer
- Data & Statistics
- 5 Whys
- Cause & Effect

How do you get others involved?

- Stakeholders and concerns
- Resistance
- More or less - What will get better?
- Goals, Roles, Responsibilities, Interpersonal Relationships
- Communication Plan

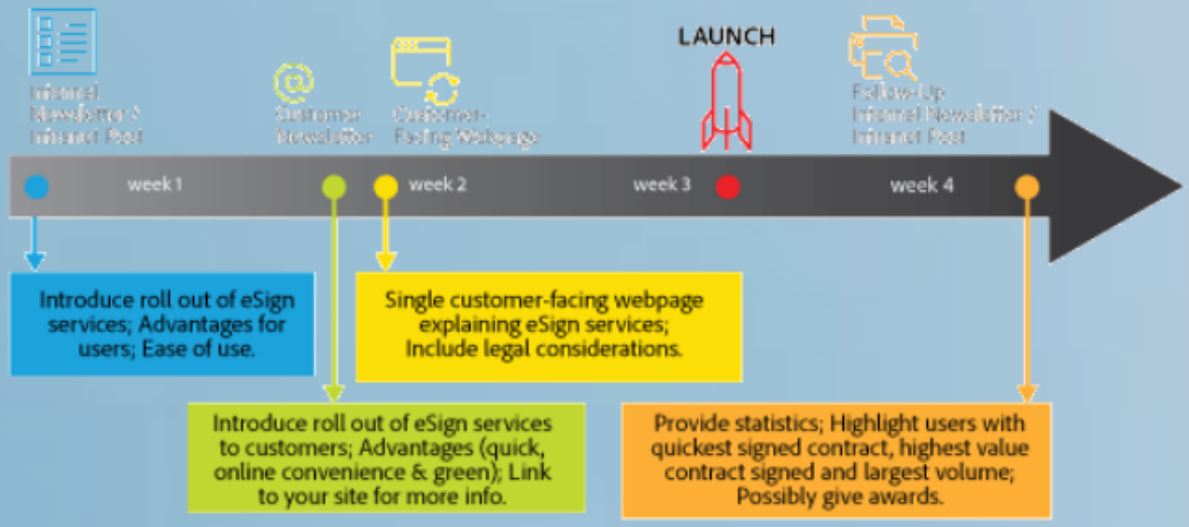
How will you solve it?

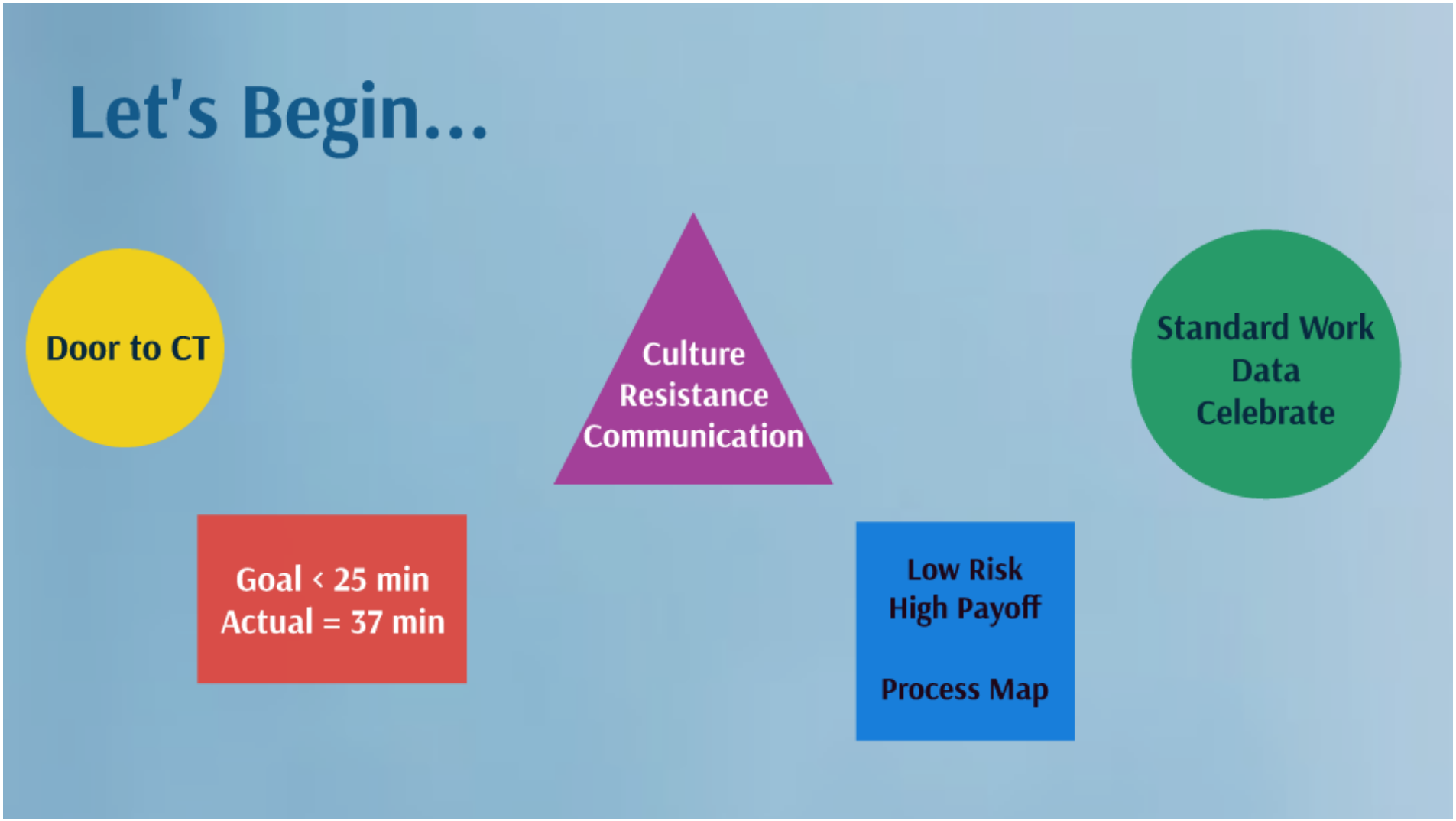
- Brainstorming
- Priority / Payoff Matrix
- Failure Mode Effect Analysis (FMEA)
- Future Process Mapping

Steps in the Process	Failure Mode	Failure Causes	Failure Effects	Likelihood of Occurrence (1-	Likelihood of Detection (1-10)	Severity (1-10)
Patient is deemed candidate for EV intervention by neurology and intervenional radiologist	Delay in determination due to communication or diagnostics.	Physician to physician communication impacted by paging delays.	Patient outside of window to receive intervention.	2	10	9
Neurologist requests Critical Care bed during initial PCL conversation.	Critical Care Bed room assignment not available.	Census at capacity, high acuity patient population.	Patient unable to be placed in appropriate level of care post procedure.	4	8	9

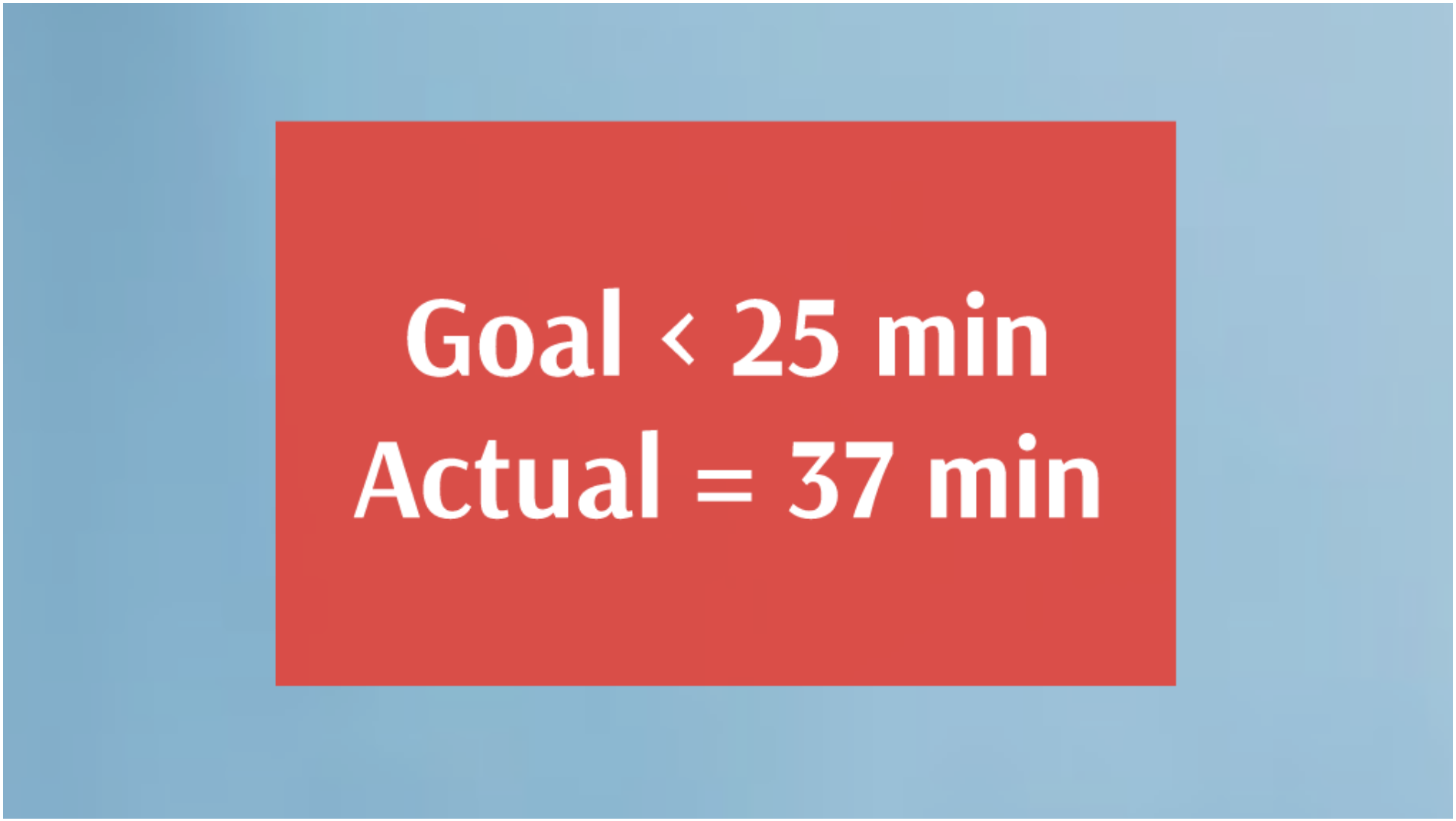
How will you make it last?

- Control Plan
- Standardized Work
- Flow Process
- Data
- Celebrate




Let's Begin...
Door to CT
Culture
Resistance
Communication
Standard Work
Data
Celebrate
Goal < 25 min
Actual = 37 min
Low Risk
High Payoff
Process Map


Door to CT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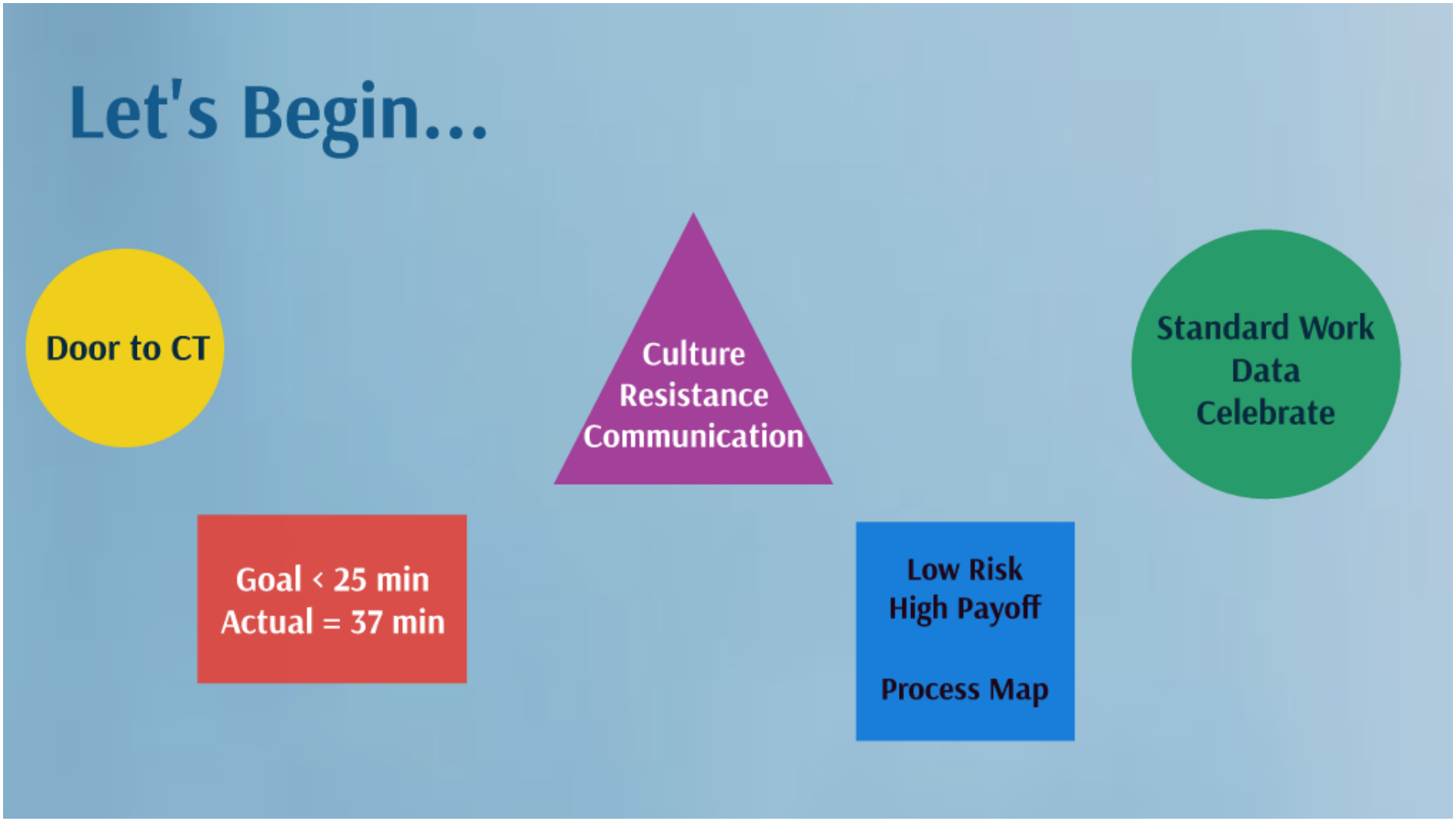
Culture
Resistance
Communication


Low Risk
High Payoff
Process Map


Standard Work
Data
Celebrate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Thank You!


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