

# Neurological Surgery RRC Update and Preparation For The NAS

**Hunt Batjer, MD, RRC Chair**

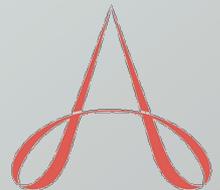
**Kim Burchiel, MD, RRC Vice- Chair**

**RRC Team Members**

*Pamela Derstine, PhD, MHPE, Executive Director*

*Susan Mansker, Associate Executive Director*

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# RRC Membership

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- 7 voting members
  - ABNS – 2 members
  - ACS – 2 members
  - AMA (CME) – 2 members
  - SNS-1 resident member
- Leadership
  - Hunt Batjer, MD, Chair (*ABNS*)
  - Kim Burchiel, MD, Vice-Chair (*AMA*)



# RRC Membership

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- Hunt H. Batjer, MD **RRC Chair**
- Patrice Blair, MPH ACS Ex-Officio
- Kim Burchiel, MD **RRC Vice-Chair**
- Ralph G. Dacey, MD
- Alexander A. Khalessi, MD Resident Member
- Fredric Meyer, MD ABNS Ex-Officio
- Nelson M. Oyesiku, MD, PhD
- A. John Popp, MD
- Volker K.H. Sonntag, MD



# Incoming RRC Members

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- Michael Sean Grady, MD  
*replacing Ralph G. Dacey, MD*
- Nicholas M. Barbaro, MD  
*replacing Volker K.H. Sonntag, MD*
- Melanie G. Hayden Gephart, MD  
*replacing Alexander A. Khalessi, MD, MS*



# ACGME RRC Staff

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- Pamela L. Derstine, PhD, MHPE  
*Executive Director*
- Susan E. Mansker  
*Associate Executive Director*
- Jennifer M. Luna  
*Accreditation Administrator*
- Deidre M. Williams  
*Accreditation Assistant*

*Also.....*

**Andrew Turkington**

*Oplog Representative*

**Jenna Walls**

*WebADS Representative*



# ACGME Reorganization

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- Senior VP for Surgical Accreditation:  
John R. Potts III, MD
- Senior VP for Hospital-based Accreditation:  
Louis J. Ling, MD
- Senior VP for Medical Accreditation:  
Mary Lieh-Lai, MD, FAAP, FCCCP
- Senior VP for Institutional Accreditation:  
Kevin B. Weiss, MD



# Accreditation Statistics AY 10/11

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## Total # Accredited Programs

# Core 101

# Sub 2

## Total # Residents/Fellows

Male/Female 957/162

## Total # Programs Reviewed

# Core 44

# Sub 0

## Total # New Programs Accredited

# Core 1

# Sub 0



# Accreditation Statistics

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## Cycle Length Breakdown (Core)

Cycle Length	# Programs Reviewed AY 10/11	# Programs All Current
1-yr	1	2
2-yr	6	8
3-yr	11	20
4-yr	10	15
5-yr	13	56



# Accreditation Statistics AY 10/11

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## Other RRC Meeting Decisions (Core)

Complement increases

# Requested/#Approved **16/7**

Progress Reports

# Requested/#Reviewed 16/12

Duty Hour Exception Requests

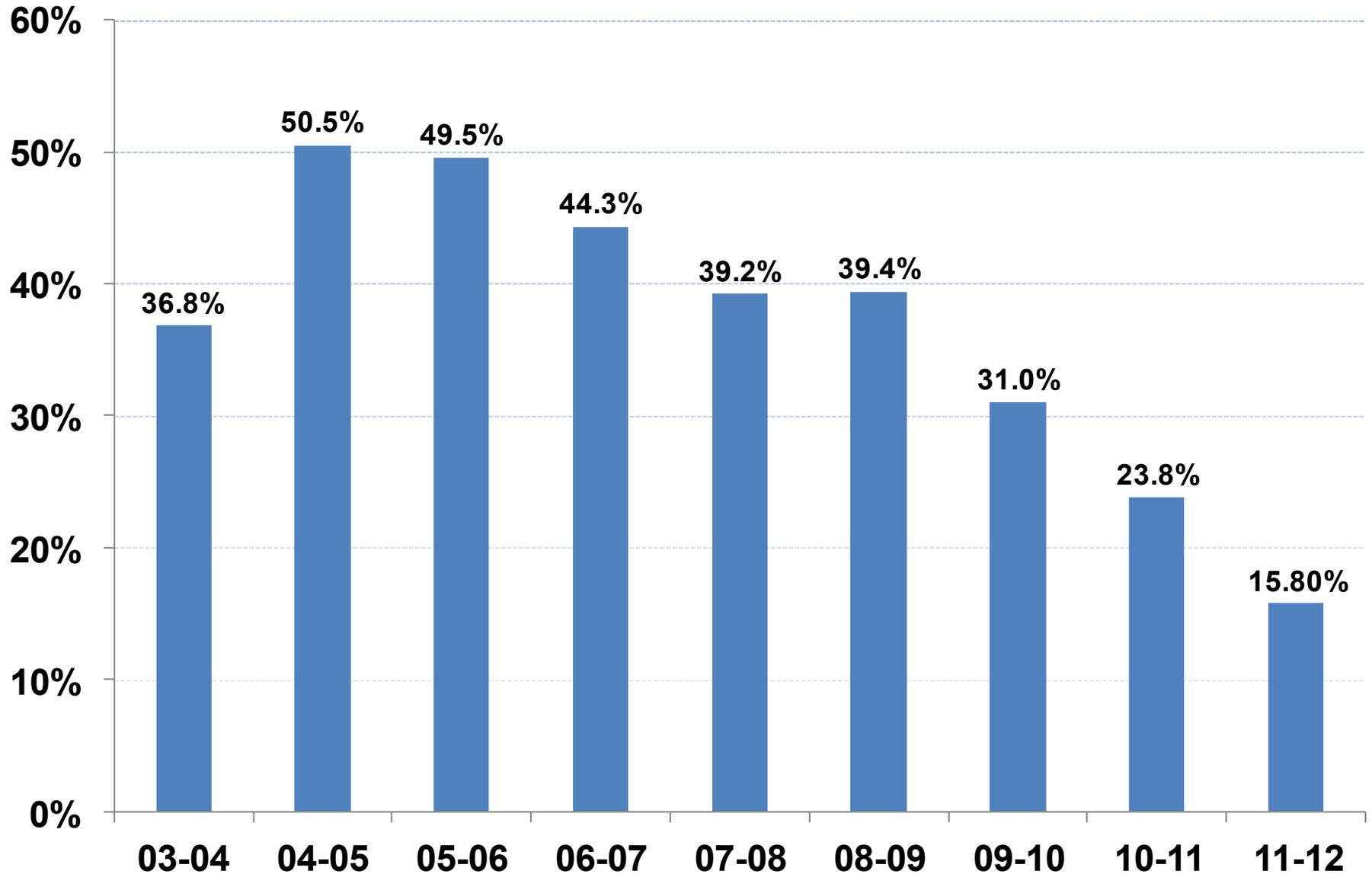
# Granted/# Denied **2/3**

Other (participating site,  
curriculum change, etc.)

14



# % Programs With Duty Hour Exceptions



# Duty Hour Exceptions

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- No exceptions are allowed for PGY1 residents
- Requests for exceptions must include:
  - clear and well-documented educational rationale for each educational level
  - detailed description of the monitoring system to ensure adherence
  - plan for relief of resident duties in case of resident fatigue

# Online Resources for Programs

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## RRC Website

- FAQs for current program requirements (includes specialty-specific FAQs for new duty hour requirements)
- Common Duty Hour FAQs and Resources
- 2011 RRC Report
- August 2011 RRC Newsletter

## ACGME e-Communication (weekly)

## ACGME Website

- To be added



# CURRENT ISSUES BEFORE the RRC

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- Impact of 2011 Standards- Supervision
- ACGME Re- Organization- 3 New VPs for Accreditation
  - **Surgical- Dr John Potts**
  - **Hospital- Based**
  - **Medical**
- Specialty Specific Program Requirements
- Length of Neurosurgical Training
- Case Categories
- CPT Code Mappings
- Milestone Project
- Next Accreditation System

# 2011 ACGME STANDARDS

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## Expanded Section - Supervision

- identifiable practitioner responsible for each patient\*
- Levels of supervision
  - 1
    - *direct (physically present with resident and patient)*
  - 2a
    - ***indirect with direct supervision immediately available (supervisor physically within site of patient care and available to provide direct)***
  - 2b
    - *indirect with direct supervision available (supervisor immediately available by phone, etc. and is available to provide direct)*
  - 3
    - *oversight (supervisor provides review and feedback after care is delivered)*

Approved procedures and patient management competencies that PGY1 residents can perform under **INDIRECT** supervision with direct supervision available (education provided at the SNS Bootcamp; PD certifies competency)

### **PATIENT MANAGEMENT:**

- Evaluation/Management of patients (hospital admissions and pre-op)
  - **H&P; Neurological exam**
  - **Treatment Plan**
  - **Orders**
- Evaluation/Management of post-operative patients (monitoring and necessary tests) & preparing orders for
  - **medications**
  - **fluid therapy**
  - **nutrition therapy**
- **Patient transfers** (units or hospitals) and discharge
- **Interpreting lab results**

### **PROCEDURAL COMPETENCIES:**

- Carry out **basic venous access** procedures, including establishing intravenous access
- Placement/removal of **NG tubes**
- Placement/removal of **Foley catheters**
- **Arterial puncture** for blood gases
- Performance of **lumbar puncture**

# 2011 ACGME STANDARDS

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## \*PGY-1 Supervision – FAQ

- *PGY-1 enter training requiring **Level 1** or **Level 2a** supervision*
- *Education in Boot Camp or equivalent*
  - *PD ensures demonstrated competence in list of approved procedures and patient management competencies to progress to indirect supervision with direct supervision available* *PGY-1s can advance to **Level 2b***
- *Education, direct observation and assessment of additional patient management and procedural competencies during early months of PGY-1*



During the early months of the PGY-1 year, residents must be educated in, **DIRECTLY** observed, and assessed in the following

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### **Patient Management:**

1. Initial evaluation and management of patients in **urgent/emergent situations** to include: urgent consultations, trauma, emergency department consultations, and assessment of comatose and neurologically unstable patients
2. Evaluation and management of **post-operative complications** (impairment of level of consciousness, development of new neurological deficit, hypotension)
3. Evaluation and management of **critically-ill patients** (immediately post-op or in ICU)
4. Management of patients in **cardiac arrest**

### **Procedural Competencies:**

1. Insertion of an intracranial pressure monitor
2. Insertion of a lumbar drain
3. Insertion of a ventriculostomy
4. **carry-out advanced vascular access procedures**, including central venous catheterization, and arterial cannulation
5. **Repair of surgical incisions** of the skin and soft tissues
6. **Repair of skin and soft tissue lacerations**

# TRANSITION

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- CRITERION FOR PGY-1 TO REACH 2b
- PD Must Sign Off On All Listed Competencies
- After Reaching 2b, The PGY-1 Could Theoretically Take Independent Night Call As Long As The 16 Hour Standard Is Not Violated
- RRC Has Received **NO** Complaints or Problems With Compliance

# Logging Cases

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What level of involvement in a case will count toward the minimum case number?

# Logging Cases

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- Must scrub in (w/gloves; w/ or w/o gown)
- Must indicate level when logging case
- Only one level/procedure for each resident involved in the procedure
- All procedures under direct supervision

# ACGME Milestones Project

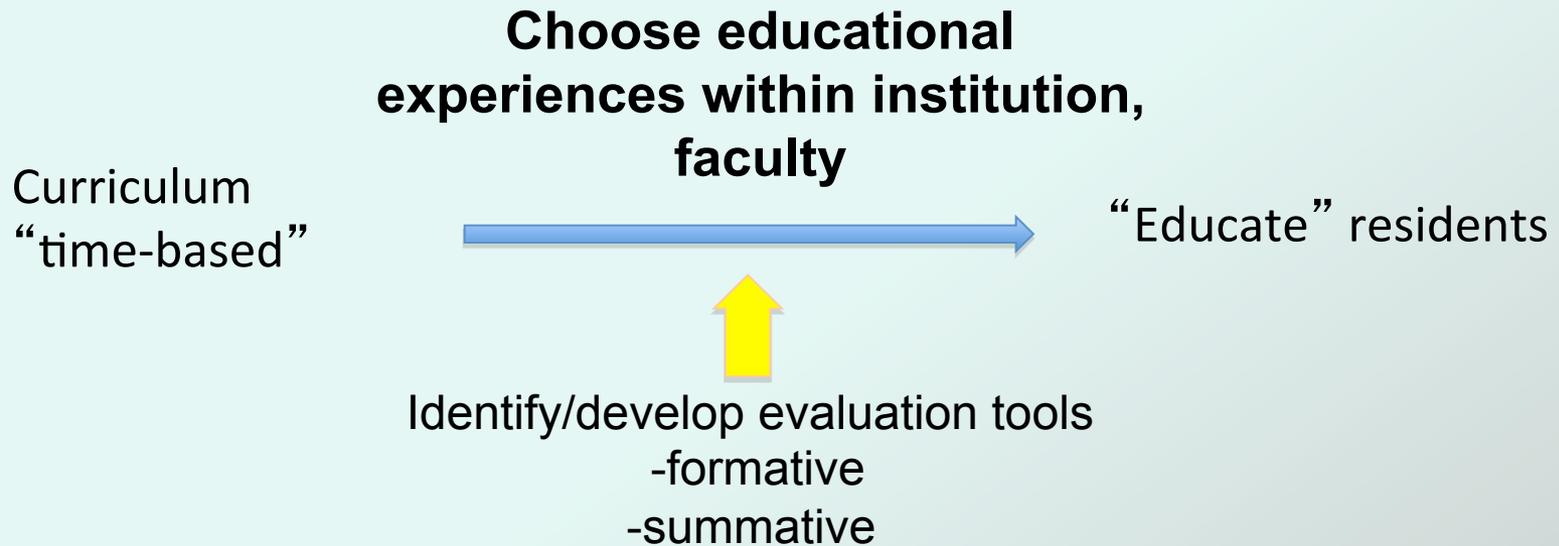
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- Translate “general” competencies into **specific competencies** to be met by all residents
- Create “core” resident outcomes in the competencies, not “standardization” of all outcomes.
- **MILESTONES ARE OUTCOMES NOT ELEMENTS of a CURRICULUM**
- **NOT INTENDED to INCLUDE ALL ELEMENTS of TRAINING- SELECTIVE BIOPSY**



# Current Curricula

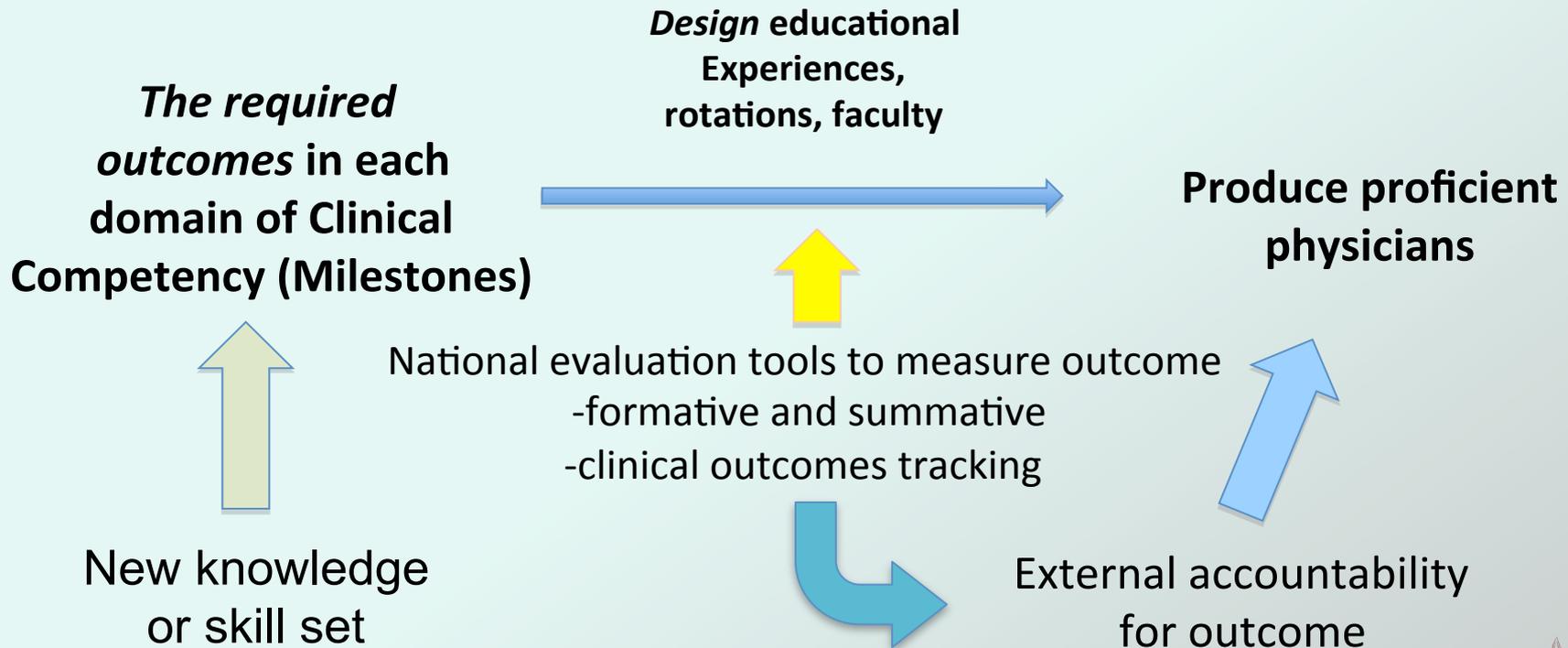
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*“Circumstantial Practice”*

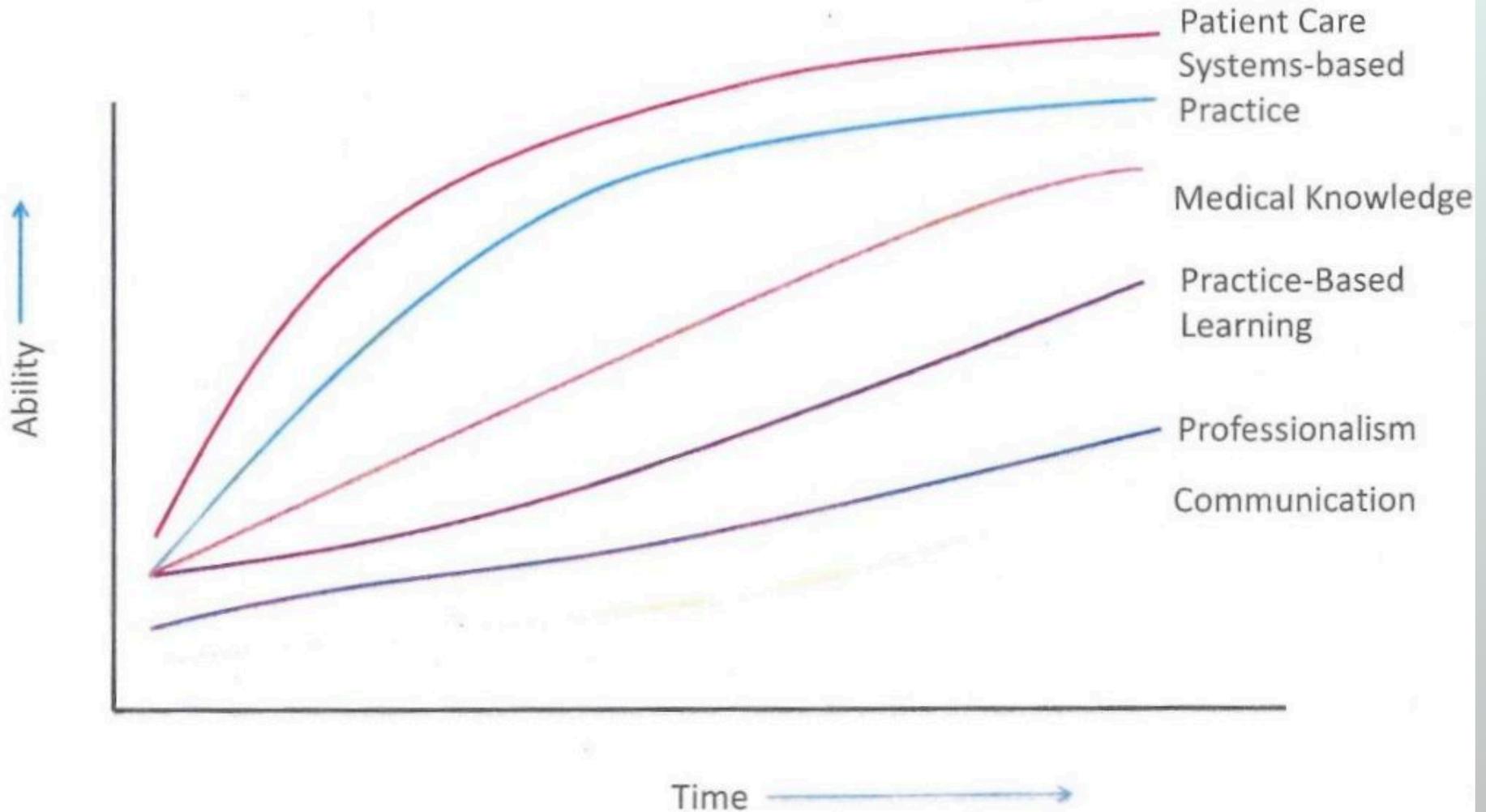
# Future Curricula

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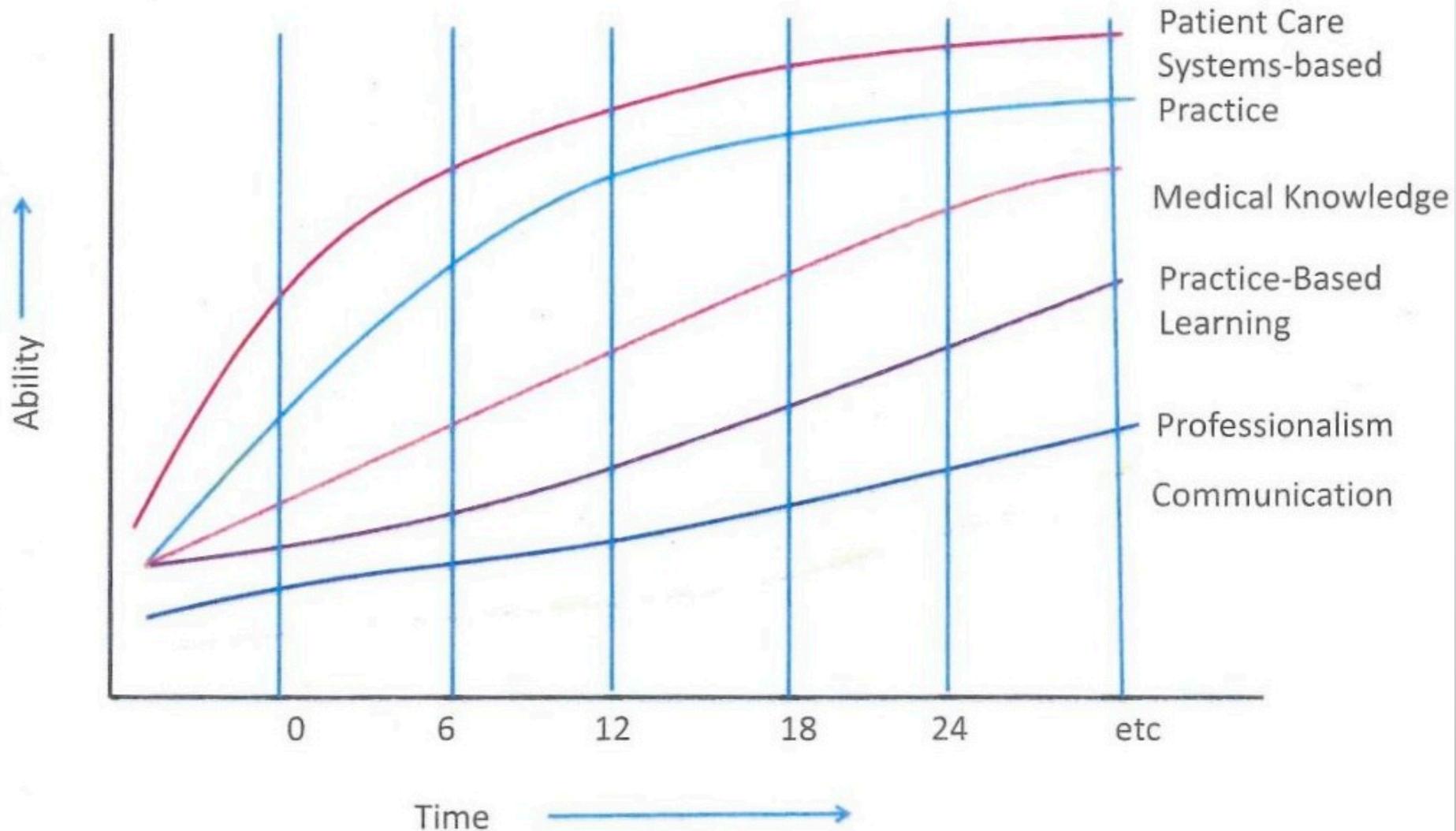


***“Intentional Practice”***

# Residents should improve in all ACGME general competency domains

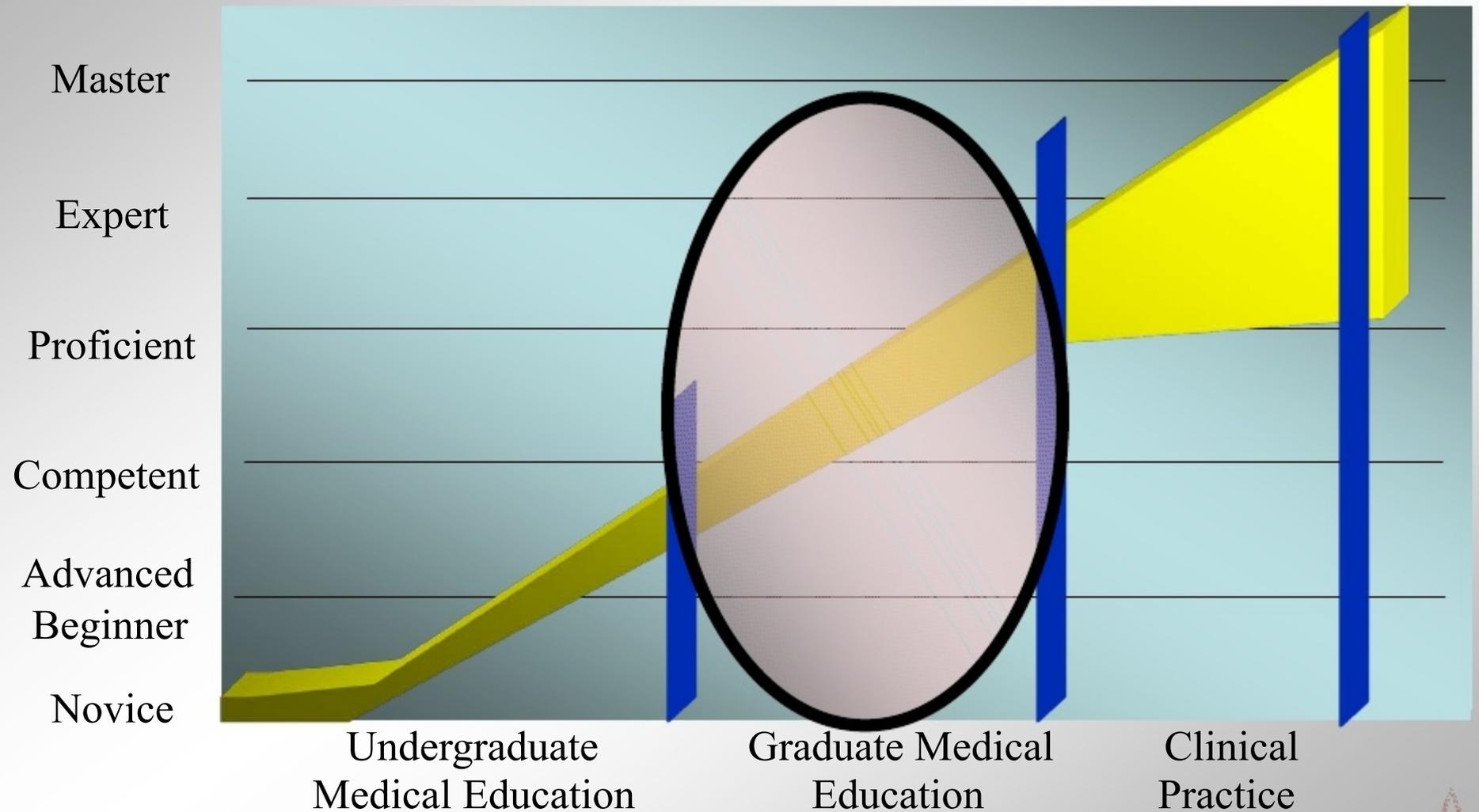


# Milestones should measure progress towards desired endpoint



# The Goal of the Continuum of Clinical Professional Development

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# EPA-INTRA-AXIAL TUMOR

- ~~Differential Diagnosis~~
- Treatment Plan
- Pre-, Post-Op Care
- Assist in Surgery (**EARLY LEARNER**)
- Operate with Guidance (**COMPETENCE**)
- Operate with Independence (**PROFICIENCY**)
- Design, Implement Clinical Trials (**EXPERT**)

## Milestone Description: Critical Care--Medical Knowledge

	Level1	Level2	Level3	Level4	Level5
<b>Intracranial Pressure (ICP) Physiology</b>	Describe the Monro-Kellie doctrine	List the effects of elevated ICP on vital signs and neurological examination	Describe systemic factors that can impact ICP	Review the implications of cerebrospinal fluid leak for ICP and for potential complications	Explain the literature describing relationship of elevated ICP to outcome in TBI patients
<b>Monitoring Techniques</b>	Compare advantages and disadvantages of ventriculostomies and parenchymal ICP monitors	Describe non invasive techniques of measuring hemodynamic status	Review indications for electroencephalography monitoring in neurosurgical patients	Describe the principles underlying transcranial Doppler sonography of cerebral blood flow and explain its role in cerebral monitoring	Discuss the rationale for and limitations of monitoring brain tissue oxygenation, jugular venous oxygen saturation and cerebral microdialysis data
<b>Treatment of Elevated ICP</b>	List indications for ICP monitoring	Explain the indications and risks of CT scanning in investigating elevated ICP	Describe the effects on ICP and potential complications of analgesia, sedation, positioning, and pharmacological paralysis	Discuss the role and risks of CSF drainage, hyperosmolar therapy, and hyperventilation Review the decision-making process for removal of ICP monitor	Describe controversies in choosing an appropriate cerebral perfusion pressure target when ICP is elevated

**Pulmonary pathophysiology**

Discuss the differential diagnosis and work-up of a patient presenting with hypoxic or hypercapnic acute respiratory failure

Explain the concepts of intrapulmonary shunting and dead space

Discuss pharmacological therapy and its toxicity for treating airway constriction and secretions

Describe indications for and methods of delivering oxygen and supporting respiration other than intubation and mechanical ventilation

Describe indications and drawbacks of ECMO

**Mechanical ventilation**

Describe the distinction between oxygenation and ventilation in the context of mechanical ventilation

Explain the advantages and disadvantages of different modes of mechanical ventilation

List the potential adverse effects of endotracheal intubation and mechanical ventilation

Describe systems-based measures designed to prevent ventilator-associated pneumonia

Describe the development of an ICU-wide program to reduce mean ventilator days

**Cardiac**

Describe the diagnosis and treatment of acute myocardial infarction and congestive heart failure in an ICU patient

List the different types of shock, list ways of differentiating among them, and describe appropriate treatment

Explain potential causes of elevated blood pressure in a neurosurgical ICU patient and describe appropriate pharmacological intervention

Describe methods to assess adequacy of intravascular volume and tissue perfusion

Describe oxygen carrying capacity, oxygen delivery, minute flow, and the uncertainty surrounding the transfusion threshold in patients with acute intracranial disease

<b>Coagulation</b>	Describe current understanding of mechanisms of coagulation and hemostasis	Explain appropriate prophylaxis of deep venous thrombosis	Explain the work-up and treatment of impaired hemostasis	Describe the interpretation of thromboelastography studies and their application in clinical settings
<b>Renal/Fluids/ Electrolytes</b>	Explain homeostatic maintenance of normal acid-base balance Describe a differential diagnosis for various acid-base imbalances	Describe the pathophysiology, diagnostic evaluation, and treatment of diabetic ketoacidosis	List a differential diagnosis and describe an appropriate work-up and treatment for electrolyte disturbances	List the indications for dialysis and explain the advantages and disadvantages of different methods of dialysis
<b>Infectious Disease</b>	Review the work-up of fever in ICU patients	Explain appropriate use of prophylactic antibiotics	Describe symptoms, diagnosis and treatment of CNS and wound infections	Discuss universal precautions and interventions after exposure to potential infection
<b>Metabolism and Nutrition</b>	Explain optimal timing, route, type, and volume of nutritional supplementation in neurosurgical ICU patients	Describe the presentation, work-up, and treatment of endocrine disturbances in ICU patients	Review the pathophysiology and treatment of alcohol withdrawal syndrome	Calculate resting energy expenditure in comatose patients Discuss the presentation, potential severity, and management of Guillain-Barre syndrome



## MilestoneDescription:CriticalCare--PatientCare

	Level1	Level2	Level3	Level4	Level5
<b>ICP Monitoring Devices</b>	Insert parenchymal ICP monitors and external ventricular drains (EVDs)	Write appropriate orders for management of EVDs	Diagnose and manage complications of intracranial monitors	Troubleshoot EVDs and describe protocols for discontinuing EVDs	
<b>Treatment of Elevated ICP</b>	Order appropriate positioning, analgesics, sedation, and neuromuscular blocking agents	Treat intracranial hypertension with CSF drainage, hyperventilation, and hyperosmolar agents	Manage refractory intracranial hypertension with decompressive craniectomy, hypothermia, and/or barbiturate coma	Determine when further treatment of intracranial hypertension is futile	Develop a standard management protocol for elevated ICP and describe situations in which deviating from the protocol may be appropriate
<b>Systemic parameters and their effect on cerebral metabolism</b>	Write appropriate orders for intravenous fluids and nutrition in critically ill neurosurgical patients	Write orders for appropriate management of blood pressure and cerebral perfusion pressure	Select appropriate ventilator settings and use of end-tidal CO <sub>2</sub> monitoring	Assess the status of cerebral autoregulation	Collaborate effectively with other members of the team caring for neurocritical care patients

<b>Pulmonary</b>	Diagnose and formulate treatment plans for common pulmonary diseases	Perform endotracheal intubation and manage mechanical ventilation	Assess and wean patients from mechanical ventilation and extubate	Diagnose and manage adult respiratory distress syndrome	Recognize the need for and perform bronchoscopy Perform tracheostomy
<b>Cardiac</b>	Use EKG tracings to diagnose common cardiac rhythm disturbances and obtain ACLS certification	Insert central venous catheters	Initiate appropriate treatment for common cardiac rhythm disturbances, including pharmacological treatments and their toxicities	Direct appropriate resumption or initiation of antiplatelet and anticoagulant medications	
<b>Coma</b>	Derive a differential diagnosis for a patient in coma	Coordinate a diagnostic work-up for a comatose patient	Stabilize and manage comatose patients	Lead a family discussion regarding prognosis of a comatose family member and decisions about further care	
<b>BrainDeath</b>	Perform a brain death examination	Evaluate and treat common confounders in diagnosing brain death	Order ancillary tests appropriately in confirming the diagnosis of brain death	Declare brain death in compliance with state laws and hospital policies Lead a compassionate discussion with family members of a patient who is brain-dead	

# NS MILESTONES- ADVISORY GROUP

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- Allan Friedman- **CHAIR**
- Fred Meyer- ABNS Secretary
- Ralph Dacey- SNS Pres- Elect, RRC
- Hunt Batjer- RRC Chair
- Kim Burchiel- SNS, RRC Vice- Chair
- Dan Barrow- ABNS Chair
- Arthur Day- SNS President



# NS MILESTONES- WORKING GROUP

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- Nick Barbaro
- Tim Mapstone
- Nate Selden
- Warren Selman
- Charles Prestigiacomo
- Bob Harbaugh
- Alex Khalessi
- Hunt Batjer
- Vince Traynelis
- Griff Harsh
- Aviva Bosch
- Alex Valadka
- Karin Muraszko
- Fred Lang
- Cargill Alleyne



# Why Milestones?

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## The Next Accreditation System

### Goals of the Next Accreditation System

- Begin the realization of the promise of Outcomes
- Free good programs to innovate
- Assist poor programs to improve
- Reduce the burden of accreditation
- Provide accountability for outcomes (in tandem with ABMS) to the Public



# The Next Accreditation System in a Nutshell

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## ❖ Continuous Accreditation Model

- Based on annual data submitted, other data requested, and program trends

## ❖ Scheduled Site Visits replaced by 10 year Self-Study Visit

## ❖ Standards revised every 10 years

- Standards organized by
  - Structure
  - Resources
  - Core Processes
  - Detailed Processes
  - Outcomes

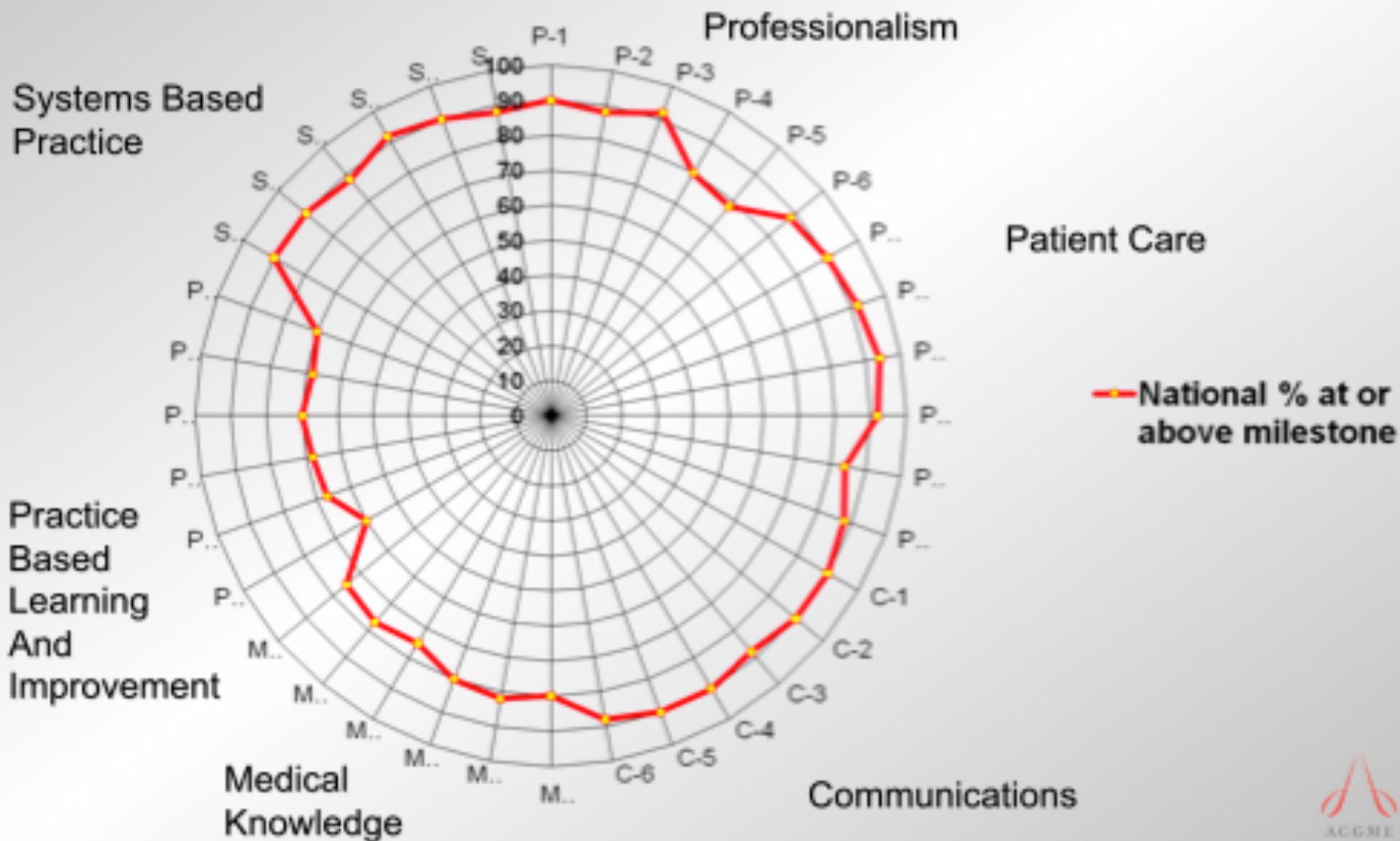


# **NAS- ANNUAL REVIEW by RRCs(POSSIBLE ELEMENTS)**

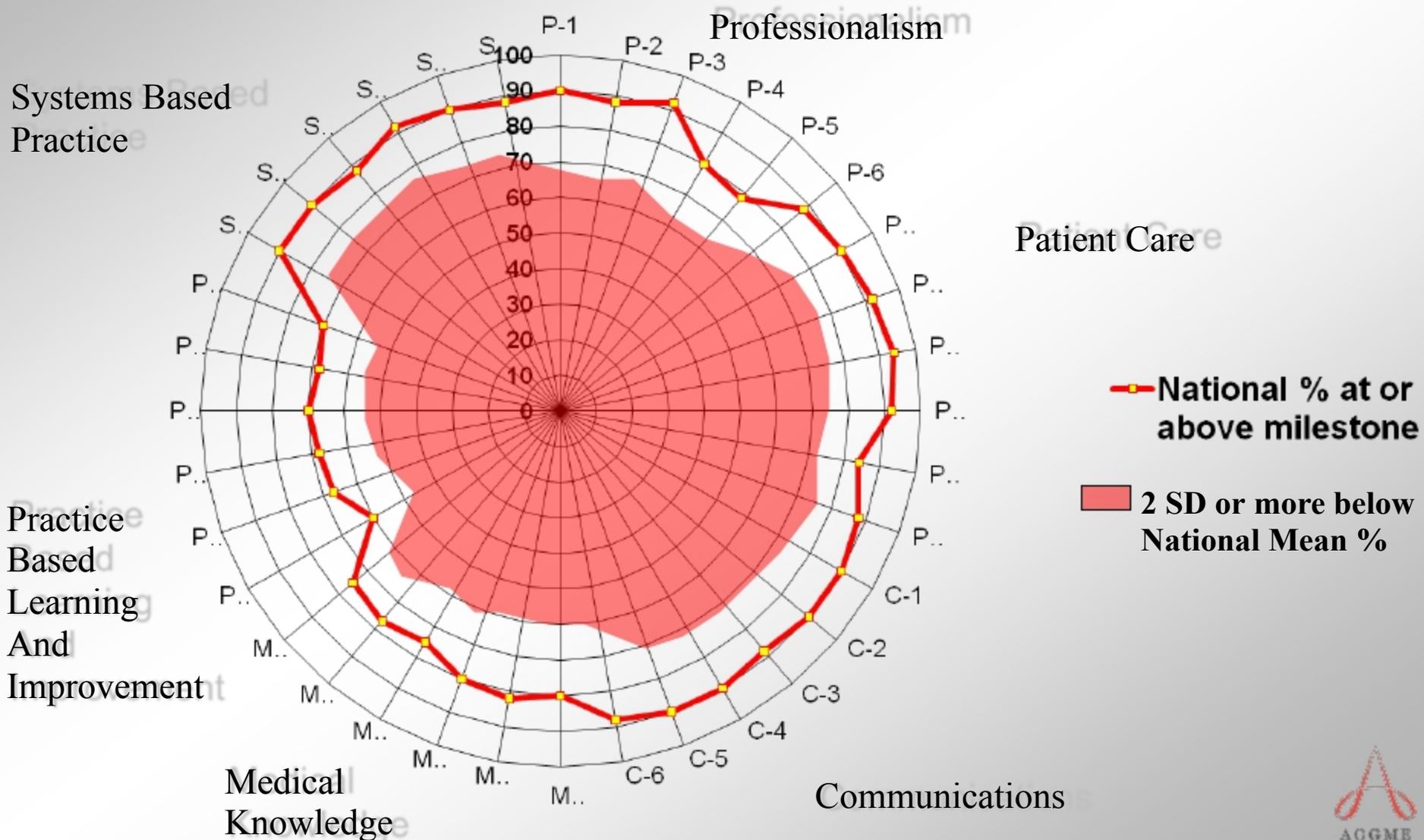
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- Milestones
- Resident/ Faculty Surveys
- Case Categories for Recent Graduates
- PD Changes and Tenure
- Resident Attrition
- Hours Spent Teaching per Week
- Changes in Participating Sites
- Block Diagrams
- Faculty/ Resident Scholarship

# Theoretical Competency Report Card Summary, Program X, All Residents, All Levels



# Theoretical Competency Report Card Summary, Program X, All Residents, All Levels



# Theoretical Competency Report Card Summary, Program X, All Residents, All Levels

Systems Based  
Practice

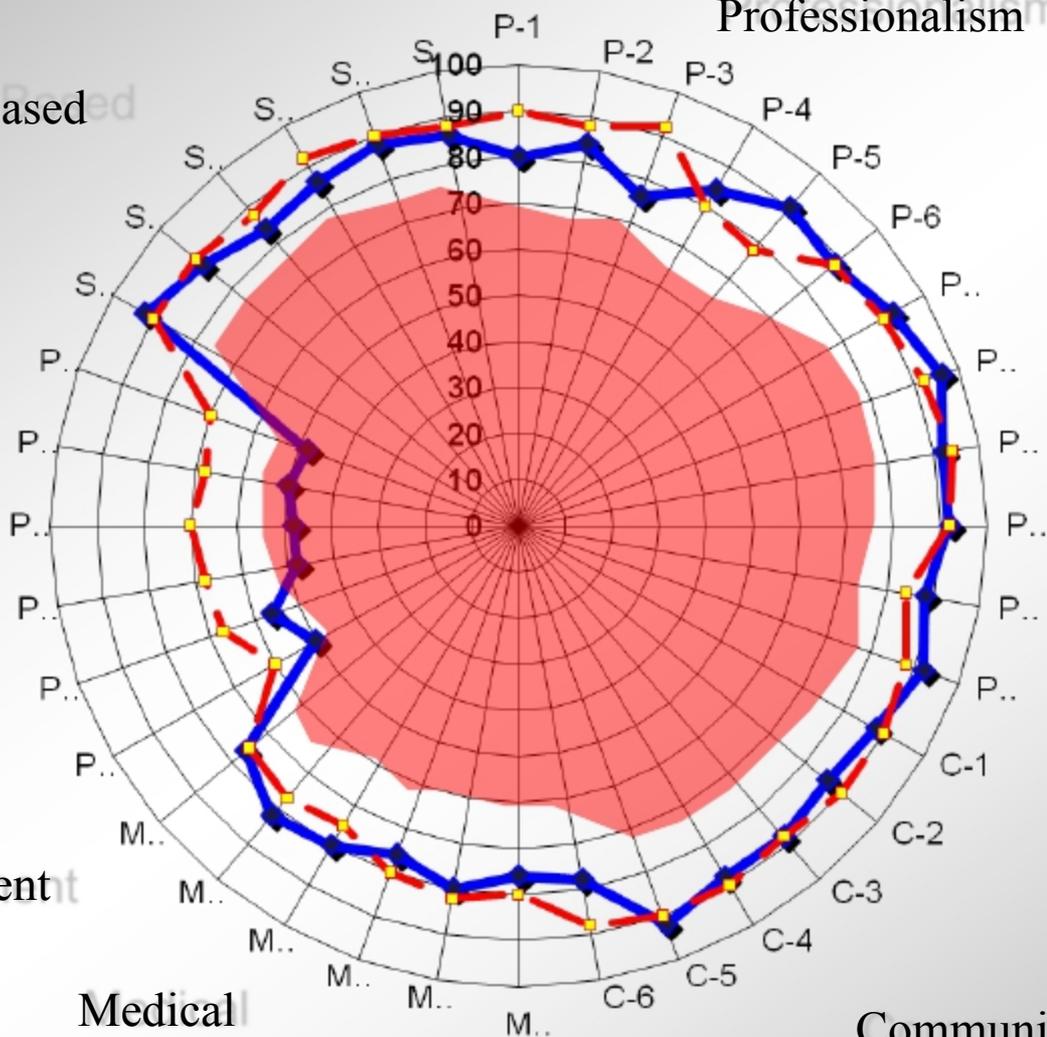
Professionalism

Patient Care

Practice Based  
Learning  
And  
Improvement

Medical  
Knowledge

Communications



- ◆ Program % at or above milestone
- National % at or above milestone
- 2 SD or more below National Mean %

# Professionalism

Resident frequently fails to recognize or actively avoids opportunities for compassion or empathy. On occasion demonstrates lack of respect, or overt disrespect for patients, family members, or other members of the health care team

Resident seeks out opportunities to demonstrate compassion and empathy in the care of all patients; and demonstrates respect and is sensitive to the needs and concerns of all patients, family members, and members of the health care team.

Unprofessional

Advanced

Novice

Beginner

Competent

Proficient

Expert

a) Honesty, integrity, and ethical behavior



b) Humanistic behaviors of respect, compassion, and empathy



c) Responsibility and follow through on tasks



d) Receiving and giving feedback



e) Responsiveness to each patient's unique characteristics and needs



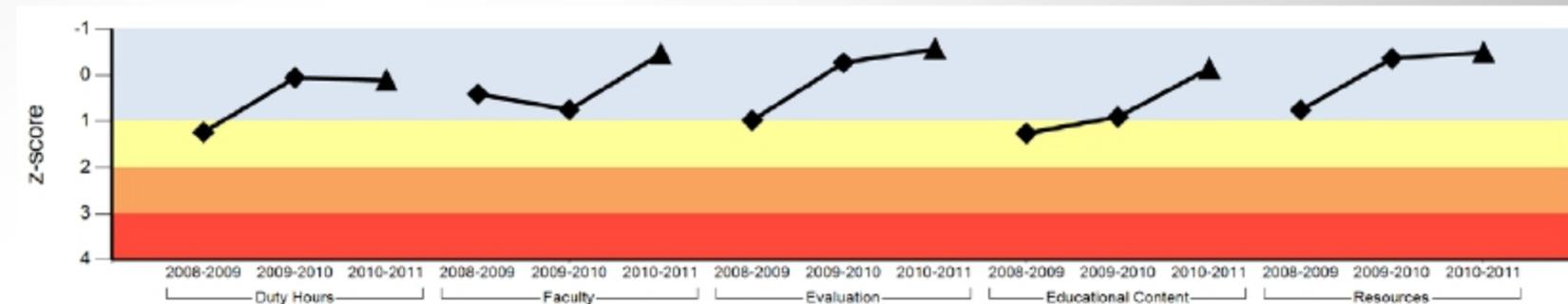
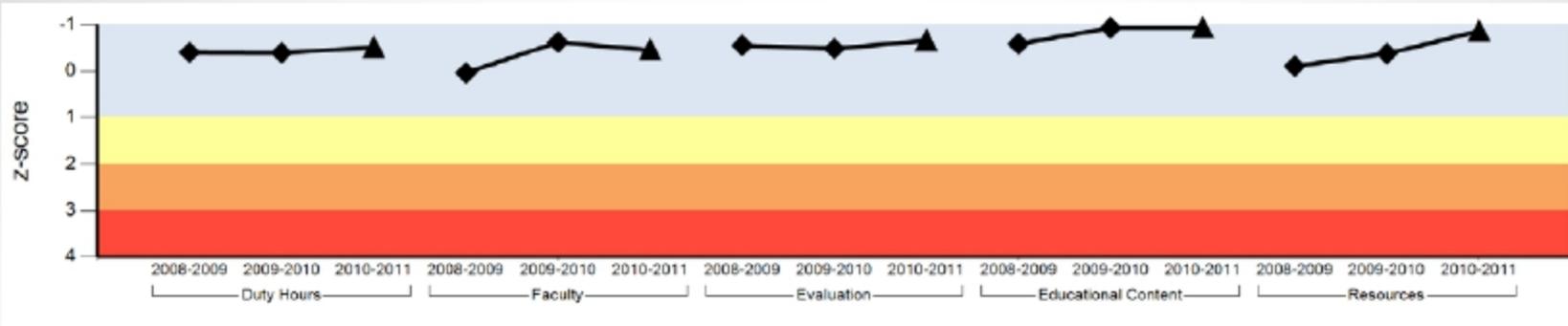
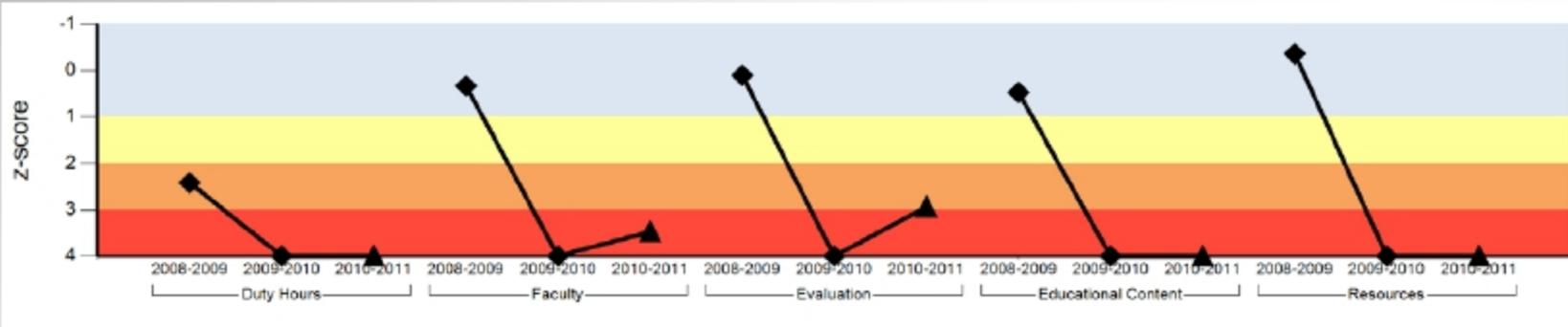
f) Overall evaluation of Professionalism



Resident demonstrates compassion and empathy in care of some patients, but lacks the skills to apply them in more complex clinical situations or settings. Occasionally requires guidance in how to show respect for patients, family members, or other members of the health care team.

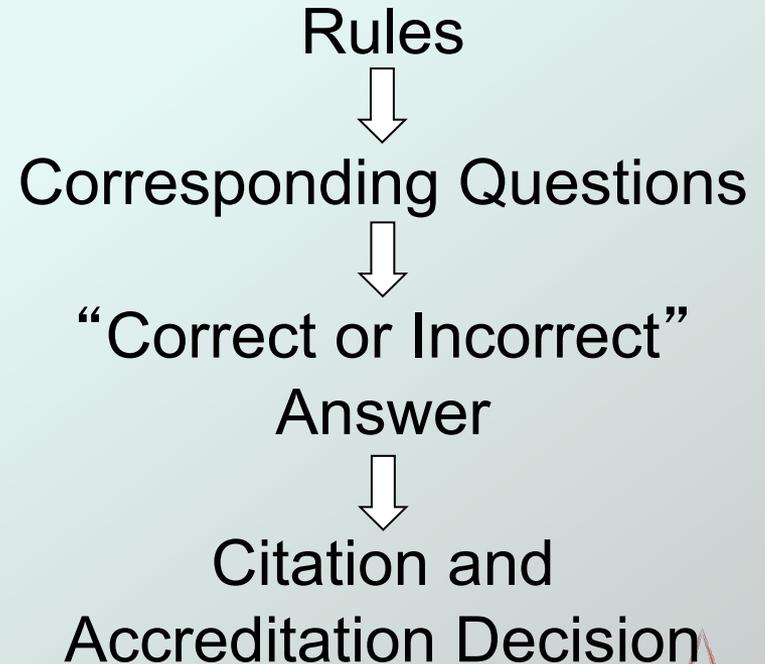
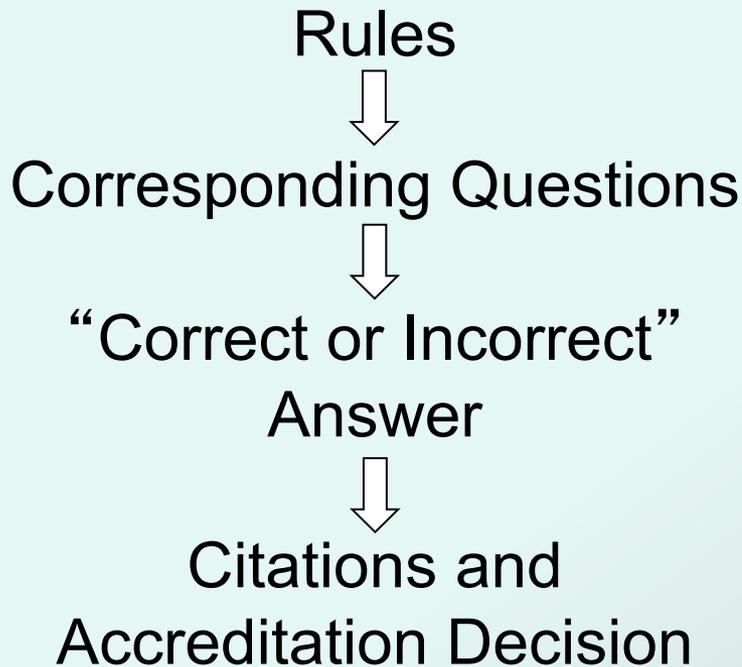
# Resident Survey

## 3 Year Trends in Three Programs



# The Conceptual Change From...

## ~~The Current Accreditation System~~

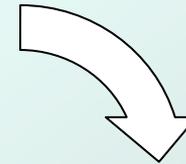
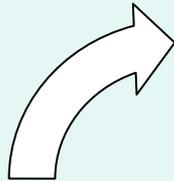


# The Conceptual Change To...

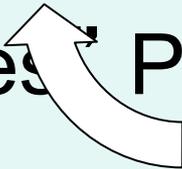
*The “Next Accreditation System”*

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“Continuous”  
Observations



Assure that the Program      Number of  
Potential Fixed the Problem      Related  
“Rules” Problems

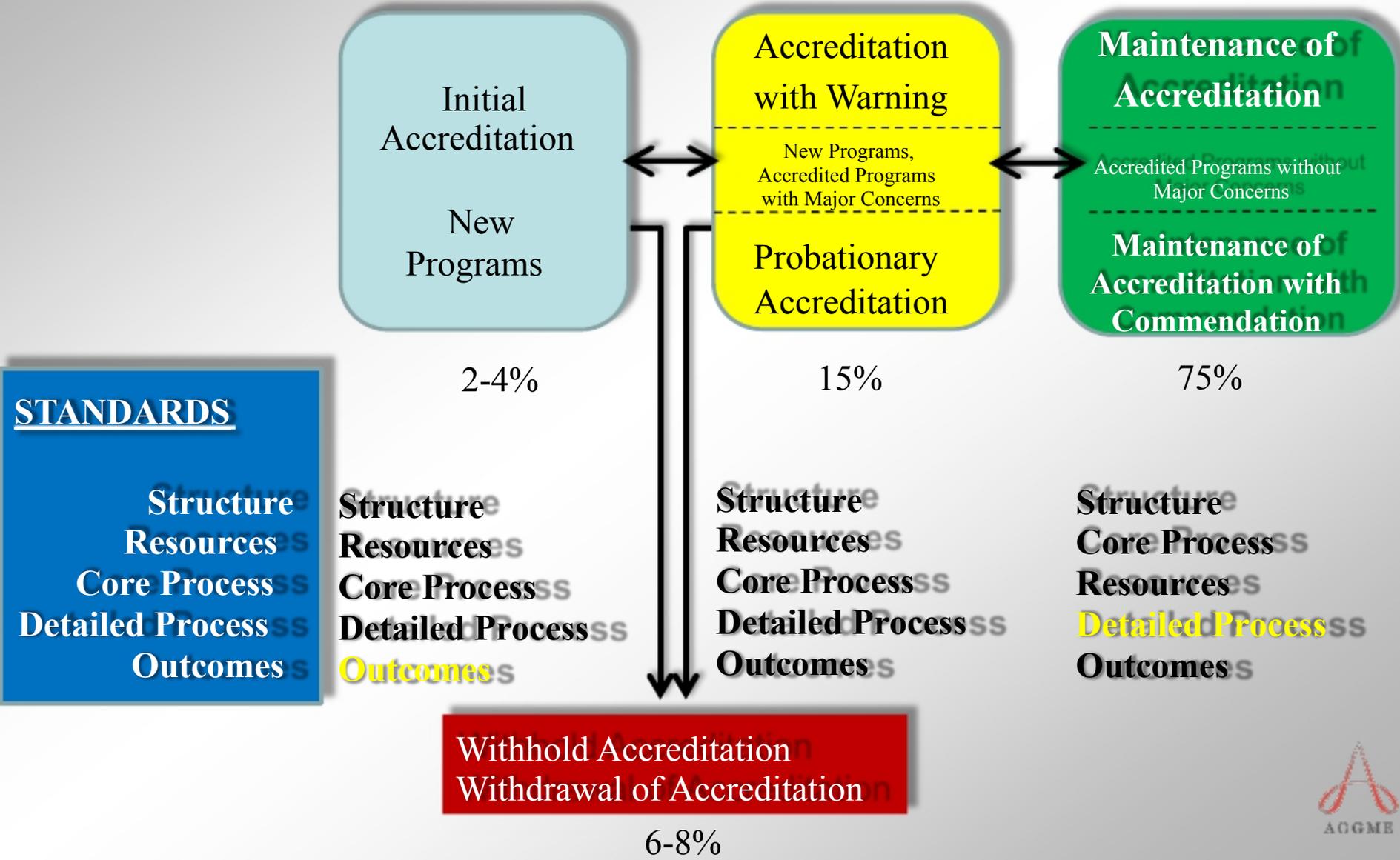


**Promote  
Innovation**

Diagnose  
the Problem If there is one!



# Conceptual Model of Standards Implementation Across the Continuum of Programs in a Specialty



# Challenges/Opportunities

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- Culture Change and Faculty Development
  - Program Directors, Designated Institutional Officials
  - Faculty
  - Review Committee Members
- “Retooling” of ACGME Infrastructure and Personnel
- The “Community of Educators” in each specialty must come together and agree on:
  - core elements of the competencies
  - levels of performance

# Next Accreditation System Timeline

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Seven specialties/RRC' s begin training  
7/2012

- **Neurological Surgery**
- Orthopaedic Surgery
- Urological Surgery
- Internal Medicine
- Pediatrics
- Diagnostic Radiology
- Emergency Medicine

- Next Accreditation System begins 7/2013
- Remaining specialties begin training 7/2013
- All Specialties/RRCs using Next Accreditation System 7/2014

