

# Structure, Patients, Outcomes: Critical Reflections on Building an Architecture for Nursing and Midwifery

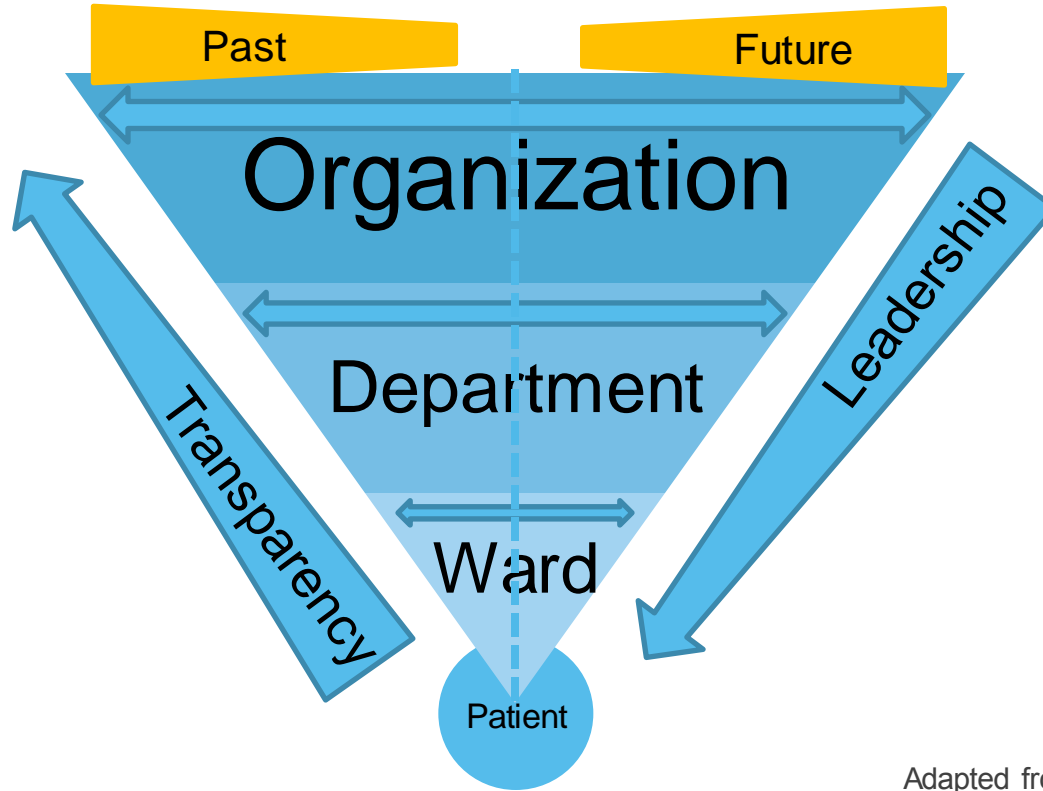
Breakout Session 6  
14<sup>th</sup> & 15<sup>th</sup> May 2016

Prof. Ann-Marie Cannaby, Mr. Brent Foreman, Prof. Richard Gray, Prof. Annie Topping

# Structure, Patients, Outcomes: Critical Reflections on Building an Architecture for Nursing and Midwifery

## The HMC Nursing Strategy

Prof. Ann-Marie Cannaby, PhD, MA, PGDip, BA, DN, RGN



Adapted from Cincinnati Children's and  
Cook and Rasmussen 2005

# HMC Nursing Strategy 2013-2015



بال تعاون مع In Collaboration with

# HMC Nursing Strategy 2013-2015

## The 5 Pillars of a World-Class Nursing Service

HMC Nursing Strategy 2013-2015

### The Right Staff

The Workforce  
Required to Deliver  
the Service

### Educated to the Right Standards

The Education  
Required to Deliver  
Excellent Practice

### In the Right Structure

The Governance,  
Leadership and  
Management of  
Nursing Services

### Giving the Best Care

Quality & Safety of  
Clinical Practice

### As part of the Academic Health System

The Research  
Portfolio Required to  
Support and Develop  
Nursing Academic  
Standards



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صحة • تعليم • أبحاث

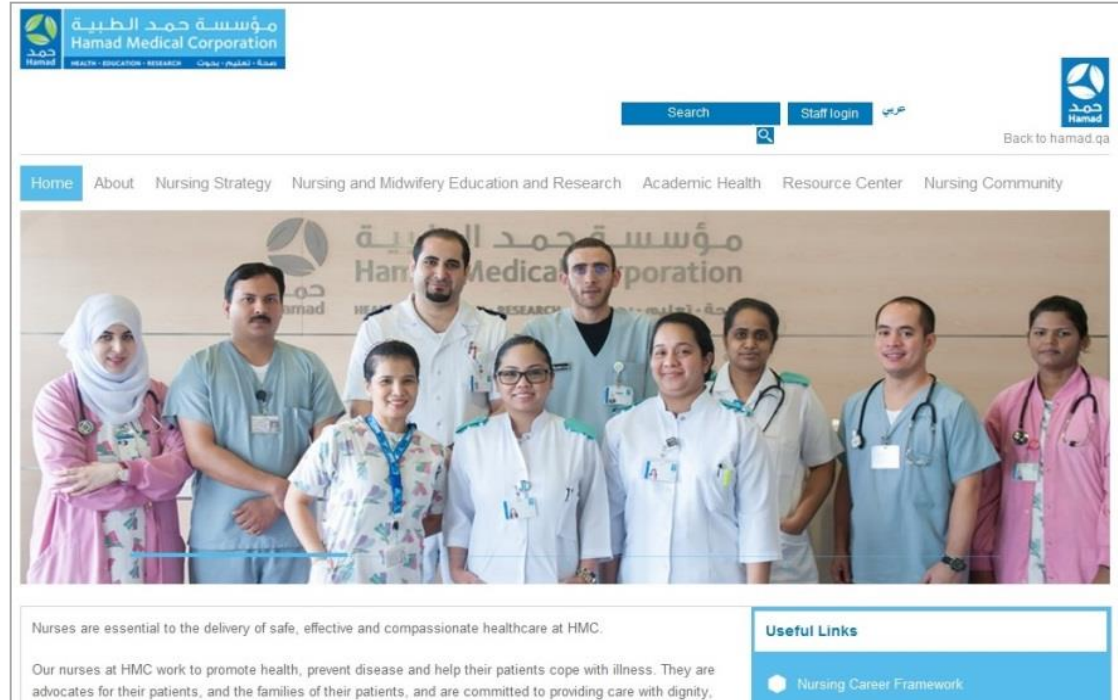
In Collaboration with بالتعاون مع



Institute for  
Healthcare  
Improvement

HMC Nursing Strategy	Intervention/Process (What we did)
<b>The Right Staff (People)</b>	<ul style="list-style-type: none"> <li>• Standardization of roles and scopes of practice</li> <li>• Domains of a Nurse developed and agreed</li> <li>• Introduction of Nurse Specialist role across areas</li> <li>• Nursing Career Framework developed &amp; implemented</li> <li>• Code of Professional Behavior and Ethics launched</li> </ul>
<b>Educated to the Right Standards (Training)</b>	<ul style="list-style-type: none"> <li>• Access to accredited CPD (ANCC)</li> <li>• Investment in Leadership education and development</li> <li>• Post-Graduate Certificate in Teaching &amp; Education</li> <li>• Graduate Nurses (employment of Graduate Nurses only, and internship for new graduates)</li> <li>• First in-country Masters program</li> <li>• Foundations of specialty education</li> </ul>
<b>In the Right Structure (Decentralization/ Delegation)</b>	<ul style="list-style-type: none"> <li>• Review of leadership/governance structures</li> <li>• Active recruitment of nurse leadership positions</li> <li>• Internal review of recruitment/promotion opportunities</li> <li>• Workforce reviews of all facilities; nurse ratios and patient care hours</li> <li>• Patient Care Hours introduced for new business cases</li> </ul>
<b>Giving the Best Care</b>	<ul style="list-style-type: none"> <li>• Nursing KPIs agreed, tracked and reported monthly; feeding back to improvement cycles</li> <li>• NDNQI comparators used as benchmarks in all facilities</li> </ul>
<b>As part of the Academic Health System (Inquiring minds)</b>	<ul style="list-style-type: none"> <li>• Proposed Nursing Research structure agreed</li> <li>• First Research Professor appointed</li> <li>• Recruitment to Research posts</li> <li>• Research workshops / Research support</li> </ul>

# Communicate, communicate, communicate



# Structure, Patients, Outcomes: Critical Reflections on Building an Architecture for Nursing and Midwifery

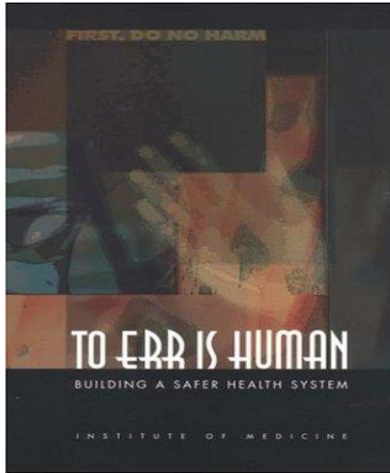
## Quality Governance Framework

Mr. Brent Foreman RN, BHIthSc(N), MAM

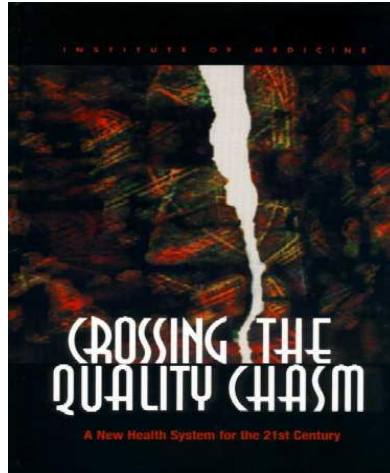


# Structure, Patients, Outcomes: Quality Governance Framework

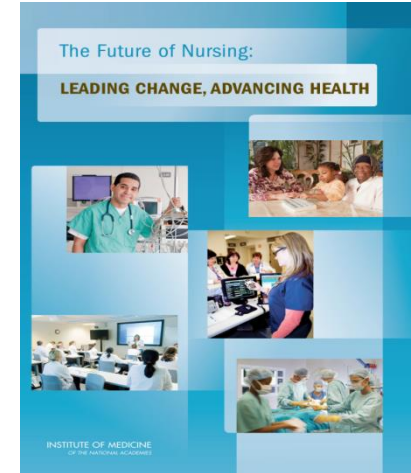
## Institute of Medicine Landmark Reports



1999  
98,000



2001  
150,000



2010

Shining a light on undesirable outcomes experienced by patients and  
Identifying gaps between scientific knowledge and clinical practice

# Structure, Patients, Outcomes: Quality Governance Framework

## 2013 – 2015 : Healthcare Headlines

### Hospitals

## Hospital Errors are the Third Leading Cause of Death in U.S., and New Hospital Safety Scores Show Improvements Are Too Slow

Washington, D.C., October 23, 2013 – New research estimates up to 440,000 Americans are dying annually from preventable hospital errors. This puts medical errors as the third leading cause of death in the United States, underscoring the need for patients to protect themselves and the need to make patient safety a priority.

750 avoidable deaths a month in NHS hospitals, study finds

One in 28 deaths can be attributed to poor care and study says standard death rates should not be used to rank quality of care



## Survive your hospital stay

Medical errors are linked to 440,000 deaths each year. Our new Ratings can help you find a safe hospital.

Published: March 2014

Twelve years ago, John James' 19-year-old son died after cardiologists at two Texas hospitals made a series of mistakes. James says they failed to properly diagnose and treat the cause of an abnormal heartbeat. At the time he was the chief



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Nearly half a million Americans suffered from Clostridium difficile infections in a single year

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Nearly half a million Americans suffered from Clostridium difficile infections in a single year

More than 100,000 of these infections developed

This website is archived for historical purposes

Press Release

Embargoed until: Wednesday, February 25, 2014

Contact: Media Relations (404) 639-3286

James, J. A new evidence-based estimate of patient harms associated with hospital care. Journal of Patient Safety. 2013;9:3,122-128

# Structure, Patients, Outcomes: Quality Governance Framework

## Hamad Medical Corporation –Aspirations & Quality of Care







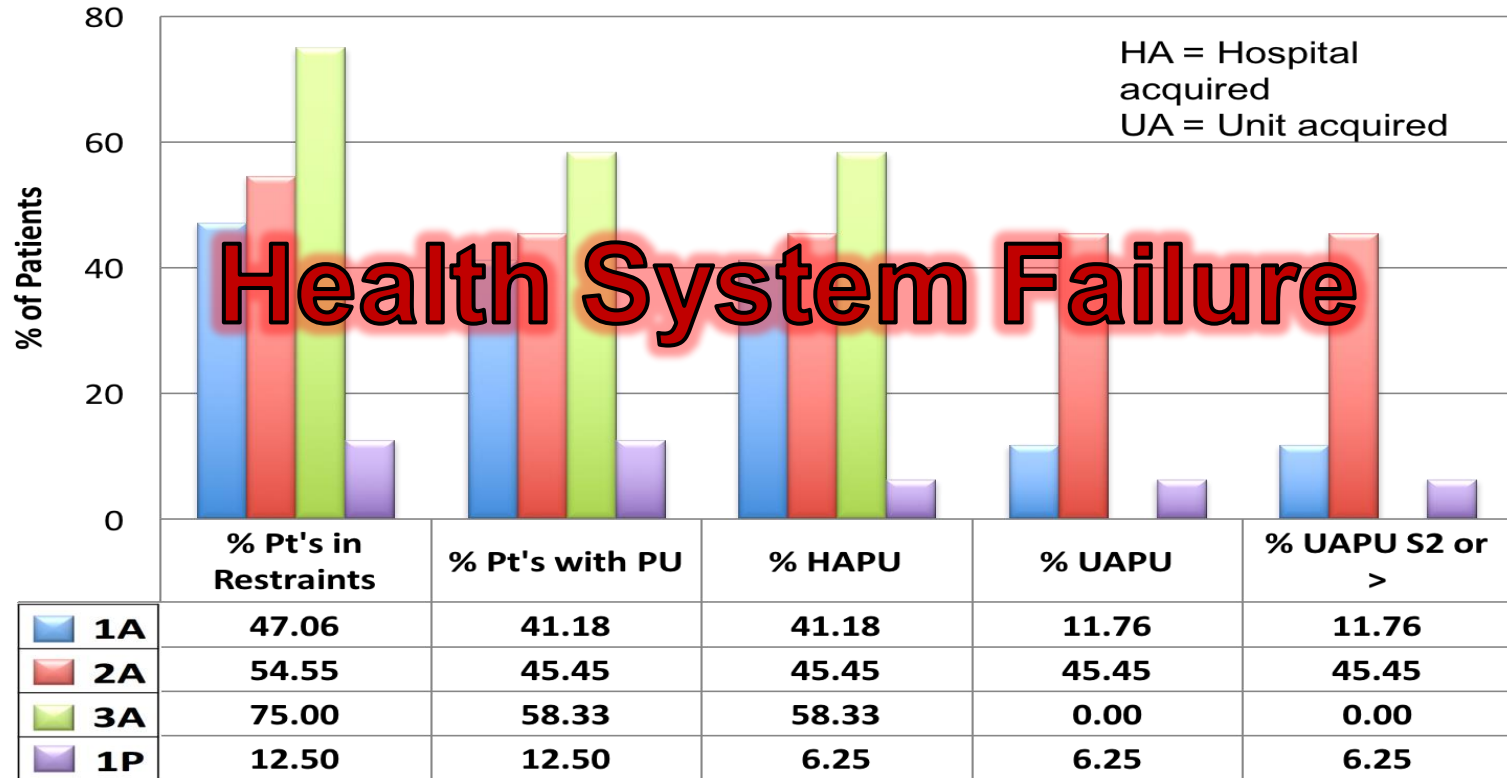
# FOCUS



# Structure, Patients, Outcomes: Quality Governance Framework

## Clinical Governance

**The Percentages: Pressure Ulcer (PU) & Restraint  
Pilot Survey Data by Unit**



# Structure, Patients, Outcomes: Quality Governance Framework

## 6 Universal Root Causes of Failure in Health Systems

- **Culture** – punitive, blaming system, which is tribal, and disengages crucial groups, particularly the clinicians
- **Clinical governance** – ambiguities about who is responsible for what in healthcare, and lack of clear lines of accountability for safety and quality
- **Communication** – poor exchange of essential information among healthcare providers and with patients and their families
- **Teamwork and coordination of care** – poor multi-disciplinary collaboration, care planning and delivery in a fragmented system of care
- **Capacity and capability** – mal-distribution of human resource and skills, both geographically, and over time (daily, weekly and seasonally)
- **Appropriateness of care** – failure to deliver an appropriate level of service to patients when it is needed or failure to escalate care to a service that can meet patients' needs.

**Source:** The Clinical Excellence Commission - advisory body on patient safety and quality in the New South Wales health system, Australia.

# Structure, Patients, Outcomes: Quality Governance Framework

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Source: The Clinical Excellence Commission - advisory body on patient safety and quality in the New South Wales health system, Australia.



**± 95%**

The % of  
population  
served by HMC

**8**

The Number of Hospitals  
conducting Quarterly  
Prevalence Surveys

**79**

The Number of Units  
Conducting Quarterly  
Prevalence Surveys

**8284**

The Number of  
Patients Assessed For  
Pressure Ulcers  
Q4 13 – Q1 16





## Quality and Patient Safety

Nosocomial Infections



Pediatric Indicators



Nosocomial Infections -  
Device Related



Nurse & Midwife  
Satisfaction



HAPU / Falls / Restraints



Patient Satisfaction



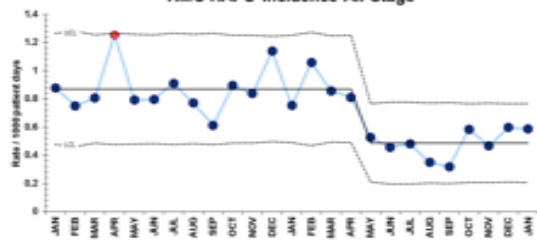


## Quality and Patient Safety

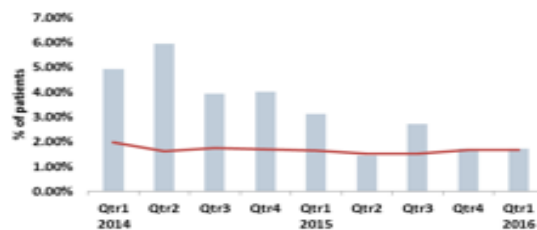


## HAPU / Falls / Restraints

HMC HAPU Incidence All Stage



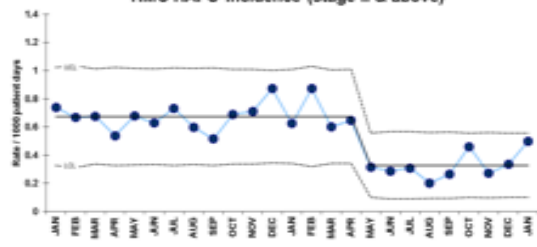
HMC HAPU Prevalence All Stage



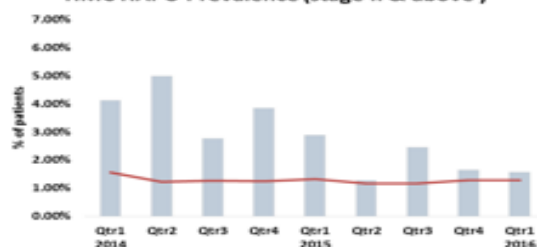
HMC Fall Incidence



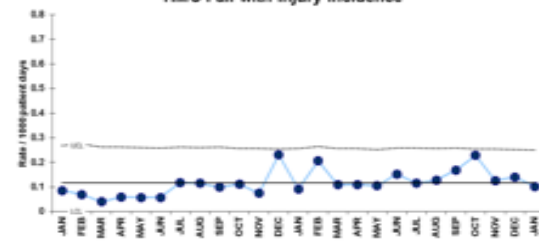
HMC HAPU Incidence (stage III & above)



HMC HAPU Prevalence (stage II & above)



HMC Fall with Injury Incidence

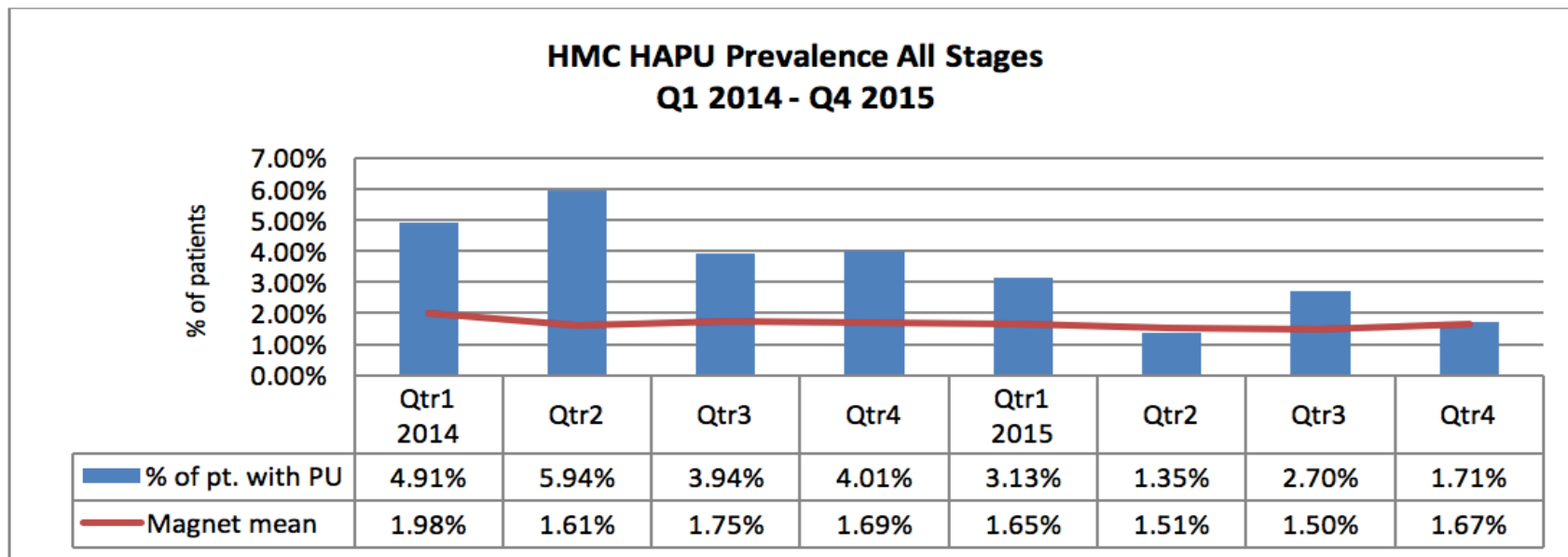


# Structure, Patients, Outcomes: Quality Governance Framework

## Clinical Governance – Nursing Sensitive Indicator Improvement

### Hospital Acquired Pressure Ulcer (HAPU) All Stages

AUDIT FREQUENCY	Quarterly	CALCULATION	(# pt. with HAPU all stages / # pt. surveyed) * 100
AUDIT TYPE	Prevalence	BENCHMARK	Target : Below magnet mean

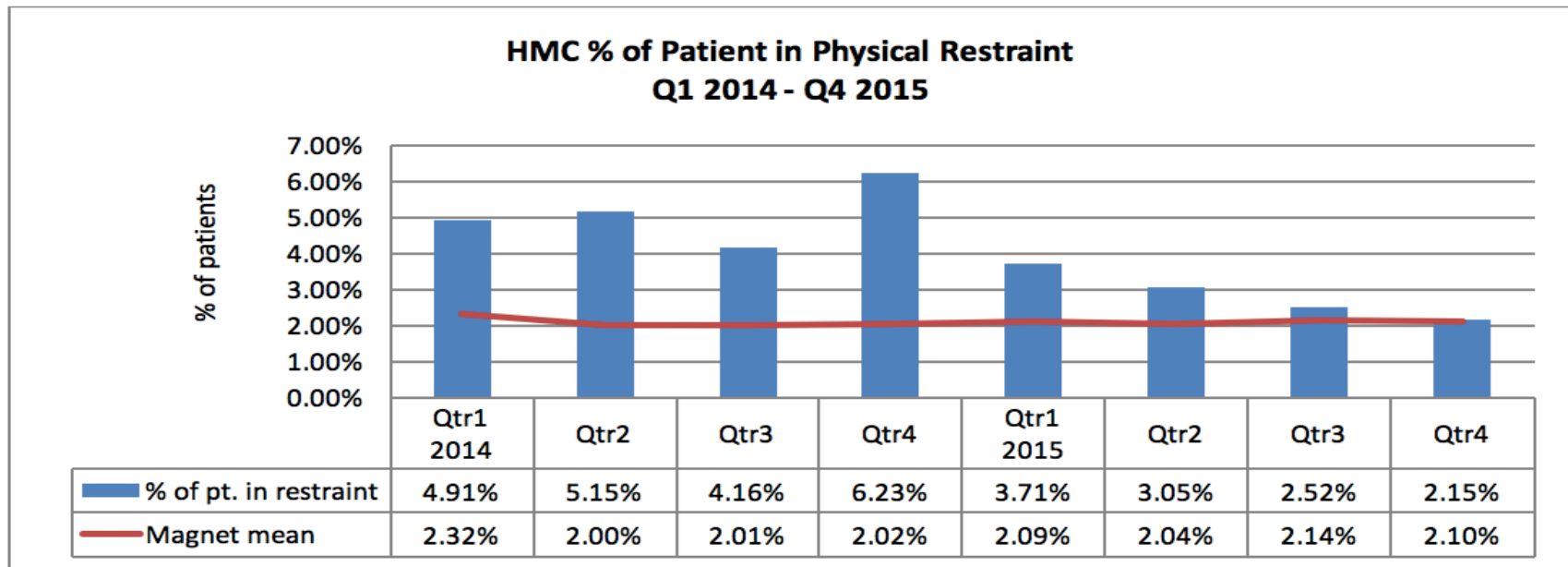


# Structure, Patients, Outcomes: Quality Governance Framework

## Clinical Governance – Nursing Sensitive Indicator Improvement

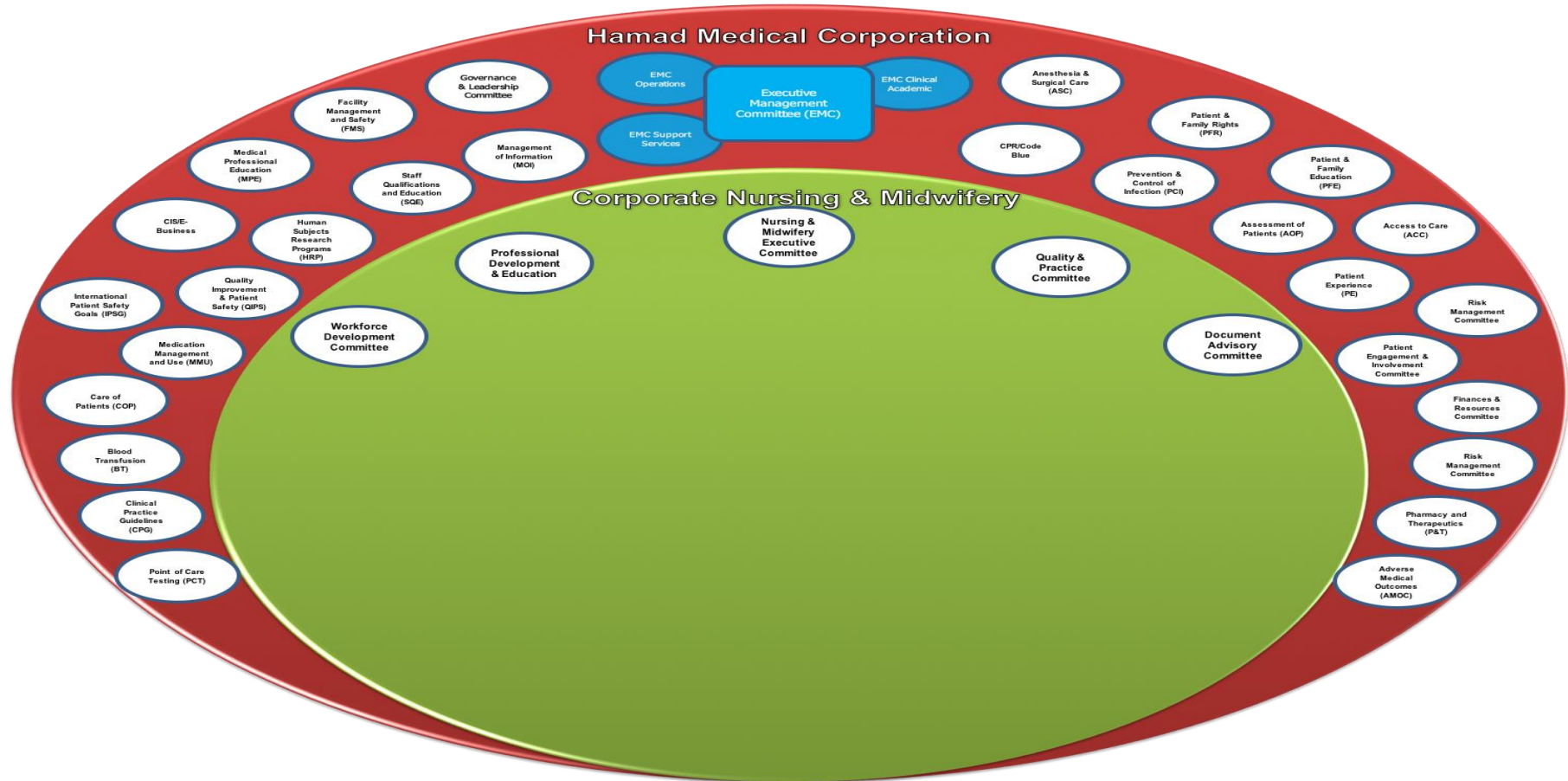
### Physical Restraints

AUDIT FREQUENCY	Quarterly	CALCULATION	(# pt. with physical restraints / # pt. surveyed) * 100
AUDIT TYPE	Prevalence	BENCHMARK	Target :Below magnet mean



# Structure, Patients, Outcomes: Quality Governance Framework

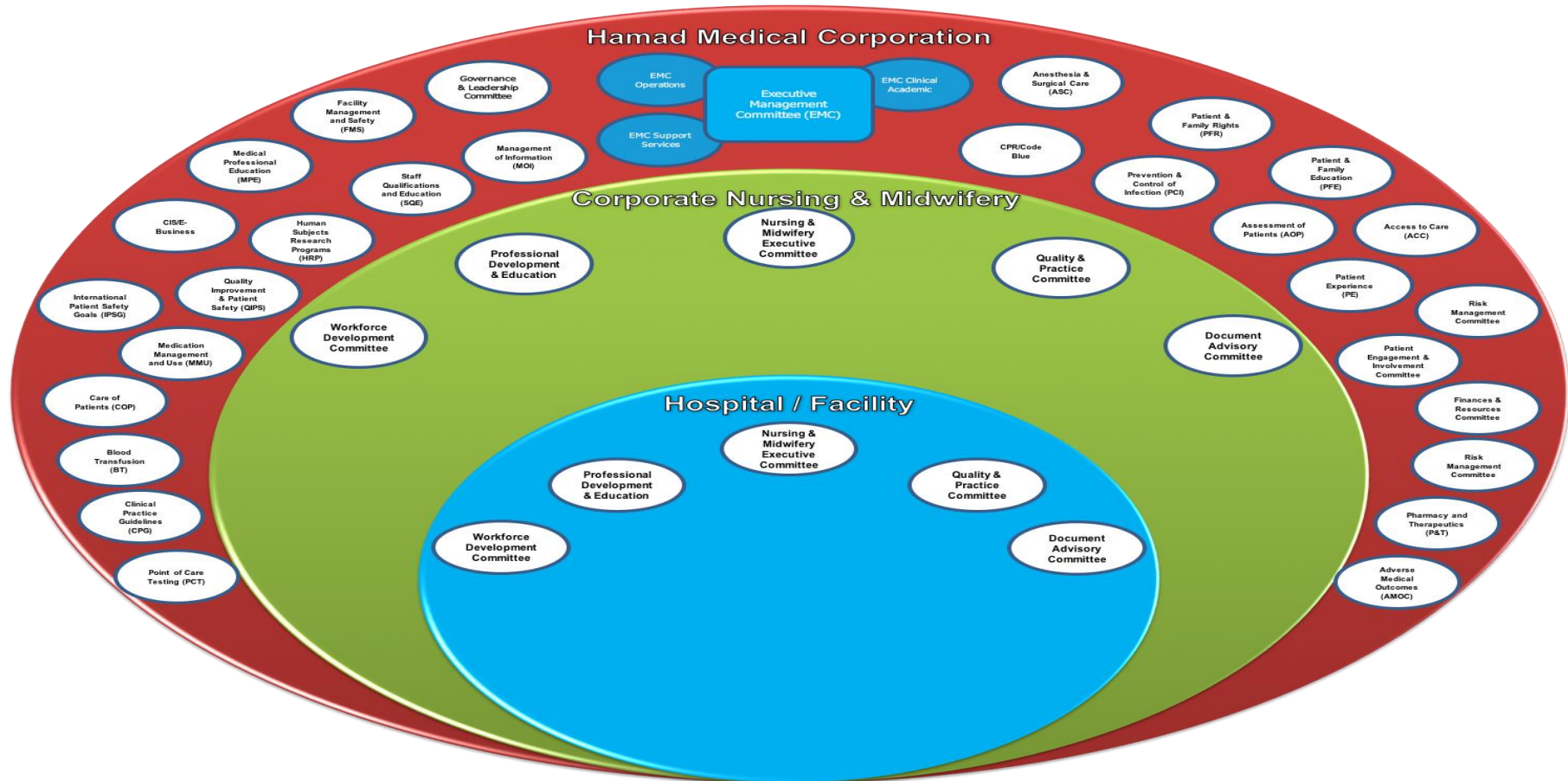
## Clinical Governance, Teamwork and Collaboration





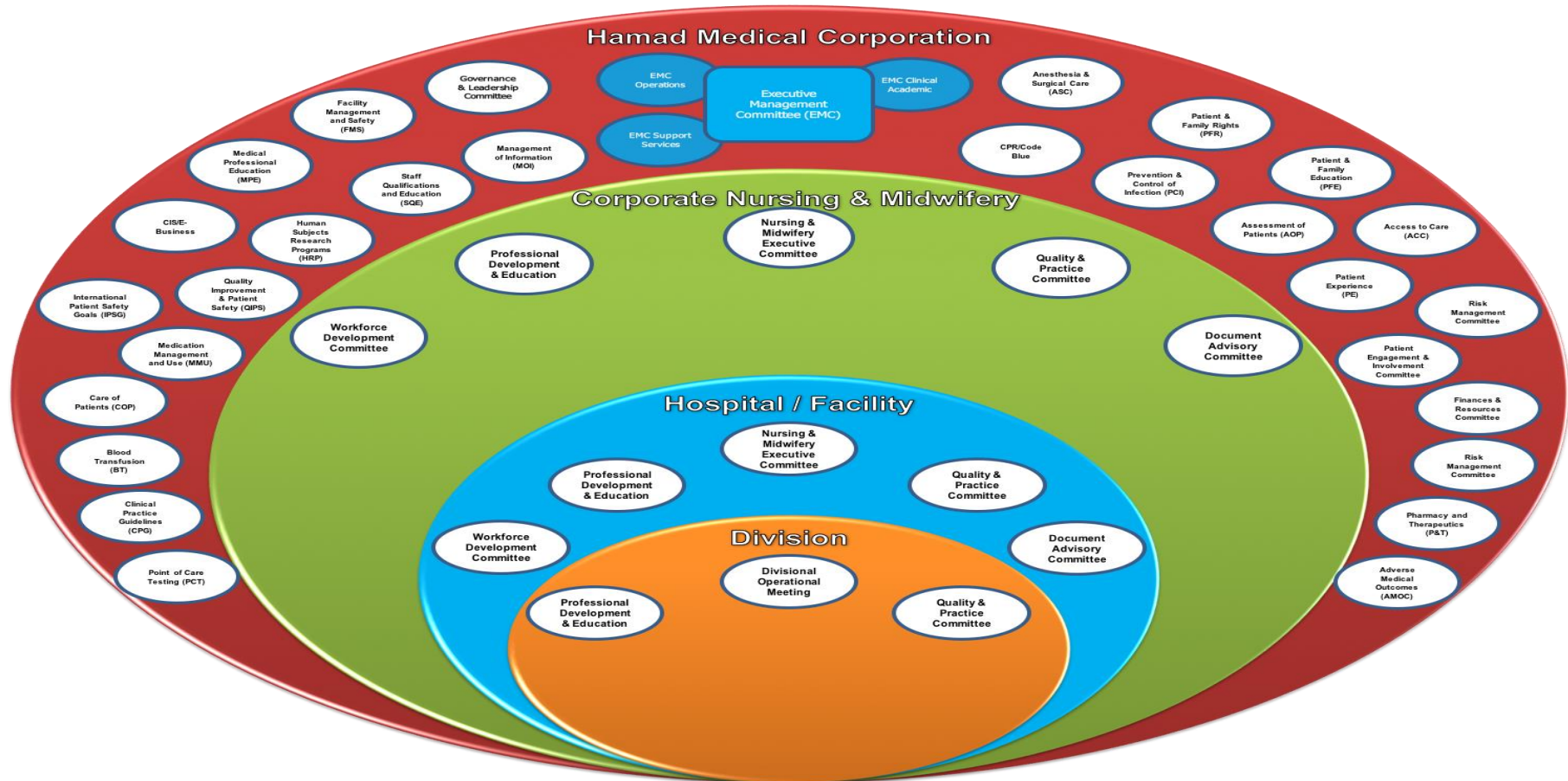
# Structure, Patients, Outcomes: Quality Governance Framework

## Clinical Governance, Teamwork and Collaboration



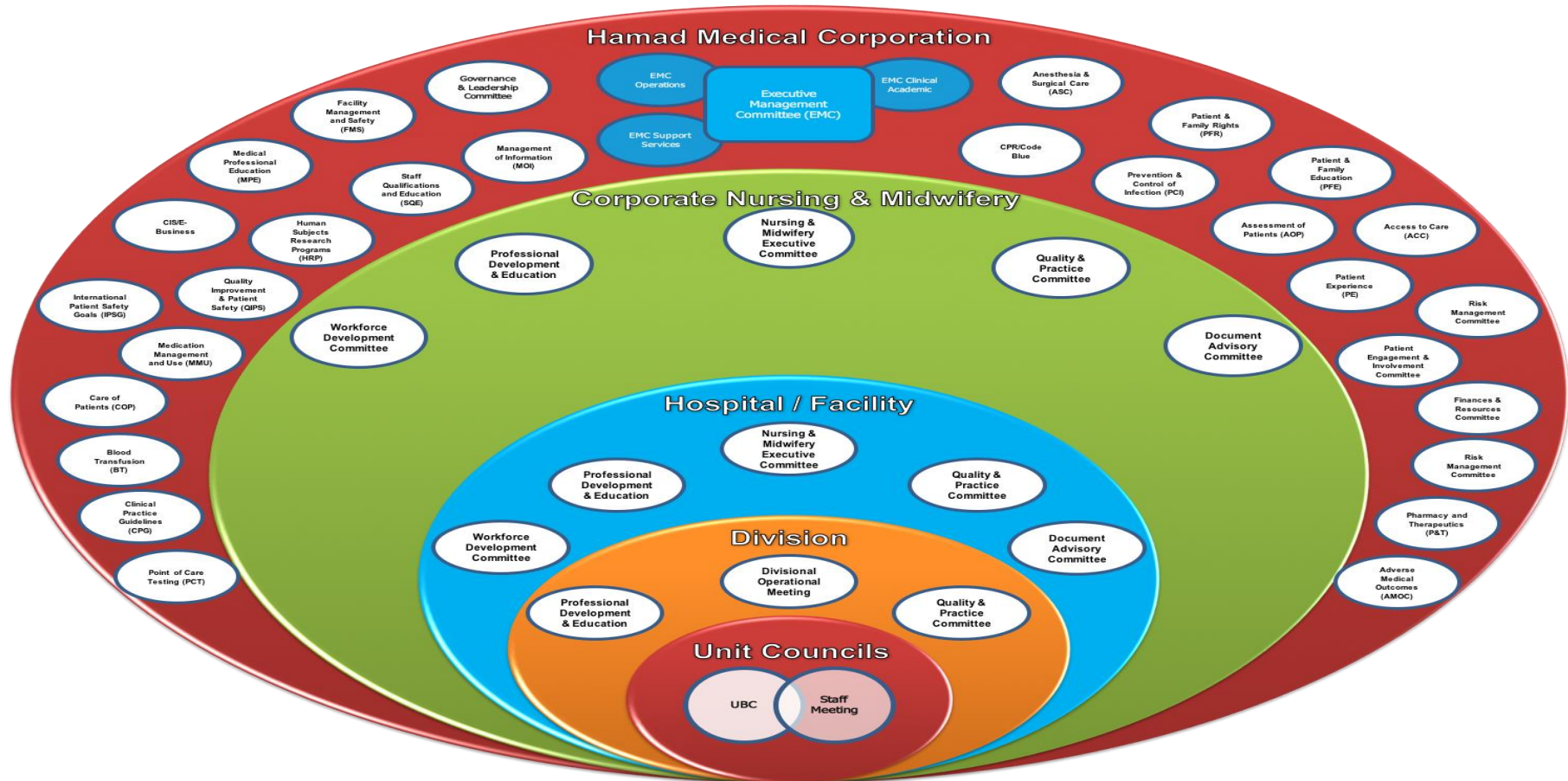
# Structure, Patients, Outcomes: Quality Governance Framework

## Clinical Governance, Teamwork and Collaboration



# Structure, Patients, Outcomes: Quality Governance Framework

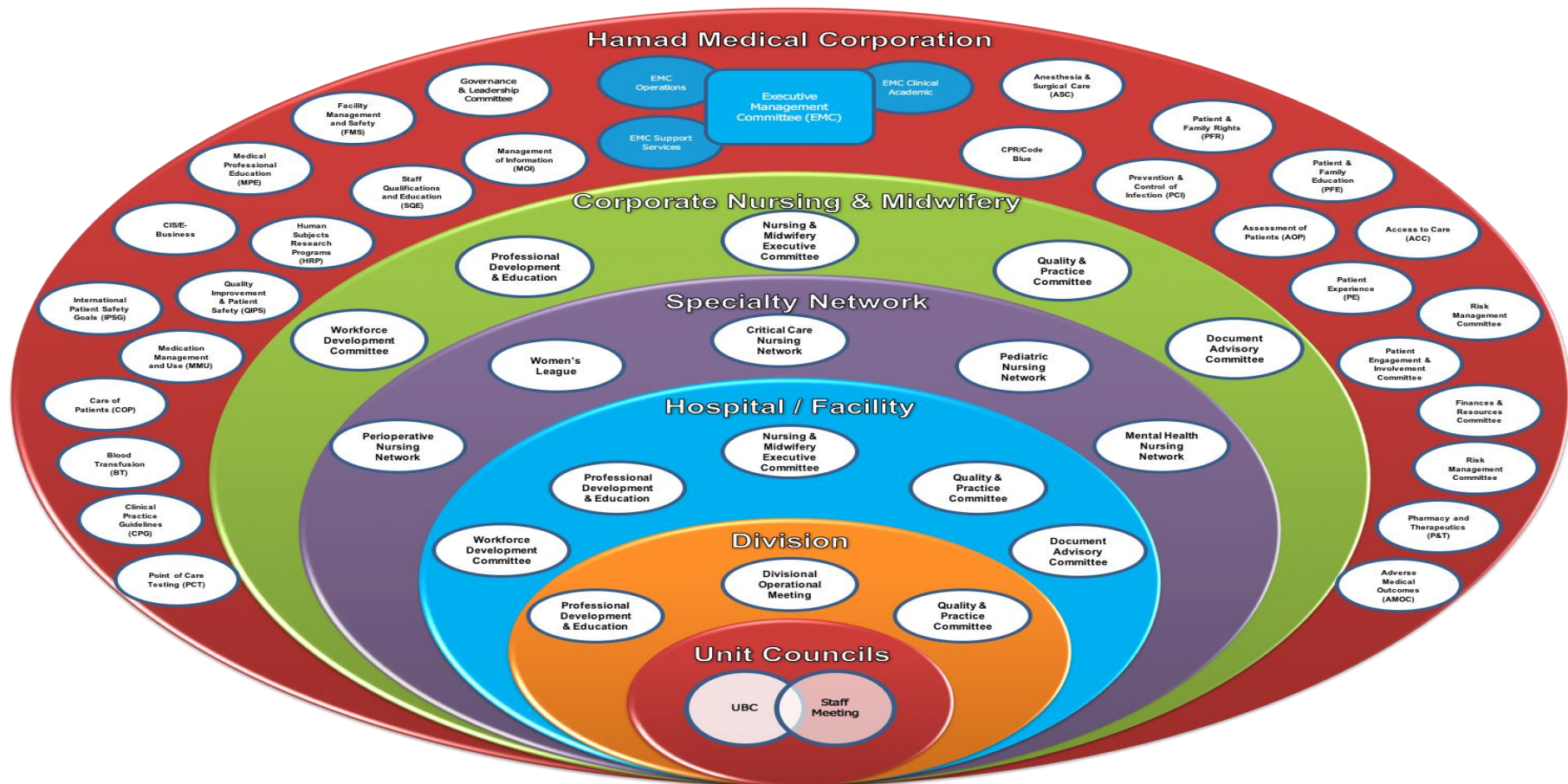
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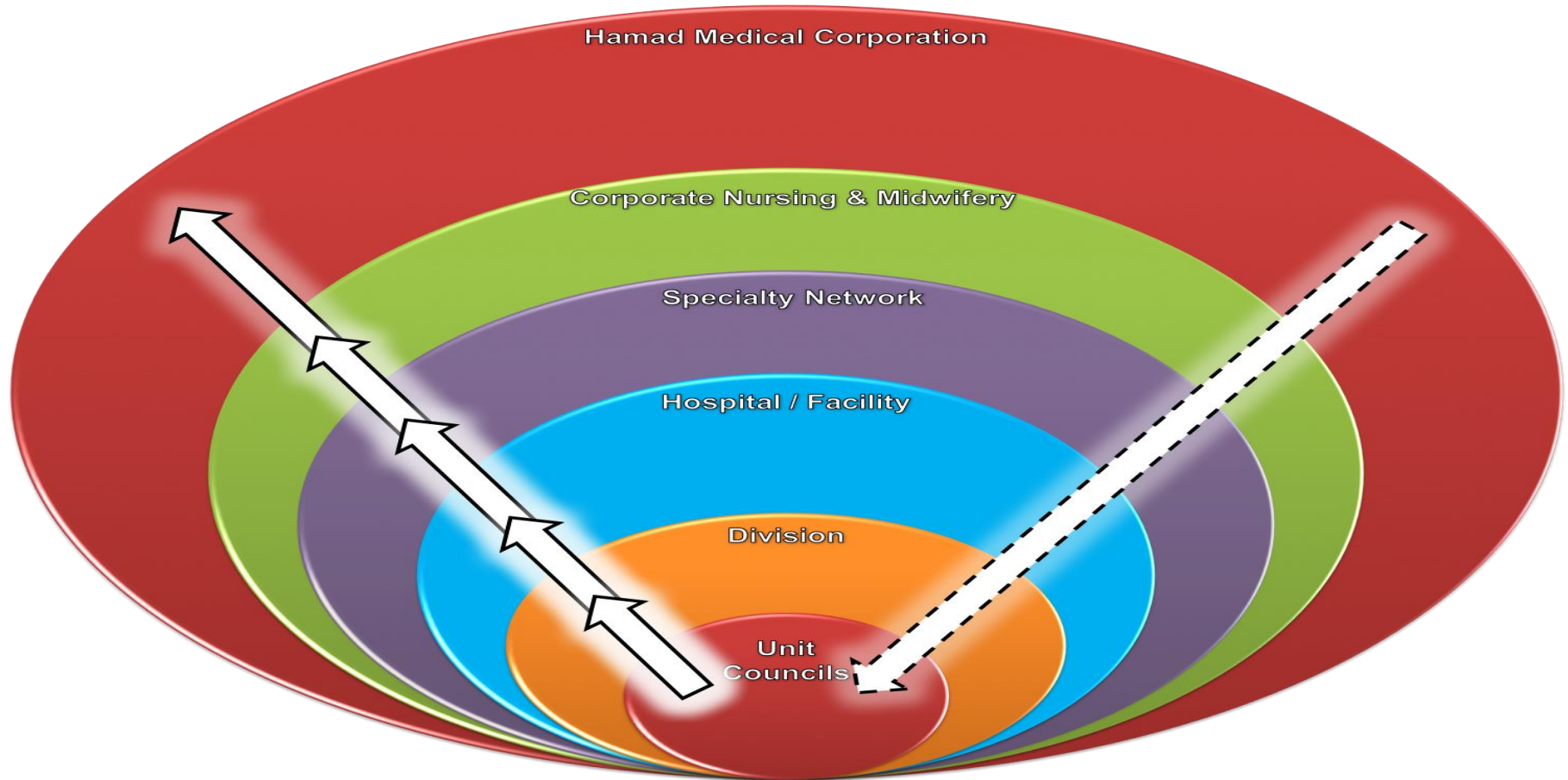
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## Clinical Governance, Teamwork and Collaboration



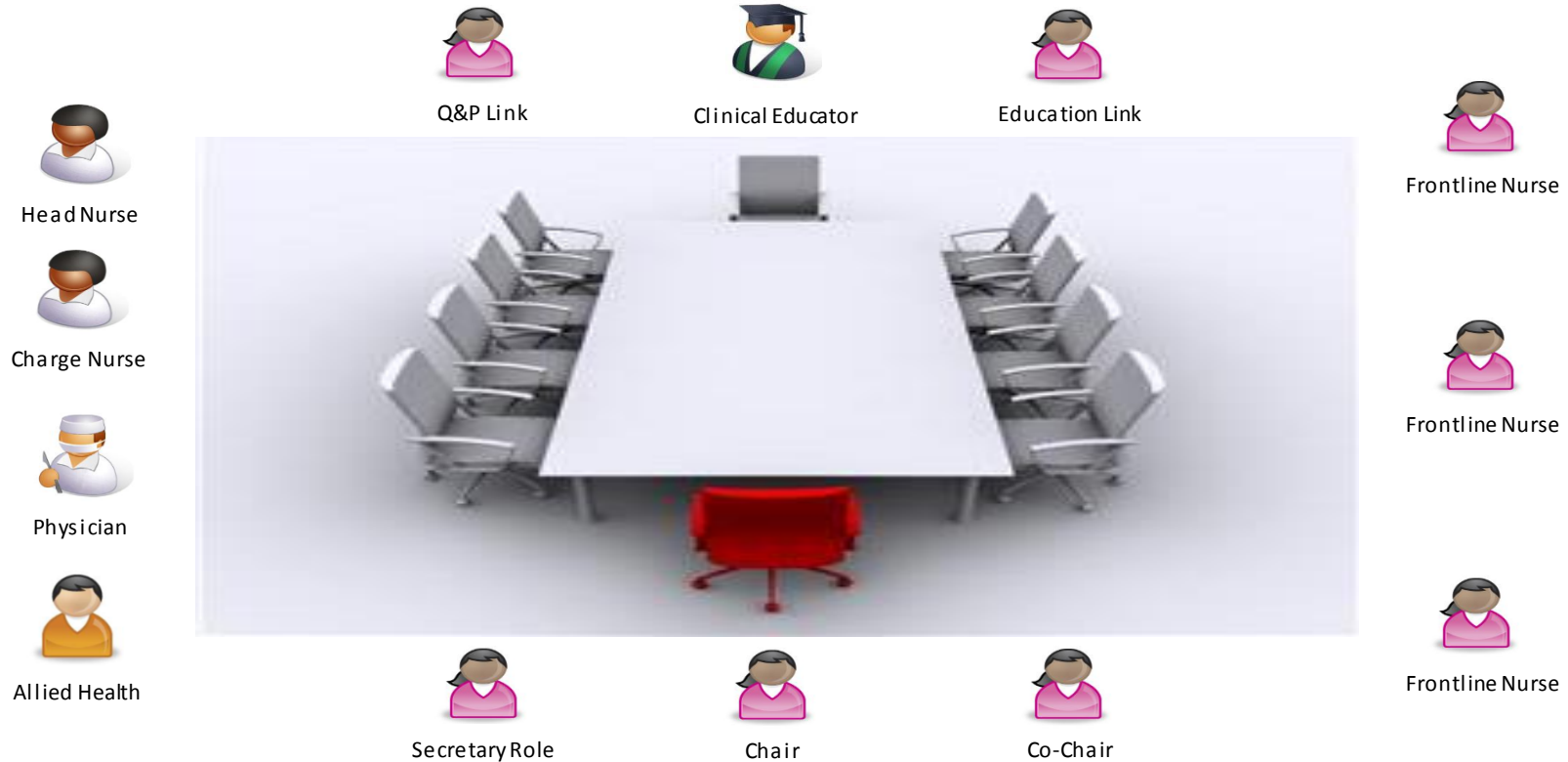
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## Clinical Governance, Teamwork and Collaboration



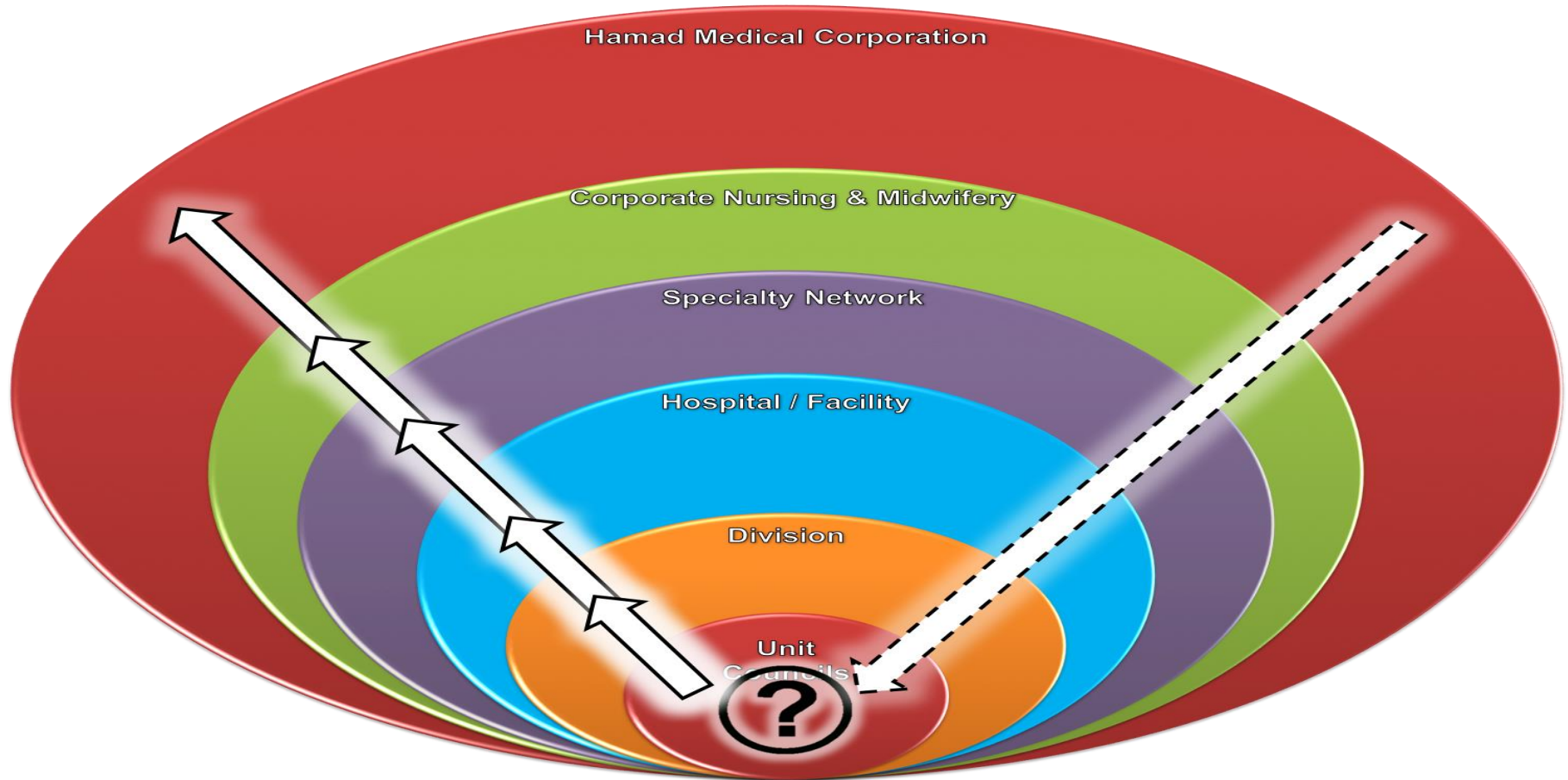
# Structure, Patients, Outcomes: Quality Governance Framework

## Clinical Governance, Teamwork and Collaboration



# Structure, Patients, Outcomes: Quality Governance Framework

## Clinical Governance, Teamwork and Collaboration





# Structure, Patients, Outcomes: Quality Governance Framework

## Teamwork and Collaboration: Idea for Improvement Form

### What is it?

- Tool for identifying any area which you feel requires improving and providing an evidence based solution.

### What kinds of IFI's can be submitted?

- You are only limited by your imagination.
- Focus on any aspect of hospital governance / patient safety / nurse – midwifery practice areas / care provision

#### Idea for Improvement (IFI) Form Hamad Medical Corporation - Nursing Shared Governance



#### INSTRUCTIONS FOR COMPLETING THE IFI

##### What is an IFI?

- The IFI is a tool to help provide structure, accountability and tracking for ideas which you feel will help improve the practice environment for clinicians, patients and their families.

##### What kind of 'ideas for improvement' can I suggest?

- Put forward anything and everything you can imagine that will help improve the quality of care delivery, patient experience, staff satisfaction, etc.

##### How do I complete the IFI?

- The document is several pages long, you are only required to complete page 2.
- Take as much space as necessary to capture all relevant information.
- Ideally the form should be completed and sent electronically, with supporting evidence.

##### Steps to complete the IFI

- Step 1:** Provide your demographic information (Name, ID, Position, Unit, Hospital)
- Step 2:** Complete Section A "Current state – Evidence – Recommendation"

SECTION A: CURRENT STATE – EVIDENCE – RECOMMENDATION	(To be completed by author of IFI)
1. Topic: <b>This summarizes the idea for improvement you are putting forward.</b>	
2. Current State: Policy (Existing policy? If so, applicable content) <b>Check current policy &amp; procedure to see if anything exists related to the idea you are suggesting. Sometimes, a policy won't exist and you may refer to an undocumented process which occurs.</b>	
3. Current State: Practice (Brief statement of current state) <b>Policy and practice don't always align and in some instances, a policy may not exist to cover something that occurs in practice. You can use this area to summarize the current practice, pertaining to the idea you are suggesting.</b>	
4. Evidence: (References and bulleted statement from evidence) <b>Provide evidence to support your idea for improvement. Evidence can come in the form of a practice recommendation from a professional body, a systematic review, best practices, etc.</b>	
5. Evidence-Based Conclusion: <b>There may be several supporting pieces of evidence that are reviewed and submitted with the IFI. Use this area to summarize the conclusion of the evidence.</b>	
6. Recommendation: <b>From your review of the policy, current practice and the evidence you are reviewed, you can use this area to provide your recommendation for improvement.</b>	

- Step 3:** Submit the IFI and evidence you have reviewed (if possible) to your unit based council (UBC) or Head Nurse.
- Step 4:** You will receive feedback on the status of your IFI after it has been reviewed by the committee responsible for its review.


# Structure, Patients, Outcomes: Quality Governance Framework

## Teamwork and Collaboration: Idea for Improvement Form

### Critical Care Pain Observation Tool

Idea for Improvement (IFI) Form

Hamad Medical Corporation - Nursing Shared Governance



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إدارة التمريض  
Nursing Services Department

Name / ID: Fiona Milligan / 034786 \_Date: 17/03/2015


Position / Unit: Senior Educator /Critical Care/PEC Hospital: NMER Corporate

**SECTION A: CURRENT STATE – EVIDENCE – RECOMMENDATION** (To be completed by author of IFI)

- Topic:** Assessing pain in the ventilated sedated adult in critical care environments currently COMFORT scale used widely throughout HMC. This tool was initially designed for use in children and subsequently adapted for the adult population. There are some questions as to the reliability and validity of this tool in ventilated adults in a critical care setting  
  
**The practice concern relates to accurate assessment and appropriate management of pain in critical environments**  
 JCIA. (2011). Joint Commission International Accreditation Standards for Hospitals, 4th Edition.
- Current State: Policy** (Existing policy? If so, applicable content)  
 "Pain: current understanding of assessment, management and treatments.", Joint Commission on Accreditation of Healthcare Organizations and the National Pharmaceutical Council, Inc. December 2001. Retrieved January 2013. Pain Management policy 2014 HMC. CL 6078
- Current State: Practice** (Brief statement of current state)  
 COMFORT Scale to assess pain in ventilated patients Critical Care areas. Currently patients in Trauma Intensive Care Unit (TICU) and Bay 1 and 2 in Emergency Department where critical care patients may spend anything for 24 hours to 7+/- days waiting for an ICU bed
- Evidence:** (References and bulleted statement from evidence, in lieu of Evidence Review Tool which is currently in development)  
 Ashkenazy S<sup>1</sup>, DeKeyser-Ganz F. Assessment of the reliability and validity of the Comfort Scale for adult intensive care patients. *Heart Lung*. 2011 May-Jun; 40(3):e44-51. doi: 10.1016/j.hrtlng.2009.12.011. Epub 2010 Apr 8 The study evaluated the use of the Comfort Scale (CS), originally developed for children, in sedated adults at intensive care units. Comfort and sedation was assessed in a convenience sample of 88 adult intensive-care patients receiving mechanical ventilation, using 5 instruments (the Ramsay Scale, Sedation Agitation Scale, Richmond Agitation Sedation Scale, Glasgow Coma Scale, and CS). Reliability (internal consistency according to Cronbach's  $\alpha$ , .60 to .66; inter-rater reliability,  $r = .81$ ; test-retest,  $r = .84$  to .86) and validity (criterion validity with the Ramsay Scale,  $r = .49$  to .71 for construct validity and

Idea for Improvement (IFI) Form

Hamad Medical Corporation - Nursing Shared Governance



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إدارة التمريض  
Nursing Services Department

**Critical Care Observation Tool in Intubated Adults after Cardiac Surgery** Am J Crit Care November 2013 vol 22 no 6 491-497  
 Stites M Observational pain scales in critically ill adults CCN 2013;33(3):68-79

- Evidence-Based Conclusion:**  
 A systematic review of the literature of published evidence found majority of studies supported reliability and validity of CPOT this tool has also been tested in patients verbal and non verbal this may extend its use or applicability in clinical practice settings (Stites 2013)
- Feasibility:** Pilot tool in areas where there are currently no pain assessments being undertaken for ventilated adult patients. If pilot validates use of tool comparative study can be undertaken in units currently utilizing COMFORT Scale. Amendment to current HMC Policy if wider stakeholder groups in agreement to revise tool for use in ventilated adults.
- Recommendation:**  
 The evidence supports the suggestion that CPOT is a more "specific and reliable tool" for assessing pain in ventilated critically ill patients. Recommendations is to pilot the tool in ED Critical Care and Trauma Intensive Care Unit (TICU) where there is currently no assessment of pain undertaken.

# Structure, Patients, Outcomes: Critical Reflections on Building an Architecture for Nursing and Midwifery

## Using Evidence to inform Policy

Prof. Richard Gray, RN, BSc (Hons), MSc, DLSHTM, PhD, FRSPH

# Nurse Graduateness and Patient Mortality



# Background

- Nursing is integral to the safe and effective operation of any modern health system (Van De Heede *et al.* 2009, p. 2)
  - Effectiveness is directly linked to the competence of the nursing workforce and the quality of the care they provide.
- Over the past 20 years the impact on patient outcomes of the educational preparation of nurses has been studied in some detail (Adams *et al.* 1997, Aiken *et al.* 2014).
- Particular interest has been the proportion of the nursing workforce educated to at least baccalaureate degree level.
  - This has been described by several authors as the graduateness of the nursing workforce (Stacey *et al.* 2015).

# Background

- 18 observational studies have tested the association between nurse gradueness and patient mortality
- Most (13 out of 18) report a positive association.
- There are important methodological threats to the external validity of some of these studies
  - The most significant issues is that in many studies, the nurses who participated in the research were not necessarily those who provided direct care to participating patients.
  - For example, in the largest and most recent study of this type – RN4CAST – the authors state that patient mortality data were extracted for the year most proximate to the nurse survey (Sermeus *et al.* 2011).

# Research question

Using linked nurse and patient data, the objective of this study was to assess the effect of the gradueness of nursing care on all-cause patient mortality.

# Method

- Routine administrative patient data were extracted (May to August 2015).
- The primary outcomes was all-cause patient mortality at discharge.
- We were able to identify the individual nurses who provided care during patient's inpatient stay using an identification number.
- We were then able to calculate the 'graduateness' of the nursing care patients received by dividing the number of recorded episodes of care provided by baccalaureate prepared nurses with the total number of care episodes.

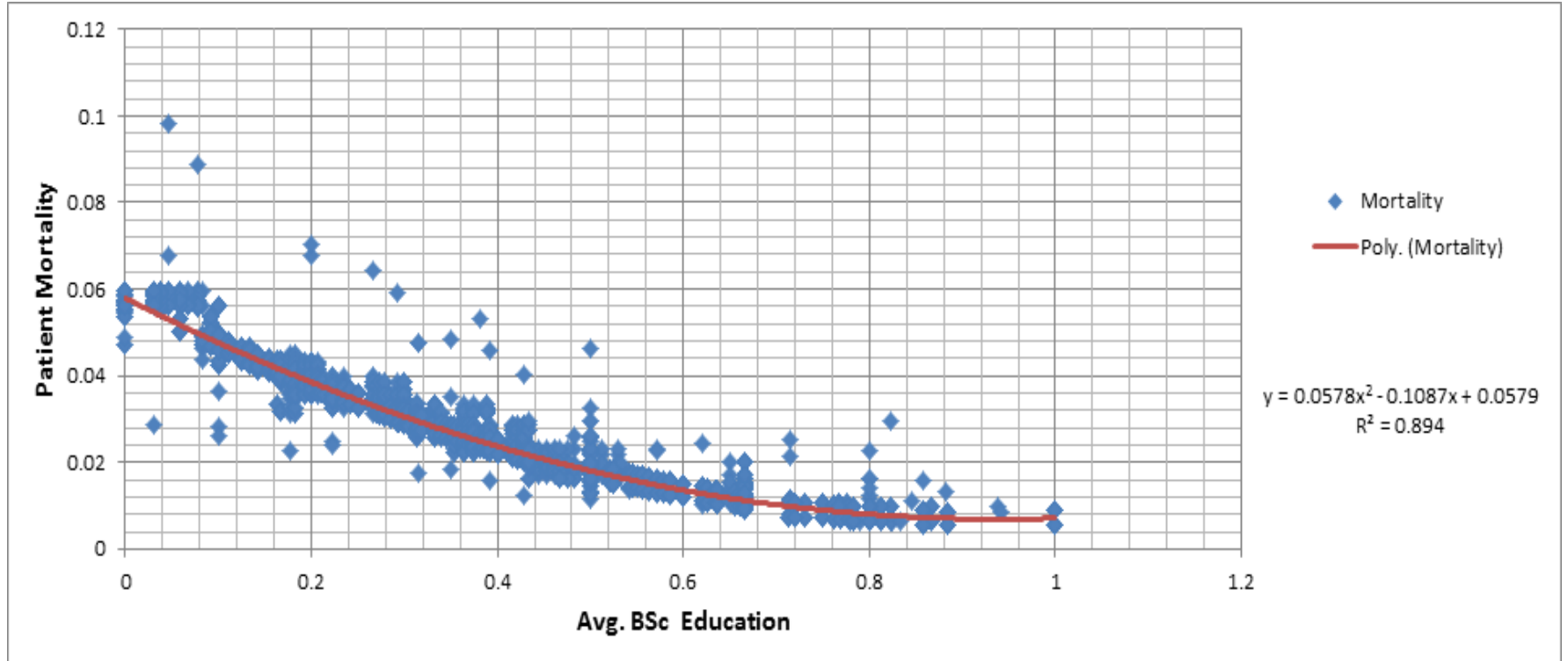
# Results

## Summary of Logistic Regression Results for Patient Mortality

	Unadjusted		Partially Adjusted		Adjusted	
	OR ( 95% CI )	p value	OR ( 95% CI )	p value	OR ( 95% CI )	p value
<b>Graduateness</b>	0.997 (0.993 - 1)	0.051	0.993 (0.989 - 0.998)	0.013	0.990 (0.982 - 0.998)	0.019
<b>Satisfaction</b>	0.039 (0.021 - 0.07)	< 0.001	0.235 (0.115 - 0.493)	< 0.210	0.437 (0.120 - 1.592)	0.337
<b>Staffing</b>	0.052 (0.039 - .068)	< 0.001	0.052 (0.039 - 0.068)	< 0.001	0.067 (0.041 - 0.113)	< 0.001

# Results

Scatter plot depicting the relationship between patient mortality and nurse education to graduate level and the optimum trend line that mathematically describes that relationship and equivalent distribution



# Conclusion

- This study represents an important methodological step forward over previous approaches.
- Our observations are generally consistent with existing literature and confirm the importance of baccalaureate nurse education.

# Impact

The HMC Nursing Strategy has a target that 70% of the nursing workforce should be baccalaureate-prepared.

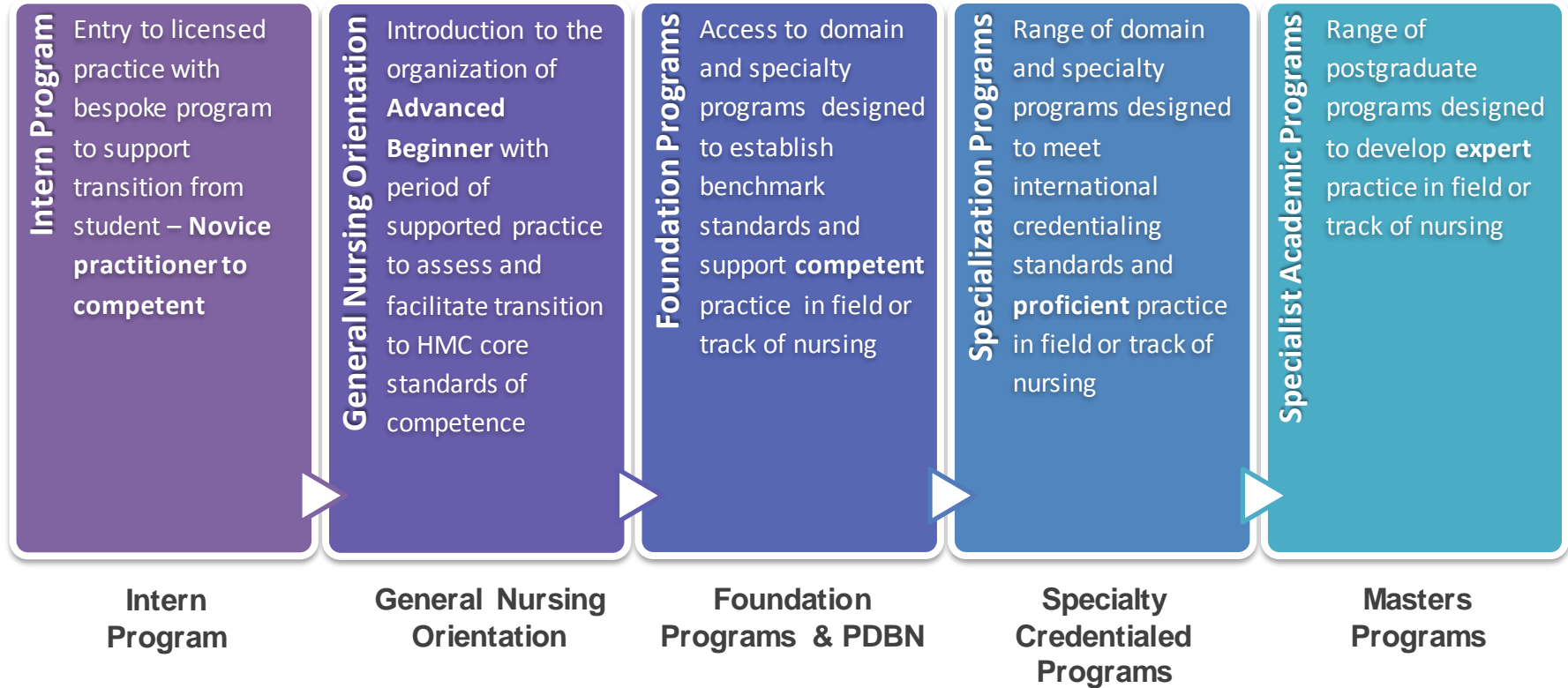


# Structure, Patients, Outcomes: Critical Reflections on Building an Architecture for Nursing and Midwifery

## Education to support Nursing & Midwifery workforce

Prof. Anne Elizabeth Topping, RN, PhD, PGCE, BSc (Hons)

# Education Framework for Nursing & Midwifery

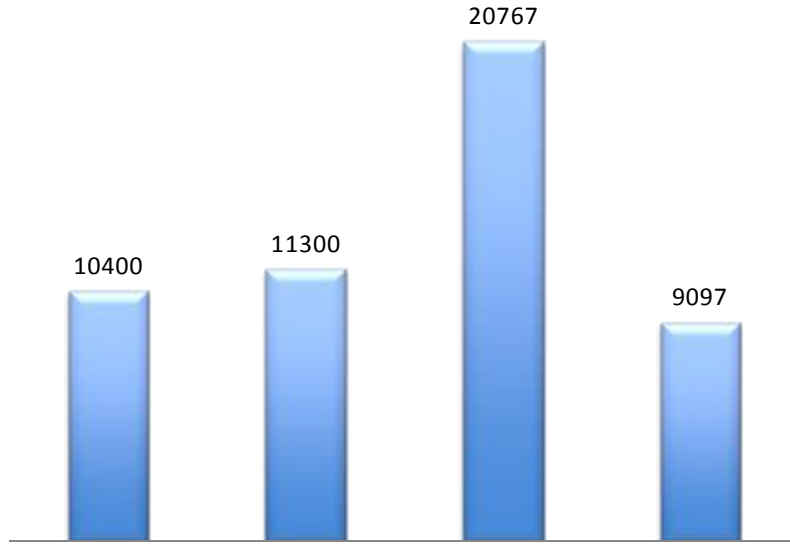


# Successes

- ✓ Accredited (2014) and re-accredited by the American Nursing Credentialing Center (2016)
- ✓ Increased levels of sponsorship to pre-licensure (RTBN) and post-diploma Bachelor of Nursing (PDBN)
- ✓ Qatar Council for Healthcare Practitioners (QCHP) – accredited provider
- ✓ Masters provision – Oncology and Management & Leadership routes

# Continuing Professional Development

Number of CPD Activities  
Delivered



- Grand Rounds
- Journal Clubs, Case Clubs, Learning conversations
- Foundation Programs
- Preceptorship
- Management & Leadership
- Awareness sessions
  - Performance review
  - Shared Governance

# Introduction of the Qatar Early Warning System (QEWS)

- Why Deteriorating Patient Systems?
- What has to be in place?
- What education is needed to support the introduction of deteriorating patient systems?
- What education is needed to sustain or respond to change?

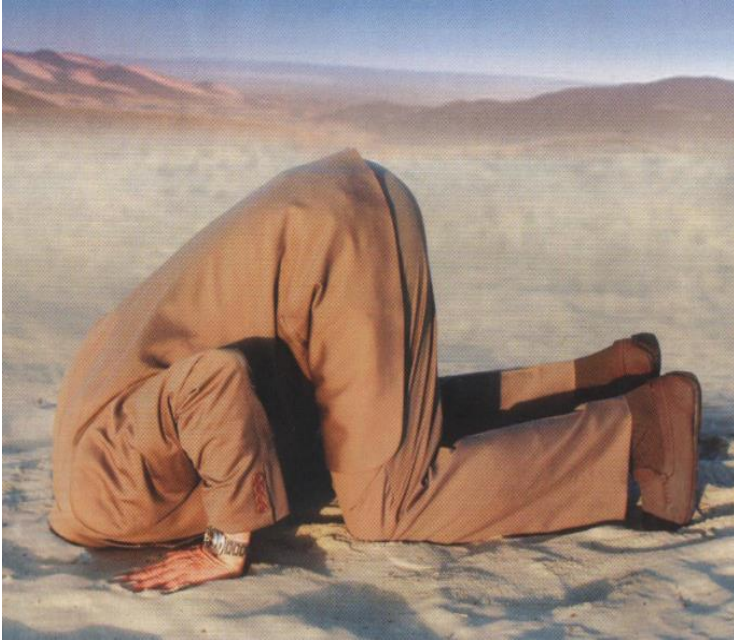
# QEWS



- The Hamad Approach
  - Awareness
  - Online education
  - **Bedside education**
  - **ALERT**



# Competency Framework – Why change?



- Paper-based system
- No internal quality control or review process in place
- Burden
- Not based on best available evidence
- Reliability doubtful

# Competency Framework – The Lippincott solution

Lippincott  
Procedures

All Procedures Content

Admin ToolsMy AccountLippincott Advisor

HomeHelp

← Browse All DocumentsAnne Topping, 36965 (Logout)

Safe medication administration practices, perioperative

ProcedureSkills ChecklistsQuick Lists

Safe medication practices: Patient identification

Safe medication practices: Accurate medication listing

Safe medication practices: Medication contraindications

**Safe medication practices: Accurate dosage calculations**

Safe medication practices: Verbal orders

Safe medication practices: Medications off the sterile field

Safe medication practices: Delivering medications to the sterile field

Safe medication practices: Managing medications on the sterile field

Safe medication practices: End-of-procedure considerations

Safe medication practices: Evaluating medication management

**Safe medication practices: Accurate dosage calculations**

**Objective: To ensure accurate dosage calculations and safe administration as part of safe medication practices according to the standard of care.**

☐ Avoid distractions and interruptions when preparing and administering medication.

☐ Make sure that the patient's most recent weight (preferably in kilograms) is documented on his medical record.

☐ Have a conversion chart readily available.

☐ Calculate the correct dosage of medications that are ordered using weight-based dose schedules. Have these calculations verified by two licensed practitioners.

☐ Use automated dose calculations whenever possible.

☐ Trace the tubing from the patient to the point of origin and label all tubing and injection ports.

☐ Make sure that infusion pump alarm limits are set according to the patient's current condition and that alarms are turned on, functioning properly, and audible to staff.

# Implementing a new Competency Framework

- Creating a culture of consultation
- Scoping Core, Specialty & Unit Competencies
- Establishing a Governance Structure
- Retraining to enhance reliability
- Embedding the system

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# The Reflective Practitioner

How Professionals  
Think in Action

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Donald A. Schön

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# Thank you