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**Introducing Quality Improvement and Patient Safety to Medical Students at Chulalongkorn University and King Chulalongkorn Memorial Hospital, Thailand**

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**Background:**



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- ◆ TQM in Thailand since 1995
- ◆ Thai HA standards require multi-disciplinary patient care teams
- ◆ Patient safety movement
- ◆ A study in Thai public hospitals identified physicians as a key to success
- ◆ "It is NOT my job"



**Objective:**

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- ◆ To introduce basic concepts and practical knowhow of quality improvement and patient safety activities to medical students of Faculty of Medicine, Chulalongkorn University and King Chulalongkorn Memorial Hospital (Chula Hospital)

**Medical curriculum**

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- Six year program (M.D.)
  - 1<sup>st</sup> year Pre-med courses
  - 2<sup>nd</sup>-3<sup>rd</sup> years Pre-clinical courses
  - 4<sup>th</sup>-5<sup>th</sup> years Clinical courses and practices
  - 6<sup>th</sup> year Clinical works, "Extern"
- Required to learn community medicine and basic management skills for physicians

**To familiarize medical students with the concepts of quality and patient safety**

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- ◆ Focus: 6<sup>th</sup> year medical students
- ◆ Orientation program by King Chulalongkorn Memorial Hospital
- ◆ Community Medicine IV course by Department of Preventive and Social Medicine, Faculty of Medicine



**Chula Hospital:**


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- A part of Two-week orientation program for "Extern" before clinical rotations
- Key contents:
  - Hospital quality plan and organization
  - Patient safety terminology: Clinical risk, Medical errors, Adverse events, Incident report, etc.
  - Patient safety situation, and hospital risk management processes
  - Hospital's patient safety goals, along with key patient safety protocols, e.g. Patient identification, etc.
  - Hospital workflow exercise and workshop

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## Community Medicine IV

- 3 parts
- Two-day introductory program
  - ▶ Why quality and patient safety matter
  - ▶ Simple frameworks for understanding patient safety and quality
  - ▶ Simple tools and review methodologies, e.g. P-D-C-A, “3 P’s (Purpose-Process-Performance)”
- Field experience
  - ▶ Patient care review project with local staff
- Discussion day

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## Student evaluation:

- Project report and brief presentation for sharing experiences in a class
- Paper-based examination
  - Two short essays on quality and patient safety concepts
  - Two short cases: “How to approach”
  - Six multiple-choice questions
- Student feedback

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## Results


- Students’ “Patient care Review” projects:
  - Sentinel events in hospital, e.g. unexpected death
  - Adverse drug events, and blood transfusion-related incidents
  - Hospital-acquired infections, e.g. UTI, SSI, VAP
  - Procedural complications
  - Incidents during patient care, e.g. patient fall
  - Patient complaints and dissatisfaction
  - Clinical practice variation

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## Project example #1


- Problem: Medication errors in patient ward
- Team: Physician, Ward nurses, Pharmacists
- Key process: Medication processes
- Root cause: Hard-to-read prescription and “best-guessing”, Dispensing errors, Not checking with the original, Patients’ bed switching or changing place
- Proposed solution:
  - Re-engineer medication processes
  - New patient identification tools and processes
- Key lesson: Things can happen behind the scene.



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## Project example #2

- Problem: Seizure in the new-born with high fever
- Team: Ped. Dr., Nurses in ped. clinic & ward
- Key process: Patient assessment, Urgent care
- Root causes: Overlooked in waiting area, long admission process, delayed assessment
- Proposed solution:
  - New practice guidelines for patient assessment and prompt responses for small children with high fever
  - Surveillance activities in waiting areas
  - “Fast track” for admitting small children into hospital
- Key lesson: Early detection and prompt response

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## Paper examination and Student feedback

- Scoring above 80%, on average
- Student feedback on usefulness of the orientation program by Chula Hospital (Out of 4)
  - ▶ Hospital Quality management 2.37+/-1.0
  - ▶ Hospital workflow study 3.04+/-0.8
  - ▶ Learning and work as a team 3.12+/-0.8
- Student satisfaction in Community Medicine IV = 4.13-4.36 out of 5 scores