Implementing a multi-pronged approach for teaching and assessing patient safety in UME

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SHARED DISCOVERY CURRICULUM

MICHIGAN STATE UNIVERSITY | College of Human Medicine
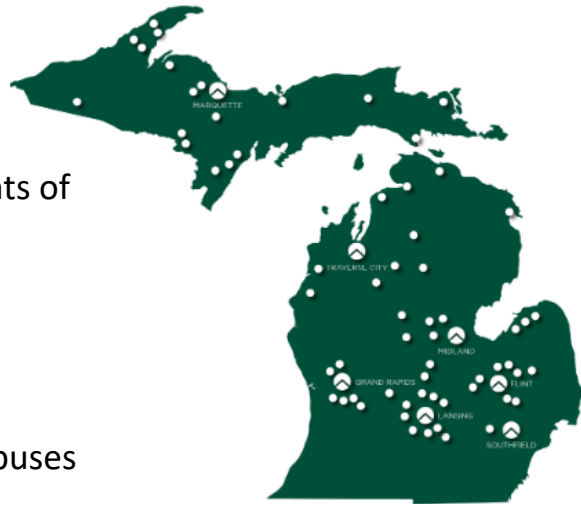
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How did we come to this work?

- The new Shared Discovery Curriculum
  - Early clinical experiences
  - Integrated basic and clinical science
  - Framework of Learning Societies
- Competency based assessment and promotion
- Thread of safety science throughout

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The Challenge

- Longitudinally-integrated experiences and assessments of safety behaviors
- Across all four years of the curriculum
- Across the state
  - ➢ 2, 4-year campuses
  - ➢ 5 additional 2-year campuses
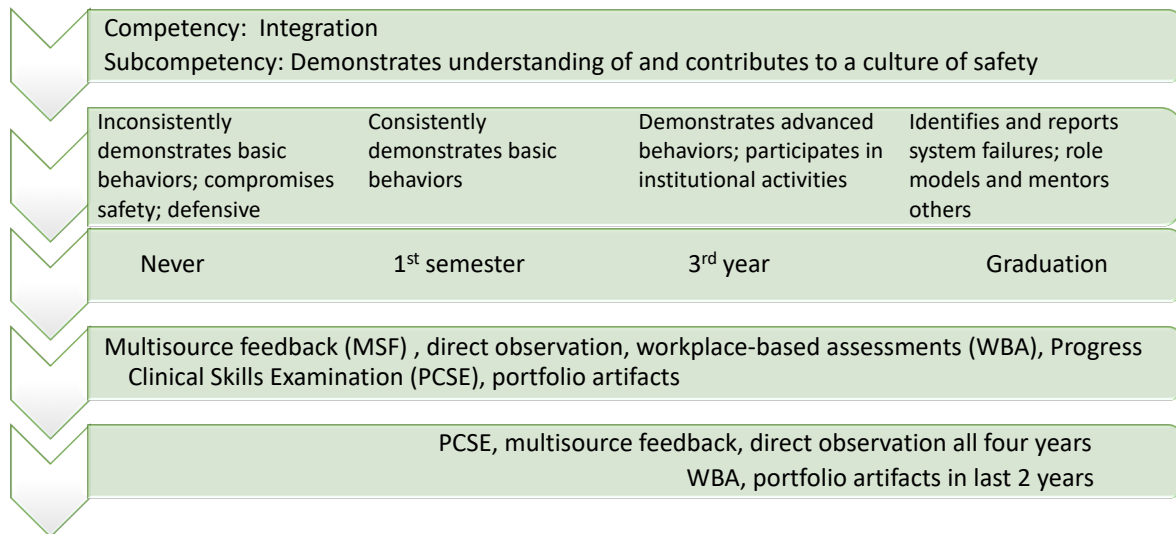 - ➢ 60 inpatient, 400-500 outpatient training sites

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Creating a longitudinal assessment strategy

- **Define** end goals by creating competencies and subcompetencies

- **Describe** expected developmental steps for attaining goals (milestones)

- **Delineate** trajectories for attainment of milestones within curriculum

- **Design** assessments to assess attainment of milestones

- **Deliver** assessments within courses, including grade consequences

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Example

Competency: Integration			
Subcompetency: Demonstrates understanding of and contributes to a culture of safety			
Inconsistently demonstrates basic behaviors; compromises safety; defensive	Consistently demonstrates basic behaviors	Demonstrates advanced behaviors; participates in institutional activities	Identifies and reports system failures; role models and mentors others
Never	1st semester	3rd year	Graduation

Multisource feedback (MSF) , direct observation, workplace-based assessments (WBA), Progress Clinical Skills Examination (PCSE), portfolio artifacts

PCSE, multisource feedback, direct observation all four years
WBA, portfolio artifacts in last 2 years

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Other competencies

- Care of Patients
  - Synthesizes patient and lab data to formulate reasonable assessments and plans → clinical emergencies, procedures
- Integration
  - Demonstrates respect for all members of the health care team
- Professionalism
  - Demonstrates receptiveness to feedback
  - Contributes actively to group/team process
  - Takes responsibility for patient outcomes and is accountable to the team, the system of delivery, the patient, and the greater public

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Curricula and formative assessments

- **Principles**
  - ➢Learning is experiential
  - ➢Formative before summative assessment
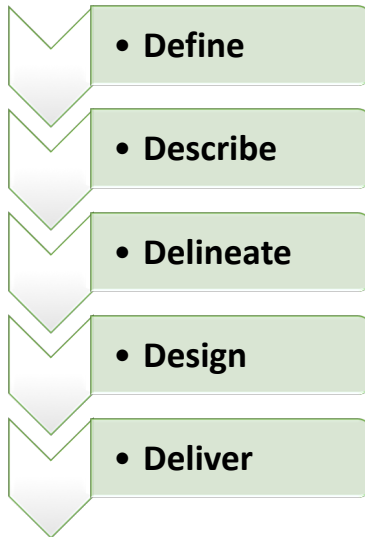 - ➢Follow the competency and milestones trajectories

Experience

Reflect

Generalize

Try
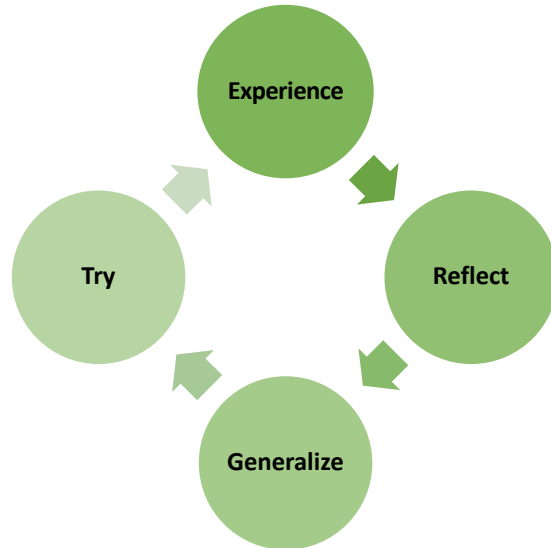
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Activity:
Start a safety skills roadmap

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Using the frameworks shown here, start a safety skills roadmap

- Define
- Describe
- Delineate
- Design
- Deliver

Skill area			
Deficient	Novice	Advanced learner	Competent
Course, time	Course, time	Course, time	Course, time

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Designing and Delivering Experiences

1. Identify your position on the map (skill)
2. Identify content, pedagogy
3. Decide timing
4. Determine feedback
   - Checklist or other
   - Criteria for successful completion
5. Recruit and train faculty
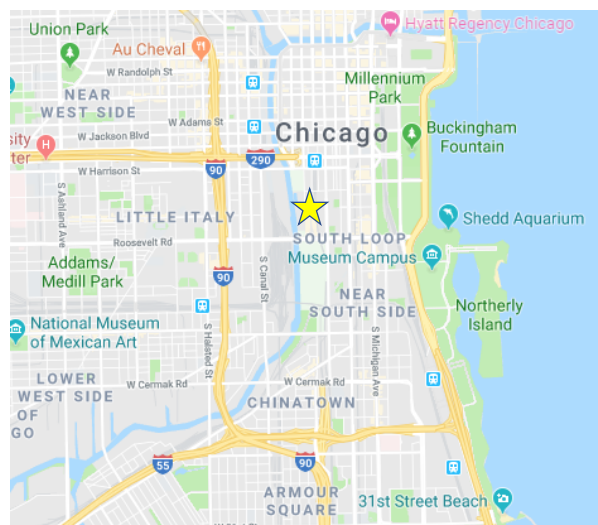
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Handwashing

Content and Pedagogy:

- role of touch and handshake activity during student orientation
- bacterial transmission lab
- check off on technique in simulation lab

Timing: First semester
Feedback: 100% for check off
Faculty: Microbiology, social science, and simulation staff

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Medications, allergies, risk assessment

Content and Pedagogy:

- Medication list (reconciled)
- Allergies (meds, food, environmental) with types of reactions
- Medication side effects
- Risk assessment
- Modified Problem Based Learning cases designed to link necessary science concepts to clinical medicine

Timing: first and second year

Feedback: Conversational

Faculty: Learning Society

Mrs. Madrigal states:

- "I'm here to follow up on my blood pressure."
- She was started on a new medicine at the last visit. She doesn't remember the name but she brought it to the office visit (hydrochlorothiazide). She ran out a few months ago but missed her follow up visit.

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Handover

Content and Pedagogy:
- SBAR
- Brief narrative vignettes
- In MA role, rooms a patient with chest pain, performs handover

Timing: 1st years

Feedback: Checklist

Faculty: Physicians teaching in simulation

- *You are asked to room a patient named Carl Bartol, a 57-yo male who's coming in with a complaint of chest pain. You greet him in the waiting room and he seems to be in no apparent distress.*
- *As you are getting ready to leave the room, he clenches his right hand and puts it over the middle of his chest. "There it goes again."*

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Fall Reduction

Content and Pedagogy:
- Fall risk assessment
- Safe patient transfers
- Preparatory materials
- Simulations using standardized patients

Timing: 2nd year prior to nursing rotation

Feedback: Checklist

Faculty: Physicians teaching in simulation

https://youtu.be/H23EZlPIcZU accessed 8/13/19

https://www.nhs.uk/live-well/healthy-body/are-you-at-risk-of-falling/ Accessed 8/13/19

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Workplace Violence and Verbal De-escalation

Content and Pedagogy:
- Asynchronous module on Workplace Violence in healthcare
- 2 hours of didactic content, including reflective short essay questions
- Verbal de-escalation video

Timing: 4th year

Understanding Agitation: De-escalation. DBSAlliance. Published onl Jul 6, 2015. Video accessed 8/13/19. https://youtu.be/6B9Kqg6jFeI
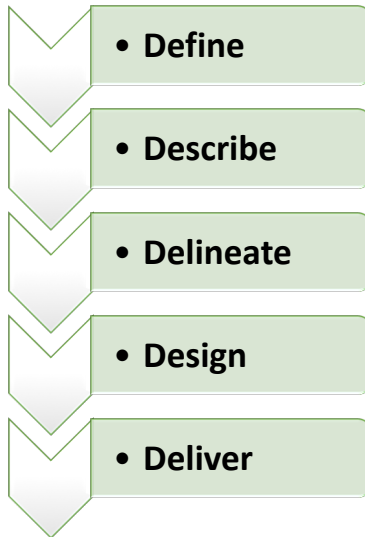
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- **Feedback**: Faculty observation and feedback for Standardized Patient encounter 3-4 months later
  - Angry patient element in one case
  - "I don't want to hurt anybody, but…"
  - Opportunity to practice verbal de-escalation
  - Patient de-escalates regardless, case proceeds
- **Faculty**: Physicians teaching in simulation

https://www.kisspng.com/png-workplace-bullying-cyberbullying-killer-s-daughter-2257445/download-png.html Accessed 8/13/19

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Activity: Pair and share ideas for adoption

- **Define**
- **Describe**
- **Delineate**
- **Design**
- **Deliver**

Skill area			
Deficient	Novice	Advanced learner	Competent
Course, time	Course, time	Course, time	Course, time
Experiences	**Experiences**	**Experiences**	**Experiences**

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Designing and Delivering Assessments

1. Identify your time and position on the map (skill)
2. Identify mix of assessment types needed to demonstrate competence
3. Determine criteria
   - Meets expectations
   - Near expectations
   - Below expectations
4. Identify remediation activities
5. Implement
   - Syllabus
   - Grading
   - Level of feedback

Different views of the Sheraton Grand Hotel, Chicago

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Assessment Types

- Direct observations
  - real time checklist
- Workplace-based assessments
  - gestalt given context
- Multisource feedback
  - for hours, days, or weeks of interactions
- Portfolio artifacts
  - tangible product of learning
- Progress Clinical Skills Exam

Medication reconciliation
- ❑ Introduces self
- ❑ Asks about allergies
- ❑ Asks about any recent med changes
- ❑ Asks about prescription names
- ❑ Assesses adherence
- ❑ Asks about OTC, supplements
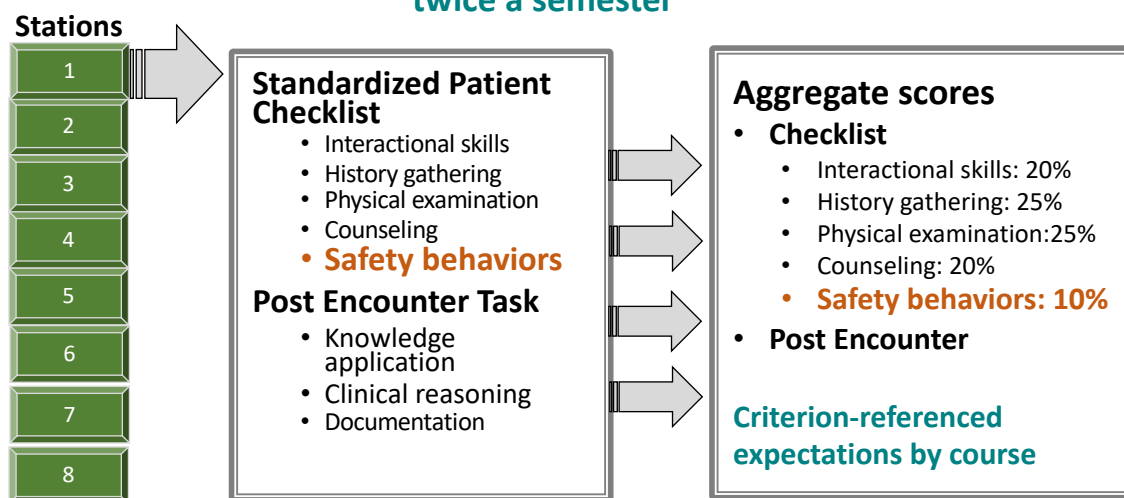- ❑ Identifies pharmacy
- ❑ Accurately documents

Medication reconciliation
- ❑ I did it
- ❑ I talked them through it
- ❑ I directed them from time to time
- ❑ I was available just in case

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# Progress Clinical Skills Examination
twice a semester

Stations

| 1 |
| 2 |
| 3 |
| 4 |
| 5 |
| 6 |
| 7 |
| 8 |

Standardized Patient Checklist
- Interactional skills
- History gathering
- Physical examination
- Counseling
- **Safety behaviors**

Post Encounter Task
- Knowledge application
- Clinical reasoning
- Documentation

Aggregate scores
- **Checklist**
  - Interactional skills: 20%
  - History gathering: 25%
  - Physical examination: 25%
  - Counseling: 20%
  - **Safety behaviors: 10%**
- **Post Encounter**

Criterion-referenced expectations by course

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PCSE Safety Behaviors

from World Health Organization's Patient Safety Curriculum Guide for Medical Schools
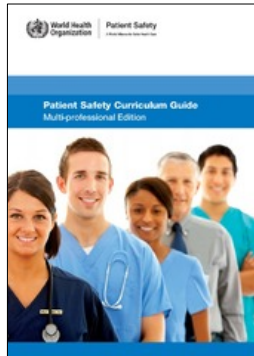
- patient and visitor identification
- infection prevention and control
- medication safety
- handovers
- conflict resolution
- team communication
- invasive procedures and informed consent
- identifying risk
- open disclosure of adverse events
- patient and family engagement
- other behaviors supporting safety

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Direct observations, workplace-based assessments

EPA 13 Workplace-Based Assessment
❑Student identifies and engages in safety behaviors.
  For example: hand hygiene, universal precautions, briefings, debriefings, huddles, time out, other
❑Student reported an error or near miss utilizing appropriate reporting system.
❑Student participated in a system improvement activity.
❑Student creates an individual learning plan that addresses their own contribution to medical error.
❑Student acknowledges their own contribution to medical error.

Other Examples:
- Car seat safety experience for Newborn rotation
- Obtains informed consent
- Collaborates as a member of an interprofessional team
- Recognizes when urgent care needed
- Procedure performance checklists

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Multisource feedback

Areas for assessment
- Receptiveness to feedback
- Contributes to group process
- Demonstrates respect for team members

Sources
- Clinical preceptors
- Interprofessional team members
- Non-clinical preceptors
- Peers
- Self

YOUR FEEDBACK
MATTERS

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Portfolio artifacts

- Institutional training for clinic sites
- Identifying patients requiring urgent or emergent care
    - PCSE or remediation activity
- Patient safety quiz
- Root cause analysis using fishbone diagram
- Room of Horrors video review activity

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Overview Comments (2) Attendance Supplemental Documents (3)

⊘ Not Applicable ○ No Data ▬ Limited Data ● Needs Attention ▶ On Track   Display All Competencies

S	C	R	I	P	T
⊘	▶	▶	▶	▶	▶
Not Applicable	On Track 100%	On Track 100%	On Track 100%	On Track 100%	On Track 100%

▼ I1 - Accounts for cost & access issues in plans (worth 65% of total)   100% ▶

▼ I2 - Respects health care team members (worth 5% of total)   100% ▶

▲ I3 - Contributes to a culture of safety (worth 30% of total)   100% ▶

EPA WBA Aggregate | HM 653
Achieved 30% of a maximum 30%

▼ EPA 9 Assessment Completed
Scaled Score: 100 | Take Best | Weighted at 10%

▼ EPA 13 Assessment Completion
Scaled Score: 100 | Take Best | Weighted at 20%

PCSE - Standard Exam
Achieved 70% of a maximum 70%

▼ SP - Safety behaviors
Scaled Score: 100 | Take Best | Weighted at 70%

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Activity: Pair and share ideas for adoption

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Skill area			
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Course, time	Course, time	Course, time	Course, time
Experiences	Experiences	Experiences	Experiences
Assessments	**Assessments**	**Assessments**	**Assessments**

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Wrap up, Q&A

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