

# *Stan D. Ardman, the Ideal OSCE Patient*



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# Objectives



- *What are objective structured clinical examinations?*
- *Pros & Cons of implementing OSCE's*
- *Simulation helps overcome obstacles*
- *Demonstration of an OSCE station using the Human Patient Simulator*
- *Lessons we've learned*
- *Sharing is the Key*

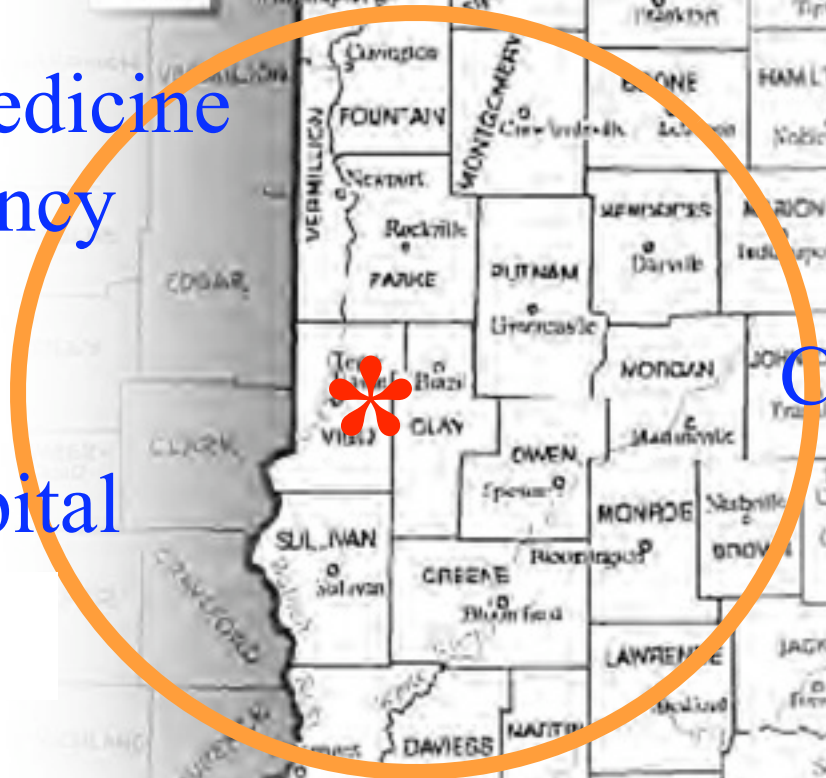
# *Richard G. Lugar Center for Rural Health*

- *formerly Midwest Center for Rural Health*
- 
- *Established in 1992*
  - *Mission: Advancing rural health through education, innovation, and collaboration.*
  - *March 20, 2006*

# Hub & Spoke Model



Family Medicine  
Residency



Clay City Center for  
Family Medicine



Union Hospital



Lugar Center for Rural Health



# *Founded on Three Principles*



1

- Rural Curriculum

2

- Multidisciplinary

3

- Innovation

# ACGME Core Competencies



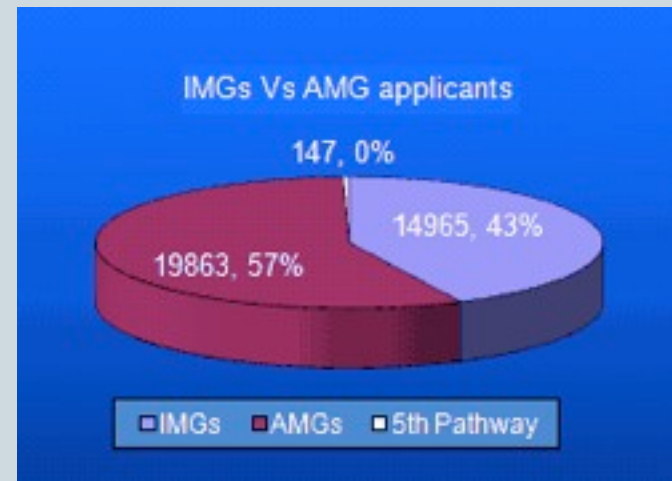
*The Accreditation Council for Graduate Medical Education is the body responsible for the accreditation for postgraduate medical training*

- *Patient care*
- *Medical knowledge*
- *Professionalism*
- *Interpersonal and communication skills*
- *Systems based practice*
- *Practice based learning and improvement*

# Reasoning



- *Primary Care Physicians Shortage*
- *Accentuated in Rural Underserved Areas*
- *IMG's vs AMG's*
- *Diverse Training Backgrounds*
- *Evaluate Aptitudes*



# *What are OSCE's?*



## O...S...C...E...



- **Objective**, because examiners use a checklist for evaluating the trainees;
- **Structured**, because every trainee sees the same problem and performs the same tasks in the same time frame;
- **Clinical**, because the tasks are representative of those faced in real clinical situations; and
- **an Examination.**

# History



- ***OSCE**: form of multi-station examination for clinical subjects*
- *1975 by Harden et al from Dundee*
- *Principal method for assessing clinical skills in medical schools and licensure bodies*
- *Widespread use in North America*
- *Help us identify lacunae & track progress*

## *In the words of the creators*



- *“The **OSCE** examination tests a wide range of skills thus greatly reducing the sampling error. This very significantly improves the reliability of the examination” Harden, 1988.*
- *“The real power of this type of examination lies in the ability of those responsible for teaching and testing to examine their trainees with imagination and forethought, in a reliable way, in areas seldom or never tested before” Hart, 2001.*

## *Emphasis on*



- *What learners can do rather than what they know*
- *The application of knowledge rather than the recall of knowledge*
- *The curriculum tells the staff what to teach....*
- *The OSCE's tell the students what to learn !*

# *Features of OSCE's*



- *Stations are short,*
- *Stations are numerous*
- *Stations are highly focused , learners are given very specific instructions*
- *A pre-set structured mark scheme is used hence...*
- *...reduced examiner input and discretion*

# *Additional Options...*



- *Type of Stations*
- *Double or triple length stations*
- *Linked stations*
- *Preparatory stations*
- *Remedial stations*
- *“Must pass” stations*
- *Rest stations*



# Advantages



- *Evaluate all core competencies*
- *Standardized evaluation process*
- *Evaluate learners' progression*
- *Improved faculty involvement*
- *Objective endpoints*
- *Multiple scenarios*



# *Drawbacks*



- *Time commitment*
- *Personnel commitment*
- *“Buy in” from faculty*
- *“Artificial” component*
- *Training of standardized patients*
- *Testing performance may not predict actual performance in practice*

# Further Criticism



- *OSCE stations can never be truly standardized and objective in the same way as a written exam*
- *“Patients” (actors) have at times afforded more assistance resulting in different marking criteria to be applied*



# *A Typical OSCE Day*



- *Pre-OSCE Planning*
- *Staff Orientation*
- *Learner Orientation*
- *Station Instructions on door*
- *Actual Examination*
- *Post Station Feedback*
- *Next Station...*
- *Group Debriefing*
- *Evaluations*



# Instructions

## LB 125

Title of OSCE:

**METI Station**

Time allotted:

10 minutes

Scenario:

Healthy 35 y/o man. Transported to ER after car accident. Head on collision with a tree. Driver wasn't wearing seat belt.

Was alert when paramedics extracted him from car 10 minutes after crash.

Intubated + Receiving O<sub>2</sub>

Wound at the left of thorax. Left thigh deformed in bad pain due to femur fracture.

During transport to hospital RR increasing, pulses fading and he is dizzy at arrival to hospital

Instructions:

You are paged to the ER to attend to the patient

Special Instructions:

None

Feedback:

A feedback session will follow the activity



# *Simulation Component*



- *How it looks on the HPS*


# Scoring System

Evaluator's Checklist			
METI Station: Chest Pneumo			
SCORE			
	Completed	Partial	Omitted
<b>Introduction</b>			
<b>Data gathering skills</b>			
Asks appropriate history questions			
Recognizes important / unimportant history			
Performs pertinent exam when tension PTX suspected			
<b>Risk Factors</b>			
Recognizes risk of PTX based on Trauma			
<b>Critical Observations</b>			
Recognizes deterioration in vital signs			
Recognizes sign of tension PTX			
<b>Critical Actions</b>			
Withholds from ordering tests which would delay therapeutic action			
Performs needle decompression			

Resident's Name:	
Date:	11/29/2007
Examiner:	Dr. Beachy
Goal:	Quickly recognize tension PTX & Needle decompression
Feedback:	
Total Score:	
Signature of Evaluator:	

- Quick recognition of PTX?
- Needle Decompression
- 8 Scoring Measures:
  - Completed
  - Partially
  - Omitted
- 6 Minutes for Exam
- 4 for Feedback

# How did our residents do?



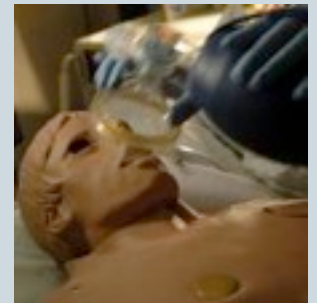
	<i>PG1</i>	<i>PG2</i>	<i>PG3</i>
<i>PTX</i>	<i>5/7</i>	<i>6/7</i>	<i>6/7</i>
<i>ND</i>	<i>5/7</i>	<i>5/7</i>	<i>5/7</i>

- *Thought of PTX - nearly to point of intervention when patient expired*
- *Failed to recognize PTX or relieve it*
- *Fixated on getting CXR, labs. Failed to suspect PTX or act.*
- *Failed to recognize PTX. Fixated on ETT placement*
- *Failed to act therapeutically while waiting on X-ray.*

# *Tension PTX w/ Dr. Beachy*



- *Station Description*
  - ✦ *Tension Pneumothorax*
  - ✦ *Immediate feedback station*
  
- *Expectations*
  
- *Overall Impressions*
  
- *Comments & Evaluations*



# Residents Feedback



<i>Evaluating (1-5 scale)</i>	<i>Chest PTX</i>	<i>Non-METI</i>
<i>Instructions</i>	<i>4.4</i>	<i>4</i>
<i>Descriptions &amp; Explanations</i>	<i>4.3</i>	<i>4.1</i>
<i>Time Allocated</i>	<i>4.6</i>	<i>4.3</i>
<i>Overall Satisfaction w/</i>	<i>4.4</i>	<i>4.3</i>
<i>Would you recommend offering it again?</i>	<i>89%</i>	<i>80%</i>

# *First Lesson*



- *It wasn't always the case*
- *Video Illustration*

## *When we first tried it...*



<i>Evaluating (1-5 scale)</i>	<i>Chest PTX</i>	<i>1<sup>st</sup> METI</i>
<i>Instructions</i>	<i>4.4</i>	<i>3.7</i>
<i>Descriptions &amp; Explanations</i>	<i>4.3</i>	<i>3</i>
<i>Time Allocated</i>	<i>4.6</i>	<i>2.8</i>
<i>Overall Satisfaction w/</i>	<i>4.4</i>	<i>3</i>
<i>Would you recommend offering it again?</i>	<i>89%</i>	<i>60%</i>

Title of OSCE:

## **Respiration Failure Station**

Time allotted:

15 minutes

Scenario:

Transfer to ICU from orthopedics.  
33 year old male with sudden onset of SOB.  
S/P ORIF ankle (from MVA) POD 2; otherwise benign PMH

Pulse 160s  
Respirations 40 bmp  
PB 96/52  
Monitor shows Sinus Tachycardia  
Skin gray and diaphoretic  
Alert & anxious

Patient has just arrived to ICU.  
He is sitting up in bed with 4L/nc.  
Monitor shows Sinus tachycardia in the 160s.  
Patient is anxious and complains of not being able to catch his breath

Instructions:

Assess and treat this patient. Please verbalize your thoughts through the process.

### Evaluator's Checklist

**METI Station: Respiratory Failure**

**Goal:**

**SCORE**

Completed Partial Omitted

**Introduction**

Greets patient

Washes hands

**Data gathering skills**

Chief complaint

History of Present Illness

Onset

Duration

Progression

Frequency

Severity

Intensity

Quality

**Risk Factors**

Bed rest

Post Operative

Long Bone Fracture

Medical/Genetic Predisposition

Medications

Travel

**General ROS**

As Appropriate

**Critical Observations**

Recognize Respiratory Distress

Apply Supplemental O2

Check Vital Signs

Check Pulse Oximetry

Recognize need for 100% O2

Cardiac Monitor

IV Access

**Critical Actions**

Apply 100% O2 via NRB

Listen to chest

Listen to heart Sounds

Look for JVD

Recognize Need for Intubation

Pre-oxygenate

Consider sedation if responsive

Place NP or OP Airway Correctly

Start Bag-valve-mask

**Student's Name:**

**Date:**

12/8/2006

**Examiner:**

Dr. Hojnicki

**SCORE**

Completed Partial Omitted

**Critical Actions Continued**

Assembles Laryngoscope

Selects Appropriate size ET tube

Checks cuff/pilot tube

Attach pre filled syringe to pilot tube

Lubricate ET

Place head in "sniffing" position

Tongue Sweep

Visualizes vocal cords

Pass ET tube under direct visualization

Inflates ET cuff

**5 Point check**

Documents tube at the lips/teeth

Appropriately anchors ET tube

Applies capnometry

Orders Ventilator

**Ventilator Settings**

FIO2

PEEP

Rate

Volume

Orders ABG's

Obtain Portable CXR

Orders appropriate labs

Consider Thrombolytics

**Wrap Up**

Any Questions

**Medical knowledge**

Differential Diagnosis

ORGANIZATION OF INTERVIEW

OTHER FEEDBACK

Signature of evaluator:

Total Score

# Summary



- *OSCE's*
  - *Planning*
  - *Scenario*
  - *Feedback & Debriefing*
- *Goes hand-in-hand w/ Simulation*
- *Regardless of Discipline*
- *Use them to:*
  - *Evaluate, or*
  - *Teach your learners*

# Contact Information



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