A Multi-Modal Evaluation Protocol as a Catalyst for Clerkship Quality Enhancement
New York College of Osteopathic Medicine of the New York Institute of Technology
Old Westbury, New York

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Challenge

- Given the diversity of hospitals, ambulatory centers, and preceptor offices within our 3rd and 4th year clerkships, quality assurance remains a major challenge.
- There is an “uneveness” among training sites with regard to clinical experiences, educational activities, and student engagement.
- Approximately 600, 3rd & 4th year students participate in 5,100 clerkship assignments in a given year at 41 affiliated hospitals and over 100 cooperating hospitals, ambulatory centers, and preceptor offices.
Educational Objectives for this Session

- At the conclusion of this presentation, participants will be able to:
  - Define and describe various elements of the “Multi-Modal Evaluation Protocol”;
  - Integrate various aspects of this assessment into their own “Quality Assurance Protocol”;
  - Recognize the importance of daily logging of Patient Encounters and Educational Activities by students; and,
  - Describe the utility of “Student Focus Groups”.
Assessment Components

- 3rd Year Clerkship Feedback via web-based “Matchstix” program;
- 4th Year Clerkship Feedback via “GURU” web-based system;
- Tracking and “Data Mining” of all clerkship (PELS) Patient Encounter Log Submissions, and (DEALS) Daily Educational Activity Log Submissions;
- NBOME “Subject” Exams in all Core Disciplines;
- Student “Focus Groups” facilitated by a NYCOM Medical Educator.
• NYCOM utilizes the outcomes from each component of the Multi-Modal Evaluation Protocol to enhance the clerkship quality at our affiliated hospitals in regard to patient encounters, educational activities, and student engagement.

• The information gathered from all sources can be “weaved” together to provide a visual interpretation of the results from each individual assessment modality.
These Assessment Components encompass the complementary uses of qualitative and quantitative tools as outcome measures.

It is planned to integrate all of the objective metrics into a common data repository—namely “WEAVEonline”
3rd Year Feedback via “Matchstix”

Section I. Please respond to each statement in this section according to the following scale.

STRONGLY DISAGREE <-> STRONGLY AGREE

1* There were adequate learning opportunities (teaching patients, diversity of pathology and diagnostic procedures)

2* There were opportunities to practice osteopathic diagnosis and therapy
3rd Year Clerkship Feedback

3* There was adequate supervision and feedback (e.g., reviews of my H&P, progress notes and clinical skills)
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

4* I had the opportunity to perform procedures relevant for my level of training
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

5* I was evaluated fairly for my level of knowledge and skills
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
6*  **Attending physicians and/or house staff were committed to teaching**
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

7*  **Overall, I felt meaningfully engaged and well integrated with the clinical teams (e.g., given sufficient patient care responsibilities)**
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

8*  **The DME and/or clerkship director was responsive to my needs as a student**
   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
9* **There were adequate library resources at this facility**

   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

10* **A structured program of directed readings and/or journal club was a component of this rotation.**

   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

11* **The lectures were appropriate for this rotation (e.g., quality, quantity and relevance of topics)**

   Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
12* **Educationally useful teaching rounds were conducted on a regular basis.**
- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

13* **This rotation reflected a proper balance of service and education**
- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

14* **This rotation incorporated a psychosocial component in patient care**
- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

15* **Overall, I would recommend this rotation to others**
- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree
Section II. Psychomotor skills
Indicate the number you performed on an average week during this rotation for each of the following:

16* History and Physicals
17* Osteopathic structural examinations
18* Osteopathic Manipulative Treatments
19* Starting IVs
20* Venipunctures
21* Administering injections
22* Recording notes on medical records
23*  Reviewing X-Rays
24*  Reviewing EKGs
25*  Urinary catheterizations
26*  Insertion and removal of sutures
27*  Minor surgical procedures (assist)
28*  Major surgical procedures (assist)
29*  Care of dressings and drains
30*  Sterile field maintenance
3rd Year Clerkship Feedback

• Section III

31* Comment on unique STRENGTHS and Positive Features of this rotation
32* Comment on the LIMITATIONS and Negative Features of this rotation
33* Comment on the extent in which the Learning Objectives for the rotation were met (e.g., specific topics/patient populations to which you were or not exposed)
Section IV. Please list your clinical instructors with whom you had substantial contact on this rotation and provide a general rating of their effectiveness as Teachers using the scale below.

5=EXCELLENT, 4=VERY GOOD, 3=AVERAGE, 2=BELOW AVERAGE, 1=POOR
For example - John Smith - 4

34* List clinical instructors and rating in the box below
## SURGERY

**Total Number of Respondents: 271**

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**Grand Average is in Red**

1. Adequate learning opportunities  
   - Grand Average: 4.1
   - 3.4
   - 4.2

2. Practice osteopathic diagnosis & therapy  
   - Grand Average: 2.5
   - 2.4
   - 2.6

3. Adequate supervision and feedback  
   - Grand Average: 3.8
   - 4.0
   - 3.9

4. Perform procedures relevant to level of training  
   - Grand Average: 4.0
   - 3.4
   - 4.2

5. Fairly evaluated  
   - Grand Average: 4.1
   - 4.4
   - 4.0

6. Physicians committed to teaching  
   - Grand Average: 4.0
   - 3.9
   - 4.1

7. Meaningfully engaged  
   - Grand Average: 3.9
   - 3.7
   - 4.6

8. DME and/or Clerkship Director responsive  
   - Grand Average: 4.0
   - 2.9
   - 4.2

9. Adequate library resources  
   - Grand Average: 4.0
   - 4.4
   - 4.1
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<td>30. Sterile field maintenance</td>
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Survey of Hospitals during clinical rotations

Hospitals differentiated by colors
New York College of Osteopathic Medicine       Office of Clinical Education
Clerkship Feedback Questions       4th Year Clerkships

1. Clinic Site
2. Rotation
3. Date
4. There were adequate learning opportunities.
5. There were opportunities to practice Osteopathic diagnosis & treatment.
6. I was evaluated fairly for my level of knowledge and skills.
7. Attending physicians and/or house staff were committed to teaching.
8. Overall, I felt meaningfully engaged and well integrated with the Clinical Teams.
9. The DME and/or clerkship director was responsive to my needs as a student.
10. This rotation reflected a proper balance of service and education.
11. Overall, I would recommend this clerkship to others.
12. Comments
13. Strengths/Positive Features of Rotation.
14. Limitations/Negative Features of Rotation.
15. List and Rate Clinical Instructors
Patient Encounter Log Submissions (PELS)

- On a daily basis, students must complete a procedure form for all clerkship patient encounters.

- It is submitted electronically to NYCOM as per the instructions of the Office of Information Technologies.

- Students who do not submit the required PELS by the end of a clerkship receive the grade of “U” (Unsatisfactory) for the clerkship.
Medicine Diagnostic Categories

- Cardiovascular
- Pulmonary
- Gastrointestinal & Hepatic
- Metabolic & Endocrine
- Hematology
- Infectious Disease
- Renal & Electrolytes
- Rheumatologic & Immune Mediated
- Alcoholism & Drug Dependency
- Neurological Disorders
Medicine Procedure Categories

- Venipuncture
- Starting IV
- Arterial Puncture for Blood Gas
- Bladder Catheterization
- Naso-gastric Tube Placement
- Bronchoscopy
- Sigmoidoscopy
- Thoracentesis
- Bone Marrow Aspiration
- Organ Biopsy
- Pacemaker Insertion
- Swan-Ganz Catheter
- Lumbar Puncture
- Endotracheal Intubation
- Chest Tube Insertion
- Joint Aspiration
- Skin Lesion Biopsy
- EKG Interpretation
- X-Ray Interpretation
- Other: Specify
On a daily basis, all 3\textsuperscript{rd} and 4\textsuperscript{th} year students must complete a web-based form to log the Educational Activities they participated in.
Student Time Required

- Students can complete a patient encounter log in 1-2 minutes.
- Students can complete an educational activities log (DEALS) in 1-2 minutes.
- Total time daily—5-10 minutes.
Useful for Students

- Student Portfolio of all Clinical and Educational Activities can be used during interview for: Internship/residency
- PDA Literacy for Residency
- Accurate Electronic Record Keeping (EMR Practice)
Useful for the COM

Clerkships can be reviewed across:
- Hospitals
- Clerkship
- Educational activities
- Student Feedback
By requiring students to “log” all major Patient Encounters (PELS) and Daily Educational Activities (DEALS), the Office of Clinical Education can view and monitor the various patient encounters and educational activities for all 3rd and 4th year students throughout the large number of hospitals and educational sites. Based upon this information, clerkships can be compared and contrasted, and deficiencies can be noted and addressed.
NBOME-developed “Subject” Examinations are administered on a quarterly basis, on-campus, for the following Core disciplines:

- Medicine
- Surgery
- Pediatrics
- OB/GYN
- Psychiatry
At the end of the Clerkship Year (3rd Year), the following NBOME Subject Examinations are administered:

- Family Medicine
- OMM
NBOME Subject Examination performance can be analyzed to compare Hospital Means with total Class Means.
Student Focus Groups

- Focus Groups have been defined as a particular form of group interview intended to take advantage of group dynamics by stimulating conversation among participants.
- Qualitative methods in general, and focus groups in particular, are a useful approach when dealing with issues that involve differing opinions, needs, values, and perceptions, especially among groups that do not systematically exercise institutional power.

Student Focus Groups

- Student focus groups have been applied to elicit the voice of medical students in relationship to various curricular issues.

- Focus groups can provide insights into those aspects of the medical curriculum that are not amenable to study using conventional methods.
Report from Student Focus Groups

NAME OF HOSPITAL: XYZ HOSPITAL

LOCATION: ANYTOWN, NEW YORK

DATE OF SITE VISIT: FEBRUARY 24, 2010

The student’s comments on the clinical rotations are as follows:

PSYCHIATRY:

STRENGTHS:

The students typically start at 9:00 a.m. attend morning rounds on the adult inpatient units with an attending physician on a daily basis. There are rounds on the pediatric inpatient units at 10:30 a.m. with an attending physician. The students have many opportunities to speak to any of the adult patients, pediatric patients, adolescent patients or the military patients. There are many opportunities to assist in the group therapy sessions including healthy living, smoking cessation, anger management, and art therapy. On occasion, the students work until 9:00 p.m. and there are opportunities to assist in the admissions process. There have been occasional lectures so far in the rotation.

WEAKNESSES:

Many of the scheduled lectures have been cancelled. More time with the attending physicians would be helpful and opportunities to attend court hearings would be helpful.
Where do we go from here?

- Develop a reporting format to hospitals which encompasses data from all components of the “Multi-Modal Evaluation Protocol”.
- Conduct Multi-Year comparisons to determine change over time.