Beyond ‘Show and Tell:’
Promoting Physical Examination Skills as Essential Habits of Reflective Practice

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Agenda
• Introductions and workshop goals
• Group exercise I
  • A bedside teaching scene
  • Debate utility of Physical Diagnosis (PDx) in modern day patient care
  • Discuss challenges to teaching PDx
• Group exercise II
  • Discuss PDx teaching curricula / methods at different programs
  • Select strategies to implement at own institution
• Presentations
  • Using art to improve clinical skills
  • Teaching resident electives
  • Faculty development
  • The reflective PDx
• Conclusions and take home points
Session goals

• Debate the utility of physical findings and appropriate application in patient care
• Identify the various challenges of teaching PDx within a busy clinical environment and develop potential solutions.
• Discuss some creative approaches to teaching PDx skills and understand their advantages and disadvantages.
• Be inspired to structure curricula at own institution to improve PDx skills among residents and/or faculty.

Physical Exam skills

• Cardiac auscultation skills of 314 residents from Canada, USA & Britain
  • 20-26% mean accuracy rate (Am J Med 2001;110:210-216)
• Standardized test of 133 internists and family physicians given a patient complaining of fatigue, fever, arthralgia
  • 17% detected his generalized lymphadenopathy (JAMA 1995;274:1380-1382)
• Gross discrepancy between assessment of resident competency when done through case presentations versus direct observation at the bedside (Acad Emerg Med 1996;3:345-351)
• Cardiac examination skills do not improve after MS3 and may decline after years in (Arch Intern Med. 2006;166(12):1294)
The New Bedside

Teaching Physical Diagnosis

?? Physical Exam

40% Medical Knowledge
15% Communication
30% Patient Care – Medical Thinking
5% Systems Based Practice
5% Practice Based Learning
5% Professionalism
Video clip

Group exercise I

- Debate the utility of PDx in modern day patient care, how much to teach and how to teach it efficiently
- Discuss barriers to teaching PDx
- Generate potential solutions
- Report back
Group exercise II

- Discuss PDx teaching curricula / methods at different programs within your group
- List 3 strategies you might try implementing at your institution, addressing challenges discussed earlier
- Report Back

creative approaches to reviving physical exam teaching
Using Art to Teach Physical Diagnosis

The task of education is to make the strange familiar, and the familiar strange.

So too with art.

Courtesy of Elizabeth Gaufberg
Why is VTS so well suited to medical education?

• Student-centered
• Beginner viewers
• Safe space to explore ambiguity
• Platform for self-reflection
• Promotes aesthetic development
• Evidence-based
“Training the Eye” (TE) course

- Preclinical HMS 1st year elective
- 24 students, 11 sessions, spring term
  - Paired observation exercises + didactics
  - Weekly physical examination rounds
  - 2-day life drawing workshop
  - 1-day VTS workshop
  - Reading, journal & sketching assignments
- Professional art educators


TE Goals:

- Practice and improve physical diagnostic skills (inspection)
- Gain confidence in making unique and important observations
- Explore how physical examination affects the process of diagnosis
TE sessions:

1. Introduction to Visual Literacy
2. Formal Analysis
3. Color & Luminance (vision)
4. Contour (thoracic imaging)
5. Line & Symmetry (cranial nerve exam)
6. Patterns & Texture (skin exam)
7. Motion (neurological exam)
8. Form (respiratory exam)
9. Figure Drawing Workshop
10. VTS training
11. Putting it All Together

- Mean observation score on pre-versus post-test observations

* p-value < 0.05
• Graded impact of attendance on mean score on pre- vs. post-test observations of all images

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Teaching Resident Elective

• 2 to 4 week elective for senior residents

• Observe H&Ps of medical students and give feedback to students

• Physical exam rounds with students
  • direct observation and feedback by senior faculty member

• Physical exam focused morning report
Faculty Development

- Monthly noon conference series by Master Clinicians and Educators
  - Review of physical exam
  - Tips on how to teach residents the physical exam

- After one year, 30% more teaching and better quality teaching at the bedside for those who attended the series

Faculty Development

Large Scale
More Practical Scale
The Charm of Bedside Medicine: What patients teach that books cannot

Friday, March 11, 2011
12 p.m. – 5:00 p.m.
Holiday Inn, Blossom Street

The Physical Exam: How best to do it? How best to teach it?
Get tips from MGH Master Clinicians and their patients
Learn from Master Clinicians from Cardiology, Pulmonary, Neurology, Endocrine, Rheumatology, Orthopedics, Surgery

SPACE IS VERY LIMITED to ensure an optimal experience for learners, master clinicians and patients
To reserve your spot, click on the link below:

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Smaller Scale

2. Monthly Bedside Diagnosis Group
   - Invite Master Clinicians
   - Teach each other
     JAMA Rational Exam Series
     Text Books (Practice on each other)
     Go to the bedside

3. Peer Observation
   - “What did you hear?”
The Reflective Physical Exam

Teaching the Reflective physical exam- Why?

- 56-88% of the correct diagnoses are made from the history alone
- 73-100% of the correct diagnoses are made by the end of the examination
- A hypothesis-driven physical examination approach provides a clinical context to practice exam and diagnostic reasoning at the bedside
Teaching the Reflective physical exam- What?

(1) Anticipate and select relevant physical examination maneuvers given a history and differential diagnosis
(2) Execute the relevant physical examination maneuvers correctly
(3) Identify findings from the physical examination maneuvers
(4) Interpret the findings to sort out a differential diagnosis
(5) Justify a working diagnosis

Teaching the Reflective physical exam- How?

Exercises for the team

• What is your differential hypothesis based on history?
• How will you confirm your hypothesis on physical exam?
• What investigations would you order to confirm your diagnosis?
• Predict the results of the investigations
• Return to the bedside to integrate the imaging report with the clinical exam
• Integrate basic sciences with history and physical exam findings (anatomy and neurologic localization, pathophysiology of a systolic murmur)
Return to the bedside

Take-home points
References