2013 Fall Webinar Series: What Does Art have to do with Patient Safety?
Led by: Alexa Miller

The Global Alliance is grateful to the National Endowment of the Arts for its support of this webinar series, which strives to provide affordable resources to individuals and organizations wishing to establish or advance arts and health programming.
What does art have to do with patient safety?

Alexa Miller
November 6, 2013
Objectives

Webinar participants will be able to:

– Describe challenges of clinical uncertainty;
– Describe a Visual Thinking Strategies experience;
– Identify current findings on VTS impact and their significance.
Diagnostic Error

- $765 billion wasted healthcare spending\(^1\)
- Leading type of malpractice claim\(^2\)
- Most commonly due to faulty data-gathering or data-synthesis (rarely faulty knowledge) \(^3\)
- Prevalent overconfidence
- Cognitive root causes under-addressed in medical education\(^4\)

1. Smith, M, Saunders, R, Stuckhardt, L, McGinnis, J, Eds; Committee on the Learning Health Care System in America; *Best Care at Lower Cost*, Institute of Medicine, 2009


<table>
<thead>
<tr>
<th>Bias or heuristic</th>
<th>Definition</th>
<th>Role of checklist</th>
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<tr>
<td>Anchoring</td>
<td>The tendency to perceptually lock on to salient features of the patient's presentation too early in the diagnostic process and failing to adjust this impression in light of later information.</td>
<td>Prompt physician to consider diagnoses other than the initially favored one.</td>
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<td>Availability</td>
<td>The disposition to judge things as being more likely or frequently occurring, if they readily come to mind.</td>
<td>Prompt physician to consider diagnoses other than those that readily come to mind.</td>
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<td>Base-rate neglect</td>
<td>The tendency to ignore the true prevalence of a disease, either inflating or reducing its base rate and distorting Bayesian reasoning.</td>
<td>Remind physician of the relative prevalence of diseases in primary care for the patient's complaint.</td>
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<td>Premature closure</td>
<td>The decision-making process ends too soon; the diagnosis is accepted before it has been fully verified. “When the diagnosis is made, the thinking stops.”</td>
<td>Prompt physician to reopen the diagnostic process and consider alternative diagnoses before discharging the patient.</td>
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<td>Representativeness restraint</td>
<td>The physician looks for prototypical manifestations of disease (pattern recognition) and fails to consider atypical variants.</td>
<td>Prompt physician to consider causes for the symptoms other than the ones that readily fit the pattern.</td>
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<td>Search satisficing</td>
<td>The tendency to call off a search once something is found.</td>
<td>Prompt physician to consider additional causes of the complaint after something is found.</td>
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<td>Unpacking principle</td>
<td>The failure to elicit all relevant information in establishing a differential diagnosis.</td>
<td>Prompt physician to ask questions that might confirm or rule out alternative diagnoses.</td>
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<td>Context errors</td>
<td>The critical signal is distorted by the background against which it is perceived.</td>
<td>Encourage physician to rethink assumptions and maintain objectivity.</td>
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Visual Thinking Strategies

Abigail Housen, PhD., and Philip Yenawine
Co-Authors

Purpose:
Help beginner viewers enjoy / access art

1. **Method**
   For facilitating art discussion

2. **Curriculum (K-6)**
   For access to art / cognition

3. **PD Model (K-6)**
   To transform teaching practice
“Exposure to art over time is the only way to develop aesthetic understanding, and without this time and exposure, aesthetic development does not occur.”

Abigail Housen, Ph.D.

“Give people the opportunity to talk about things that matter to them.”

Philip Yenawine
Art-Viewing and Medicine


- Dolev JC, Friedlaender LK, Braverman IM. Use of fine art to enhance visual diagnostic skills. Journal of the American Medical Association 2001; 286(9): 1020-1.


- Ter Horst, R and Kruiper-Doesbergh, Visual Thinking Strategies, applied as a therapy in patients with chronic non-congenital brain disorder, Tijdschrift voor Neuropsychologie, Jaargang 7 n. 3
VTS Impact: Key Studies

**K-12 Students:** critical thinking and language skills (ELL)


**Medical Students:** observation, communication, ambiguity

Chain of uncertainty in clinical encounter

1. Biological variability
2. Bias
3. Errors in interpretation
4. Uncertainty surrounding decision
5. Motives
6. Opinions
7. Values

“Uncertainty presents a challenge because students are prepared to expect the opposite.”

4 Key Challenges

1. Expectations around uncertainty
2. Feelings toward uncertainty
3. Skills in uncertainty
4. Pedagogical models to address uncertainty
Art

• Takes us beyond what we know
• A low-risk experience of uncertainty
• A safe experience of the unknown
• Practice
“Continuous Search”
Stay in touch!

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