Virtual Patients Group update: 7/8/09

A. Last Week:

(UF)
1. You, M.D. exhibit – Lind has agreed to develop a skin cancer script. Suggest UF and UCF create scripts too.
2. The VP and NERVE system has been installed in CG-68, the simulation room run by Sem Lampotang that’s connected to the Harrell Center.
3. Aaron created “VicVision” – during the eye-exam, the student sees what the world looks like to Vic (who has a CN3 or CN6 injury).
5. Working on “Contraceptive Counseling”, “Sexually Transmitted Diseases”, and “Abnormal Mammogram” scripts.
6. Discussed VPF Patient Generator template (enable a faster first iteration of question/answers).
7. VPF data is now being stored encrypted offsite at Jungledisk.com (in case a computer crashes, etc.) we will have data backed up daily.
8. Received a NIH Administrative Supplement Grant for R03 Eye-Exam grant. $25k for postdoc (or part of postdoc) for 09-10 academic year. Need to identify person.
9. VP group meeting @ UF set for July 13th 10 AM – 4 PM. Agenda to be sent soon. Roster of attendees (20 total):
   - UF – Lok, Cendan, Ferdig, Halan, Blackwelder, Mcmanamon, Rossen, Kotranza, Maddox, DiPietro
   - MCG – Lind, Lind, Shah, Gehlot, Blackwood, Wier
   - UCF – Cuty-Ruiz, Feldmen, Dan (last name?)
   - UGA – Johnsen
10. Bought business cards for VP Group. Will give out when they arrive in the next two weeks.

(MCG)
11. MCG Study - NERVE vs. UC-Davis web eye app comparison study with neurological students (status?)
12. MCG Rated videos of users with the MRH (CESERT) – writing paper on results.
13. Manuscript submitted to AJS (Angela) - breast exam.
14. Hiring Fulltime VP person in August (med-centric w/ tech chops)

(UCF)
B. Next Week:

1. July 22nd – Aaron is running study with Dr. Ritz’s student. Eventually Eye-exam being run in January as part of medical neuroscience course.
2. Conscious Sedation scenario will be tested by Isaac.
3. Additional scenario development (using the new patient generator).

(MCG)
1. NERVE testing
2. 2 more rounds of CESERT MRH video reviews

(UCF)
1. Continue BRCA and Gallstone case.
2. When local VPF server installed, need to get data backed up to JungleDisk.
C. Requests

UCF wants to have two locations on the VPF screen for multimedia (e.g. a patient on the right, and a MRI image on the left). Also these locations would display more than images and include video and Flash animations. Currently: Brent is setting up VPF so that this is possible.

Brent wants to have SPs use VPF to both learn how to be an SP and to capture people with different cultures. Can UF, MCG, and UCF accommodate?

Need additional MOSI scenarios from UCF and UF, (currently have asthma (Lok) and skin cancer (Lind))

Publications

1. Recent Publications:

2. Publications Under Review:


3. Upcoming publications:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Lead Author</th>
<th>Deadline</th>
<th>Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southeastern Surgical Congress (2/20)</td>
<td>Lind</td>
<td>7/10</td>
<td>Abstract</td>
<td>??</td>
</tr>
<tr>
<td>Journal of Graduate Medical Education</td>
<td>Cendan</td>
<td>7/20</td>
<td>Paper</td>
<td>Hand-off scenario in VPF</td>
</tr>
<tr>
<td>IMSH 2010</td>
<td>?</td>
<td>8/20</td>
<td>Paper</td>
<td>Hand-off scenario in VPF</td>
</tr>
<tr>
<td>ASE</td>
<td>?</td>
<td>10/23</td>
<td>Abstract</td>
<td>CESERT results</td>
</tr>
</tbody>
</table>


UF

Dyspepsia – Pharmacy (Beck, Kimberlin, Rossen) – used with 120+ students, over 2600 triggers and 600 responses. Average accuracy 80% (typed).

Gastric Band Handoff (Juan Cendan, Ethan Blackwelder, Lori Filichia) – creating a VPF scenario of the hand-off between physicians for a gastric band patient. Currently: initial script created, being tested by residents. Target: Journal publication (due July 20th).

Chest Pain (Juan Cendan, Ethan Blackwelder) – Ready for testing w/ medical students
Failure to Thrive (Juan Cendan, Ethan Blackwelder) – Under development
Contraceptive Counseling (Juan Cendan, Ethan Blackwelder) – Under development
Lower Back Pain (Juan Cendan, Shivashankar Halan) – Ready for testing w/ medical students
GI Hemorrhage (Juan Cendan, Shivashankar Halan) – Ready for testing w/ medical students
Post Operative Hemorrhage (Juan Cendan, Shivashankar Halan) – Ready for testing w/ medical students
Anesthesia Pre-Operation OSA (Wendling) – Ready for testing w/ medical students
Sexual Transmitted Diseases (Juan Cendan, Shivashankar Halan) – Under development
Abnormal Mammogram (Juan Cendan, Cesar Ramirez-Santana) – Under development
Conscious Sedation (Hwang, Lampotang, Gravenstein) – Testing
Clinical Breast Exam (Kotranza, Lind) – used with 100+ students

MCG

Depression (Foster) – tested with multiple classes
Bi-Polar Disorder (Foster, Denise, Rossen, Rizzo) – patient is bi-polar. Need to discuss mania/suicide. Will then have a conversation with either spouse (Foster) or law-enforcement (Rizzo)

Melanoma (Fox) - ?
Grief and Loss (Lind) – under development
Pediatrics (Rubin) – under development
Breast script (Shah, Blackwood, Lind and Lind) – Abnormality confirmed as cancer. Finalizing and will be ready for testing next week just in time for Blackwood’s grand rounds on July 27. It will be tested on the Deans Summer Research students.

Chest Pain (Lind) – planning (to be used with nursing and the grief and loss scenario)
Skin Cancer MOSI script (Lind) - planning

UCF

Gallstone case (Feldmen, Cuty-Ruiz, Raij) – 15 year old boy with gallstones. Sent out to 5 faculty members. This case will be used in HB-2 course around spring time.

BRCA Breast pedigree (Feldmen, Cuty-Ruiz, Raij) – BRCA case: Dr. Gibson is filling a paper template now. Next week will fill in responses and we will meet to further develop and discuss pedigree options. This case will be used in HB-1 on August 27.

PCOM

Meningitis (Surkunalingam) – a male college student who presents to the office complaining of a stiff neck, malaise, and a slight fever. The patient is suffering from bacterial meningitis, in particular Nissieria Meningitidis. The study was done with 1st year medical students. The students were split into two 40 member groups. The control and the study group. The control group had no interaction with the VPF software and just preformed a normal standardized patient exam for their final exam. The study group was given the VPF software one week prior to their final exam.

Lower Back Pain (Taranto) - ?

Others

Patient-Centered Counseling - Lara Westphal (University of South Florida)
Autism – Tana Bleser (UF)

Goal: 30 scripts by end of summer

5. Current focus of Technical Development
IPS – Integrate FaceGen, Autoemotion
IPSViz – Integrate into VPF, Create visualizations for educators
VPF – Integrate IPSViz, Create multiple fields for triggers (e.g. user actions such as exams or tests) and responses (e.g. VP’s thoughts), Create support for SPs to use VPF to capture culture.
Webcam VPF – Explore O3D/other 3d via the web approaches.
SecondLife – VPF characters can be exported to SecondLife. No development currently planned.
MRH – build prostate exam
NERVE – install into CG-68, build other CN conditions, Build VSP
VSP – Build NERVE VSP (Kotranza)

6. Studies
Consequences (Rossen, Chuah, Foster, Rizzo) – have students go through multiple scenarios, where they learn the consequences of their actions. In the bi-polar script, not asking about suicide causes the patient to attempt suicide and the student has to break the news to spouse or talk to law enforcement. Planned August.

Constructivist learning (Rossen, Cassell) – have students learn by building their own virtual patients and evaluating fellow students’ interactions with their patient. Planning stage. Perhaps spring 2010?

Learning Study - Student learning using the breast simulator – Project that will involve students doing the a baseline breast vest SP exam then three VP interactions a week apart and a final learning breast vest SP exam. Current Status: planning. Target: All 3rd year students to conduct a breast exam with MRH (Kotranza, Lind).
Self-Exam – Teaching patients how to perform self exams with an ethnically-variable virtual instructor on hand to provide information and assist. Will compare against Mammacare (Lind, Park, Wier) NERVE comparison with UC-Davis web applet - At MCG, neurology students will be coming this Thursday to do the study (NERVE vs. UC-Davis web system). (Lind)

D. Funding
   1. Upcoming Proposal Writing
   Breast exam (Lind, Brown) – Internal EDI grant to assess the value of a breast exam simulator in residents
   Conscious Sedation – NIH R21 (?) Due Oct. 16th (Quarles, Lampotang, Lok)
   Stemmler (UCF, MCG?) – Assessment?

   2. Proposals Under Review
   NIH R25 – Teaching cultural tailoring for medical students and patients (Lok, Lind, Johnsen, Cendan, Cuty-Ruiz)

   3. Current Grants
   Association of Surgical Education, CESERT Grant, 2008-2010 – MRH evaluation
   NSF Career Award and REU Supplement, 2007-2012 – Bias with VPs
   NSF Medium (MRH development), 2008-2012
   NIH R01/R56, 2008-2012 – Pain faces with virtual humans for bias evaluation
   NIH R03, 2008-2010 – NERVE
       Administrative supplement – 7/09 granted for 1 year.