Mud Season Educational Symposium

at the University of Vermont
College of Medicine

April 14-15, 2016

Welcome to the Mud Season Educational Symposium

April 14, Thursday

5:30 - 6:30 PM	Reception and Poster Session
6:30 - 7:30 PM	Dinner
7:00 - 7:30 PM	Induction ceremony for new members and dessert
7:30 - 8:15 PM	**"Creating Environments for Learning"** William Jeffries, Ph.D., Senior Associate Dean for Medical Education

April 15, Friday

8:00-8:30 AM	Breakfast and registration Emerald III Promenade; Emerald III
8:30-8:35 AM	Welcome from Katie Huggett, Ph.D., Teaching Academy Director Emerald III
8:35-9:15 AM	**Learner Mistreatment at UVMCOM: Lessons learned thus far** Presenters: Judith Lewis, M.D., Nathalie Feldman, M.D., Charmaine Patel, M.D., David Adams, M.D. Emerald III
9:15-9:45 AM	Two Oral Platform Presentations, Introduced by Tamara Williams, Ph.D. **A Longitudinal, Interprofessional, Simulation-Based Curriculum for Critical Care Teams at an Academic Medical Center: Successes and Challenges** Author: Laurie Leclair, M.D. **Faculty Integrated to Resident Scheduling Templates (FIRST)** Author: Halle Sobel, M.D. Emerald III
9:45-10:30 AM	Break/Poster session with poster authors present Emerald III Promenade
10:30-11:45 AM	**<u>Breakout sessions</u>** **Learning Environment and Professionalism (LEAP) Breakout Session** Judith Lewis, M.D., Nathalie Feldman, M.D., Charmaine Patel, M.D., David Adams, M.D. Emerald I Ballroom **A Mindful Path to Accepting Feedback** Lee Rosen, Ph.D., and Megan Wetzel, MS4 Kingsland **Team-Based Learning (TBL)** Stephen Everse, Ph.D. and Paula Tracy, Ph.D. Emerald II Ballroom **"The One Minute Preceptor"** Martha Seagrave, PA-C and Anne Morris, M.D. Shelburne

11:45-12:45 PM Buffet lunch
Open seating in the ballroom
Emerald III
Teaching and Career Development for Graduate Students and Postdocs
led by Tamara Williams, Ph.D. and Stephen Everse, Ph.D.
Emerald I
Teaching and Career Development for Residents
led by Jan Carney, M.D. M.P.H.
Emerald II

1:00-2:00 PM **Breakout sessions**
Mentoring in the Research Lab
Karen Lounsbury, Ph.D.
Emerald I
Beyond "Eager, Punctual, and Pleasant": Improving Narrative Descriptions of Medical Student Performance
Garth Garrison, M.D. and Jeremiah Dickerson, M.D.
Kingsland
"The One Minute Preceptor"
Martha Seagrave, PA-C and Anne Morris, M.D.
Shelburne
Identifying burnout or depression in learners or colleagues
Shaden Eldakar-Hein, M.D., M.S. and Lee Rosen, Ph.D.
Emerald II

2:00-2:15 PM Break

2:15-3:15 PM **Breakout sessions**
Beyond "Eager, Punctual, and Pleasant": Improving Narrative Descriptions of Medical Student Performance
Garth Garrison, M.D. and Jeremiah Dickerson, M.D.
Kingsland
Teaching Online: The Professor Behind the Screen
Lynn Blevins, M.D., M.P.H. and Jan Carney, M.D., MPH
Emerald I
The New UVM Medical School Interview- the why and the how of the Multiple Mini-Interview (MMI)
Laura Greene, M.D., Raiel Barlow, M.D. and Jan Gallant, M.D.
Shelburne
Promoting Resilience and Wellness: An Overview of UME, GME and Faculty Initiatives at UVM
Shaden Eldakar-Hein, M.D. M.S., Nathalie Feldman M.D., Tania Bertsch M.D., Aaron Hurwitz M.Ed., Anne Morris M.D., Ann Guillot M.D. and Maria Burnett, M.D.
Emerald II

3:30-4:30 PM Collaboration and Connect Zone
Emerald III
This session is an opportunity to meet colleagues, network, and identify collaborators for educational innovations and research. Please complete the Purple Collaborate and Connect form in your packet and leave at the registration desk or bring to this session.

Mud Season Educational Symposium
Workshop Presenters

David Adams, M.D., Anesthesiology
Raiel Barlow, M.D, Orthopaedics & Rehabilitation
Tania Bertsch, M.D., Medicine/Medical Student Education
Lynn Zanardi Blevins, M.D., Medicine/Pulmonary*
Maria Burnett, M.D., Internal Medicine
Jan Carney, M.D., Medicine/Pulmonary*
Jeremiah Dickerson, M.D., Psychiatry*
Shaden Eldakar-Hein, M.D., Medicine*
Stephen Everse, Ph.D., Biochemistry*
Nathalie Feldman, M.D., Obstetrics, Gynecology and Reproductive Sciences
Jan Gallant, M.D., Pediatrics/Radiology
Garth Garrison, M.D., Medicine/Pulmonary
Laura Greene, M.D., Pathology*
Ann Guillot, M.D., Pediatrics*
Aaron Hurwitz, M.Ed., Medical Student Education
Judith Lewis, M.D., Psychiatry*
Karen Lounsbury, Ph.D., Pharmacology*
Anne Morris, M.D., Family Medicine
Charmaine Patel, M.D., Psychiatry*
Lee Rosen, Ph.D., Psychiatry/Medical Student Education
Martha Seagrave, PA-C, Family Medicine*
Paula Tracy, Ph.D., Biochemistry/Medical Student Education
Tamara Williams, Ph.D., Pathology*

* Indicates Teaching Academy Member

Mud Season Educational Symposium
Teaching Academy New Members

Distinguished Educator
John King, M.D., Professor, Family Medicine

Master Teacher
Elizabeth Ames, M.D., Associate Professor, Orthopaedics & Rehabilitation
Erica Gibson, M.D., Assistant Professor, Pediatrics
Felix Hernandez, M.D., Associate Professor, Surgery
Jerry Larrabee, M.D., Professor, Pediatrics
Stephanie Mann, M.D., Associate Professor, Obstetrics, Gynecology and Reproductive Sciences
Christopher Morris, M.D., Professor, Medicine
Richard Pinckney, M.D., Associate Professor, Medicine
Christa Zehle, M.D., Associate Professor, Pediatrics

Member
Erik Anderson, M.D., Assistant Professor, Anesthesiology
Whitney Calkins, M.D., Assistant Professor, Family Medicine
Lydia Grondin, M.D., Associate Professor, Anesthesiology
Elise Hotaling, M.D., Assistant Professor, Radiology
Molly Moore, M.D., Assistant Professor, Pediatrics
Emily Stebbins, M.D., Assistant Professor, Anesthesiology

Protégé
Jacquelyn Grev, M.D., Fellow, Pediatrics
Patrick Hohl, M.D., Fellow, Medicine
Sherrie Khadanga, M.D., Resident, Internal Medicine
Thomas Rogers, M.D., Resident, Pathology and Laboratory Medicine

Abstract: Use of Computerized Evidence to Support Care of Skin Problems in Primary Care

Author/Presenter: *Burke, Marianne; Littenberg, Benjamin; Atwood, Gary*

Objectives:
Primary care providers (PCPs) must diagnose and treat a wide variety of acute and chronic conditions including skin problems. In surveys, PCPs report using multiple clinical evidence technologies to support patient care decisions. However, there is no data on UVM Medical Center PCPs' use of evidence technologies. We aimed to learn how UVM Medical Center PCPs, most of whom are clinical faculty, use evidence technologies for general patient care and dermatologic care. A survey was conducted as part of a randomized cluster trial of a dermatology electronic textbook.

Methods:
Providers received an email invitation to participate. Those who consented completed a baseline survey on their typical use of evidence source technologies at the point of care. Providers were asked how often in the last month they referred to a print or electronic source to support patient care and what sources they used. Questions on frequency of evidence-seeking for skin conditions and sources used were also asked.

Results:
32 Adult Primary Care and Family Medicine providers, including 11 residents, and 1 Nurse Practitioner, consented and completed the survey. 27 (87%) reported seeking evidence for patient care 10 or more times in a month. 30 (94%) reported UpToDate use; 20 (63%) searched Google; 14 (43%) sought information from electronic or print textbooks; and 12 (37.5%) referred to PubMed and journal articles. VisualDx was used by 7 (21%) and Dynamed by 5 (16%). Providers and residents used evidence sources in similar proportion with the exception of Google. 11 of 13 (85%) residents used Google for patient care compared to 9 of 19 (47%) of non-residents.

For skin problems, 25 (78%) sought information 0 - 3 times in the month. UpToDate was the most frequently used source with 21 (67%) using it. 10 (32%) searched Google; 8 (25%) referred to VisualDx. Residents used Google more often than others: 6 of 13 residents (46%) used it v. 3 of 19 non-resident providers (15%).

Conclusions:
UVMMC PCPs use a variety of evidence sources for patient care. Non-resident providers and residents have similar rates of source use except when it comes to Google. Residents search Google notably more often. Use of evidence for patient care is an important aspect of practice-based learning. This survey contributes to knowledge of how information technologies are used in clinical practice in the UVM academic medical center.

Abstract: A Longitudinal, Interprofessional, Simulation-Based Curriculum for Critical Care Teams at an Academic Medical Center: Successes and Challenges

Author/Presenter: *Leclair, Laurie; Dawson, Mary; Zelman, Eric; Hale, Sue; Clouser, Ryan; Garrison, Garth*

High functioning interprofessional care teams are necessary to ensure best patient outcomes. This is especially true in intensive care units (ICUs) where severity of illness is high. While ICU care is routinely provided by interprofessional care teams, longitudinal education programs for such teams is rare. To address this challenge we developed an innovative, longitudinal, simulation-based curriculum for interprofessional ICU care teams that was designed to promote team building and communication while meeting the varied educational needs of its members. The curriculum, consisting of four simulations addressing discipline and team-specific learning objectives, was created by an interprofessional steering committee comprised of educators from respiratory therapy and nursing, critical care physicians, ICU pharmacist and technicians from the University of Vermont's Simulation Lab. The learners included senior medical students, respiratory therapists, critical care nurses and internal medicine/family medicine resident physicians and reflect the real-time "work place" team responsible for caring for critically ill patients. Simulations with debriefing by trained critical care attending physicians occurred weekly and the curriculum repeated monthly. The curriculum was implemented in August 2014. 112 resident physicians, 38 fourth year medical students, 40 ICU nurses and 47 respiratory therapists have completed at least one simulation session, with the majority of the physicians and students having completed the full curriculum. Learner feedback has been positive noting improved understanding of team function and decreasing knowledge gaps as key impacts. Weaknesses include unfamiliarity with simulation environment and variable quality of debrief. Barriers to curriculum implementation included overcoming skepticism and achieving institutional and discipline "buy in". Discipline champions, continuing education credits and institutional support in the form of paid education time and free on-site parking were essential in overcoming these barriers. A limitation to the current curriculum is the lack of a consistent program evaluation tool to globally assess impact and drive changes. We are currently developing and implementing such an evaluation tool and have begun to examine interprofessional team dynamics.

Abstract: Clinical Learning Environment Review (CLER): A Catalyst for Creating Durable Healthcare System-Wide Partnerships with Graduate Medical Education (GME) (GME)

Author/Presenter: *Levine, Mark; Miller, Karen*

Background: Between the UVMMC CLER visits in 2013 and in 2015, changes in the organization's senior leadership and strategic priorities occurred and ACGME published CLER Pathways to Excellence. While many positive changes in our clinical learning environment were implemented, much work remained.

Objectives: Describe the impact of CLER on GME strategic planning, initiatives, and integration within UVMMC.

Methods: The GME office analyzed: CLER-related activities prior to and since each CLER visit, program-specific vs. GME-wide educational opportunities, and our aggregate performance on the CLER Pathways to Excellence.

Results:

- CLER provided a stimulus in directing existing patient safety and quality improvement initiatives to GME. Our Jeffords Institute for Quality now directs personnel and educational resources to the GME community.
- CLER inspired GME to actively lead other key stakeholders in new initiatives, such as cultural competency and healthcare disparities training, an effort initiated by GME but now spanning the entire medical center workforce.
- CLER findings helped direct GME's Strategic Plan resulting in resource allocations for activities such as the AAMC Teach4Quality workshop, cultural competency training, and transitions of care workshops.
- Many GME initiatives are now viewed as critical to faculty development and interest now exists in expanding quality improvement, patient safety, and transitions of care educational efforts to faculty.
- CLER heightened our sense of the value in inter-professional training in communications and transitions of care simulation and mock RCAs.
- CLER identified the need and importance in including residents and fellows in future organizational strategic planning.

Conclusions: CLER has played an integral role in the integration of our GME enterprise into our academic medical center's mission, facilitated the development of valuable partnerships with our senior leadership, and will foster our ability to optimize the quality of care provided and training of our physician workforce.

Abstract: Chaos, Communication, and Collaboration: An Innovative Patient Safety Simulation Education Series

Author/Presenter: *Magier, Samantha; Patashnick, Lloyd; Harlow, Ethan; Nicholas, Cate; Lemieux, Nancy; Leclair, Laurie; Wilson, Aimee; James, Ted*

Background: The 2010 Affordable Care Act highlighted training healthcare providers on quality improvement (QI). While residency programs require QI training, a curricular gap exists in undergraduate medical education.

Description of project/program/innovation: To address this gap, the following steps were taken:

The Students for Quality Improvement and Patient Safety Student Interest Group (SQIPS) was created with Ted James MD, FACS, and Clinical Director of the UVM Clinical Simulation Laboratory (CSL) as faculty advisor.
An Institute for Healthcare Improvement (IHI) Open School chapter was founded to use IHI strategies to create programming.
In 2016, a series of four weekly simulation based activities were designed and deployed in consultation with the faculty and staff of the CSL.

Methods: SQIPS members and CSL staff and faculty a series of four 90 minute patient safety simulation modules for a hands-on experience of QI/PS principles. Simulation were followed by group debriefing.

Table top teamwork simulation focused on Root Cause Analysis (RCA)
A Patient Safety "Room of Horrors"
Cardiac Code Simulation
Mass Casualty Simulation.

Results: Participants completed an anonymous post-participation survey. Qualitative and quantitative results were gathered. 100% of students (n=10) would recommend this event to other students. "This was a "great opportunity" that "threw [them] into an environment most of had never been in. The teamwork and patient safety concept was reinforced and the debriefing sessions provided a better understanding of the traits of a successful team."

Discussion/Conclusions/Lessons Learned:

Issues of optimal scheduling and consistent participation throughout the series were challenges.
Based on the participation and interest of nursing faculty and senior nursing students, the SIG has evolved into the first interprofessional student interest group based out of the College of Medicine.

Planning is underway for 2017 the series to target first year students to get them interested and involved with QI/PS.

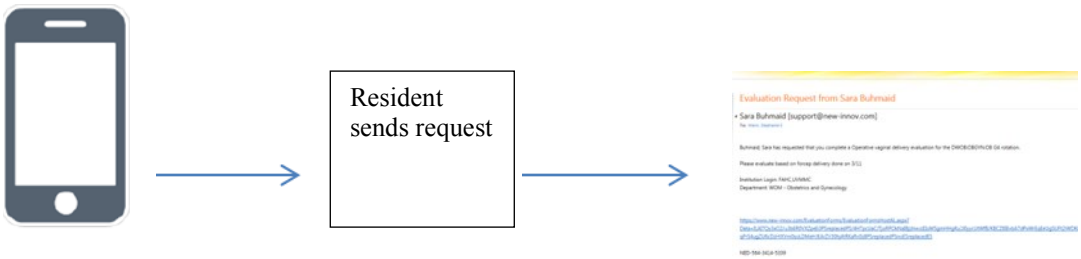
Abstract: Formative Evaluations Made Simple: Meeting The Challenge of Providing Immediate Feedback

Author/Presenter: *Mann, Stephanie*

Background: One of the major hurdles faced by the CCC is ensuring that there is enough objective data to determine resident progress across all 28 milestones. One of the rate limiting factors has been accruing immediate faculty feedback on resident performance.

Description: We have designed a set of evaluation templates that address specific sub competencies within each milestone. These formative evaluations consist of questions tied to particular milestones and levels that can be answered efficiently using NI. The formative evaluations are designed to take less than 5 minutes to complete.

Methods: We designed 23 formative "on the fly" evaluations that consist of questions that directly map to a milestone level/subcompetency. These NI based formative evaluations were introduced to our faculty and residents at our annual department education retreat in May, 2015. Faculty and residents were instructed how to access the NI application from their smart phone desktop. Each evaluation was designed with no more than 10 yes/no questions as well as a section for free text comments. Once the evaluation is requested by the resident, an email with a direct link to the evaluation is made available to the faculty.



Email request and link from NI

Results: Prior to implementation of these formative evaluations, our faculty completion rate for on the fly evaluations was 9%. After implementation of this NI based system, the residents are now submitting 10 evaluations/month and our faculty completion rate is 68% of requested evaluations.

Discussion/Conclusion/Lessons Learned: Meaningful formative evaluations are critical for CCC resident assessment. We conclude the following:

1. Faculty development is a critical aspect of implementing this evaluation system.
2. Residents are required to request 10 evaluations each month; monthly completion is required and tied directly to a Professionalism milestone.
3. Faculty are more likely to complete user friendly and easy to access evaluations.

Abstract: Bringing together all the voices: formation of an anti-human trafficking interprofessional coalition to address training needs of Vermont health professional students and providers.

Author/Presenter: *Nicholas, Cate; Klimoski, Edith; McKittrick, Pat; Melvin, Christina; Fraser, Candace; DiSanto, Rachel; James, Ted*

Background:

- Human trafficking (HT) is of global and local concern.
- 50-88% of trafficked individuals seen by Health Care Professionals are not identified indicating a gap in training.
- UVM is the center of training and a major driver of health care best practices, and is ideally equipped to address this gap.

Project Description project: Fall of 2014, interested faculty, HT activists and survivors formed the Anti- Human Trafficking Working Group (AHT-WG).

Methods:

1. Create a vision/mission statement
2. Create and prioritize strategic plan
3. Identify and engage stakeholders/ partners
4. Develop and implement curricula and programming
5. Create program evaluation and ongoing quality improvement process

Results to date:

1. *Vision*: increase recognition of and safe return for victims of human trafficking
2. *Mission*: create curricula and programming to spread awareness, influence institutional policy and procedure and educate staff and faculty.
3. Curriculum and Programming
    a. Developed standardized patient cases from real life experiences.
    b. Created/offered a series of four panels/blogs for Jan, 2016 Anti-Human Trafficking Month:
        i. The Reality of Human Trafficking in Vermont
        ii. The Vermont Legal response and the role of law enforcement
        iii. Slipping Through the Cracks: Human Trafficking Screening in Health Care.
        iv. The Faith Communities Response to Human Trafficking
    c. Created a speaker's bureau.
4. Expanded coalition to include UVMMC institutional representatives, Vermont Law Enforcement and students.

Pending:

1. Frymoyer Educational Grant submission for 2016-2018
14th Annual Freedom Network USA conference workshop.
Draft of an anti-human trafficking UVMMC Policy and Procedure

Discussion Success due to::

- highly engaged and skilled coalition, national and statewide focus on HT
- institutional interest and support, public interest and demand

Next steps:

- Demand creating scheduling challenges and may over extend coalition
- Revisit and reprioritize strategic plan to avoid growing too fast too soon and avoid burnout.

Abstract: Does a longitudinal PCMH curriculum positively impact students' confidence in their knowledge of patient-centered skills and appreciation for the role of the family physician?

Author/Presenter: *Seagrave, Martha; Selkirk, Laura; Richardson-Nassif, Karen*

Background:

There is an increasing need for new family doctors to address the shortage of primary care physicians who are prepared to work in our complex and dynamic healthcare system. The purpose of this project is to analyze the impact of a comprehensive, longitudinal, patient-centered medical home (PCMH) curriculum on students' views of family medicine and primary care as well as the curriculum's impact on student sense of competency with PCMH principles and skills.

Description of project/program/innovation and Methods:

For the past three years entering and graduating medical students have been invited to complete online surveys. These surveys include questions assessing comfort and familiarity with concepts and skills beneficial for practice in family medicine and primary care (e.g., shared decision making, motivational interviewing) as well as students' perceptions of family medicine and the role of the primary care physician.

Results:

Comparisons of student data from the graduating classes of 2014 and 2015 were made. The Class of 2015 was the first class to receive the full longitudinal TOPMEd curriculum. Results showed that the Class of 2015 rated the importance of primary care physicians being community leaders and providing care to disadvantaged populations significantly higher than the Class of 2014. The Class of 2015 rated themselves as more familiar with communication techniques such as shared decision making and the skills necessary for practicing in rural environments. This class also rated themselves as more confident in their ability to use motivational interviewing and in working with patients from different backgrounds. For future plans, members of the Class of 2015 were more likely to prioritize working with underserved populations.

Conclusions:

A comprehensive longitudinal curriculum highlighting family medicine and the PCMH impacts students' perceptions, awareness, and appreciation for family medicine and primary care. This suggests introducing students to these concepts can positively impact students' competency in important communication skills and increase their appreciation of and interest in family medicine.

Previous dissemination:

This poster was presented at STFM in January 2016

Abstract: Panel Management 101: A Practical Approach for an Internal Medicine Clinic

Author/Presenter: *Sobel, Halle; Menson, Katherine; Pasanen, Mark*

Introduction:
Internal Medicine Residents are expected to learn and improve upon their clinic performance while caring for a panel of patients. This is an ACGME sub-competency as part of the milestone evaluation system. The ambulatory setting is an idea environment for performance improvement activities and the chart audit is a useful tool to gather individual data. With the growing trend of population health management, panel management curriculums are evolving in primary care training programs.

Methods:
Residents received a didactic lecture on the definitions and importance of panel management. Residents were given a printed copy of their patient panel and a 20-question chart audit. The chart audit tool was reviewed by the resident involved in this study and was deemed to be a realistic activity to compete over the study period. The chart audit questions were based on the health maintenance and chronic disease tab in Epic. Residents were asked to write a reflection in New Innovations after completing 10 random chart audits on patients in their panel and come up with ideas for how to improve their care.

Results:
Of the 41 residents, 87% completed the chart audits by the deadline and 80% completed the narrative reflection in New Innovations. After the deadline, 95% completed the chart audit and 92% completed the narrative reflection. The residents commented on the observation that they do not complete advance directives frequently in the clinic, do not complete COPD and Asthma action plans, do not regularly screen for osteoporosis in eligible patients and could improve upon HIV antibody and Hepatitis C antibody screening.

Lessons Learned:
Panel management curricula are evolving in primary care training programs. Chart audits are a method of quality improvement by assessing ones' ability to follow clinic guidelines in the care of adult patients. A greater focus on methods to improve panel management in resident clinics is an important area of future research.

Abstract: Faculty Integrated to Resident Scheduling Templates (FIRST)

Author/Presenter: *Sobel, Halle; Swigris, Rachel; Chacko, Karen; Landrey, Alison; McNulty, Monica; Vennard; Kaitlyn; Nickels, Michelle; Suddarth, K.; Murphy, Edward; Aagard, Eva*

Introduction:
Many Internal Medicine residency programs have implemented block-scheduling templates (X + Y models). In an attempt to maximize continuity between supervising faculty and residents in the outpatient setting, some programs have also adjusted faculty precepting schedules to mimic those of the residents. “Intensivist” preceptors are assigned to a cohort of residents and precept this cohort during the majority of the days during their outpatient weeks. In contrast, “traditional” preceptors generally precept one half day per week. Little is known about the impact of these different types of faculty schedules on residents, faculty or the patients they serve.

Methods:
Our study examined the impact of intensivist and traditional faculty scheduling models at two academic medical centers. We examined faculty and resident perceptions of faculty ability to assess resident progress, resident and faculty ability to develop interpersonal relationships with each other, faculty familiarity with residents’ complex chronic patients, and their opportunity to discuss patients and their results both during and in between clinic weeks.

Results:
There were 26 faculty survey responses (83% response rate) and 75 resident survey responses (77% response rate). Intensivist preceptors reported feeling more familiar with the residents’ complex patients (4.00 ± 0.76 vs. 2.88 ± 1.23, $p = 0.05$) and more comfortable evaluating their resident’ performance (4.38 ± 0.52 vs. 3.72 ± 0.67, $p = 0.02$) than traditional preceptors.

Conclusions:
Enhancing continuity between residents and faculty in block-schedule outpatient clinics impacts faculty and, to a lesser extent, resident perceptions regarding faculty ability to assess residents and their familiarity with the residents’ complex patients. In the era of increasing weight on the value on resident assessments combined with a focus on patient outcomes, research assessing the impact of new models of scheduling is needed.

Abstract: Engaging Students and Faculty in the Evaluation of a USMLE Review Product: Implications for Library Collection

Author/Presenter: *Stokes, Alice; Light, Jeanne*

Background:
Study materials for USMLE exams are some of the most commonly requested materials at Dana Medical Library. Many academic health sciences libraries collect exam review materials in support of the medical school curriculum. Hendrix and Hassan established the need for consultation with students and faculty, including trials of online USMLE preparation materials prior to library purchase of such resources.

Description of project:
In Fall 2015, the Dana Medical Library received several student requests for online USMLE preparation materials. Requests came from students preparing to study for Step 1 as well as Clerkship students. Librarians arranged for a trial of a new USMLE test preparation software available for library licensing. The software included content for Step1, Step 2 CK and Step 3 exams. Librarians designed a plan for soliciting student and faculty feedback to inform the purchasing decision.

Methods:
The Dana Medical Library ran a 4-week trial of the USMLE preparation software. Students and faculty were notified of the product trial through meetings, e-mail, signs in the library and social media. Trial participants were invited to complete an anonymous survey at the end of the trial. Survey questions addressed ease of use, quality of content, effectiveness in test preparation, and recommendation for or against purchase.

Results:
Forty students and faculty members participated in the trial. Eighteen responded to the survey (45% response rate). Survey respondents were divided over a recommendation for purchase, with 50% advising against purchase, 37.5% advising for purchase with reservations and 12.5% recommending purchase. Twenty-five percent indicated there were errors in the content. Feedback on the ease of use, quality of questions, and overall performance was also mixed.

Conclusions:
Engaging students and faculty in an online trial provided valuable feedback. Librarians will continue to evaluate and trial new exam review products in collaboration with students and faculty.

Abstract: Calculating Medical Student Loan Default Rates

Author/Presenter: *Tsai, Mitchell; Kristiansen, Karl; Friend, Alexander*

Introduction:
Countless papers and reports have highlighted the issue of medical student debt and the profound implications it has for our society. This debt is driven by a combination of tuition costs and interest rates. (1) According to the Federal Reserve Bank of Minneapolis, interest rates are set based on the following four components: cost of raising capital, operational costs of servicing the loan, a risk premium to compensate for risk of default, and the profit margin.(2) Currently, there are no data on medical student default rates.

Methods:
The Department of Education (DOE) publishes default rates by school, and by cross-referencing with the list of 162 members of the American Association of Medical Colleges, we calculated the default rate for medical students. However, due to incomplete reporting by the DOE, only 25 of the 162 AAMC member schools could be included in the calculation.

Results:

	Default Rate (%)	Number in Default	Number of Payees
Full DOE Dataset	11.69	600,861	5,138,747
All AAMC Members	4.41	19,317	437,670
Health Sci, SOM, & COM	1.29	130	10,114

Discussion:
Based on the data, it appears that the best estimate for the default rate of medical students is 1.29%. As reported by the DOE, the 2010 default rate for all students of federal loans was 14.7 (4). These results suggest that medical students not only have a different risk of default than other students, but a lower risk. This begs many questions, least of all, how are interest rates calculated for medical students? Currently, medical students carry a higher interest rate than undergraduates. From a risk perspective, an argument can be made that medical students should be charged lower rates. The current paper sheds light on an area that is previously unexplored, yet raises more questions.

Abstract: A Survey on the Impact of a Mandatory OR Management Rotation

Author/Presenter: *Tsai, Mitchell; Kristiansen, Karl; Hart, William; Bender, S. Patrick; Davidson, Melissa*

Introduction:
After residency many anesthesiologists move into supervisory roles and are asked to assume operating room (OR) management roles with little training. In an attempt to meet this need, we created a clinical and didactic rotation in 2010 with the goal of teaching anesthesia residents skills for managing health care teams.[1-2] To evaluate this rotation, we developed a study tool and surveyed graduates of the UVM Anesthesiology Residency.

Methods:
We developed and validated a survey which was distributed to two groups of respondents: graduates who completed their training prior to implementation of the rotation ("non-cohort") and graduates who completed the rotation ("post-cohort"). In the survey we asked participants to review the curriculum and rate the utility or perceived utility on their professional practice. Using Microsoft Excel (Redmond, WA) we analyzed the data and calculated both X^2 and Mann -Whitney rank sums.

Results:
There were no statistical differences between the two cohorts in regards to the demographic questions with the exception of number of years in practice. All respondents, non-cohort and post-cohort, largely rated the curriculum as effective or highly effective with no statistical differences between the cohorts ($p \leq 0.05$) across all the survey questions. The attached table further describes the results.

Conclusions:
In summary, we have shown that management and leadership skills can be incorporated into a real-time, clinical environment and that our graduates perceive the importance and implications of this non-clinical, administrative rotation. As program directors reevaluate their curriculum and the impact on future anesthesiologists, we believe that an OR management elective coupled with a redesigned residency program can serve as an important cornerstone for the Perioperative Surgical Home platform.[3]

Abstract: Feasibility of a Multi-Institutional Reading Month on Management and Leadership: Building a Crucible

Author/Presenter: *Tsai, Mitchell; Myrtle, Robert; Haddad, Daniel; Mathews, Jackson; Shirt, William; Logan, Dave*

In 2010, we created a reading elective modelled on the Report of the Lucian Leape Institute Roundtable on Reforming Medical Education, for fourth-year medical students. During the month, participants read through the curriculum and compose four self-reflections on different topics (e.g. leadership, management, value-based health care). In 2012, we added a "crucible" experience during the reading month. Through an electronic discussion board, medical students review one another's reflections and discuss their experiences or opinions. We expanded the availability of the reading elective to Michigan State University College of Human Medicine and to Columbia University College of Physicians and Surgeons and New York Medical College in2015 and 2016, respectively. In this study, we surveyed eight students who completed the curriculum in 2016 using a previously validated survey instrument. Using a 5-point Likert scale, we assessed the applicability of the concepts covered during the month to the operational and process improvement aspects of medical training. All the participants either "agreed" or "strongly agreed" that the course discussions were an integral component. 86% of the respondents stated that had "some", "little", or "no" experience exploring leadership or management frameworks before medical school. Also, all the participants reported having "some", "little", or "no" leadership or management training during medical school; and either "agreed" or "strongly agreed" that leadership and management concepts are important topics that should be included in training programs of future physicians. All of the students "strongly agreed" to utilize and test the concepts introduced in the course. While the potential impact of this curriculum remains to be seen, we would like to point out that the surgical checklist and the standardization of central line placement, two of the major advances in medicine, grew from a small, organic, scalable platform. We believe that this reading elective may be a similar tool.

Abstract: Does the position of the surgery clerkship in the 3rd year correlate with performance on the NBME exam?

Author/Presenter: *Wrenn, Sean; Moore, Jesse; Howe, Alison; Callas, Peter*

Introduction: Medical schools use the National Board of Medical Examiners subject exam (a.k.a. shelf exam) to assess content knowledge at the completion of the surgery clerkship. Students perceive that the clerkship shelf exam focuses on the medical management of surgical disease. Students frequently comment that many of the questions on the shelf exam are more "medical" than "surgical". The effect of clerkship order on NBME exam performance remains unknown.

Methods: We performed a retrospective review of all students at the UVM College of Medicine who took the Surgery NBME exam from April 2010-June 2015 (n=590). Primary outcomes measured were the NBME surgery raw score and percentile score (which adjusts student scores to the timing in which they took the exam). We divided students into those who took the Medicine clerkship exam first (n=120) and those who took the Surgery clerkship first (n=449). Additional data including age, sex, clerkship site, and USMLE Step 1 score were collected to control for confounding. Paired t-test was used to compare scores between groups.

Results: Mean percentile (weighted) scores for students who took the medicine clerkship first was 58.0 (SEM 2.5), compared to a mean score of 54.8 (SEM 1.3) for the group who took the Surgery exam first. This score difference was not statistically significant (p=0.24). We also evaluated raw scores with linear regression analysis to adjust for quarter. The mean score for medicine first was 75.3 (SEM 0.8) compared to 75.0 (SEM 0.4) in the surgery group. This difference was also not statistically significant (p=0.74).

Conclusion: Students who completed the medicine clerkship prior to the surgery clerkship did not perform better on their shelf exam than students who had surgery first. Further investigation with a multi-institutional study is warranted to control for institutional and regional variability, and determine if this is true nationally.

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