#P2 Poster Presentations: Innovations and Lessons Learned

Chairperson: 
Time: 1230-1400
Location: 3rd Floor, CCB

1230-1235

#P2.1 Aligning Requirements of Training and Assessment in Radiation Planning in the era of Competency-Based Medical Education (70)

Authors: 
Catherine de Metz, Kingston General Hospital- Queen’s University, Canada
Maria Kalyvas, Kingston General Hospital- Queen’s University, Canada
Rylan Egan, Queen’s University, Canada
Nikitha Moideen, Kingston General Hospital- Queen’s University, Canada
Eleftherios Soleas, Queen’s University, Canada
Nancy Dalgarno, Queen’s University, Canada

Presenter(s): Nancy Dalgarno, Queen’s University, Canada

Abstract:
Background: Radiation treatment planning is a unique skill that requires interdisciplinary collaboration among Radiation Oncologists (RO), Dosimetrists, and Medical Physicists (MP) to train and assess residents. With the adoption of competency-based medical education (CBME) in Canada, it is essential that residency program curricula focus on developing resident competencies in radiation treatment planning to ensure entrustment.

Research Question: How do radiation oncology team members’ perspectives on optimized experiential treatment planning training align with requirements of competency-based medical education, and what are the practice implications?

Methods: This qualitative research study took place in one academic hospital RO Department in Southern Ontario. Through convenience sampling, focus groups were conducted with ROs (n=11), dosimetrists (n=7), MPs (n=7), and residents (n=7). Thematic design was adopted to analyze the transcripts through open coding resulting in three overarching themes.

Results: The results identified existing strengths and weaknesses of the residency program, and future opportunities to redesign the curriculum and assessment process with a CBME paradigm. Stakeholders were optimistic that CBME was helping to enrich resident learning with the increased frequency and quality of competency-based assessments. All participants believed greater communication about residents’ developmental progress was required between educational stakeholders. Dosimetrists and MPs were interested in participating directly in assessing and coaching residents. Participants across all stakeholder groups suggested building a library of cases so as to provide a safe environment to develop skills in contouring, dosimetry, and plan evaluation.

Conclusions: The interdisciplinary residency education stakeholder consultations approach yielded rich results and common themes emerged. In support of a CBME environment, it is important that all team members communicate effectively, participate in formative assessments, and play a role in coaching residents. The findings inform the modification of treatment planning competency development to better align training and assessment of RO residents in the era of CBME.

1235-1240

#P2.2 Updated Entrustable Professional Activities for a Family Medicine Residency Training Program (111)

Authors: 
Jose Francois, University of Manitoba, Winnipeg, Manitoba, Canada
Bruce Martin, University of Manitoba, Winnipeg, Manitoba, Canada
Terry McCormack, University of Manitoba, Winnipeg, Manitoba, Canada

Presenter(s): Jose Francois, University of Manitoba, Canada

Abstract:
Background: The College of Family Physicians of Canada (CFPC) recently released CanMEDS-FM 2017, an updated competency framework designed for all Canadian family physicians regardless of practice type, location, or populations served. Although the framework defines a set of general attributes of a good family physician, it does not define the actual activities that a competent physician performs in practice. Subsequently, the CFPC released the Family Medicine Professional Profile, which taken together with CanMEDS-FM 2017, forms an overall picture of the roles and responsibilities of Canadian family physicians along with the competencies required to support their work.
Purpose: Using the CanMEDS-FM 2017 framework and the CFPC’s Family Medicine Professional Profile, the University of Manitoba Family Medicine Residency Program sought to refine a list of Entrustable Professional Activities (EPAs) for to guide curriculum development and resident assessment.

Interventions: The residency program developed an initial list of EPAs in 2015 (prior to the release of CanMEDS-FM 2017) and further refined it by integrating new concepts from the CanMEDS-FM 2017 framework and the CFPC’s Family Medicine Professional Profile, as well as through input of local family medicine educators at the University of Manitoba using a modified Delphi process.

Results/applications: A list of 25 updated EPAs was developed which collectively defines the type of care that the family medicine residency graduate should be trusted to perform competently upon graduation.

Future Directions
Updated EPAs will be rolled out in the 2018-2019 academic year and the program will monitor how these EPAs perform.

#P2.3  Resident Driven Portfolios - Enhancing Self Assessment (122)

Authors:
Robyn Doucet, Dalhousie University, Halifax, Canada
Shannon Bradley, Dalhousie University, Halifax, Canada
Cindy Shearer, Dalhousie University, Halifax, Canada

Presenter(s): Janice Chisholm, Dalhousie University, Canada

Abstract:
Background: In July 2016, Dalhousie University’s anesthesia residency program transitioned from a traditional, time-based model to a competency-based model. The new model is structured around well-defined Entrustable Professional Activities (EPAs), developed at the Royal College of Physicians and Surgeons of Canada, required training experiences and assessments, and a resident-driven e-portfolio system to track resident progress and EPA achievement. This learner-directed system of demonstrating competence is believed to better develop self-assessment and reflection skills than the previous time-based approach or other competency-based models with more prescriptive assessments.

Purpose: The introduction of the self-directed e-portfolio offers a unique opportunity to understand how resident self-assessment works in the context of CBME.

Intervention(s)
The e-portfolio system is a multidimensional tool designed for residents to illustrate that requirements and competencies are met at each stage of training. Residents update their e-portfolio on a regular basis and provide evidence (documentation) that demonstrates achievement of EPAs. When they feel there is enough evidence to demonstrate competence in an EPA, they request a competence committee review. The committee reviews the evidence and determines whether the EPA has been achieved or if further evidence is required.

Results/Applications: Although residents receive suggestions on documentation (assessments, reports, faculty observations) that constitute proof of competency, this process is learner-directed and not well understood. We will provide an exploration of this process, informed by document review and qualitative interviews with residents, highlighting its impact on self-assessment skills, linkages with individual perceptions of competence, and suggestions for optimizing the e-portfolio system.

Future Directions: The resident-driven e-portfolio offers several opportunities to examine how trainees self-assess their competence. There may be opportunities to further examine group decision making and trends towards determining “how much evidence is enough?” in this context. Finally, there will be opportunities to examine the correlation between learner and competence committee assessment.

#P2.4  Canadian CBME National Leads: Building a Network for Successful CBME Implementation (127)

Authors:
Joan Binnendyk, Western University, London, Canada
Shannon Venance, Western University, London, Canada
Anna Oswald, University of Alberta, Edmonton, Canada
Christina Tremblay, Northern Ontario School of Medicine, Sudbury, Canada
Anna Oswald, University of Alberta, Edmonton, Canada
Alan Chaput, University of Ottawa, Ottawa, Canada
Sohaib Al-Asaaed, Memorial University, St. John’s, Canada
Kirsty Tompkins, Memorial University, St. John’s Canada

Presenter(s): Joan Binnendyk, Western University, Canada
Abstract:
Background: The Royal College of Physicians and Surgeons of Canada’s (RCPSC) branded vision of competency-based medical education (CBME), Competence by Design (CBD), requires ongoing support in translating elements of nationally-designed residency training in a manner respectful of local contexts.
Purpose: Postgraduate Deans supported CBME experts nationally to network and provide leadership for the implementation of CBME in cooperation with the RCPSC. This national collaboration shares lessons learned, policies, communication strategies, and faculty development initiatives while acting as both a bidirectional conduit between national and local stakeholders as well as local champions of change implementation.
Interventions: An initial ad-hoc assembly of three faculty CBME Leads formed in 2015 grew to a network of 34 faculty and educationalists representing all 17 Canadian medical schools. The CBME Leads Network convenes regularly via teleconference and has expanded to include broad representation from the RCPSC governing body.
Results/Applications: An analysis of the network’s endeavors has identified themes categorized into strengths, challenges, opportunities, and threats. Streamlined communication, co-creation of resources, and collaborative troubleshooting continuously advance their mandate; however, imbalanced participation, disparate perceptions of issues, and lack of power challenge it. While this network could be jeopardized by declining participation, ambiguous responsibilities, and questionable trust, there remains great opportunity in its progressive collaboration and resource creation owing to the varied backgrounds and skillsets of the CBME Leads.
Future Directions: The long-term viability of a collective human endeavour, such as the CBME Leads Network, necessitates i) continued commitment; ii) enduring resources; iii) a cooperative and trusting environment; and iv) succession planning. Periodic evaluation of outcomes and member satisfaction surveys may aid in sustaining engagement in the group. Medical education organizations interested in establishing a national network can look to the presented guiding principles to determine how best to do so within their own context.

#P2.5 Transitioning to Competency Based Medical Education: Challenges and strategies for pragmatic implementation in a non-procedural based specialty (130)

Authors:
Sohaib Al-Asaaed, Memorial University, St. John's, Canada
Tina Hsu, University of Ottawa, Ottawa, Canada
Nazik Hammad, Queen's University, Kingston, Canada
Som Mukherjee, McMaster University, Hamilton, Canada
Nazik Hammad, Queen's University, Kingston, Canada
Sanraj Basi, University of Alberta, Edmonton, Canada
Xinni Song, University of Ottawa, Ottawa, Canada
Tamara Shenkier, University of British Columbia, Vancouver, Canada
Jan-Willem Henning, University of Calgary, Calgary, Canada

Presenter(s): Sohaib Al-Asaaed, Memorial University, Canada

Abstract:
Background: Competency-Based Medical Education (CBME) is rooted in frequent assessments, including frequent direct observation. Procedural based specialties lend themselves to direct observation as such habits are embedded into the culture of these training programs. In contrast, trainees in non-procedural based specialties are often implicitly entrusted early on with patient assessment and clinical management tasks. Due to multiple factors, entrustment within this context is not usually informed by direct observation but rather assumed by supervisors of training. The Royal College of Physicians and Surgeons is implementing Competence by Design (CBD), a hybrid form of CBME and classical time-based residency education. As an early non-procedural based specialty adopting CBD, medical oncology began the design process in 2014.
Question: The question was what structural and process elements can facilitate the design of a CBD training program for a non-procedural specialty? The aim is to produce a final product that would be applicable to a variety of local health delivery contexts and training program structures.
Methods: Four in-person workshops, multiple teleconferences along with feedback from a national field test informed the final design product. This final product included the composition of Entrustable Professional Activities (EPAs), Required Training Experiences (RTEs) and varied work-based assessment tools.
Results: The process of designing the medical oncology training program extended over a four-year period. Several factors influenced the process and final design product, both intrinsic and extrinsic to the specialty. Structural changes to facilitate the culture change of frequent direct observation were accentuated.
Conclusion
The development of curricular structures and processes required to implement CBD is feasible in a non-procedural specialty. The creation of a collaborative community of program directors and key faculty facilitated the implementation and culture change inherent in a CBD-based medical oncology program. National collaborative projects can address shared challenges in CBD implementation.
2018 World Summit on CBME

1255-1300
#P2.6 Documenting Work-based Assessments with Entrada: How long does it really take? (131)

Authors:
Laura McEwen, Queen’s University, Kingston, Canada
Andrew Dos-Santos, Queen’s University, Kingston, Canada
Mary Bouchard, Queen’s University, Kingston, Canada

Presenter(s): Laura McEwen, Queen’s University, Canada

Abstract:
Background: It has been acknowledged that the move to competency-based models of residency education with an emphasis on work-based assessment (WBA) will involve increased time and effort on behalf of faculty (Hawkins et al 2015; Massie & Ali 2017). Advances in technology to support WBA have been identified as potential means for offsetting some of this increased assessment burden (Lockyer et al. 2017).

Purpose: Given the anticipated advantage of technology facilitated WBA and our robust Entrada platform we sought to explore how long the act of documenting a WBA actually took.

Intervention: Our platform enables programs to develop a range of WBA tools customized to program needs including: supervisor and procedure forms, field notes, rubrics, and periodic performance assessments (PPAs). Our system collects trace data on the length of time required to complete each of these WBA tool types.

Results: Overall, documenting resident performance with technology facilitated WBA tools ranged between 1 minute, 92 seconds and 2 minutes, 39 seconds.

Breakdown by WBA tool type:
Supervisor Form 141.99 (2min. 37secs) on average based on 2430 completed forms to date
Procedure Form 117.60 (1min. 96secs) on average based on 431 completed forms to date
Field Note Form 143.41 (2min. 39secs) on average based on 458 completed forms to date
Rubrics 119.28 (1min. 99secs) on average based on 227 completed forms to date
PPAs 114.93 (1min. 92 secs) on average based on 302 completed forms to date

It is important to note that these values are the time required to complete the WBA and do not include time required to observe resident performance and provide feedback.

Future Directions: It will be interesting to explore whether values reduce over time as users become more familiar with the technology and how innovations like the ‘talk to text’ feature in our app impact these.

1300-1305
#P2.7 Highlighting Entrada Competency-Based Assessment Features used at Queen’s University (132)

Authors:
Mary Bouchard, Queen’s University, Kingston, Canada
Andrew Dos-Santos, Queen’s University, Kingston, Canada
Laura McEwen, Queen’s University, Kingston, Canada

Presenter(s): Mary Bouchard, Queen’s University, Canada

Abstract:
Background: On July 1st 2017, with permission from the Royal College of Physicians and Surgeons of Canada, Queen’s University launched competency-based educational models across 29 residency programs. Central to this institution-wide shift was the implementation of programmatic approaches to assessment that emphasize direct observation and documentation of resident performance in real time.

Purpose: Recognizing the need for a robust technological solution to support this transition, Queen’s enlisted our Education Technology Unit to develop a module to support CBME within Entrada.

Intervention: Working closely with faculty, residents, medical education experts, and institutional leadership, our Education Technology Unit developed a flexible competency-based assessment system into Entrada.

Results: This iterative and collaborative process resulted in a flexible assessment and evaluation system for CBME that was guided by sound educational rationale. Our system includes point of care data collection and aggregation, advanced display functionality, and is customizable to differential program needs. Our CBME Resident Dashboard supports residents and faculty to monitor performance in real time and track patterns of performance over time. In this presentation we share our collaborative development strategy and speak to the exciting Entrada functionality that has enabled us to achieve our institutional goal of a smooth transition to CBME.

Future Directions: Expanding our iterative, collaborative process by eliciting feedback from the wider community through survey methodology to ensure continued engagement and establish future development priorities.
Using Concept Maps to Address Competence of Athletic Therapy Students with Evidence Informed Practice

Authors:
Lynne Lafave, Mount Royal University, Calgary, Canada
Mark Lafave, Mount Royal University, Calgary, Canada
Michelle Yeo, Mount Royal University, Calgary, Canada

Presenter(s): Lynne Lafave, Mount Royal University, Canada

Abstract:
Background: Athletic therapy (AT) is an allied health profession that, like medicine, requires competence in evidence-informed practice (EIP). The “scholar” role is one of seven comprising the CanMeds competency framework. AT programs need to build educational strategies to establish EIP and measurement tools that demonstrate student competence. Currently, there are no measurement tools to assess EIP competence for AT in Canada.

Summary of Work: A rubric was developed to assess the EIP concept maps as a measure of student EIP competence. One AT faculty member and one educational researcher participated in the validity and reliability testing of the rubric. Validators were blinded and assessed 15 maps on the dimensions of breadth, relationship, complexity, and global rating. In a pre-post design, students initially engaged with EIP concepts through reading, discussion, and assessment. Six weeks later, students engaged in an EIP concept mapping assignment that was assessed using the rubric.

Summary of Results: To demonstrate validity, aggregate scores for breadth, relationship, and complexity dimensions correlated with global rating for both raters (r=.91 p<.001; r=.93 p<.001). Interrater reliability of the rubric was assessed for aggregate score (ICC=.56; p=.01) and global rating (ICC=.41; p=.05). There was a statistically significant (p<.001) improvement in EIP assessment after concept mapping activity (M = 87.0, SD=11.8) compared to reading and discussion (M = 40.8, SD=22.9).

Discussion & Conclusions: EIP is important in medical and allied healthcare professions. However, AT students seem to undervalue the importance of it requiring creative learning strategies to engage their learning and competency development. EIP competence was established in this case, but future research should apply these same techniques and tools on a larger sample.

Take-home Messages: Evidence informed practice competency in the Athletic Therapy profession is important and require measurement tools to establish competence.
All students improved their final graded notes, 86% receiving honors. Students (n=48) grades markedly improved after feedback. (Pretest M=80.85, SD=10.98, and Posttest M=93.27, SD=4.97; t(46)=-8.019, p = .0001). Post-hoc analysis suggests students who did not receive a first note grade performed as well on the final note score as students receiving a mid-clerkship grade. For students without a mid-clerkship grade, the mean final grade was 93.29 (SD=3.82). For students given a mid-clerkship score, the mean posttest grade was 93.27 (SD=4.97). These analyses question whether evaluation scores are instructive.

All Students in this study improved their ability to write an accurate and complete patient note. We learned our feedback is working. There was not a control group who did not receive feedback, so we cannot know whether feedback was singularly responsible for the improved final grades. We will continue to develop and test our feedback approach.

1315-1320
#P2.10 Updated Entrustable Professional Activities for a Family Medicine Residency Training Program (110)

Authors:
Jose Francois, University of Manitoba, Winnipeg, Manitoba, Canada
Bruce Martin, University of Manitoba, Winnipeg, Manitoba, Canada
Terry McCormack, University of Manitoba, Winnipeg, Manitoba, Canada

Presenter(s): Jose Francois, University of Manitoba, Canada

Abstract:
Background: The College of Family Physicians of Canada (CFPC) recently released CanMEDS-FM 2017, an updated competency framework designed for all Canadian family physicians regardless of practice type, location, or populations served. Although the framework defines a set of general attributes of a good family physician, it does not define the actual activities that a competent physician performs in practice. Subsequently, the CFPC released the Family Medicine Professional Profile, which taken together with CanMEDS-FM 2017, forms an overall picture of the roles and responsibilities of Canadian family physicians along with the competencies required to support their work.

Purpose: Using the CanMEDS-FM 2017 framework and the CFPC's Family Medicine Professional Profile, the University of Manitoba Family Medicine Residency Program sought to refine a list of Entrustable Professional Activities (EPAs) for to guide curriculum development and resident assessment.

Intervention: The residency program developed an initial list of EPAs in 2015 (prior to the release of CanMEDS-FM 2017) and further refined it by integrating new concepts from the CanMEDS-FM 2017 framework and the CFPC’s Family Medicine Professional Profile, as well as through input of local family medicine educators at the University of Manitoba using a modified Delphi process.

Results/Applications: A list of 25 updated EPAs was developed which collectively defines the type of care that the family medicine residency graduate should be trusted to perform competently upon graduation.

Future Directions: Updated EPAs will be rolled out in the 2018-2019 academic year and the program will monitor how these EPAs perform.

1320-1325
#P2.11 Approaching competency-based medical education (CBME) with Backward Design (138)

Authors:
Shima Tabatabai

Presenter(s): Shima Tabatabai, Shahid Beheshti University of Medical Science, Iran

Abstract:
Competency-based medical education (CBME), organized around a set of national competencies and learner outcomes, has inspired a transformational shift in medical education. This shift required medical education programs to re-examine curricular content and outcome measures uses national professional standards to shape curricular design and assessment of learner outcomes as well as to provide clarity to the learner about the knowledge, skills, and attitudes needed for successful independent practice.

An Innovative Strategy that provides a practical structure for approaching CBME medical education is Backward Design. Backward Design is an instructional design model that proposes instructors start with outcomes and work backward to design appropriate assessment tools and curricular content. Backward design can be applied to medical education by beginning with the national standards or competencies for medical education, defining outcomes and assessment methods, and then defining curricular content.

Backward Design model consists of the following components.
1. “Determining Desired outcomes.” to define what criteria or performance standards are necessary for students mastery.
2. ‘Determining Acceptable Evidence.’ To encourage the medical educator to identify appropriate assessment methods.
3. ‘Plan Learning Experiences and Instruction’ to analyze what is “enduring knowledge,” “important to know or do”, and “worth being familiar with”.

At the end, teaching strategies are considered.

Medical educators may find backward design a useful instructional design methodology as they begin to shift their curriculum to competency-based outcomes. It provides a framework and strategy for thinking through measurement of competency as well as for identifying key curricular content and linking it to outcomes. Using this model in CBME is likely to result in learners having clearer expectations of what they need to learn and outcomes related to national standards.

1325-1330
#P2.12 Leveraging Smartphones to Facilitate Feedback Based on Direct Observation in Clinic: Implications for Competency-Based Assessment (88)

Authors:
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Matthew McClure, Zucker School of Medicine, Hempstead, USA

Presenter(s): John Q. Young Matthew McClure, Zucker School of Medicine at Hofstra/Northwell, USA

Abstract:
Background: Competency-based assessment programs rely upon faculty providing feedback based upon the direct observation of the learner.

Purpose: The authors set out to test whether a smartphone-based application would facilitate faculty feedback.

Interventions: An iPhone application was developed. When opened, the application prompts faculty to: 1. Choose the resident; 2. Choose the EPA the resident is performing; 3. Complete an entrustment scale that indicates what level of supervision the trainee requires; 4. Enter via the iPhone keyboard or microphone ‘one thing the trainee can do to advance to the next level’; and 5. Press submit. The feedback is then emailed to the trainee and the faculty member and also uploaded to a run chart on the training program’s server. The run chart visualizes the progression of the trainee’s entrustment ratings over time. After initial alpha testing, the authors conducted a pilot study in which faculty in a second year outpatient clinic were asked to alternate their use of the iPhone application with a previously validated paper-based assessment tool.

Results: Initial alpha testing established the feasibility and usability of the application. With relatively little training, faculty were able to download and successfully use the application. The mean time to enter the feedback was less than 30 seconds. Thematic coding of the feedback indicated that the quality of the feedback was behaviorally specific and corrective and generated only one such comment per observation compared to over 5 from the paper-based too.

Additional results from the pilot study are not yet available but will be for the conference.

Future Directions: The application will be modified and improved based on feedback from the faculty and learners during the pilot study. We will then test the application in a multi-site study. Multiple specialties have expressed an interest in potentially adapting this application.

1330-1335
#P2.13 The SEXTANT: An innovative CanMED-FM competency-based intervention to support family physicians’ continuing professional development (114)

Authors:
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Stephane Groulx, Quebec Chapter of the College of Family Physicians of Canada
Roland Grad, McGill University, Montreal, Canada
Leonora Lalla, McGill University, Montreal, Canada
Roland Grad, McGill University, Montreal, Canada
Marie Josée Campbell, Quebec Chapter of the College of Family Physicians of Canada
Meron Teferra, McGill University, Montreal, Canada

Presenter(s): Francesca Luconi, McGill University, Canada

Abstract:
Background: In Canada, the upcoming competency-based continuing professional development (CB-CPD) is rooted on the competency-based medical education (CBME) model and the CanMED Family Medicine framework. CB-CPD entails a paradigm shift to support physicians’ progress in competence, self-directed learning, and self-assessment (SA). Family physicians’ (FP) self-assessment (SA) is often inaccurate, hence effective SA objective measures related to specific medical conditions are needed.
2018 World Summit on CBME

Purpose: to develop and evaluate the validity of the SEXTANT tool which assesses family physicians’ competence in relation to two medical conditions and to develop, and evaluate the effectiveness of a CB-CPD outcome-based intervention. This study covers three phases: needs assessment; SEXTANT tool development and the CB-CPD intervention.

Intervention: this theory-driven, multifaceted, certified CB-CPD intervention lasts 12 months. Driven by identified gaps in relation to the two medical conditions, FPs will be able to develop a personal learning plan (PLP) and select relevant CPD activities/resources to fulfill those gaps. Outcomes measures assess these outcomes: satisfaction, relevance, competence, knowledge/skills, reported performance and expected patient benefits.

This is a longitudinal, theory-driven, evaluation case-study with mixed methods. Data collection lasts 12 months. Needs assessment combined with an interdisciplinary panel identify two clinical conditions and develop the SEXTANT tool. Two groups (i.e., 15-20 and then 150) of FPs complete the SEXTANT tool to assess its usability and content validity. Data analysis includes descriptive statistics, factor analysis, content analysis and triangulation of sources.

Applications: Findings of this study will benefit various stakeholders. Family physicians will be able to assess their clinical performance beyond the medical expert role and improve other intrinsic CanMEDS competencies. The SEXTANT tool could be used by Faculty Development for clinical teaching and traineeship; CBME and CB-CPD will be better aligned within the educational continuum in medical education. Finally, CPD providers will offer effective training to facilitate the implementation of CB-CPD.

1335-1340
#P2.14 Designing a New CBME Palliative Medicine Residency Program (133)

Authors:
Ingrid Harle, Queen’s University, Kingston, Canada
Laura McEwen, Queen’s University, Kingston, Canada

Presenter(s): Laura McEwewn, Queen’s University, Canada

Abstract:
Background: The Royal College of Physicians and Surgeons of Canada (RCPSC) recently designated Palliative Medicine as a 2-year subspecialty residency program. Medical schools wishing to implement this program were required to prepare an Application for Accreditation. The application is based on the Objectives of Training (OTRs) set out by the National Subspecialty Committee. Regrettably, version 1.0 of the of the Objectives Of Training In The Subspecialty of Adult Palliative Medicine published in 2016 were developed based on the CanMEDS 2005 Framework.

Purpose: Given the work involved in developing a new program we felt it prudent to adopt a competency-based educational model and share our developmental process.

Intervention: Our initial task required mapping the Adult Palliative Medicine 2016, version 1.0 OTRs to the CanMEDS 2015 Framework. We then developed Entrustable Professional Activities (EPAs) for each of the four RCPSC stages of training. The 32 key tasks (EPAs) a graduate of the discipline must be able to perform represented our CBME program outcomes. EPAs were then mapped to CanMEDS 2015 Enabling Competencies. We then mapped EPAs to rotations, developed rotation-specific goals based on EPAs assigned to each rotation, and developed lists of rotation-specific objectives based on the CanMEDS enabling competencies. Subsequently, we developed stage specific assessment plans that identified which assessment tools would be used for each EPA, defined the number of required completed assessments, and stipulated the required mix of assessors, case complexity, diagnoses, and settings where appropriate. Through this extensive curriculum mapping process we ensured the alignment between rotation-specific goals and objectives and assessment activities.

Results: The RCPSC Residency Accreditation Committee accredited our new program and noted the adoption of a CBME model as a particular strength.

Future Directions: We conceptualize this as an iterative process and continue to refine our program as we learn from initial implementation.

1340-1345
#P2.15 CBME Scholarship: At the Confluence of Standardization, Facilitation, and Innovation (115)

Authors:
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Richard van Wylick, Queen’s University, Kingston, Canada
Damon Dagnone, Queen’s University, Kingston, Canada
Laura McEwen, Queen’s University, Kingston, Canada
Damon Dagnone, Queen’s University, Kingston, Canada
Ross Walker, Queen’s University, Kingston, Canada
Leslie Flynn, Queen’s University, Kingston, Canada
Richard Reznick, Queen’s University, Kingston, Canada
Denise Stockley, Queen’s University, Kingston, Canada
Presenter(s): Denise Stockley, Queen’s University, Canada

Abstract:
Innovation: Starting with the 2017 post-graduate cohort, Queen’s University was the first Canadian Medical school to transition all residency programs to CBME. Successful implementation has required a balance between standardization and exploration. Specifically, our implementation has included standardized tagging of Entrustable Professional Activities, assessment processes and tools and database architecture. To allow for exploration we have actively facilitated CBME scholarship through a partnership with the CBME executive team and CBME champions, and active collaboration by the Office of Health Sciences Education (OHSE) which has provided faculty a central location to collaboratively transform questions, concerns, and ideas into scholarly projects.

Outcomes: The CBME Executive Team set a strategic direction to encourage physicians’ CBME scholarship. Our initial priority was to enable Program Directors, who in turn facilitate the scholarship of physicians both within their specialty, and across specialties. Through a series of scholarship workshops and direct consultations/support/work with the team from the OHSE we achieved this outcome. Essential to this initiative has been the cultivation of internal funders such as the Maudsley Foundation, the Southeastern Ontario Academic Medical Organization, and Postgraduate Special Purpose Grants culminating in over $250,000 of funding. Since 2014, 65% of specialty and subspecialty programs have received funding in collaboration with the OHSE and collaborators. Diverse topics of interest have included resident readiness and awareness, assessment needs and preferences, curricular innovation and change, and faculty needs and concerns.

Conclusion: Effective CBME implementation requires the simultaneous provision of implementation frameworks, standardized tools and processes, and support for autonomous exploration, challenge, and inquiry. Scholarship has allowed faculty to customize processes, find solutions to complex implementation challenges, and take ownership and pride in transition. In our presentation we will highlight the opportunities, challenges, and our lessons learned in the promotion of scholarship.

1345-1350
#P2.16 Implementing CBME in a times-based world: Innovations and Lessons Learned (117)

Authors:
Dawn Harris, University of Michigan, Ann Arbor, USA
Larry Gruppen, University of Michigan, Ann Arbor, USA

Presenter(s): Dawn Harris, University of Michigan, USA

Abstract:
Background: The University of Michigan is one of the largest public research institutions in the United States. The Master of Health Professions Education (MHPE) program is currently the only competency-based masters program at the UM and possibly the only completely competency-based masters program in health professions education in the world. The MHPE program is EPA based, not time based, so learners earn their degree by selecting and submitting a combination of Entrustable Professional Activities (EPAs) that map onto 12 core competencies. The EPAs provide a framework for learning about educational theory, practice, and outcomes through the learner’s current professional responsibilities (e.g., designing a curriculum).

Purpose: Lack of institutional administrative support is the biggest challenge in fitting a competency-based educational program into a traditional, time-based credit hour environment. There are no examples within the UM or outside to draw from. As such, many processes and procedures did not exist and had to be developed and adapted to fit into the legacy system.

The individualized character of the program allows a student to develop a custom learning plan that allows each student to progress through the program at their own pace. This presents programmatic challenges for tracking learner progress because each learning plan is tailored to the learner and every EPA submission is unique.

Intervention: To overcome the challenges, we created courses in the legacy system as placeholders and register students for one course each semester. We also created a database to track and archive student demographics, student academic progress, and programmatic data.

Results/Applications: After 5 years, the program currently has 23 learners enrolled in the program and 7 graduates. 100 EPAs have been submitted and assessed to date.

Future Directions: Finding synergies with the residency and medical school programs that take advantage of the innovations developed for the MHPE.

1350-1355
#P2.17 Clerkship Assessment Tools During the Transition to Undergraduate Competency Based Medical Education (CBME) (86)

Authors:
Mila Kolar, Queen’s University, Kingston, Ontario, Canada
Abstract:
Reframing medical education within the CBME context, with the use of Entrustable Professional Activities (EPAs) requires changes to systems of assessment including increased frequency of formative and summative assessments, and increased specificity and quality of feedback.
As part of undergraduate medical education (UGME) competency-based curricular framework at Queen’s University School of Medicine we developed new formative workplace-based assessment tools to meet the increasing demand to accurately document direct observation of learners’ performance in the clinical learning environment.
Our initial goal was to replace the existing formative workplace-based assessment form, which included Likert scale and check boxes, with two behavioral-anchored rubrics to increase specificity and quality of feedback for the Surgery Clerkship.
As part of the overall development of the UGME procedural skills curriculum, a separate system of assessment for Clerkship procedural skills was also developed concurrently (Patterson, Katsoulas, Hastings, Sanfilippo, & Jaeger, 2017). Ultimately, two rotation specific rubrics for the Surgery clerkship and procedural skills rubrics were developed.
The rubrics identify areas that provide “opportunities for growth” for students, areas they are still developing (i.e. “approaching standard”), and areas in which they are “achieved the standard.” The standard here is defined by the behavioral anchors. Assessor feedback during development of rubrics assisted in ensuring that metrics of performance accurately reflect reasonable expectations of students.
Development of an assessment system for the Surgery Clerkship rotation, based on rubrics with explicit behavioral descriptor support faculty and residents to formulate judgments about a student’s clinical performance, enhanced the quality of feedback to students, helped course director to monitor students’ progress over the course of their rotations and to identify students in need of additional support earlier in their clinical training. Rubric-based assessment tools can be a valuable form of assessment within an EPA/CBME curricula.