CAEP Feature Innovation Case Report

Name of Innovation	MERIT- Medical Education for Residents In Training
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Description of the Innovation	**Background** Residents are often expected to teach fellow learners, and may not have received any formal instruction about educational theory or specific teaching methods or techniques. The methods of teaching about how to teach vary in each program's curriculum, and often consist of lectures or workshops of various duration. We developed an innovative four week elective rotation for RCPS EM residents to introduce the concepts of educational theory, bedside teaching techniques, feedback, and teaching approaches (e.g., lectures, procedures, small group tutoring). Residents were given the opportunity to practice their bedside teaching skills during scheduled teaching shifts that were observed in the ED. **Needs Assessment** The MERIT rotation was developed based on an environmental scan of other 'residents as teachers' programs and a needs assessment with emergency medicine residents at UBC. Based on the results of the needs assessment and environmental scan, a pilot was developed and introduced in January 2011 and repeated in November 2011. Since then, it has become a regular rotation for the RCPS residents in their R5 year (2013, 2014). **The Innovation** Four RCPS EM residents participated in January 2011 (one R5, one R4, two R2's), and three participated in November 2011 (two R5s, one R4). There were five R5's in each block in the fall of 2013 and 2014. During the four weeks rotation, each week begins with a small group interactive session led by an EM faculty member. Based on the needs assessment data, session topics included: learning theory, effective bedside teaching techniques,

one minute preceptor, providing feedback, teaching procedural skills, effective lectures, etc. These interactive discussions provided a foundation for residents to learn about and reflect on approaches to effective teaching.

In addition to the small group discussions, during each week residents completed teaching shifts in the ED. The objective of these shifts was to integrate the weekly discussions into practice, reflect on action, and obtain feedback on their performance. During these teaching shifts residents interacted with both junior residents and medical students. Throughout the week some of these shifts were directly observed by a faculty member involved with the MERIT curriculum who provided formative feedback to the MERIT residents to improve performance. In addition MERIT residents were asked to self-reflect on their own performance.

Finally, each week ended with a debriefing session during which faculty members provided constructive feedback and discussed residents' progress. As well, this 'end of week' discussion also allowed residents to discuss with each other their lessons learning, challenges and reflective thinking.

The four weeks block began with a four station OSTE adapted from validated OSTEs for an internal medicine curriculum, and modified to appropriate emergency medicine scenarios. Junior residents and medical students were recruited as standardized learners (i.e., actors) for each station, and emergency medicine faculty were trained as assessors. Validated assessment tools were used to rate MERIT residents on their teaching approaches and each station was videotaped and scored for the first two iterations in 2011. This process was repeated at the end of the rotation in order to compare pre/post teaching performance. A paired-samples *t*-test was used to evaluate the pre/post OSTE scores (2011 only).

In addition, the 'end of week' discussions were also used to collect perspective data from the residents. This included debriefing with residents about reactions to the overall rotation, the challenges and opportunities faced during the week as well as any feedback or suggestions on improvement for the future. This data was collected in a focus-group style discussion.

Based on the 'end of week' focus groups, residents felt that their teaching skills improved as a result of the MERIT rotation. In addition, residents felt the OSTE stations' scenarios required further modification to more closely mimic the situation in the ED. Overall they felt that MERIT would be beneficial for senior residents, and that it prepares them well for successful teaching while addressing the challenges of running a busy ED.

Conclusions

Feedback from residents was positive and they felt that MERIT provided a valuable opportunity to learn more about how to effectively teach in the ED. The implementation of MERIT also provided needed departmental support and recognition of the critical role residents play in the education of colleagues, fellow

	residents and medical students. While very few residents are naturally gifted teachers, it is widely understood that teaching can be learned and refined over time as long as it is responsive to residents' level of training and integrated into their daily work. Being an effective educator is foundational to being a competent physician, and programs to improve resident teaching skills should be mandatory for all postgraduate trainees.
	In addition, the OSTE pre/post analysis in 2011 revealed a significant improvement of residents' teaching over the course of the four-week rotation.
	Limitations
	There has not been any further analysis of the pre/post OSTE data since 2011, and the actual impact on teaching skills after graduation has not been assessed.
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