## **Great Evidence in Medical education Summary (GEMeS)**



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Education Question or Problem	Generalist programs such as emergency medicine (EM) require a substantial number of work place based assessments to evaluate residents in a competency based model.  Does the development of such assessments improve the quality of resident feedback?
Bottom Line	Work-based assessments completed on a daily shift basis clearly improve the quality of end of rotation reports and appear to increase the incidence of daily formative feedback.
Why is it relevant to Emergency Medicine Education?	This study shows that by defining clinically identifiable EM tasks, and using those as a basis for providing feedback, the quality of feedback can be improved. All programs struggle with providing effective feedback to learners. This educational development gives us a fresh way of providing feedback for now, and indicates a reasonable path towards true competency based emergency education.
Study Design	Single centre pre and post intervention evaluation of rotation report quality.
Funding sources	McMaster University Division of Emergency Medicine.
Setting	McMaster University Emergency Medicine Residency Training Program.
Level of Learning	Postgraduate Years 1 and 2.
Synopsis of Study	The group developed a series of 52 EM-specific Work-Based Assessment (WBA) instruments structured as partial mini-clinical evaluation exercises, which were reviewed and adapted by a panel of American and Canadian staff and residents. The panel matched the instruments to specific CanMEDS or ACGME competencies, checked for relevance and during this process dropped 10 of the WBA tools.
	Every shift, residents were observed by the attending physician, who rated the performance of a specific defined task and their global performance. The observation and documentation time was approximately 5-10 minutes per shift. There was a requirement for narrative comments to augment the numerical scores and stimulate formative end of shift feedback.
	The assessments were entered into a central online portal and used to create a qualitative end of rotation report discussing 1) Specific task performance 2) Global performance 3) Tailored continuous improvement advice.
	To determine efficacy, 25 pre-intervention end of rotation reports were compared, by two independent reviewers, to 25 post-intervention reports for quality with the Completed Clinical Evaluation Report Rating (CCERR) tool which has been validated across a wide range of specialties. There was a doubling in the quality scores from 13.8/45 to 27.5/45 ( $p$ < 0.001), all nine item sub-scores also increased significantly and resident focus groups indicated a

	greater incidence of formative feedback.  All indicating that rotation reports generated from multiple directed daily evaluations were superior to the traditional single faculty recall system.
Reference	Acad Med. 2015 Apr 15. [Epub ahead of print]
	The McMaster Modular Assessment Program (McMAP): A Theoretically Grounded Work-Based Assessment System for an Emergency Medicine Residency Program.
	Chan T, Sherbino J; McMAP Collaborators.
	PMID: 25881648
	DOI: 10.1097/ACM.000000000000707
Hyperlink to PubMed link or Journal Link	http://www.ncbi.nlm.nih.gov/pubmed/25881648