1e. "Consistency of Expertise in a Decentralized Primary Care Teaching Network"

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Many medical schools have increased primary care educational experience to ensure appropriate exposure to the concept and skills needed to provide these patient care services. The patient encounters required for primary care student education are not usually available within the traditional boundaries of most medical schools. To provide these expanded primary care experiences requires the use of private community clinical venues such as community health centers, health departments, and community generalist residency programs. Although these additional community teaching venues provide excellent opportunities to access large undifferentiated patient populations, the quality of educational experiences is dependent on the subset of patients chosen for student education, the teaching ability of community-based faculty, and the effective integration of student education to the busy setting of primary care.

The experiences of a required six-week Family Medicine Clerkship (FMC) designed for 180 medical students at the Medical College of Georgia (MCG) is used as the basis to identify strategies to decentralize large required clinical educational programs. The Family Medicine Clerkship required access to additional clinical venues to ensure that 180 medical students received a broad-based exposure to problems frequently seen in the clinical setting of primary care. Based on published and unpublished data, and collaboration between University and community faculty, students were required to participate in the full evaluation of approximately 120-140 patients per six-week period. It was felt that evaluating less than 120 patients increased potential for inadequate exposure to the required spectrum of primary care problems, while more than 160 patients decreased potential to perform comprehensive patient evaluations.

To support the FMC at MCG a network of teaching sites had to identify greater than 20,000 patient encounters annually. These required patient encounters were not the only patients seen by students since opportunities for patient contact in an observer or operational role were also made available. The goal of the FMC was to ensure students had exposure to frequently occurring problems in primary care, as a part of the provision of comprehensive and continuous health care services.

Since many teaching sites had limited access to electronic medical information systems, it became necessary for the FMC to provide computer-based resources and access to medical information databases. Using the Internet as the information infrastructure that allowed site to site connection, the teaching site computer-based resources were linked to a central medical information database at the MCG library and department specific servers. Each teaching site was also provided a consistent hardcover text and journal library resources.

To prepare the University and community-based faculty for their teaching responsibilities, a faculty development program was developed. The first meeting introduced teaching and evaluation guidelines and was used as the platform to develop the initial design of the Clerkship's curricular. The meeting resulted in course activities consistent with diverse clinical resources of the various teaching sites. This initial faculty group also developed evaluation tools and procedures. Faculty development activities have occurred during individual teaching site visits and the annual Family Medicine Clerkship Evaluation and Faculty Development Meeting where faculty representatives from each teaching site was required to attend. Review and analysis of students' evaluation of the faculty,

students' evaluation of teaching sites, faculty evaluation of the students and student performance on National Board Shelf examinations were also a part of these annual development sessions.

To facilitate the management of decentralized teaching sites, the Department of Family Medicine worked with only 19 sites that agreed to have student assignments at least 80% of the academic year. To support the large number of student assignments, the department provided financial reimbursement for the teaching activities of the community teaching sites. The financial reimbursement, although not consistent with actual teaching times, did create formality to the agreement between MCG and the teaching site. These agreements provided leverage to facilitate change when necessary, to respond to course problems, and to introduce curricular enervations.

The Family Medicine Clerkship Development Committee made several curricular planning assumptions: 1) Resources to illustrate primary care would be present in all teaching sites 2) Prevention, continuity, and comprehensiveness could be interwoven into each clinical encounter, if the community faculty were appropriately developed to provide that aspect of instruction 3) Family medicine environments would permit family-centered care to be applied to each patient encounter and the 4) therapeutics and procedures curriculum could be developed based on the required clinical encounters.

There were multiple problems posed by the decentralization of the clinical education process. Since instruction was facilitated by actual clinical encounters, teaching inconsistencies as well as clinical encounter inconsistencies were noticed across teaching sites. A single student assigned to a teaching site was at greatest risk for having an incomplete clinical experience because there were no opportunities to share clinical experiences with peers.

A major tool used to monitor the student clinical activity was the Patient Encounter Logbook. Students were required to record key aspects of all their clinical encounters. The logbook was used by faculty for discussion of clinical encounters remote to their occurrence and was also reviewed periodically to ensure students encountered the required mix of diagnoses and problems. The logbook required that the students list age, sex, and ethnicity of the patient as well as presenting problem, presenting diagnoses, concurrent diagnoses, laboratory assessments, and all therapeutic agents used by the patients. Inside the front cover of the logbook was a checklist of the required problem and diagnoses which was used by faculty and students to select patients. The logbook was returned to the MCG for computer-based processing and this analysis was shared with the faculty on a bi-annual basis.

Retrospective evaluation of the student patient encounter data revealed some surprising findings. Although the appropriate number of patient encounters for students was consistently achieved, the problem and diagnoses distribution was far from complete. Diagnoses such as diabetes, hypertension, and osteoarthritis were often not evaluated by all students and when evaluated, did not constitute sufficient clinical encounters. In some instances, these incomplete patient care experiences were associated with lower performance on objective examinations. Directive faculty assignment of patients increased more appropriate student patient encounters and better performance on standardized tests. Future plans for onsite computer entry of patient encounter data will permit the prospective assessment of adequacy of students' patient care experiences.