

Development of Computer-Based Training to Enhance Resident Physician Management of Inpatient Diabetes

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Abstract

Background:

Treating hyperglycemia promotes better outcomes among inpatients. Knowledge deficits about management of inpatient diabetes are prevalent among resident physicians, which may affect the care of a substantial number of these patients.

Methods:

A computer-based training (CBT) curriculum on inpatient diabetes and hyperglycemia was developed and implemented for use by resident physicians and focuses on several aspects of the management of inpatient diabetes and hyperglycemia: (1) review of importance of inpatient glucose control, (2) overview of institution-specific data, (3) triaging and initial admission actions for diabetes or hyperglycemia, (4) overview of pharmacologic management, (5) insulin-dosing calculations and ordering simulations, (6) review of existing policies and procedures, and (7) discharge planning. The curriculum was first provided as a series of lectures, then formatted and placed on the institutional intranet as a CBT program.

Results:

Residents began using the inpatient CBT in September 2008. By August 2009, a total of 29 residents had participated in CBT: 8 in family medicine, 12 in internal medicine, and 9 in general surgery. Most of the 29 residents confirmed that module content met stated objectives, considered the information valuable to their inpatient practices, and believed that the quality of the online modules met expectations. The majority reported that the modules took just the right amount of time to complete (typically 30 min each).

Conclusions:

Improvement in inpatient diabetes care requires continuous educational efforts. The CBT format and curriculum content were well accepted by the resident physicians. Ongoing assessment must determine whether resident practice patterns are influenced by such training.

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Abbreviations: (CBT) computer-based training, (CPOE) computerized physician order entry, (ETC) Education Technology Center, (HbA1c) hemoglobin A1c

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