volves excision of the cyst, tract, middle 1/3 of the hyoid bone, and the foramen cecum as described by Sistrunk.[2] Complications of thyroglossal duct cysts include infection, recurrence, carcinomatous change, osteomyelitis of the hyoid bone, and airway obstruction. The differential diagnosis in this disorder includes ectopic thyroid, teratoma of the neck, dermoid cyst, branchial cleft cyst, abscess, lipoma, and midline cervical cleft.[3] Another well-known complication as demonstrated in this case report is incomplete excision with resultant recurrence of the cyst with spontaneous drainage through the surgical wound.

As previously stated, there have been no reports in the literature which have suggested the existence of a possible genetic link in this disorder of thyroid embryogenesis. Certainly this case history does not contain enough information to demonstrate a particular mode of genetic inheritance; however, in this instance, three consecutive generations of females in the same family strongly suggest a probable genetic link. Beyond this point one can only speculate about a clearly defined genetic picture until more data are obtained by primary care physicians who are most likely to see whole families and determine such genetic connections.

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An Ambulatory Teaching Audit Using Resident-Generated Protocols

S. Mark Bean, MD
Amesbury, Massachusetts

A unique feature of family practice residency training is the ability to follow patients with chronic disease conditions over periods of time under experienced supervision in the Family Health Center setting. Unfortunately, preceptoring of such patients tends to become episodic and sporadic unless some mechanism of audit is available to permit overall assessment and review of patient management. A recent article has documented the desire of residents for such continuing review,[1] and several articles have presented methods of outpatient audit applicable to family practice residency programs.[2,5] A description follows of the ambulatory teaching audit which has been developed at this institution together with a brief analysis of certain features which the author feels make this type of audit system particularly attractive for use in a residency teaching program.

Methods

The central concept of the audit is the resident-generated protocol for management of a common outpatient problem. Each second and third year resident chooses or is assigned a common outpatient problem for which he or she prepares a protocol in outline form which defines diagnosis, treatment, patient education, and follow-up for that particular condition. The resident is requested to review the recent literature and consult with specialists on the hospital staff to determine current practices. He is further instructed to use his own best judgment to determine how he personally would like to manage such a patient in his own private practice and to write the protocol accordingly.

The protocol is then typed and distributed to the

From the Department of Family Practice, St. Margaret Memorial Hospital, Pittsburgh, Pennsylvania. Requests for reprints should be addressed to Dr. S. Mark Bean, Morrill Place, Amesbury, MA 01913.

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residents before a weekly conference. The protocol is presented and subjected to critique and amendment by faculty and fellow residents at the conference, and it is then revised in accordance with the ideas of the resident-faculty group. The final protocol is then typed and kept on file at the Family Health Center.

Once a month, an ambulatory audit committee composed of residents, faculty, and nursing representatives meets and chooses a disease for audit. Using the resident-generated protocol, a series of criteria are drawn up for use by preceptors in auditing charts for that disease. This is referred to as the minimal care plan criteria for that particular disease.

The medical records technician, using an E-book diagnosis coding system, then pulls up to three patient charts per resident for that disease state. These charts are reviewed by the Family Health Center preceptors to see how closely they correspond to the outlined minimal care plan criteria.

The preceptor then meets in individual teaching sessions with each resident and reviews his management of the cases which have been audited. A free exchange of ideas on patient management in a nonpunitive learning environment is encouraged. Each preceptor is assigned six residents for purposes of teaching audit, and each resident has the same preceptor each time.

The overall audit results are then compiled by the medical records technician and presented at the next monthly ambulatory audit committee meeting. At that meeting, faculty and residents share feedback on the audit methods and results. Suggestions are made on how patient care can be improved by making changes in Family Health Center practices.

Finally, the audit results are presented at the weekly meeting of the residents, and general deficiencies in meeting protocol standards are pointed out.

Discussion

This audit system offers a number of advantages, first and foremost of which is that it does provide a means for reviewing the resident's overall progress in mastering principles of management of common chronic diseases. Problems such as inadequate data base, sporadic laboratory follow-up, ineffective therapy, and poor patient education are more readily spotted and discussed during chart audit. Such negative factors are often missed, or inadequately explored during a busy office consultation with a preceptor over a specific problem. The resident receives direct feedback on a one-to-one basis regarding patients for whom he is responsible. Since the same preceptor is seeing that resident each month, a more accurate opinion can be formed of the resident's general practice habits, capacities, and judgment. Deficiencies in knowledge or practice can be identified and corrected.

The experience of drawing up an ambulatory care protocol teaches the resident to think and read critically about the diagnostic value of laboratory tests, the evidence for therapeutic efficacy of different treatments, the parameters for adequate patient follow-up, and the costs of care. He is required to reconcile theoretical medical considerations with practical restrictions of office practice. By designing a systematic approach to office management of one common problem, he may acquire the interest and the ability to become systematic in his judgment and practice habits regarding other chronic problems. He may also be intrigued by the very large gaps in the published knowledge of what constitutes adequate outpatient management—enough, perhaps, to be interested in doing research in a family practice setting.

The system avoids imposing arbitrary standards of care by involving residents in preparing and critiqueing protocols and drawing up minimum care plan criteria. The resident is likely to take more to heart criticisms based on the standards which he has had a hand in designing.

The use of a resident-generated protocol also allows care standards to be tailored to the patient population, laboratory facilities, and personnel of the specific family practice center.

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