

Pre-pregnancy Counselling: What Do Residents Write in Their Consultation Letters?

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A B S T R A C T

OBJECTIVE

To determine the quality and content of consultation letters dictated by residents about a pre-pregnancy counselling scenario included in a station of an objective structured clinical examination (OSCE). To elicit feedback from residents on the inclusion of the station in the OSCE and to further validate the scale used to rate the letter.

METHOD

A station on dictation of a consultation letter was included in the internal medicine and obstetrics/gynecology OSCEs. The scenario was pre-pregnancy counselling for a woman with type 1 diabetes mellitus. Residents' letters were evaluated using a content checklist for specific items relevant to the case and a 34-item consultation letter rating scale. The consultation letter station score was compared to scores on verbal communication stations and by year of training. Residents provided feedback on the inclusion of the dictation station in the OSCE.

RESULTS

The majority of residents did not include in the consultation letter specific recommendations on factors known to

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R É S U M É

OBJECTIF

Déterminer la qualité et le contenu des lettres relatives aux consultations dictées par les résidents au sujet de l'inclusion de counseling avant la grossesse dans un atelier de l'*Objective structured clinical examination* (OSCE). Obtenir des commentaires des résidents au sujet de l'inclusion de l'atelier dans l'OSCE et confirmer la validité de l'échelle d'évaluation utilisée.

MÉTHODE

Un atelier sur la dictée d'une lettre relative aux consultations a été inclus dans l'OSCE de médecine interne et d'obstétrique/gynécologie. Il s'agissait de counseling avant la grossesse d'une femme atteinte de diabète de type 1. Les lettres des résidents ont été évaluées au moyen d'une liste de contrôle de points particuliers au cas et d'une échelle d'évaluation à 34 points. La cote de l'atelier sur la lettre relative aux consultations a été comparée à la cote de l'atelier sur les communications verbales compte tenu de l'année de formation. Les résidents ont fait des commentaires sur l'inclusion de l'atelier sur la dictée d'une lettre dans l'OSCE.

RÉSULTATS

La majorité des résidents n'ont pas inclus dans la lettre relative aux consultations de recommandations précises sur des facteurs connus pour améliorer l'issue de la grossesse. La cote de l'atelier sur la lettre relative aux consultations était en corrélation avec la cote des communications verbales ($r = 0,31$, $p = 0,036$) et l'année de la formation ($p = 0,007$), ce qui semble corroborer la validité de l'échelle d'évaluation des lettres. L'atelier a été bien accepté par les résidents comme un moyen utile de recevoir des commentaires sur leur rendement.

CONCLUSION

L'OSCE est une méthode réalisable pour évaluer les lettres relatives au counseling avant la grossesse chez les femmes atteintes de diabète de type 1 et une méthode bien acceptée par les résidents.

improve obstetric outcomes. The consultation letter station score correlated with the verbal communication score ($r=0.31$, $p=0.036$) and to year of training ($p=0.007$), suggesting the validity of the scale used to rate the letter. The station was well received by residents as a useful way to receive feedback on their performance.

CONCLUSION

An OSCE is a feasible method of evaluating consultation letters about pre-pregnancy counselling in women with type 1 diabetes, and one that is well received by residents.

INTRODUCTION

Pre-pregnancy counselling of women with diabetes is important to ensure optimal glycemic control and evaluation of complications prior to conception. In many healthcare centres, specialized clinics with both obstetric and internal medicine/endocrinology expertise are available to provide this service. Patients are generally referred by their family physician, internist or endocrinologist. Previous studies have demonstrated that most women do not take folate prior to conception and do not optimize their blood glucose (BG) prior to pregnancy (1,2), although both have been demonstrated to reduce congenital anomalies (3,4).

It has been demonstrated that patients who are not provided with specific BG targets are less likely to achieve optimal glycemic control during pregnancy, while providing patients with specific A1C goals is more likely to result in optimal control prior to pregnancy (5). To encourage the importance of excellent glycemic control and folate supplementation prior to conception, it is imperative that all caregivers be consistent with respect to treatment targets.

Written communication is the main method of correspondence between physicians. In 1993, a joint task force of the College of Family Physicians of Canada and the Royal College of Physicians and Surgeons of Canada explored the relationships between family physicians and specialists/consultants (6). Their report highlighted the need for physicians-in-training to develop expertise and to be formally evaluated on competence in the consultation process. Unfortunately, no specific strategies were provided. The Canadian Medical Education Directions for Specialists (CanMEDS) 2000 Project highlighted the importance of written communication primarily under the medical expert role by listing "presenting well-documented patient assessments and recommendations in both written and verbal form." The collaborator and communicator roles also allude to competencies in written communication (7).

Despite the importance of effective written correspondence and the shift in focus to ambulatory care teaching, this skill is rarely formally taught or evaluated. In a 1996 to 1997 survey of 300 specialists in Eastern Ontario, Canada, only 16% of respondents had received formal education and only

40% had received feedback regarding their consultation letters during training (8). Some attending physicians actively discourage dictation by trainees, as it takes up more transcription time and the transcripts may need extensive editing. Trainees often leave the service before their consultation letters are transcribed, rendering it difficult to provide feedback. An increasing emphasis on access to information and efficiencies in healthcare further highlights the need for clear, concise and accurate letters.

An objective structured clinical examination (OSCE) presents teaching clinicians with an opportunity to highlight the importance of specific knowledge and skills. In brief, an OSCE is a series of stations with specific tasks to be completed at each station. The trainee moves from station to station at preset time intervals. The trainee's performance at each station is evaluated using a predetermined marking scheme. Some stations involve patient encounters, some require interpretation of patient results and others may involve written questions. Some, but not all, stations have a patient and/or examiner present in the room; this type of examination allows for formative and summative feedback on specific knowledge and skills. Two reports have been published on the use of an OSCE for assessment of written communication in internal medicine specialties (9,10). The authors have demonstrated previously that an OSCE station on consultation letter writing is feasible in an OSCE for an internal medicine training program using a validated 34-item rating scale (10,11).

The purpose of this study was to evaluate the quality and content of consultation letters dictated by trainees in the obstetrics/gynecology and internal medicine programs on a case of pre-pregnancy counselling, to elicit feedback from residents on the inclusion of an OSCE station for dictation and to further validate the rating scale used for evaluation of letters.

METHOD

A consultation letter station was incorporated into the formative OSCEs in the obstetrics/gynecology and internal medicine residency training programs at the University of Ottawa, Ottawa, Ontario, Canada. All residents are expected to participate unless away for electives. The time allotted for each station was 20 minutes for internal medicine residents and

15 minutes for obstetrics/gynecology residents. Other stations included specialty-specific history taking, physical examination and interpretation of investigations.

The patient scenario for the letter dictation station was preconception counselling for a woman with type 1 diabetes complicated by retinopathy and poor glycemic control. The station included candidate instructions, a written history and physical examination and investigation results. Extraneous material was intentionally included to mimic actual history taking. The trainee was expected to generate his or her own impression of the scenario and plan. A dictating machine and audiotape were provided. One secretary transcribed the letters.

Each letter was rated using the 34-item rating scale previously described (11). In brief, content and style items are generated from a survey of primary care physicians and specialists, literature review and advice from experts in editing/writing. There are 4 sections—history, physical examination, impression and plan—and an overall global rating scale for the entire letter. Each of the first 3 sections includes dichotomous variables for content items and 4 5-point Likert scales for completeness, clarity/organization, brevity and the overall rating of that section. The fourth section is a 5-point Likert rating for the entire consultation letter. There is also a separate 9-item checklist of important writing-style elements, such as the use of headings, sentence and paragraph length, and choice of words. The checklist items are included for formative feedback, as the authors recognize the low inter-rater reliability between dichotomous variables (12).

One rater, involved in the development of the rating scale, evaluated all of the letters. The station score was derived by totalling the overall rating for each section and global rating of the letter for a score out of 20.

Each letter was also evaluated for content-specific items relevant to the case. It is well established that excellent glycemic control and folate supplementation reduce the risk of congenital anomalies in offspring of women with diabetes (3,4,13). Thus, each letter was reviewed for clear recommendations on achieving specific glycemic targets prior to conception, continuing contraception until these targets are met and folate supplementation.

Recommendations	Internal medicine residents (n=40)	Obstetrics/gynecology residents (n=10)
Specific glycemic targets	8	1
Continue contraception until glycemic targets met	4	1
Folate supplementation	9	6

All residents received their transcribed letter and were asked to complete a written survey to provide feedback on the experience.

Both OSCEs also included a station on verbal communication relevant to the area of specialty that was evaluated by a faculty member. General verbal communication skills were assessed with 3 5-point Likert scales. The verbal communication score was compared to the consultation letter score. To further assess the validity of the letter rating scale and OSCE station, the score on the letter station was compared to resident's year of training.

Statistical analyses

Statistical analyses were completed using SPSS 11.0, a standard statistical software package (SPSS Inc., Chicago, Illinois, United States). Descriptive statistics for each section of the rating scale and overall score were determined. Differences in performance by year of training were calculated using the Kruskal-Wallis test. Scores on the consultation letter station and verbal communication skills scores were compared using Spearman correlation coefficients.

RESULTS

Fifty-three residents (42 internal medicine and 11 obstetrics/gynecology residents) participated in their respective exams. Three people did not complete the letter at the station (2 had problems with the dictating machine and 1 dictated an amount insufficient for evaluation). The results are therefore based on 50 residents (40 internal medicine and 10 obstetrics/gynecology residents).

There was significant variation in the quality of the letter amongst trainees. When broken down by section, the overall scores on history and physical examination were reasonably well done; however, the impression and plan were not done as well. Twenty of 50 residents had a poor (1/5) or barely acceptable (2/5) mark on the impression section and 15 of 50 residents had a poor (1/5) or barely acceptable (2/5) mark on the overall rating of the letter. There were no significant differences between the scores of the internal medicine and obstetrics/gynecology residents.

The specific recommendations shown to make a difference in reducing congenital anomalies were included in less than 60% of the letters (Table 1). Internal medicine residents were more likely to include specific glycemic targets, whereas obstetrics/gynecology residents were more likely to specifically state the need for folate supplementation. Only 10% in either group addressed the need for continued contraception until glycemic targets are met.

Only 25 residents (21 internal medicine and 4 obstetrics/gynecology residents) returned the feedback forms. Twenty-one of the 25 residents agreed that the OSCE experience is a useful way to receive feedback about letters. Nineteen of the 25 agreed that knowledge about pre-pregnancy counselling influenced their ability to dictate a good consultation letter. Ten of

the 25 residents did not feel they had had sufficient opportunity to dictate consultation letters during clinical rotations.

The mean consultation letter station scores by year of training are presented in Table 2. When compared by year of training, residents with more seniority performed significantly better than junior residents ($p=0.007$). A modest correlation was observed between scores assessing verbal communication and the consultation letter station score ($r=0.31$, $p=0.036$).

DISCUSSION

This study demonstrates that implementing a letter dictation station into a pre-existing OSCE is a feasible and valid way to evaluate consultation letters. The rating scale used was previously validated and was confirmed in this study (11). The OSCE station provides an opportunity for personalized and detailed feedback that is well received by residents. In general, trainees were able to organize the history and physical examination but had much greater difficulty in clearly delineating their plan. Few residents gave specific recommendations that are known to reduce congenital anomalies and fewer still stated the rationale for their recommendations. Performance in the consultation letter station tended to improve with experience. The modest association with verbal communication skills is expected, as the final consultation letter is dictated, not written, and thus verbal skills are important. This finding is consistent with the authors' previous work (10).

The residents themselves recognized that knowledge about pre-pregnancy counselling influenced their ability to generate a good consultation letter. Although the importance of knowledge about the content of the clinical encounter has been linked to performance on verbal communication OSCE stations, this has not been evaluated in consultation letters (14). Crossley and colleagues rated letters from 26 pediatric registrars (15). Each trainee was asked to submit 10 outpatient letters from his or her clinical practice. These letters could be either new patient or follow-up notes and could be on any clinical topic. Each letter was evaluated for quality

using an 18-item rating scale. In addition, each case was assigned a "complexity rating" on a scale of 1 to 3 based on the content of the letter. There was no significant difference in the scoring of the letter based on the type of clinical problem or complexity of the case. However, these letters were selected and submitted by the trainee, not generated from an examination. It is possible that letters regarding conditions about which they did not feel as knowledgeable were not included in their sample. Further research on the correlation of knowledge to consultation letter quality is required.

The items of most importance in achieving glycemic control (specific targets) and preventing congenital anomalies (folate supplementation and continuing contraception until glycemic control is achieved) were not included in most letters. There was a difference between internal medicine and obstetrics/gynecology trainees with respect to the number of residents who specifically stated glycemic targets and the need for folate supplementation. It is not possible to know whether this represents a true lack of knowledge or a lack of recognition of the importance of specific recommendations in consultation letters.

Although the OSCE is a useful way to provide feedback about letters, it should not replace the teaching and evaluation of letters in the clinical setting. As with any skill, dictation of letters requires practice and feedback to improve. In this study, only 15 of 25 residents (60%) felt they had sufficient opportunity to dictate letters in the clinical setting. Clinical teachers must be given transcription resources, and ambulatory rotations should be of sufficient length to provide 'real-time' feedback. Administrators and educational planners must take this into account when allocating resources and planning rotations (16).

An OSCE station on dictation of a consultation letter is a feasible way of highlighting the importance of consultation letters and providing specific feedback on content and style. The importance of specific recommendations for women with diabetes contemplating pregnancy needs to be reinforced through teaching programs and evaluation. Further evaluation of the influence of knowledge and clinical competency on letter writing is required.

PGY	n	Mean consultation letter score \pm SD
PGY-1	13	11.6+2.5
PGY-2	18	10.5+3.3
PGY-3	15	13.7+3.2
PGY-4	1	17.0
PGY-5	3	15.0+1.0

Maximum score = 20
 $p=0.007$, by Kruskal-Wallis test

PGY = postgraduate year

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