

## Outpatient clinic letters in ENT. Is there any margin of improvement?

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**Key-words.** Letter; clinical audit; readability; communication

**Abstract.** *Outpatient clinic letters in ENT. Is there any margin of improvement?* **Introduction:** Outpatient clinic letters are a widely used and effective means of communication between hospital staff and general practitioners. This study audited the letter format used by consultants and specialist registrars (SpRs) at an otolaryngology clinic to assess the readability of different formats.

**Materials and methods:** The two-cycle audit was performed at the Otolaryngology Clinic at Guy's and St Thomas' NHS Foundation Trust in London, England. A readability score (0-4) was assigned to the letters as an indication of how easy it was to extract information from structured or unstructured (paragraph) format letters.

**Results:** In the first cycle, 71.91% of the SpR letters followed a structured format and had an overall mean readability score of 2.87/4; 46.58% of the consultant letters followed a structured format and had an overall mean readability score of 1.25/4. In the second cycle, after the results of the first audit were presented to the participating physicians, 84.72% of the SpR letters followed a structured format and had an overall mean readability score of 3.41/4. Consultants followed a structured format in 52.56% of the letters, which had an overall mean readability score of 2.04/4.

**Conclusions:** We found that a structured format for outpatient letters was better than unstructured format. This audit helped change the structure and consequently the readability scores of the clinic letters.

### Introduction

Outpatient clinic letters are a widely used and effective means of communication between hospital staff and GPs.<sup>1</sup> A previous study highlighted the importance of effective communication by identifying information and recording it in a structured letter format.<sup>2</sup> That report showed that structured letters communicated more information than unstructured letters (i.e. letters with a paragraph format) even though they were shorter and it took less time to read them.<sup>3</sup> The present study audited letter format at an otolaryngology clinic in England. Clinical auditing is a systematic process for improving quality of care.<sup>4</sup> Our first objective was to

determine whether a structured format improved letter readability. It did, so we then set out to encourage the participating doctors to utilise the structured format and hence improve the quality of the clinic letters.

### Materials and methods

The two-cycle audit was performed at the Otolaryngology Clinic at Guy's and St. Thomas' NHS Foundation Trust in London, England. All consecutive letters during a 7-day period (March 23-30, 2010) that were dictated by consultants and specialist registrars (SpRs) in the rhinology, otology, head and neck, general ENT and voice clinics were audited. The results of the audit were pre-

sented at the departmental research meeting on May 12, 2010; attendance at this meeting is compulsory for all doctors. The results were reported in a PowerPoint presentation, and all doctors were encouraged to adopt the structured format for letters. The second audit cycle was performed from May 20-27, 2010. There were no staffing changes between the first and second cycles.

For the purposes of this study, a readability scoring system (0-4, with 0 being the least readable and 4 the most readable) was used to assess each of the letters as an indication of how easy it was to extract the following information: diagnosis, management plan, prescriptions and plans for follow-up (including no follow-up plans).

Letters were classified as having either a structured or paragraph format. All statistical analysis was carried out using the Statistical Package for Social Sciences (SPSS Version 15.0, Chicago, IL). Data were analyzed using the Chi-square ( $\chi^2$ ) test for categorical variables. Results were considered statistically significant if the P value was less than or equal to 0.05.

## Results

In the first cycle, we analysed 142 letters that were written for 142 patients; 86 (60.56%) followed a structured format and 56 (39.47%) a paragraph format. SpRs examined 69 patients and used a structured format for 51 letters (71.91%), which had an overall mean readability score of 2.87/4 (Figure 1a). Consultants examined 73 patients and used a structured format for 34 (46.58%) letters. The mean readability score for all consultant letters was 1.55/4. In the first cycle, SpRs used a structured format more often than consultants ( $P < 0.00001$ ). Diagnosis and management were described in 95.77% and 95.07% of the structured and paragraph letters, respectively.

Prescribed medications were mentioned in 23.94% of the structured letters and in 9.15% of the paragraph letters. Overall, 63.38% of the patients were scheduled for follow-up, 18.31% had surgery planned and 18.31% were discharged. It took less time to read structured letters (mean time, 31 s), and structured letters had a slightly lower word count (mean length, 187 words versus 212 words), but these differences were not significant. Consultant letters

were generally shorter than SpR letters for a given format.

In the second cycle, 150 letters written for 150 patients were examined. We found that 107 (71.33%) of the letters followed a structured format and 43 (28.67%) a paragraph format. SpRs examined 72 patients and used a structured format for the clinic letters for 61 patients (84.72%). The SpR letters had a mean readability score of 3.41/4 (Figure 1b). Consultants examined 78 patients and wrote 41 (52.56%) structured letters. The consultant letters had a mean readability score of 2.04/4. Diagnosis and management was referred to in 93.33% of the structured letters and in 92% of the paragraph letters. Prescribed medications were mentioned in 51.33% of the letters with a structured format and in 12.67% of the letters that used a paragraph format.

## Discussion

Letters are the main method of contact and communication between hospital staff and general practitioners. The letters should be clear, concise and contain sufficient information for all parties involved in the patient's care and ensure uninterrupted patient care and management. Few hospital doctors write such letters and, therefore, communication with general practitioners is less effective than it could be.<sup>1,5</sup> Wasson *et al.*<sup>6</sup> introduced a computerized letter template with subheadings in otolaryngology that has resulted in greater general practitioner satisfaction and more effective communication between secondary and primary care personnel.

Structured letters have four advantages over conventional

letters. First, the writer must concisely state the patient's problem and management plan, which improves documentation completeness. Second, the reader can see the writer's views and management plans at a glance. This is particularly helpful when reviewing a series of previous appointments in the notes, as the key information can be extracted without reading the entire letter. Third, structured letters are shorter. Fourth, general practitioners can more easily transfer information from structured letters to computerized patient records, which are generally highly structured.<sup>7</sup>

There are several readability scoring systems that aim to measure the grammatical complexity of a document and hence the ease of decoding it. Readability scores are based on measurements of semantic difficulty (i.e. the number of syllables per word) and syntactic difficulty (i.e. the number of words in a sentence).<sup>8,9</sup> The readability scoring system used in this audit was modified to evaluate how easy it was to extract information from the outpatient letters at our institution.

The shift from an editorial style letter in paragraph format to a structured format in the second cycle of this audit led to a readability score increase of 18.81% in letters by SpRs, whereas consultants achieved a readability score increase of 31.61%. We acknowledge that there are many confounding issues, such as word count (which affects the time it takes to read the letter), language complexity and documentation completeness, which may vary between the structured and editorial style letters. We did not evaluate which of these factors was the most important in terms of

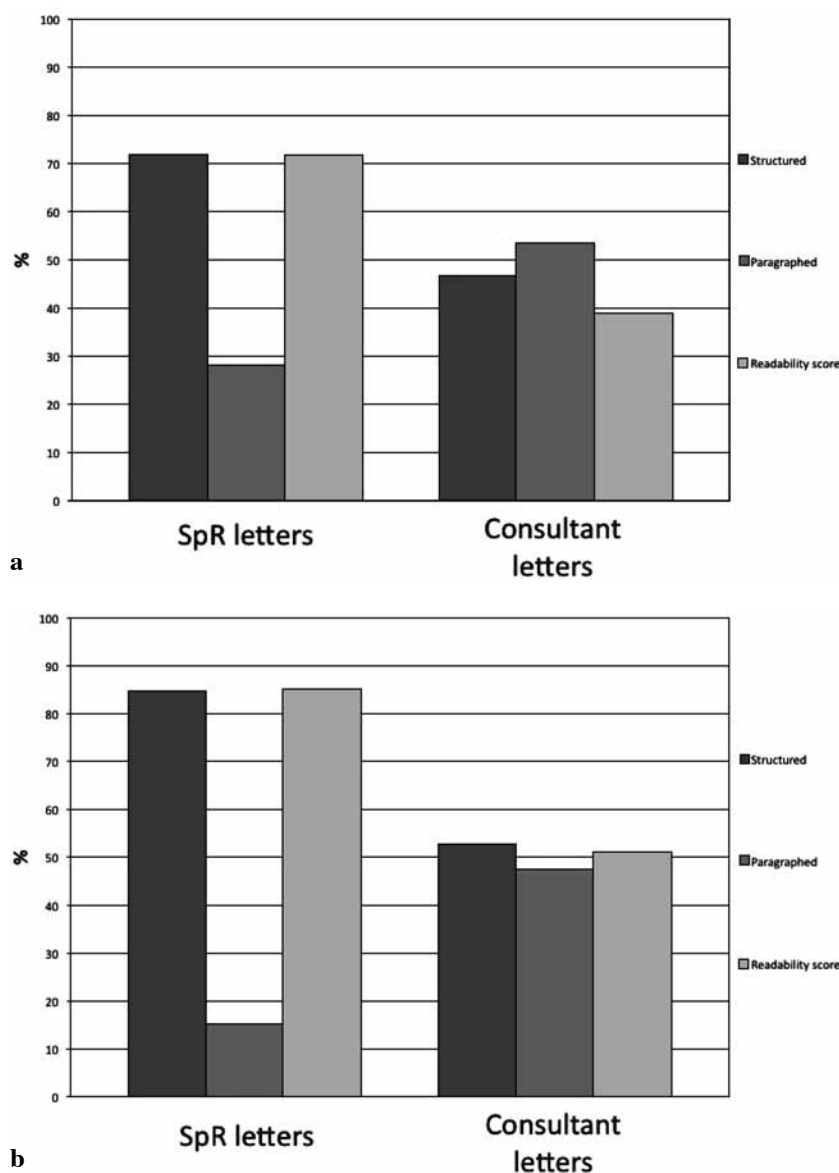


Figure 1

Graphs indicate the format and readability of letters written by specialist registrars (SpR) and consultants in the (a) first and (b) second cycles of the audit.

increasing readability. However, we believe that adopting the structured letter style has improved all of these factors simultaneously, producing more concise yet more informative letters to send to our general practitioners.

### Conclusions

This audit demonstrated that letters with a structured format are easier to read than letters with a paragraph format and are preferred for outpatient clinic letters.

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