

# Quality of information on hospice referral

N DONALDSON

H CARTER

R GREEN

## SUMMARY

Good quality referral information provides hospice staff with essential information at a time when patients are particularly vulnerable. An Ideal Referral Criteria tool for measuring the quality of general practitioners' information was piloted at one hospice site. Overall inter-rater reliability was 90%, with individual categories ranging from 19% to 34%. Cronbach's alpha was 0.35. Further psychometric testing is recommended.

**Keywords:** referral; quality; hospice.

## Introduction

WHILE the literature has focused on the quality of general practitioners' (GPs') referral letters to hospital specialists,<sup>1-3</sup> hospice referrals have received less attention.<sup>4</sup> Good communication from GPs can enhance hospice doctors' understanding of the patient's situation at a time when the patient is facing death.

Improvement in the quality of GPs' referral information may be achieved by monitoring its quality, with subsequent feedback to GPs. However, a monitoring tool is currently not available. This study aimed to design and pilot an Ideal Referral Criteria (IRC) tool at one hospice.

## Method

The study site was the Mary Potter Hospice, a 22-bed unit in Wellington, New Zealand. At the time of the study, GPs made 55% of all referrals. Services include medical and nursing care, community-based care co-ordination, day therapy, patient and family counselling, social work, and spiritual care.

Ideal Referral Criteria were drawn up with reference to referral criteria identified as important for hospices<sup>4</sup> plus criteria developed for different hospital specialties.<sup>1-3</sup> Items in the categories considered important were designated 'essential' and those less important, 'non-essential'. Consensual validity of the criteria was determined by a review where the six hospice doctors recommended the addition and deletion of several items and reclassification of a few 'non-essential' items as 'essential'. The items were allocated numerical values. IRC categories and essential items included:

- doctor information: date of referral, name, address, telephone number;
- patient information: name, date of birth, address, telephone number;
- medical background: complete past medical history, com-

N Donaldson, MRNZCGP, MBChB, DipObs, DipPaeds, registrar, General Practice Vocational Training Programme Central Region; and H Carter, BSc, MBChB, MPH, MD, research co-ordinator, Mary Potter Hospice, Wellington South, New Zealand. R Green, BSc, DipORS, statistician, Department of Public Health, Wellington School of Medicine, Wellington South, New Zealand.

Submitted: 18 November 1998; final acceptance: 26 May 1999.

© British Journal of General Practice, 2000, 50, 219-220.

**Table 1.** Inter-rater reliability: category and sum-scores.

Category (maximum score)	Mean scores (SD)		
	Rater 1	Rater 2	K <sub>w</sub> <sup>a</sup>
Doctor information (5)	4.9 (0.3)	4.8 (0.4)	0.27
Patient information (5)	4.6 (0.5)	4.6 (0.6)	0.29
Medical background (4)	2.1 (1.2)	1.8 (1.2)	0.19
Psychosocial history (3)	1.6 (1.1)	1.6 (1.1)	0.23
Current problems (4)	2.8 (0.7)	2.6 (0.7)	0.34
Sequence of events (2)	1.4 (0.8)	1.4 (0.8)	0.32
Expectation (1)	1.0 (0.0)	1.0 (0.0)	-
Sum-score (24)	18.5 (6.0)	17.7 (8.0)	ICC = 0.90

<sup>a</sup>K<sub>w</sub> = 1 (denotes perfect agreement). Scoring: Categories 1 to 6: each essential item = 1; one or more non-essential items = total of 1; Category 7: no expectation = 0; expectation(s) given = 1. Category scores were summated to form a composite 'quality' measure (maximum sum-score = 24). ICC = intra-class correlation.

- complete medication list, medication dose, allergies;
- psychosocial history: living situation, support available (family and other);
- current problems: presenting complaint, primary diagnosis, indication of urgency, duration of illness;
- chronological sequence of events: all treatments to date; and
- GPs' expectation: any expectation(s) given.

(Pre-testing the IRC on 12 sets of referral information resulted in the rewording of several items.)

Seventy-nine referrals between July 1996 and July 1997 met the criteria: a first referral, a GP referral (evidenced by a letter), and acceptance by the hospice. Fifty of the 79 referrals were randomly selected to test the IRC's inter-rater reliability. Paired assessors, independent of the clinical staff, separately rated the 50 referrals using GPs' letters, documented telephone information, and accompanying specialists' letters and laboratory results.

To account for chance agreement, inter-rater reliability testing employed weighted kappa (K<sub>w</sub>) for the category scores and intra-class correlation (ICC) for the sum-scores.<sup>5</sup> Cronbach's alpha tested the tool's internal consistency.<sup>6</sup>

## Results

K<sub>w</sub> for individual categories ranged from 0.19 (19%) to 0.34 (34%); ICC for the sum-score was 90% (Table 1). Cronbach's alpha (0.35) was low. The internal consistency did not improve sufficiently on reducing the number of categories.<sup>6</sup>

## Discussion

While the IRC's overall inter-rater reliability was good, poorer agreement occurred for the categories. Training assessors more extensively in the use of the IRC may achieve closer agreement. Changing one item in the psychosocial category from 'support available (family and others)' to 'adequacy of support available' is also recommended.

The low Cronbach's alpha indicates that the category items have little in common,<sup>6</sup> reflecting the varied information required at referral. While it is recommended that all categories be retained in the tool, the low alpha-coefficient suggests that cate-

gory scores should be treated individually rather than summated to form a composite measure.<sup>6</sup>

In conclusion, further psychometric testing of the IRC at other hospices is required.

### References

1. Pringle M. Referral letters – ensuring quality. *The Practitioner* 1991; **235**: 507-510.
2. Jenkins S, Arroll B, Hawken S, Nicholson R. Referral letters: are form letters better? *Br J Gen Pract* 1997; **47**: 107-108.
3. Jenkins RM. Quality of general practitioner referrals to outpatient departments: assessments by specialists and a general practitioner. *Br J Gen Pract* 1993; **43**: 111-113.
4. Lloyd-Williams M. Hospice referral forms: what questions should be asked? *J Cancer Care* 1996; **5**: 121-122.
5. Streiner DL. Learning how to differ: agreement and reliability statistics in psychiatry. *Can J Psychiatry* 1995; **40**: 60-66.
6. Armitage P, Colton T (eds). *Encyclopaedia of Biostatistics*. Chichester: John Wiley and Sons, 1998.

### Acknowledgements

The authors would like to thank the General Practice Vocational Training Programme for its support and funding assistance; in particular, Dr J Virtue.

### Address for correspondence

Dr Helen Carter, Mary Potter Hospice, PO Box 7442, Wellington South, New Zealand. E-mail: helen.carter@marypotter.org.nz