background population was 246 468 patients.

The median of the referral index was 119 referrals per 1500 patients per year. The following variables were evaluated in relation to the referral index: distance from the specialist, practice size, practice type, years of experience in general practice, practice activity (number of consultations per 1500 patients per year standardized by age and sex), workload (number of consultations per general practitioner per year) and working agreement (estimated by the number of supplementary expenses — payment for special diagnostic investigations and treatment by the general practitioner).

The general practitioners were ranked in three equal groups; for practice type they were ranked in only two groups (single-handed and partnership). The Kruskall Wallis test was used to determine the statistical significance of the differences between the referral index of the groups. To make an analysis of possible covariation between the variables, we cross tabulated and used the chi-square test. If covariation between two variables was found we stratified in order to analyse the influence of the variable on the referral index.

The main results of the investigation were: general practitioners who were a short distance from the specialist had a significantly higher referral index than the other two groups. General practitioners in single-handed practices had a higher referral index than their colleagues in partnership practices, but the result was not statistically significant. General practitioners with numerous supplementary expenses had a significantly lower referral index than their colleagues. There was no relationship between the referral index and the following variables: practice size, years of experience in general practice, practice activity and workload.

Five conclusions can be drawn from the results of our investigation. First, the general practitioners adjust their work according to the ease of referral to specialists. Secondly, general practitioners with a large list and/or a heavy work load do not reduce this by more referrals to specialists. Thirdly, comprehensive diagnostic tests and treatment (a high number of supplementary expenses) in general practice reduce the number of referrals to specialists. Fourthly, considerable experience in general practice does not reduce the referral rate. Finally, the Danish National Health Service is well organized for the quantitative investigation of general practitioners' referrals to specialists.

HENRIK TOFT SORENSEN
BO CHRISTENSEN

Institute of General Practice
University of Aarhns
Finsensgade 10
8000 Aarhus C
Denmark

References

1. Cummins RO, Jarman B, White PM. Do general practitioners have different 'referral thresholds'. *Br Med J* 1981; **282:** 1037-1038.
2. Dopheide JP. Rates of referral. *Allgemeinmedizin International* 1984; **2:** 54-58.
3. Sorensen HT, Christensen B. *Henvisning fra almen praksis til speciallaege.* Aarhus: Institut for almen medicin, 1984.

Buon Natale

My mother died on Christmas day, after nearly two years fighting against mammary carcinoma. Both my parents lived in Italy, my mother being a bilingual Italian. From the very beginning she sought the opinion of several experts all of whom advised a mastectomy, although she was 65 years old at the time and there was good reason to believe that the disease was beyond what we in Britain would consider an operable stage.

Once the mastectomy was done, several different experts were consulted again and each gave conflicting advice. As there are no general practitioners in Italy she was followed up by the surgeon who did the original operation, a physician with an interest in chemotherapy and a radiotherapist. In the following 18 months she underwent several minor surgical interventions to remove cutaneous spreads, three very strong radiotherapy courses and four equally strong cycles of chemotherapy. The results were such that looking at her one did not know whether the disease or the treatment were worse. Throughout this ordeal she was convinced that all this was going to lead to a cure, as no doctor seemed ready to tell her the truth when asked. No amount of caution expressed by either my wife or myself was able to slow down her quest for a cure. The end when it came was worse than expected. We arrived from Britain to find her in a bed in a private room in a district general hospital in a town in Tuscany. Her ureters had been compressed by enlarged lymph nodes and the resulting blockage had been partly relieved by direct catheterization of one of them. Her general appearance of bloatedness contrasted with her emaciated face which told us that the end was near.

The hospital staff only came once a day to wash her in the morning, but her mouth which was terribly dry was never wetted nor was it cleaned. Medicines were handed out, often large capsules which were hard to swallow for somebody who had trouble in swallowing even orange juice. Every morning blood tests were done (I never did find out why) and she was given a short burst of intravenous fluids 'to keep her hydrated'. This meant quite a laborious search for new viable veins each morning thus increasing her suffering. No regular pain-killing drugs had been prescribed and there seemed to be a reluctance from both doctors and nurses to speak to her, comfort her or even touch her. Religious comfort was also sadly lacking in compassion, the last rites were given in a hurried slovenly fashion by a friar who refused to believe me when I told him she was dying.

We tried as best as we could to comfort her and to relieve her of some of her discomfort. What she must have suffered I can only guess at. The effect all this had on us was devastating and only time will heal, I hope, the wounds left by it. Well versed in the theory of bereavement I found myself confronted with the double feeling of loss and guilt for not having been able to do more for her. This I find much more difficult to cope with than loss. Loss in these circumstances is inevitable, and my training helps to rationalize it and its causes. Guilt at the way she suffered is tempered by anger felt towards the people my mother was entrusted to and who failed her in her time of need.

The experience of my mother's death left me in no doubt that of all the skills required by the doctor in general and the general practitioner in particular compassion is the greatest — compassion towards a fellow human being, towards a patient, towards a person who is ill and towards the sick person's feelings and those of the family. This is what makes medicine different from other sciences and indeed what elevates general practice to an art.

T.O. JEFFERSON

3 Sunbury Close
Bordon
Hants GU35 0BW