Palliative care in cancer patients

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In palliative care – the holistic care of patients with advanced disease – managing pain and other symptoms is crucial. This article describes a study aimed at developing pharmacist intervention within a local provider's care programme

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Palliative care, as defined by the World Health Organization (WHO), is an approach that improves the quality of life of patients and their families when facing the problems of end-stage disease, via prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.[1]

Interventions made by a hospice pharmacist include dispensing medications, educating patients and their families, identifying drug-therapy problems, recommending drug therapies and developing protocols.[2] In Malta there is no hospice pharmacist within the multidisciplinary team providing palliative care. This study aimed to develop and evaluate pharmacist intervention in palliative care with respect to pain and symptom management and develop a pharmaceutical care plan for patients receiving palliative care. The results should therefore provide a framework for developing a system usable by pharmacists providing this service.

Methodology

This study was carried out at the Malta Hospice Movement centre in Malta. The organisation provides and promotes palliative care for people with end-stage disease and supports their families.[3] Sixteen patients were randomly selected and visited at home by the investigator and hospice nurse. During the first visit the investigator (MP) performed several interventions. The impact of these was evaluated during the second visit. Documentation tools were developed and used to estimate compliance and quality of life as parameters to evaluate impact of pharmacist interventions. Each patient was reassured that the interview consisted of a number of questions concerning their pharmacological treatment and quality of life and included no form of physical examination.

Patients included in the study were either newly diagnosed with cancer or in relapse. All patients recruited were assigned an identification number known only to the investigator.

During the first visit patients were given a drug documentation sheet prepared by the investigator, to provide a detailed description of the drug regimen, in the form of a card completed during the visit. The design was intended to be easy for patients to follow, since they could refer to it to check when medications were due.[4] The investigator completed a pharmacist documentation sheet detailing tasks undertaken during the visit. All potential pharmacist interventions observed were noted and incorporated into the latter sheet. In this way, the time taken to document interventions necessary during the visit was kept limited.

The investigator compiled a pharmaceutical care plan (PCP) for each patient, including data such as the patient's medical history, current drug therapy (prescription-only and nonprescription medications) and a monitoring plan. The PCP involves assessing patient's health problems and needs, setting objectives, performing interventions and evaluating results. Its development can be summarised as a five-step process based on the SOAP format (Subjective data, Objective data, Assessment, Plan of care).[5]

It is important to have a valid, reliable means of measuring quality of life in patients with end-stage disease since quality-of-life improvement is the reason for every intervention in palliative care. Patients were asked to complete the McGill Quality of Life (MQOL) Questionnaire[6] and a Compliance Questionnaire.[7] The MQOL is a multidimensional document relevant to all phases of the disease course for such patients;[6] the other questionnaire was used to assess compliance among cancer patients.[7] Both questionnaires comprise close-ended questions, with the MQOL using a Likert scale as a type of psychometric response scale and the Compliance Questionnaire using a combination of three close-ended question styles (multiple-choice, categorical, numerical). Respondents then specified their level of agreement with statements proposed.

The second visit took place four weeks later. Since the first visit three patients had died, so 13 patients participated in both visits. The drug documentation sheet and pharmaceutical care plan were reviewed and amended according to changes deemed necessary by the physician and/or oncologist. Patients were asked to complete the MQOL and compliance questionnaires again to assess any differences in quality of life and ascertain that the patient was compliant with all medications.

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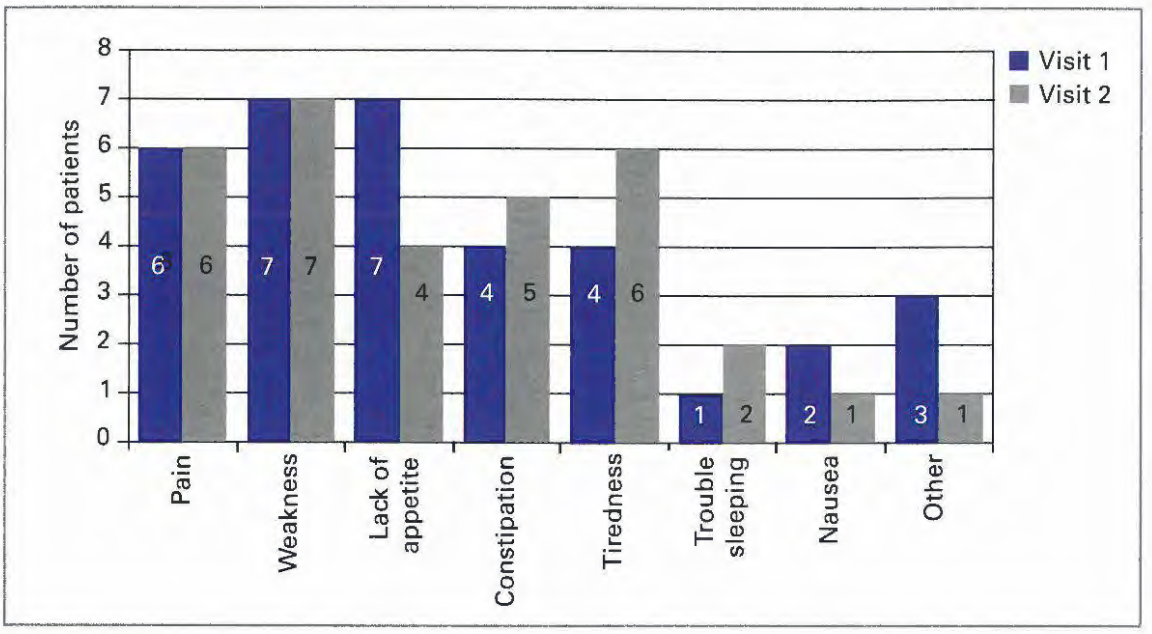

Figure 1. Physical symptoms in the last two days according to the McGill Quality of Life Questionnaire at visit one and visit two (n=13)

Data analysis

The data was analysed using SPSS® Version 14.0. The paired sample t-test was the parametric test used to establish whether a statistical significant difference resulted between visits one and two.

Results

Descriptive statistics

The mean and median ages of the patients were 68.8 and 70 years respectively (range 53–86 years). Four (31%) patients were male and nine (69%) female.

Physical symptoms

Patients were asked to note three physical symptoms from which they suffered most. At visit one, seven (54%) patients complained of loss of appetite, compared with four (31%) at visit two, while weakness and pain were reported by seven (54%) and six (46%) patients respectively as the most troublesome symptoms in both visits. Figure 1 highlights the most troublesome symptoms experienced by patients as observed in the MQOL questionnaire.

MQOL domains

The MQOL questionnaire consists of 17 questions and is divided into five quality-of-life domains: physical symptoms, physical wellbeing, psychological symptoms, existential wellbeing and support. However, for data analysis the single-item measure of physical wellbeing was considered together with the psychological symptoms domain.

There was a statistically significant improvement (p=0.025) in the patients' physical well-being between visits one and two. The rating score shifted to the right with higher scores, indicating a better state of physical wellbeing. There was a statistically significant improvement (p=0.001) in the existential wellbeing section, with a shift to the right indicating better social status. A statistically significant improvement (p=0.018) was also achieved in overall quality of life. There was no statistically significant difference between psychological symptoms (p=0.121) and support (p=0.418) domains.

Medications missed

The mean number of medications prescribed or taken at visit one was 7.77, of which 4.38 were cancer-related. During the first visit eight patients (62%) said they were noncompliant at times. The investigator spent some time on patient education with these individuals, highlighting the importance of compliance and explaining that the medications prescribed would contribute to a better quality of life. At the second visit, the number of patients who said they missed a dose had decreased to three (23%).

Compliance issues

Of the noncompliant patients at visit one, three (38%) did not comply since they claimed to be asymptomatic, two (25%) experienced side-effects, one (12%) showed lack of concern and another two (25%) admitted they forgot to take their scheduled dosage. When patients were asked what they did when they missed a dose, six (75%) admitted to skipping the dose altogether and two (25%) taking the medication when they remembered. Asked whether they were compliant with the prescribed times of their medication, four (31%) answered in the negative, but no patient interviewed at visit two reported doing so.

Pharmacist intervention

Before starting any interventions during visit one, the pharmacist asked the patients whether they thought it would be beneficial to have a pharmacist as part of the multidisciplinary team. Only two (15%) patients said a pharmacist would be beneficial and would contribute significantly to the patient's quality of life. At visit two, after patients had been subjected to pharmacist interventions, they were asked the question again. The number of patients admitting that a pharmacist would

indeed be beneficial within the team increased to 10 (77%). Figure 2 illustrates pharmacist interventions during the visits, the most prominent being documentation, educating patients and checking compliance in 100% of cases and identifying drug-related problems in 77% of cases. The investigator was responsible for documentation by completing the drug and pharmacist documentation sheets and the pharmaceutical care plan for all patients. Other pharmacist responsibilities included educating patients and staff regarding side-effect and drug-interaction profile, method of administration, dosing frequency, any precautions and other general advice, and checking compliance through patient interviews.

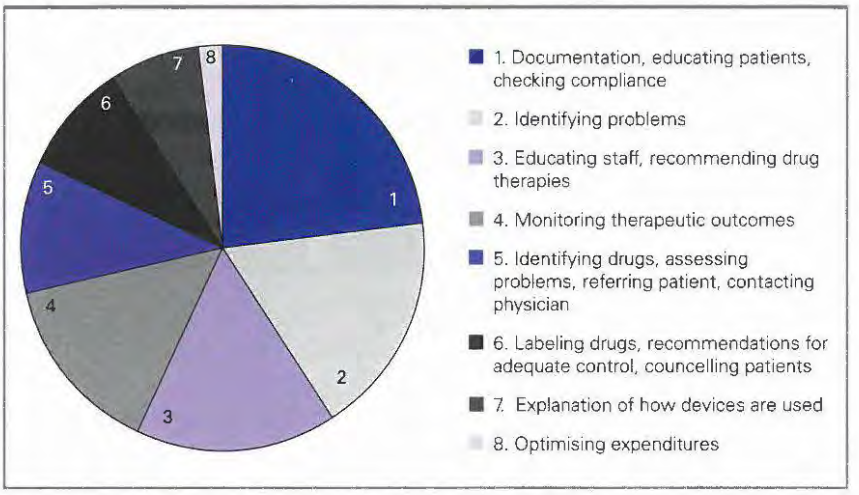

Figure 2. Pharmacist interventions during the visits (n=13)

Prescribing trends

Figure 3 shows the frequency of local prescribing trends in palliative care. The drugs in the "other" category included etoricoxib, paroxetine and ranitidine prescribed once, and amitriptyline, diazepam, esomeprazole, indomethacin, meloxicam, nortriptyline and zolpidem, each of these being prescribed twice.

Documentation sheets

At visit two the drug documentation sheet was amended according to the medications being taken as prescribed by the physicians. Eight patients (62%) had their sheet amended due to a change in medication, be it cancer-related or not. Pharmacological therapy in cancer patients is ever-changing, so it was of paramount importance for the documentation sheet to be updated so patients would continue to follow the correct drug schedule. The pharmaceutical care plan was also followed up at visit two. Treatment goals were reviewed and changed depending on circumstances.

Discussion

The results for the physical and existential wellbeing and overall quality-of-life sections of the MQOL at visit one differed significantly from those obtained after pharmacist intervention at visit two. Furthermore, if the mean rating scores were not significantly different one could argue that there was either no association between visits, so all results were attributable to chance, or there was an association but the sample size was too small to be recognised.

Results showed that compliance with medication improved at visit two, after the pharmacist intervention, and this could be attributed to two factors: the pharmacist's role in educating the patients and their families, and the distribution of the drug documentation sheet. Patients education measures included general advice along with explanations of the side-effect and interaction profile, method of administration, dosing frequency, and precautions for use. This was successful, as indicated by patient feedback. The distribution of the drug documentation sheet impacted positively on cancer patients, helping to improve their compliance with medication.

The number of patients saying they took medication at the prescribed times increased after the pharmacist intervention, again indicating that such intervention, be it in the form of patient education or distribution of memory aids in the form of a documentation sheet, was indeed successful.

The visit by the pharmacist was effective, as demonstrated by the change in patients' perception. When patients were asked what they found most useful, the majority (n=10, 77%) mentioned the drug documentation sheet, saying this made it easier for them to follow the physician's instructions. Others (38%) mentioned the pharmacist's role in explaining use of particular devices, such as the syringe driver. Almost all patients gave positive feedback on the fact that the pharmacist spent quality time with them and offered individual attention. The presence of a pharmacist was well received by the hospice staff, who agreed that having a pharmacist on the team would greatly improve patient care.

One of the limitations of the study was that patients were interviewed twice with a gap of only four weeks between interviews. Had the time interval been longer another visit could have been made, providing a more holistic picture of the patient. However, too long an interval would have made the probability of deaths more likely. The difference in interval is significant since quality of life changes constantly with time or disease progression.[8] As documented by Lo et al, quality of life becomes progressively worse as death becomes more imminent.[9]

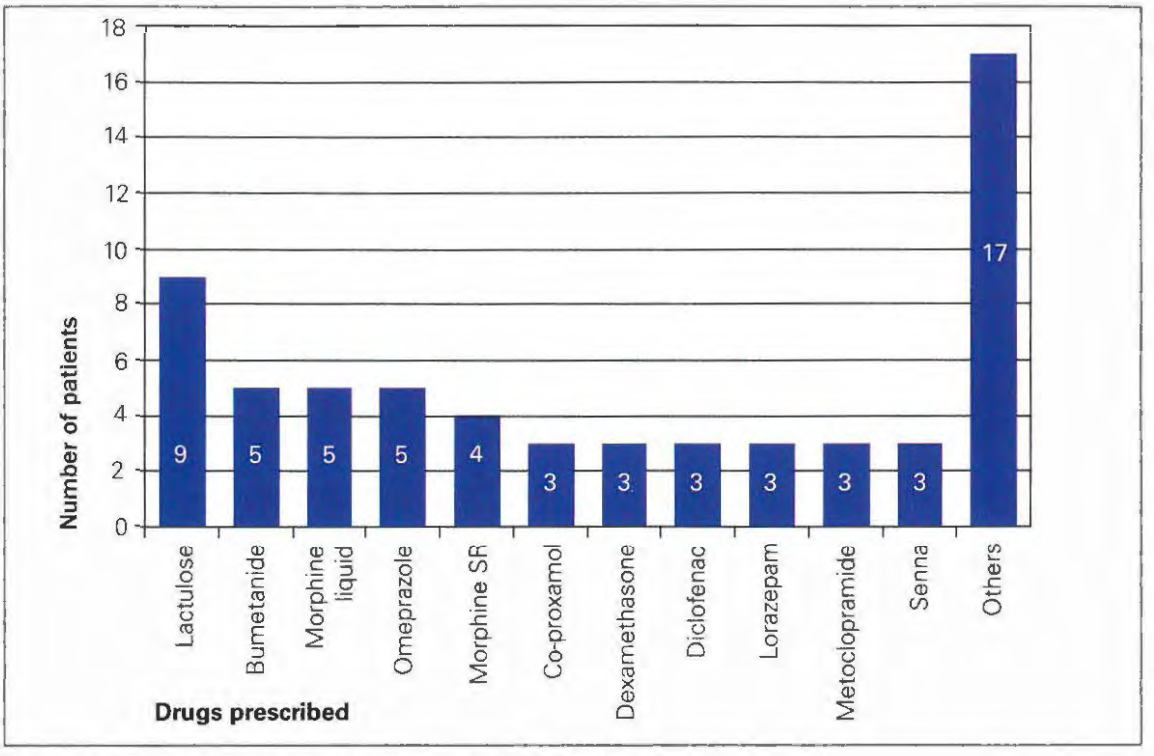

Figure 3. Palliative care prescribing trends in Malta (n=13)

Conclusion

There is currently no hospice pharmacist in the local scenario. This study has shown that involving a pharmacist in the care provided by a hospice results in a better quality of life and increased medication compliance in cancer patients. Patients valued the presence of a pharmacist within the team. The duties of such a pharmacist vary widely and can be executed in a tailor-made way by a pharmacist to complement the work of the holistic team. A multidisciplinary team approach would be more complete if the team included a hospice pharmacist actively involved in implementing palliative care services. ■

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