

Oncology nurses share their opinions – results of a 2004 international survey

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Introduction

- Gaining an insight into oncology nurses' opinions of cancer treatment issues may highlight areas of potential concern.
- A questionnaire was therefore developed to gauge the views of delegates from three international meetings in 2004:
 - European Oncology Nursing Society (EONS)
 - Multinational Association of Supportive Care in Cancer (MASCC)
 - International Society of Nurses in Cancer Care (ISNCC).

Methods

- Delegates were asked to complete a total of 15 questions in order to gather their views on issues such as common side-effects of chemotherapy, comorbidity, polypharmacy (i.e. use of multiple medications), and bone pain in oncology treatment.
- Questions were mainly comprised of: 'how long', 'how often' and 'what percentage', others were 'closed' requiring respondents to select from a list of options, and one question used a 10-point rating scale.

Results

- A total of 268 questionnaires were completed across all the meetings, with the majority of respondents being oncology nurses from teaching or urban hospitals worldwide.

Cancer treatment concerns

Patient concerns

- Nurses rated patients' top three concerns regarding chemotherapy:
 - the number one concern was overwhelmingly reported to be nausea

- fatigue/tiredness and vomiting were considered to be the second and third concerns, closely followed by alopecia/hair loss.
- A weighted score was given to each response (e.g. 3 for number one concern, 2 for second concern and 1 for third concern) to provide comparative totals for the responses, and the scores were: nausea 481; fatigue/tiredness 273; vomiting 255; alopecia/hair loss 228.
- From these, an index was calculated to provide an indication of the relative importance of one concern versus another. Nausea as the number one concern was assigned an importance rating of 100, with ratings calculated in comparison for fatigue/tiredness and vomiting as 57 and 53, respectively. Such a significant gap between scores reflects the strength of feeling relating to nausea as the primary concern.

Comorbidity and polypharmacy

- Nurses were asked to indicate the proportion of their patients suffering from comorbid conditions. They responded that:
 - ~4 of every 10 (42%) of their patients also suffer psychological problems, and over one-third (34%) have digestive problems (Table 1).
- Excluding chemotherapy drugs, respondents were asked to estimate how many concomitant or over-the-counter medications their patients receive:
 - on average, patients were reported to receive 4 concomitant prescription or over-the-counter medications, with a small proportion (9%) thought to receive as many as 8 or more separate medications at any one time (Table 2).
- The follow-up question asked how often survey participants typically ask patients for details of concomitant medications:
 - interestingly, 44% indicated that they ask patients for details of concomitant medications only at the start of therapy, with 35% questioning patients before every visit (Figure 1).

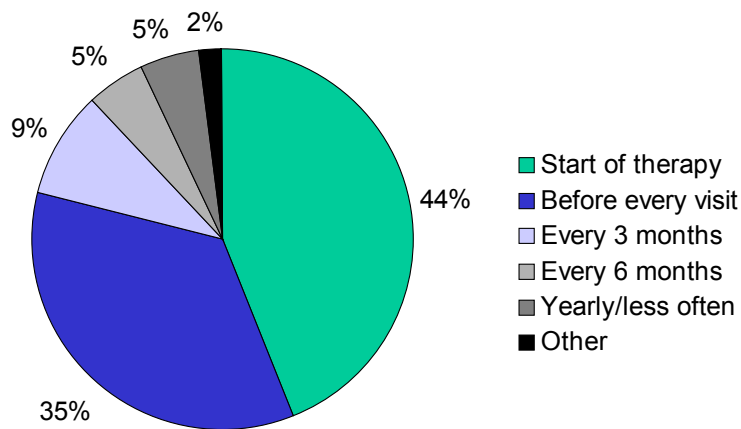
Table 1. Estimated proportion of patients suffering comorbid conditions. CV, cardiovascular.

Comorbidity	% patients
Psychological problems	42
Digestive problems	34
Respiratory disease	21
CV disease	16
Genitourinary disorder	10

Table 2. Estimated proportion of patients receiving multiple concomitant prescription/over-the-counter medications.

Number of concomitant medications	% patients
0-1	23
2-3	31
4-5	25
6-8	12
8+	9

Figure 1. Frequency with which oncology nurses ask their patients for details of concomitant medication taken in addition to cancer therapy.



Treatment of bone metastases

- Nurses were asked to give consideration to patients being treated for metastatic bone disease and to estimate what proportion of patients report pain.
 - Overall, nurses indicated that 89% of their patients report some level of pain (Figure 2).
 - Of these, an estimated 32% report severe pain, 34% moderate, and 23% mild pain.
- Survey respondents were asked to rate the importance of particular treatment goals for bone metastases on a scale of 1-10 (1 = not important, 10 = extremely important).
 - 'Control of metastatic bone pain', 'improve quality of life' and restore mobility were rated as the three most important goals (average scores of 9.46, 9.33, and 8.77, respectively; Table 3) .

- Those completing the survey were asked how often in practice they perform renal function monitoring with bisphosphonates.
 - 65% reported that they conduct tests prior to bisphosphonate administration, while 21% conduct tests every 3 or 6 months (Table 4).

Figure 2. Estimated proportion of patients receiving treatment for bone metastases who report some level of pain.

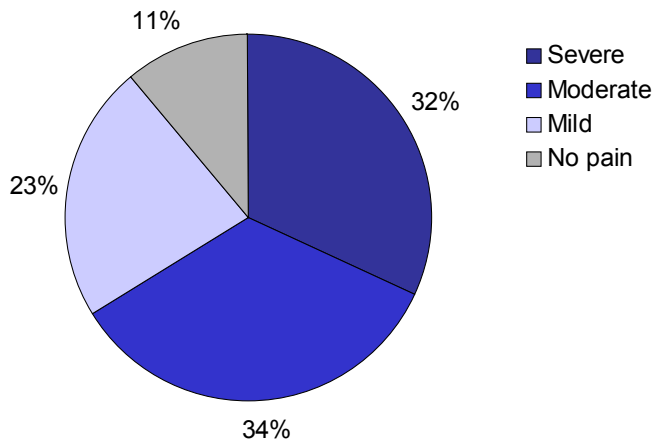


Table 3. Average importance rating of treatment goals for bone metastases (on a scale of 1–10). QoL, quality of life.

Treatment goal	Average rating
Control metastatic bone pain	9.46
Improve QoL	9.33
Restore mobility	8.77
Prevent pathological fracture	8.63
Prevent organ damage	7.95
Use oral medication to limit need for hospital visits	7.70

Table 4. Estimated proportion of bisphosphonate-treated patients undergoing renal function monitoring at different times.

Time of monitoring	% patients
Prior to bisphosphonate therapy	65
Every 3 months	15
Every 6 months	6
Every 12 months or less often	3
Only if patients have symptoms	4
Only at start of therapy	7

Discussion

- Providing patients with optimum supportive care is as important now as ever, with the survey results suggesting a particular focus is still needed on effective antiemetic therapy to protect patients from nausea and vomiting.
- It has been estimated that patients with cancer may commonly be receiving at least 6 medications (e.g. 2 chemotherapy agents, 2 antiemetics, 2 other supportive care products), and this number of concomitant drugs has been shown to be associated with a high risk of drug interactions (Table 5).¹
- The administration of multiple medications to patients, sometimes referred to as 'polypharmacy', is a concern due to the potential for interactions between drugs. Such interactions may result in a loss of efficacy or increased toxicity.
- Considering the additional number of drugs involved in the treatment of cancer and supportive care, the potential for drug–drug interactions is clearly high and should be a key treatment consideration.
- Given the potential for drug–drug interactions, it may be prudent to question patients about their other medications regularly, and seek to use medications with the lowest risk for interactions.
- Nurses clearly recognise the importance of controlling bone pain and this treatment goal appears to be directly linked with improving patients' quality of life.
- Bisphosphonates have been shown to be effective in reducing bone pain and the occurrence of skeletal-related events. Indeed, ibandronate (both i.v. and oral) in particular has been shown to reduce bone pain below baseline levels over 2 years.²
- However, some i.v. bisphosphonates have been associated with renal function deterioration requiring regular renal function monitoring prior to each dose to ensure patients' safety.
- About two-thirds of those surveyed indicated that they adhere to this requirement, having stated that they perform renal monitoring prior to bisphosphonate administration.
- Trials with ibandronate, however, show that renal adverse events are low and comparable with placebo. The need for renal function monitoring is therefore reduced with this agent and is at the physician's discretion.

Table 5. Incidence of drug–drug interactions related to number of concomitant medications. Adapted with permission fro Karas *et al.*¹

Number of drugs	Incidence of interactions (%)
2	5.6
3	15.8
4	34.3
5	46.7
6	72.0
7	66.0
8	100.0

Conclusions

- As reflected by the results of the survey, oncology nurses clearly recognise the fundamental importance of supportive care and treatment to patients with cancer.
- Survey respondents indicated that nausea is patients’ biggest concern by far with chemotherapy, and controlling bone pain is the most important treatment goal for patients with bone metastases.
- Optimizing treatment for these symptoms is essential to maintain patients’ quality of life.

References

1. Karas S Jr. The potential for drug interactions. *Ann Emerg Med* 1981; **10**: 627–30.
2. Tripathy D, Body JJ, Bergstrom B. Review of ibandronate in the treatment of metastatic bone disease: experience from phase III trials. *Clin Ther* 2004; **26**: 1947–59.