How well are we doing in treating cancer pain in Europe: key findings of the European Pain in Cancer report

Nathan Cherny

Background The European Pain in Cancer (EPIC) survey sought to increase understanding of cancer related pain and treatment across Europe.

Patients and methods Patients with all stages of cancer participated in a two phase telephone survey conducted in 11 European countries and in Israel in 2006–2007. The survey screened for patients experiencing pain at least weekly, then randomly selected adult patients with pain of at least moderate intensity occurring several times per week for the past month. Patients completed a detailed attitudinal questionnaire.

Results Of 5084 adult patients contacted, 56% suffered moderate to severe pain several times a month or more in the past month. Of 573 patients with moderate to severe pain randomly selected for the second survey phase, only 41% were taking strong opioids either alone or with other drugs for cancer related pain. Of those prescribed analgesics, 63% experienced breakthrough pain and 69% reported pain related difficulties with everyday activities but 50% believed that their quality of life was not considered a priority in their overall care by their healthcare professional.

Conclusions Across Europe and Israel, treatment of cancer pain is suboptimal. Pain and pain relief should be considered integral to the diagnosis and treatment of cancer; management guidelines should be revised to improve pain control in cancer patients.

Introduction

The European Pain in Cancer (EPIC) survey¹ was an attempt to address the lack of robust pan-European data regarding the prevalence and management of cancer pain. The study aimed to determine the prevalence and severity of cancer pain among cancer patients, and to obtain descriptive data regarding how it is evaluated, treated and the outcomes of therapy.

The EPIC survey was conducted in 11 European countries: Czech Republic, Denmark, Finland, France, Ireland, Italy, Norway, Romania, Sweden, Switzerland

and the UK, and in Israel, in 2006 and early 2007. The findings were published in full in the *Annals of Oncology* in 2009.[1] This paper summarises that report.

Methodology

Participants

Cancer patients were identified from a broad cross section of the population using a multimodal approach. Specialist pain units and palliative care centres were not approached to avoid bias in the collection of data.

All patients were questioned by highly experienced market researchers from an international market research agency experienced in conducting healthcare and patient surveys, rather than healthcare professionals, to determine their experience of pain and its impact, in an attempt to reduce any questioner bias.

Design

The survey was conducted in two phases: the first a screening phase to identify patients experiencing pain at least once a week and a second phase to conduct

indepth telephone interviews with 50 adult patients suffering from moderate to severe cancer pain in each country who were selected randomly from the patients identified as having pain several times a month or more in the past month from the screening survey. All interviews were carried out in the patient's native language using a standard set of questions that had been translated and back translated for accuracy.

Key results

Screening phase (n=5084)

Fifty-six per cent of patients screened (2864/5084) rated the intensity of their pain to be 5 or above (Numerical rating scale (NRS) 5–10) and had experienced recurrent pain several times a month or more in the past month. The prevalence of pain among the screening population, excluding those patients with skin cancer, was 72% (3597/4947).

Of the patients who currently experienced pain several times a month or more, 93% rated their pain as moderate to severe (NRS 5–10), 44% rated their pain

Correspondence to Dr N Cherny, Department of Oncology, Shaare Zedek Medical Centre, Jerusalem 91031, Israel; Chernyn@Netvision.net.il

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as severe (NRS 7–10) and 3% regarded it as the ‘worst pain imaginable’ (NRS 10).

Pain prevalence was substantially different among different cancer types. Patients with the highest prevalence of pain (>85%) were those with cancers of the pancreas, bone, brain, lymphoma, lung, and head and neck.

Questions regarding analgesic management in those respondents reporting a pain rating of NRS 5 or more indicated that almost a quarter of patients (23%) were not receiving analgesic medication and that this was also true for 19% (123/647) of those with this severity that was occurring every day.

Indepth telephone interview: phase 2 (n=573)

Pain assessment and the attitudes of treating physicians

Among this sample, pain was principally managed by medical oncologists (42%) or a general practitioner (19%). For a small minority of patients their pain was managed by either a palliative care specialist or a pain specialist (5%) after being referred to them by their principal healthcare professional.

Most (72%) patients reported that their clinician asked them about their pain at most consultations (16%) or every consultation (55%). A minority (22%) reported that their healthcare professionals never, or only occasionally, asked them about their pain.

On spontaneous recall, only 15% of patients reported that their clinician measured their pain using a pain scale but with prompting this figure rose to 33%.

Overall, 50% of patients believed that their healthcare professional did not consider their quality of life as an important aspect of the overall care plan and a smaller overall percentage believed their healthcare professional did not understand that pain was a problem (12%). A substantial minority of patients indicated that they believed that their clinician would rather treat their cancer than the accompanying pain (38%), that their clinician did not have time to discuss pain within a consultation (33%) and that their treating clinician did not know how to treat moderate to severe cancer pain (26%).

Pain treatment

In this sample, all of whom had moderate to severe pain, 11% of patients were not receiving any analgesic medications. Among those with severe to most severe pain (NRS 7–10), 42% of patients were treated with a step III opioid either alone (24%) or in combination with another agent (17%), 17%

were treated with a step II opioid either alone (9%) or in combination with a non-opioid (8%) and a further 11% were treated with a non-opioid alone. However, 19% of the survey participants did not respond to this question.

Breakthrough pain or inadequate pain relief was common among those receiving prescription medicine and occurred in 63% (281/441) of patients. Of these patients, 58% (165/281) reported inadequate pain relief either all of the time, every hour, several times daily, daily or several times per week. Only one-third of patients experiencing inadequate pain control were treated with additional analgesic medication and only 10% revived additional step III opioids.

The most common adverse effect reported by patients taking a prescription opioid medication (n=266) was constipation (37%). Of patients taking prescribed opioids who experienced constipation, only a quarter had not been coprescribed a laxative, and a very small percentage used over the counter medications for constipation. The other frequently reported adverse effects among opioid treated patients were nausea and vomiting (33%), and sedation (20%). However, 26% reported no adverse effects.

The impact of pain on patient lives

Overall, only 48% of patients with pain reported that they had a good quality of life. Substantial proportions of patients reported that pain stopped them concentrating or thinking (51%), that pain created difficulty in performing normal activities in daily life (69%) and that cancer pain made them an increased burden to others (43%). Almost one-third of patients (30%) were in too much pain to be able to care sufficiently for themselves or for others, and of those still in employment, 52% stated that their pain impacted on their work performance.

Pain associated with cancer was described as distressing by 67% of patients, as an intolerable aspect of their cancer by 36%, and 32% reported that they felt so bad they wanted to die.

Discussion

The results of this pan-European 12 country survey highlights the fact that cancer pain remains an issue, that assessment is often poor and suboptimal treatment and outcomes are frequent. Poor care of cancer pain is unacceptably commonplace in Europe. Furthermore, many patients feel that their treating clinicians prioritise the treatment of cancer over the treatment of pain and that this is reflected in lack of assessment or time devoted to the issue in consultations. Consequently, many patients report feeling disempowered, that their

quality of life is not a consideration for their treating clinician and that their clinicians do not understand their pain or how to treat it.

This survey found that many patients with moderate to severe cancer pain (NRS 5–6/10) received no analgesic medication. Among patients reporting severe pain (NRS 7–10/10), only 42% received strong opioid analgesics, and the use of weak opioids (step II) and other non-opioid analgesics as the main analgesic was almost equally prevalent.

Several reasons may account for the poor care of cancer pain:

- ▶ Inadequate appreciation by the physician of the intensity of the pain
- ▶ Lack of knowledge
- ▶ Fear of the adverse effects of step III opioids
- ▶ Regulatory barriers to opioid prescription and dispensing

Breakthrough pain is shown to be prevalent and presents a significant problem to patients. Only a minority of patients were prescribed an appropriate rescue medication for breakthrough pain. Similarly, the study found that side effects present a significant issue to patients, in particular opioid induced gastrointestinal dysfunctions such as nausea and constipation. Indeed, only a minority of patients received prophylactic laxative therapy in line with published guidelines.

Taken together, pain and medication side effects exert a significant effect on patients' quality of life, impacting on their ability to work and socialise, and even instigating thoughts of death in a considerable number of cancer patients.

Overall the survey found that there was significant opportunity to improve the management of cancer pain in all of the surveyed countries in Europe. There is a need to develop effective strategies for translating knowledge into improved clinical practice.

The report concluded with a range of potential strategies that could improve pain control in routine practice:

- ▶ Increasing the priority of pain control in healthcare systems which currently focus mainly on curative disease management.
- ▶ Education to improve the assessment of pain for clinicians, nurses and pharmacists^{3–5}; current lack of education may perpetuate the notion that pain is not a priority in patient care.
- ▶ Education for clinicians and healthcare professionals to overcome reluctance to prescribe opioids appropriately for patients in pain.^{3,4,6}
- ▶ Clear communication of opioid prescribing from a regulatory perspective to overcome the fear of regulatory scrutiny

for physicians³ in line with available guidelines regarding the availability of opioids from the WHO and the International Narcotics Control Board.⁷

- ▶ Education for patients to increase adherence to therapy⁸ and help them overcome patient aversion to side effects, such as constipation and confusion, or fears of addiction and tolerance,^{9,10} as well as help to overcome psychological barriers patients have about cancer pain—for example, ‘pain with cancer is inevitable and intractable’ or a belief that if they bother the doctor with their pain they are not being ‘good patients’.¹¹
- ▶ Improving reimbursement mechanisms—currently some reimbursement mechanisms either do not reimburse opioids for cancer pain, particularly those in outpatient situations,² or favour high technology approaches—for example, pumps, over oral opioid therapy.²
- ▶ Improvements in pain assessment—improved assessment of pain provides the clinician with a baseline on which to provide better pain management^{12,13} and such measurements would help to countercurrent observations that suggest a majority of patients with moderate to severe pain due to cancer do not receive analgesia appropriate for their pain.^{3,14,15}
- ▶ Implementation of simple protocols for oral opioid pain control has been shown to improve the management of pain for patients, although this study¹⁶ was conducted on a small scale in only two cancer types (non-small cell lung cancer and prostate cancer). However, patients treated according to an oral pain management protocol achieved significantly better reductions in pain ($p=0.008$) compared with those treated

Key messages

The European Pain in Cancer (EPIC) survey is summarised and its major findings presented. The survey found that inadequate treatment of cancer pain remains widely prevalent in Europe. Remedial efforts are needed to address this public health problem.

with analgesia according to physician discretion.

- ▶ Implementation of guidelines and policies from a governmental perspective to highlight pain as an imperative, and actively promote or legislate that it be taken seriously.

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References

1. Breivik H, Cherny N, Collett B, *et al.* Cancer-related pain: a pan-European survey of prevalence, treatment, and patient attitudes. *Ann Oncol* 2009;20:1420–33.
2. Dahl JL. Pain: impediments and suggestions for solutions. *J Natl Cancer Inst Monographs* 2004;32:124–6.
3. Cleeland CS, Gonin R, Hatfield AK, *et al.* Pain and its treatment in outpatients with metastatic cancer.

N Engl J Med 1994;330:592–6.

4. Lyne ME, Coyne PJ, Watson AC. Pain management issues for cancer survivors. *Cancer Pract* 2002;10 (Suppl 1):S27–32.
5. Furstenberg CT, Ahles TA, Whedon MB, *et al.* Knowledge and attitudes of health-care providers toward cancer pain management: a comparison of physicians, nurses, and pharmacists in the state of New Hampshire. *J Pain Symptom Manage* 1998;15:335–49.
6. Joranson DE, Gilson AM. Pharmacists' knowledge of and attitudes toward opioid pain medications in relation to federal and state policies. *J Am Pharm Assoc (Wash)* 2001;41:213–20.
7. World Health Organisation. Achieving balance in national opioids control policy: Guidelines for assessment. Geneva: World Health Organisation, 2000.
8. Miaskowski C, Dodd MJ, West C, *et al.* Lack of adherence with the analgesic regimen: a significant barrier to effective cancer pain management. *J Clin Oncol* 2001;19:4275–9.
9. Pargen KL, Hailey BJ. Barriers to effective cancer pain management: a review of the literature. *J Pain Symptom Manage* 1999;18:358–68.
10. Weiss SC, Emanuel LL, Fairclough DL, *et al.* Understanding the experience of pain in terminally ill patients. *Lancet* 2001;357:1311–5.
11. Ward SE, Goldberg N, Miller-McCauley V, *et al.* Patient-related barriers to management of cancer pain. *Pain* 1993;52:319–24.
12. Du Pen SL, Du Pen AR, Polissar N, *et al.* Implementing guidelines for cancer pain management: results of a randomized controlled clinical trial. *J Clin Oncol* 1999;17:361–70.
13. Trowbridge R, Dugan W, Jay SJ, *et al.* Determining the effectiveness of a clinical-practice intervention in improving the control of pain in outpatients with cancer. *Acad Med* 1997;72:798–800.
14. Von Roenn JH, Cleeland CS, Gonin R, *et al.* Physician attitudes and practice in cancer pain management. A survey from the Eastern Cooperative Oncology Group. *Ann Intern Med* 1993;119:121–6.
15. Cleeland CS, Gonin R, Baez L, *et al.* Pain and treatment of pain in minority patients with cancer. The Eastern Cooperative Oncology Group Minority Outpatient Pain Study. *Ann Intern Med* 1997;127:813–6.
16. Cleeland CS, Portenoy RK, Rue M, *et al.* Does an oral analgesic protocol improve pain control for patients with cancer? An intergroup study coordinated by the Eastern Cooperative Oncology Group. *Ann Oncol* 2005;16:972–80.