

The Challenge of Cancer Pain Assessment

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Accepted: 26th February 2018

PREFACE

James Alexander Logan, a second-year medical student at the Barts and The London School of Medicine and Dentistry, died in February 2001 after a painful illness. A Trust was set up in his name in 2003 to promote education in the recognition and treatment of cancer pain and it provided funds for an annual essay prize, open to those undergraduate medical students of Queen's University, Belfast, who had completed their fourth-year palliative care teaching. The first competition took place in 2010 and the winning entry appeared in the Ulster Medical Journal in 2011. The Trust itself was dissolved in 2014 but the essay prize continues and the Trust's website can still be accessed at <http://www.jameslogantrust.org.uk/>

INTRODUCTION

Saint Augustine wrote that "the greatest evil is physical pain." Pain is often one of the most feared, distressing and burdensome symptoms for cancer patients. Despite vast advances in both the diagnosis and treatment of cancer in recent years, alongside hugely significant pharmacological and technological developments, 52-77% of cancer patients experience pain¹ and 35% of these patients report their pain as being moderate to severe².

Cancer pain is hugely complex and challenging to both assess and manage. The experience of pain is unique to each patient and will vary throughout their disease process. The variance in pain relates to tumour growth, side effects of anti-tumour treatment, metastases and presence of other co-morbidities.

In the assessment and management of cancer pain it is important that the immense stress and anxiety that a cancer diagnosis brings is not underestimated. Patients can often have fears relating to the future, prognosis, families, finances and treatment. All of which can all have a significant impact on pain perception; thus reinforcing the importance of holistic patient care within the cancer setting³.

Pain can be hugely debilitating both physically and psychologically and can have a considerable impact on quality of life. Despite the aforementioned advances in medicine, statistics clearly show that cancer patients' still experience significant levels of pain; thus management within this patient population is presently inadequate. Constructing an optimal analgesic strategy for cancer pain relies on comprehensive

assessment through compiling and reviewing the history of the pain complaint and effective clinical examination⁴.

The dynamic and complex nature of cancer pain can lead to challenges when assessing these patients and often presents a barrier to optimal pain management. This paper aims to identify and discuss the major physician and patient barriers to adequate pain assessment and management within the cancer population and highlight patient groups at particular risk of inadequate pain control.

Barriers to effective pain management within the cancer population can be broadly categorised into two main groups:

- I. Factors relating to the patient themselves; and
- II. Factors that are extrinsic to the patient including physician factors, complexities relating to the cancer pathophysiology and pain pathways and lack of effective, validated assessment tools.

PATIENT FACTORS

Misconceptions relating to analgesics

Patients may unintentionally hinder effective management of their pain. This is attributed largely to fears relating to analgesics; their side effects, addiction, tolerance and a reluctance to report increases in pain due to fears it may indicate deterioration in their disease status or prognostic decline⁵.

Ward et al. constructed the "Barriers Questionnaire" to identify patient barriers contributing to inadequate pain control. In addition to the above, it also identified that patients refrained from reporting pain as they didn't wish to distract physicians from treating the cancer or impede delivery of anti-tumour treatment, fear of injections, religious beliefs and worries surrounding being a troublesome patient were also significant barriers⁶.

Several studies have proposed the use of Pain Education Programmes (PEPs) to eliminate patient misconceptions thus enhancing patients' ability to report pain, facilitating more effective physician assessment and treatment. Evidence relating to their effectiveness is largely inconclusive and more high-quality research is needed to determine their usefulness within the cancer patient population^{7,8}.

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Patient Demographics

Patient age is an important factor to consider when assessing and managing pain in the cancer setting. Cancer incidence increases with age and elderly patients typically present with advanced pathology often complicated by multiple comorbidities⁹. Elderly cancer patients may demonstrate additional barriers which can impede effective assessment, such as cognitive impairment and they often experience altered, atypical pain experiences and display differing responses to analgesics prescribed. Similarly, they may be at increased risk of experiencing undesirable side effects and at higher risk of drug toxicity due to associated decline in renal function with age¹¹.

Ethnicity is another factor which must be considered. The World Health Organisation formulated a structured guideline for the management of cancer pain, however, significant disparities exist in the context of providing adequate pain control for patients in ethnic minority groups. Cleeland et al. investigated this phenomenon and concluded from their study of 1300 patients that those in ethnic minority groups were two thirds less likely to have appropriate opioid analgesics prescribed when compared to non-Hispanic white individuals. Furthermore, the vast majority of high quality evidence relating to cancer pain assessment has been conducted in Caucasian individuals, thus highlighting a need for further research into cancer pain management in patients from ethnic minority backgrounds¹². Suboptimal treatment has been attributed to communication barriers between patients and medical staff, differences in socioeconomic status and unintentional stereotypes conveyed by medical staff¹³. In a society defined by an aging population and increasing ethnic diversity, more research is needed to further identify barriers to assessment of pain and strategies to optimise pain control in these patient groups.

EXTRINSIC FACTORS

Physician Factors

Doctors have cited the most significant barriers to adequate pain control as inadequate assessment of the pain complaint owing largely to lack of a reliable, validated assessment tool, reluctance of patients to report pain and insufficient physician knowledge of analgesics and pain management strategies⁵.

Several studies identified inadequate knowledge of analgesics as one of the most significant barriers to effective pain management in up to 50% of physicians¹². Regarding tolerance to opioids 50% of physicians demonstrated sparse understanding, 20% overestimated the likelihood of patients developing addiction and most significantly there was a lack of knowledge regarding the pharmacology and prescription of such medications relating to dosage, timing, administration routes and drug conversion calculations¹⁵. Positively, the majority of healthcare workers were aware of the importance of appropriate pain control in improving quality of life, however many felt that they had limited ability to manage pain amongst cancer patients¹². A systematic

review determined that medical staff who delivered optimal analgesic control were less concerned with side effects and addiction and prescribed stronger opioid medications whilst demonstrating knowledge on how to effectively assess the requirement for breakthrough pain relief and ability to prescribe appropriately.

Pain Assessment Tools

Lack of an effective and validated pain assessment tool specifically designed for use within the cancer population has been identified by 20-80% of Doctors as one of the main barriers to effective pain management. The majority of Doctors did not use any pain assessment tools or take detailed pain histories relating to the type and nature of the pain¹³. Those who did use assessment tools, in 80% of cases chose the numerical rating scale and visual analogue scale in and more detailed measures such as the "McGill Pain Questionnaire" were rarely used¹⁴. A concerning finding from the "EPIC" multicenter study determined that 27% of cancer patients were not asked about pain by their physicians, highlighting the need for enhanced knowledge regarding assessment and treatment in this area¹⁵.

Structuring of Healthcare Services

Perhaps one of the most significant barriers to optimal pain assessment and management can be attributed to the fragmented nature in which cancer patients are managed. Care of such patients takes place in multiple settings by a range of health care professionals depending on the cancer trajectory. These will typically include but not limited to general practitioner care in the community to hospital-based care delivered by oncologists, surgeons and palliative care specialists. Although multidisciplinary team management of cancer patients is the gold standard approach, this can lead to inconsistencies in care and thus in pain assessment and management also¹⁶.

Healthcare for cancer patients is increasingly being delivered in the primary care setting. As a result, research into analgesics and pain assessment tools to date has primarily been conducted in the hospital environment, which has led to an absence of high quality research relating to cancer pain assessment in the community^{16,17}.

CONCLUSION

Despite vast diagnostic and therapeutic advances in recent years, cancer pain remains inadequately assessed and managed. Suboptimal treatment of pain can have a devastating impact on quality of life.

Effective assessment of pain in the cancer setting involves holistically assessing the patient, looking beyond the pathology and encompassing psychological, cultural, social and spiritual contributors to the pain experience. Approximately 14 million people are newly diagnosed with cancer worldwide each year, enhanced pain assessment has the potential to benefit all cancer patients and make their cancer journey more manageable.



The importance of developing an assessment strategy that will effectively evaluate patient pain whilst being user friendly and deliverable in the hospital and community care environments is imperative. Further high-quality research is required to improve the standard of care amongst the cancer patient population. This must be reinforced despite the extreme pressures faced by physicians in the clinical environment today.

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