

The Challenge of Cancer Pain Assessment

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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

It is estimated that up to 80% of cancer patients experience disease related pain, and an estimated 65-80% of cancer patients with advanced disease suffer pain so severe that it negatively impacts their activities of daily living, disrupts their sleep pattern, depresses their mood and interferes with normal social functioning and relationships.¹⁻³ Furthermore, uncontrolled pain delays healing and recovery, leading to poorer outcomes for cancer patients.⁴ Cancer pain can be well controlled in up to 90% of cases⁵, but current evidence suggests that almost half of cancer patients in the developed world receive sub-optimal pain management.¹ The leading barrier to well controlled cancer pain is its inadequate assessment and reassessment.⁶ Despite this being widely understood, cancer pain remains a prevalent problem.

In this essay I will examine the leading challenges of cancer pain assessment including the complex nature of cancer pain, barriers to patient reporting, ineffective communication of pain and physician and systematic failures. In doing so, I aim to identify how cancer pain assessment can be improved in the future.

CANCER PAIN: A COMPLEX PHENOMENON

Cancer pain is difficult to define due to the complexity of its origins and the biological, psychological, social and cultural influences on its perception.^{6,7} In 1972, Margo McCaffery, a registered nurse and pioneer of pain management nursing, defined pain as 'whatever the experiencing patient says it is, and exists whenever he/she says it does'.⁸ This definition describes the subjective nature of pain and the importance of the patient's experience of pain.

In 1964, Dame Cicely Saunders defined 'total pain'⁹ as a phenomenon that encompasses the physical symptoms, mental distress, social problems and emotional difficulties of pain¹⁰. She also recognized, for the first time, the spiritual suffering associated with physical pain¹¹. Perhaps the key aspect of Dame Saunders' observations was, however, the biographical quality of pain and the importance of the patient's story and experience.⁹ Similarly, this approach to pain highlighted the need for multiple interventions for the effective management of pain. This concept of pain as a multi-modal experience together with the subjective and individualistic nature of pain underline the complexity of assessing pain for patients in the cancer setting.

Cancer pain further incorporates a range of aetiological factors, with about 75% of pain caused by the cancer itself, and the remainder caused by diagnostic procedures and treatments.^{6,12} Tumours cause pain by compressing or invading healthy innervated tissue, triggering inflammation or infection, or releasing chemicals that make normally non-painful stimuli painful.¹² Accordingly, cancer pain is often classified as somatic, visceral or neuropathic in origin.¹³ In advanced cancer, multiple mechanisms of pain often occur simultaneously at different sites. Each mechanism and anatomical site requires focused investigation. For example, a patient with advanced cancer may experience liver capsule pain from liver metastases, back pain from spinal metastases and neuropathic pain from systemic chemotherapy regimens. Management of such pain may require corticosteroids, radiotherapy and anti-epileptics for the liver, bone and neuropathic pain, respectively.¹⁴ In such a case, pain would be inadequately managed if each source of pain was not carefully considered and assessed.

Not all cancer patients will experience all modalities of cancer pain, but for optimal cancer pain assessment and control all potential modalities of pain must be considered for each patient and addressed appropriately.

HOW DO WE CURRENTLY ASSESS PAIN IN CANCER PATIENTS?

As with all pain syndromes, accurate, thorough, and systematic assessment of cancer pain is crucial to identifying the underlying aetiology and developing a treatment

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plan.¹⁵ In all patients experiencing pain, a full pain history, general and focused physical examinations and complete psychosocial assessment should be performed.¹⁶ There is often, however, variability in the overall impression of pain between healthcare professionals due to the subjective nature of these assessment methods.¹⁷ There is also a reported lack of appropriate documentation of pain assessment with these methods leading to inaccurate monitoring of pain and pain control¹⁸. As such, the development of standardised assessment tools have reduced variability in pain reporting and improved documentation of pain assessment.¹⁸ A variety of tools have been designed to assess pain in cancer.¹⁹

Pain intensity scales are unidimensional and include the 11-point numeric rating scale, a verbal descriptor scale (mild, moderate or severe) or a visual analogue scale (a line of increased severity).²⁰ There are also scales that use drawings of faces to facilitate patients who cannot easily use the above tools. These are very useful for confirming the presence of pain, gaining some basic information about that pain, tracking the course of pain over time and determining the efficacy of pain management. Multidimensional tools, including the Brief Pain Inventory and the McGill Pain Questionnaire, are clinically useful in cancer patients as they assess not only the location and severity of pain but evaluate impairment due to pain.²⁰ The use of multidimensional scales including the Edmonton Symptom Assessment Scale and the Distress Thermometer that include the most common symptoms (e.g. depression, pain, fatigue) may help in identifying symptom clusters and may also assess psychological, practical and spiritual aspects to pain in a systematic manner.²⁰

Such scales used together can assist doctors and other caregivers to standardise pain assessment and to monitor pain appropriately and objectively. They also facilitate the development of guidelines for pain management on the ward that can be utilised by less experienced staff.

IDENTIFYING AND OVERCOMING CHALLENGES OF CANCER PAIN ASSESSMENT

Despite cancer pain being widely treatable, it is often undermanaged due to poor pain assessment. The barriers to effective assessment and management can be broadly characterised by factors relating to the patient, healthcare professional and healthcare system.

PATIENT FACTORS: OPTIMISING COMMUNICATION

The assessment of pain relies heavily on patient reporting.²¹ The most significant patient-related barriers are the patient's reluctance to report pain and adhere to treatment recommendations.²² Patients may, in some instances, under-report pain for a variety of reasons including the belief that cancer pain is inevitable and should be tolerated, that reporting pain may distract from treatment of the primary disease and fears that pain may indicate progression of disease.²³ Cancer and pain are not synonymous, and not all cancer patients experience pain.¹ Addressing fears and

false beliefs is the responsibility of the attending physician and should be performed early in the diagnosis. Patients should also be fully educated about different presentations of pain, their meaning and the efficacy of available treatment options.²¹ Patients may also harbour fears regarding the analgesics themselves and their efficacy²⁴. Many patients fear that early pain control will promote tolerance and impede control later in the disease.²⁵ Patients are also often hesitant to take opioid analgesia because of stigma and concerns with dependence.²⁵ Concerns about side effects can further prevent cancer patients from reporting pain and seeking appropriate care.²⁴ These issues must be borne in mind by doctors and other healthcare providers when treating all cancer patients and relevant information giving should be provided to patients upon diagnosis to allay fears and false beliefs.

Pain is considered a 'mind-body' experience with the 'mind' encompassing the perception and interpretation of pain while the 'body' encompasses the pathways and processing of pain.²⁶ It is for this reason that self-reporting is central to the assessment of pain. In non-communicative patients, the mind-body experience cannot be articulated through self-reporting.^{26,27} Non-verbal cancer patients can include those at the extremes of age, comatose or unconscious patients, the critically ill and the cognitively impaired. The International Association for the Study of Pain (IASP) states, "The inability to communicate verbally does not negate the possibility that an individual is experiencing pain and is in need of appropriate pain-relieving treatment".²⁷ Clinicians must therefore tailor pain assessment to non-verbal patients and this has been a significant challenge in the field. Current evidence indicates that the best predictors of pain in non-verbal patients are physiological parameters, including blood pressure and pulse rate, and behavioural indicators.²⁸ Physiological measures are, however, indicators only and are not sensitive screening tools.²⁸ As such, tools like the Behavioural Pain Scale and Checklist of Non-Verbal Pain Indicators (CNPI) have been developed to assess pain by scoring observable behaviours including facial expressions, movement of upper limbs and vocalisation.^{29,30} As with verbal patients, pre-emptive pain assessment using a valid tool and timely intervention can accurately identify pain and facilitate its management.

HEALTHCARE PROFESSIONAL FACTORS: IMPROVING KNOWLEDGE, SKILLS AND ATTITUDES

Poor assessment of pain and inadequate knowledge on the part of clinicians have been identified as major barriers to cancer pain treatment.³¹ Medical graduates will ultimately undertake the task of identifying, assessing and treating patients with cancer pain. Thus, the IASP has emphasised the importance of undergraduate teaching in pain management and have developed an undergraduate curriculum. Despite this, the topic of pain, and indeed cancer pain, is currently inadequately addressed according to various studies.^{32,33} Additionally, the development of positive attitudes and conduct in relation to cancer pain management has also been shown to be sub-



optimal.^{34,35} Accordingly, Briggs et al.³⁶ found pain education to be “fragmented, inadequately assessed and inconsistent between universities.” In practice, clinicians inexperienced in cancer pain may not have the skills to perform the relevant pain assessment, resulting in inaccurate diagnosis of pain. Anxiety about the use of regulated drugs, concerns regarding the side effects of strong analgesics and the fear of the patient developing tolerance to analgesia have also been reported as significant factors in inadequate assessment and control of cancer pain.^{21,37} There is, therefore, a proven need for improved education in cancer pain assessment and management at all levels of professional education to provide clinicians with the knowledge, experience and confidence to appropriately treat cancer pain.

SYSTEMATIC FACTORS: PROVISION OF SERVICES AND STANDARDISATION OF CARE

The most significant systematic barriers to achieving adequate cancer pain assessment are the healthcare setting and the lack of standardised methodology. Over the last decade, cancer care has been defragmented with the development of purpose-built cancer centres. This has helped to streamline cancer services in secondary care.³⁸ Oncology patients are, however, treated more and more often in the community for their pain. The European Prospective Investigation into Cancer and Nutrition (EPIC) study³⁹ revealed that 1 in 5 patients in the community with cancer pain were not treated with analgesia while over 1 in 4 patients treated with analgesia reported pain as greater than 5 on the Numerical Rating Scale (NRS). A Marie Curie study of 1000 GPs also revealed that 6 in 10 GPs believed that the majority of their terminally ill patient’s pain was not adequately controlled.⁴⁰ This report suggests that without additional resources and/or the development of modern technology to improve patient-doctor communication cancer pain will continue to be undertreated.⁴⁰ Furthermore, the lack of a universally accepted methodology/tools impedes cancer pain assessment at all levels.⁴¹ Indeed, there are various fit-for-purpose tools but evidence of their efficacy in all groups is lacking. The development or acceptance of one method and its implementation as a standard measure would enable the development of more concrete pain assessment guidelines that could be readily introduced in all healthcare settings.⁴¹

CONCLUSIONS

Cancer pain is a complex, devastating experience for patients when it is under-assessed and under-treated by healthcare professionals. The consequences extend far beyond the uncomfortable physical experience of pain, impacting all aspects of a patient’s life. In non-terminal cancer patients, it hinders recovery and can develop into chronic pain syndromes that can last a lifetime. For terminal cancer patients, the final months, weeks and days of their lives are spent in discomfort with depressed mood and impaired functioning. This is cruel to the patient and cruel to their families, who watch their loved ones suffer with a devastating illness. It is therefore imperative that we do not consider cancer pain the responsibility of the palliative care

team or the oncologist, but the responsibility of every doctor, nurse and healthcare worker involved with that patient’s care. With more thoughtful consideration of the suffering of cancer patients, together we can work to eradicate a proven eradicable condition and improve the lives of many thousands of patients.

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