Quality of Life Measures in Cancer Chemotherapy
Methodology and Implications

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Contents

376-387

Summary

Quality of life has been an implied outcome of medical care since ancient times, yet only recently have tools become available to measure quality of life in a systematic fashion. Cancer is one of the chronic diseases where quality of life outcomes have been particularly salient.

Currently, there are a wide variety of generic and cancer-specific instruments that are being used to evaluate the impact of cancer chemotherapy on the patient’s quality of life. Most of these instruments rely on patient self-report rather than expert evaluation.

The addition of quality-of-life (QOL) assessment to pharmacological investigations of cancer chemotherapy may enhance evaluation of clinical outcomes, as well as identify unsuspected drug toxicities. Clinicians, researchers and pharmaceutical companies are more frequently incorporating these measures into the design of cancer treatment protocols. Data on the performance of these tools should become more widely available in the near future, leading to refinements in the selection and use of specific instruments for different purposes.

Quality of life has been an implied outcome of medical care since the time of Hippocrates. Physicians are taught to accept responsibility for maximizing the welfare of their patients through relief of suffering and cure of illness whenever possible. Recently, the paternalistic role of the physician in determining what is best for the patient has been questioned by increasing patient autonomy and par-
ticipation in healthcare. This changing relationship between physician and patient has occurred during a period in which there has been growing interest in measuring the health outcomes of medical treatments (Heithoff & Lohr 1990). These historical and new developments set the stage for the increasing interest in the measurement of quality of life in cancer patients.

Concurrently, quality-of-life (QOL) assessment has taken on a more critical role in the evaluation of pharmaceutical products as they pass through the regulatory process (Johnson & Temple 1985). For some agents, the QOL impact is of secondary importance, while for others the only benefit of therapy is the drug’s effect on quality of life. These issues are particularly salient when considering pharmacological agents used to treat cancer, or with other agents that provide supportive or palliative benefits to patients with cancer (e.g. antiemetics, analgesics, haematopoietic growth factors).

This review will provide background information on the definition and conceptualisation of quality of life, discuss some of the key methodological considerations in the measurement of quality of life, examine areas of controversy, and finally review the scope of English language instruments that are available to measure quality of life associated with cancer chemotherapy.

1. Definition of Quality of Life and Its Conceptualisation

Although most of us intuitively understand what the phrase quality of life connotes, it has been exceedingly difficult for social scientists, health services researchers and clinicians to define precisely. Often, quality of life is used by the authors of scientific papers without explicit definition, and a wide range of variables are used as measures of quality of life, from physiological indicators such as weight loss, to standardised psychological measures of emotional distress (Hollandsworth 1988).

Quality of life has been a frequently abused catch phrase. Fortunately, there is growing consensus about the definition of quality of life. Definitions proposed by 2 research groups include:

(a) ‘quality of life is the subjective evaluation of life as a whole’ (De Haes 1988); and (b) quality of life ‘refers to patients’ appraisal of and satisfaction with their current level of functioning compared to what they perceive to be possible or ideal’ (Cella & Cherin 1988).

The first definition emphasises the subjectivity of the measurement as well as the importance of a global assessment or summary score. The second definition also highlights the subjectivity of QOL assessment, as well as the preference or value given to the person’s current health state. For example, 2 people with the same disability may place a different value on their current health state. Conceptually, both of these definitions contribute to our understanding of the phrase quality of life, although they do not necessarily indicate how it should be measured.

Many recent reviews and papers have focused on the evolving conceptualisation of quality of life (Aaronson 1988; Cella & Tulsky 1993; De Haes & Van Knippenberg 1985; Guyatt et al. 1993). While the concept of quality of life has broad and general meaning, based on its roots in ancient philosophical works, contemporary attempts to define and measure quality of life derive from earlier work designed to measure the well-being of the population using social indicators such as housing, employment, income, etc. (Andrews & Withey 1976; Campbell 1974, 1981).

Over 2 decades ago, Breslow and colleagues (1972) studied the health and well-being of a population sample in Alameda County, California. In their work, they adopted the World Health Organization (WHO) definition of health to guide their assessment of the population, focusing on the physical, emotional and social dimensions of well-being. Although they examined some social indicators in their study sample, the thrust of their work was on the self-reported evaluation of the 3 dimensions of well-being identified in the WHO definition of health. These early QOL researchers demonstrated the feasibility of reliably asking people about these dimensions of health-related quality of life (Breslow 1972).