

Introduction

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Mortality in breast cancer has declined in the past decade, due to earlier diagnosis and improved treatment. Despite these advances, many women will develop distant metastases within 5 years of their initial diagnosis. In these patients, it is the metastases at distant sites and not the primary tumour that is the main cause of death. There is clearly an urgent need to improve treatment outcomes and to identify patients who are at greatest risk for developing metastases.

The application of adjuvant chemotherapy and hormonal therapy has made a significant positive impact on the clinical outcomes of patients with breast cancer; they substantially reduce the risks of relapse and death. Adjuvant chemotherapy has evolved over the past three decades from the early use of cyclophosphamide/methotrexate/5-fluorouracil to the addition of new agents and modified treatment schedules and dosing. The introduction of gene expression profiling and targeted therapies have the potential to allow tailored molecularly targeted treatment approaches and to select those patients who will benefit most from therapy.

Some of the established markers include axillary lymph node involvement, tumour size/grade, oestrogen/progesterone-receptor status and more recently, epidermal growth factor receptor 2 (ErbB-2; Her-2/neu) gene amplification and expression. Some of the newer technologies in development include genomics and proteomics.

The articles in this supplement provide insight into the analysis and interpretation of breast cancer data in 2006 and beyond. The important roles of currently available treatments and how to optimise their use in patients with early or metastatic breast cancer will be discussed. In addition, new chemotherapeutic and biologically targeted therapies that have been introduced or are under current development will be addressed. We are confident that these proceedings from the European Breast Cancer Conference will provide interesting reading and additional insight for the current and future clinical management of patients with breast cancer.