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The Contribution of Cytotoxic Chemotherapy to the Management of Cancer

Sir — We read with interest the paper by Morgan *et al.* [1], which claimed to assess the contribution of curative or adjuvant cytotoxic chemotherapy to survival in adults with cancer. We are concerned that their approach underestimates the contribution of chemotherapy to the care of cancer patients. By using all newly diagnosed adult patients as a denominator, despite the fact that chemotherapy is not indicated for many of these patients, the magnitude of the benefit in many sub-groups is obscured.

Furthermore, the authors use a time-point of 5 years to assess effect on survival. This will underestimate the efficacy of chemotherapy because of late relapses. In breast cancer, the leading cause of cancer death in women, survival curves show ongoing relapses beyond 5 years. Adjuvant chemotherapy produces an absolute survival benefit at 10 years in women less than 50 years with node-negative and node-positive disease of 7% and 11%, respectively, whereas the benefit at 5 years is 3% and 6.8% [2]. Quality-adjusted Times Without Symptoms of disease and Toxicity of treatment (Q-TWIST) analysis has shown additional benefits beyond just survival, with adjuvant treatment of breast cancer prolonging quality-adjusted survival, partly by delaying symptomatic disease relapse [3].

The paper also contains several inaccuracies and omissions. The authors omitted leukaemias, which they curiously justify in part by citing the fact that it is usually treated by clinical haematologists rather than medical oncologists. They also wrongly state that only intermediate and high-grade non-Hodgkin's lymphoma of large-B cell type can be cured with chemotherapy, and ignore T-cell lymphomas and the highly curable Burkitt's lymphoma. They neglect to mention the significant survival benefit achievable with high-dose chemotherapy and autologous stem-cell transplantation to treat newly-diagnosed multiple myeloma [4]. In ovarian cancer, they quote a survival benefit from chemotherapy of 11% at 5 years, based on a single randomised-controlled trial (RCT), in which chemotherapy was given in both arms [5]; however, subsequent trials have reported higher 5-year survival rates. In cancers such as myeloma and ovarian cancer, in which chemotherapy has been used long before our current era of well-designed RCTs, the lack of RCT comparing chemotherapy to best supportive care should not be misconstrued to dismiss or minimise any survival benefit. In head and neck cancer, the authors erroneously claim the benefit from chemotherapy given concomitantly with radiotherapy in a meta-analysis to be 4%, when 8% was in fact reported [6].

The authors do not address the important benefits from chemotherapy to treat advanced cancer. Many patients with cancers such as lung and colon present or relapse with advanced incurable disease. For these conditions, chemotherapy significantly improves median survival rates, and may also improve quality of life by reducing symptoms and complications of cancer. Advanced cancer consumes a significant component of the healthcare dollar, and chemotherapy can be a cost-effective treatment. For example, lung cancer with more than two-thirds of patients presenting with advanced disease, accounted for 5.6% of total healthcare system costs in Australia in 1993–1994 [7]. The use of chemotherapy rather than best-supportive care alone is cost-effective, as it reduces costs of treatment of complications of lung cancer and requirement for palliative radiotherapy to control pain [8,9].

Although we fully agree that there is a need for evidence-based assessment of all treatments, the contribution of this type of analysis, with pooling of all cancer patients, is questionable and potentially misleading. It is time to focus on future improvement by providing optimal evidence-based multi-disciplinary care to our patients.

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