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The Economic Impact of 5-HT$_3$ Receptor Antagonists

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JONES AND COLLEAGUES present data on the budgetary impact of the 5-HT$_3$ receptor antagonists [1]. However, their model makes no attempt to quantify the financial and resource benefits of using the 5-HT$_3$ receptor antagonists in terms of their enhanced efficacy and tolerability (i.e. the costs associated with caring for a patient experiencing emesis or the side-effects of conventional antiemetics). In this regard it is of particular interest that Jones *et al.* suggest that the use of the 5-HT$_3$ receptor antagonists is not justified over the delayed emesis period. They have ignored data in the literature that report good efficacy for oral ondansetron over this period [2–4], and show that it is superior to placebo and metoclopramide following cisplatin [5] and non-cisplatin [6] chemotherapy, respectively. Clearly, the role of the 5-HT$_3$ receptor antagonists over this period needs to be further defined; in particular, to quantify the additional benefits resulting from their enhanced tolerability and impact on patients' quality of life [7, 8]. Conventional antiemetics have a significant propensity for side-effects, e.g. extrapyramidal reactions and sedation which are associated with impaired quality of life. The lack of such side-effects with ondansetron enables patients to carry out normal daily activities at home or work.

The cost effectiveness of 5-HT$_3$ receptor antagonists in clinical practice can only be fully evaluated from a broader perspective. Limiting the scope of evaluation to drug acquisition costs ignores the financial consequences of treatment failure and side-effects.

Table 1. GM-CSF-related side-effects in 59 testicular cancer patients treated with intensified PEI chemotherapy

Side-effects	Number of patients		
	5 μg/kg	10 μg/kg	Total
Anaphylactic type reaction (bronchospasm, myalgia, fever, skin reaction)	2	3	5 (8.4%)
Fever (without infection)	0	3	3 (5.1%)
Cutaneous reaction alone	1	1	2 (3.4%)

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Ductal Carcinoma *in situ*

Melvin J. Silverstein

DR LAWRENCE [1] correctly states that our 7-year actuarial recurrence rate following tumourectomy and radiation for patients with ductal carcinoma *in situ* (DCIS) is 10%. Since half the treatment failures were invasive, he assumes that the "risk of invasive cancer in DCIS patients treated with tumourectomy and radiation is 5%" at 7 years. Since he does not have the raw data and does not know the timing or the type (invasive or non-invasive) of each recurrence, this 5% figure may or may not be true. He then goes on to compare this 5% invasive recurrence rate in our treated DCIS patients with a number that he claims represents the general population's chances of developing invasive breast cancer, a figure of 12–15%. He then concludes that the treated DCIS patient has a lower risk of developing invasive breast cancer than women in the general population: 5 vs. 12–15%. He goes on to say that "mastectomy is more prophylactic to prevent invasive cancer than therapeutic for DCIS". Then using 5 vs. 12–15%, he says "based on statistical risk, all women over 60 should be recommended for mastectomy".

The risk of developing invasive breast cancer quoted by The American Cancer Society is 11% [2] not 12–15%. More importantly, this is the cumulative risk if the patient lives to the age of 110. It is not the risk over the next 7 years (which is extremely small) and thus it cannot be compared with the 7-year actuarial recurrence risk stated in our paper.

What Dr. Lawrence has done is to compare the short-term risk of local recurrence in an irradiated DCIS patient with the long-term, life-time risk of any woman developing invasive

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