Reviewer's report

**Title:** Extensions to Regret-based Decision Curve Analysis: An application to hospice referral for terminal patients

**Version:** 1  **Date:** 26 October 2011

**Reviewer:** ALAN R HAYCOX

**Reviewer's report:**

Discretionary revisions
This is an important contribution that adds significantly to the literature in this area. It addresses a fundamentally important question concerning how we can optimise the use of Hospice services given the commonly held view that (with the possible exception of a properly supported home death) hospices provide an excellent support service for patients who have moved from the curative to the dying phase of their disease. However optimising the use of this scarce and valuable resource requires 'appropriate' patients to be referred for hospice care at 'appropriate' times. The paper recognizes the complexity of decision making with regard to care of the dying however it also needs to further recognize the dynamic nature of such decision making. It is widely recognized that patients preferences for different structures of care are likely to fundamentally alter over the process of dying and hence their 'regret trade off' would also be likely to exhibit volatility. I was unsure from the paper the extent to which such variability could be incorporated in the analysis.

The argument that 'cognitive emotional regret' serve as a can link between 'intuitive' and 'analytical' decision making processes also appears a little over emphasised. The intuitive approach argues that such decisions are so individual and context specific that any attempt to 'codify' them will inevitably over simplify decision making. Although I don't necessarily accept this argument it is one that is frequently made to me by palliative care physicians and deserves to be addressed in slightly greater detail in the paper. I do recognize however that the authors quite rightly emphasize the decision support rather than decision making nature of their algorithm which I was delighted to see. In summary a well written paper which opens up an interesting area of future research.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**
I declare that I have no competing interests