Reviewer’s report

Title: The effect on survival of continuing chemotherapy to near death

Version: 1 Date: 11 November 2010

Reviewer: James M Koeller

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1. In the opening statement in your abstract background you state that ‘aggressive’ chemotherapy can have a negative effect on quality of life. Please reference that

2. This database is from 10 – 20 years old and actually does not reflect current treatment patterns in advanced NSCLC. This data is just too old.

3. My major problem is with the definition of ‘aggressive’ chemotherapy you create. You use a retrospective time-line to define something that in real-time is not possible. No physician knows for sure when a patient is two weeks from death! By your definition, the cycle of chemotherapy prior to the ‘aggressive’ cycle would not be aggressive because it fell outside the 2 week window, yet it is the same chemotherapy. I would much prefer you use the term appropriate vs aggressive. Aggressive, to an oncologists, generally refers to the type and amount of chemotherapy given not when...

4. You do not provide the line of therapy that patients are receiving within the two week of death time period. Currently, three lines of therapy are approved and considered standard of care, so a physician could easily be giving chemotherapy which the data supports can provide a ‘benefit’ to the patient, and they still die.

5. In metastatic disease, palliation is the only goal of therapy. You have a small change of extending life for some patients, but cure is not an option.

6. In your background you do not refer to the Murillo paper in the Oncologists which also looked at end-of-life chemotherapy in NSCLC, you may want to reference that paper. It did look at the specific chemotherapy patients were receiving.

7. In your methods section, the sections on statistics are way too long, shorten.

8. It is established age and performance status are key variables related to patient outcome in cancer care, especially in NSCLC. You use co-morbidity as a surrogate for performance status, which is not quite the same thing.

9. You stated that death in hospital, ER visits and ICU care was more common in chemotherapy patients than non-chemo patients, how about overall hospitalization. Others have published that overall hospitalization is less in treated patients than non-treated patients.
10. In your results section, please convert your survival data to months vs days/weeks. In almost all clinical papers, survival in advanced NSCLC is now described in months.

11. The premise that ‘survival’ could be altered by chemotherapy within 2 weeks of death is a false assumption. A standard course (or cycle) of chemotherapy is generally one month. It takes that long for the chemotherapy to work for an effect to be seen. No one would expect an effect from standard chemotherapy within a 2 week period.

12. Please consider changing your premise to appropriate therapy vs aggressive therapy.