To the Editor—Thank you for allowing us to respond to the letter by Liedgens et al. regarding our cost-effectiveness analysis of duloxetine in chronic low back pain (CLBP) [1]. We are pleased to address their concerns. We do so by using the same numbering as in their letter.

1. Liedgens et al. question that study populations for opioid pain trials may not be comparable to populations in trials for other treatments. In the review of the CLBP oral treatment trial literature for our meta-analysis, we found that trials, regardless of treatment, specified patient inclusion criteria of baseline and/or flare pain scores of at least a 4 or 5 on the 0 to 10 scale, that is, at least moderate pain. The trials with the highest baseline pain scores were for etoricoxib [2,3], a COX-2 inhibitor, not for tapentadol or another opioid. Moreover, patients receiving etoricoxib experienced the greatest pain relief [2,3].

2. We thank Liedgens et al. for bringing the dosing of tapentadol extended release (ER) to our attention and acknowledge that on further research it should have been lower, thus reducing the model’s initial 3-month, subsequent 3-month, and discontinuation drug costs for tapentadol. However, reducing the dosage to levels below those seen in clinical trials, as suggested by Liedgens et al., would place the efficacy of tapentadol ER in doubt. We have conducted a revised analysis with lowered tapentadol ER dosing, and it does not change the primary findings of our analysis. Duloxetine remains the only nondominated treatment other than naproxen, with an incremental cost-effectiveness ratio of approximately $59,500 per quality-adjusted life-year. Tapentadol remains the most costly treatment, including the costs of adverse events. If we remove all comparators but tapentadol ER and oxycodone ER from the model, with the revised dosing we estimate an incremental cost-effectiveness ratio for tapentadol ER of approximately $158,000 over oxycodone ER.

3. Liedgens et al. are incorrect in claiming that an oxycodone daily dose of 10 to 30 mg was used in our model. The model’s dosage was 10 to 30 mg bid (twice daily). (See Table 1 of the publication at http://dx.doi.org/10.1016/j.jval.2012.12.006.)

4. Liedgens et al. incorrectly state that the rate of proton pump inhibitor usage associated with opioids in our model was higher than that for nonsteroidal anti-inflammatory drugs. In fact, it was less than half that for the nonsteroidal anti-inflammatory drug naproxen. (See Table 1 of the publication at http://dx.doi.org/10.1016/j.jval.2012.12.006.) Kelly et al. [4] was cited in our publication for the rate of proton pump inhibitor usage among US opioid users. It is further supported by Williams et al. [5].

5. Liedgens et al. pose questions concerning discontinuation costs. The discontinuation cost given in Table 1 http://dx.doi.org/10.1016/j.jval.2012.12.006 is the cost per patient who discontinues, rather than a cost for every patient, as presumably interpreted by Liedgens et al. This was estimated as the drug cost during tapering off the opioid, which is recommended in tapentadol prescribing information to reduce withdrawal symptoms. Liedgens et al. are correct that the rate of discontinuation appears to be lower for tapentadol than for oxycodone. This is reflected in the model. The probability of discontinuation, however, is unrelated to the cost per patient who discontinues.

6. Our manuscript was submitted in August 2012. The article by Dart et al. [6] mentioned in the Liedgens et al. letter was published in December 2012, and therefore was unavailable for our study.

We acknowledge that the dosing of tapentadol ER should have been lower. However, a revised analysis with lowered tapentadol ER dosing does not change the primary conclusion that duloxetine may be a cost-effective treatment for CLBP that dominates all strong opioids. The other issues raised by Liedgens et al. are plainly in error or not supported by the literature that was available at the time of the analysis. We stand by our research, analysis, and conclusions.

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References 4 and 5 should appear as follows:


References


ERRATA


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References 4 and 5 should appear as follows:


In: Abstract PMH19, “Association between cognitive function and 3 month healthcare costs among patients initiating an antidepressant for depressive disorder in an ambulatory care setting” by Kurlander JL, MS1; Walker V, Essoi B, Samp JC, Yang, J, Akhras KS (Value Health 2013;16:A544). This poster was presented at the ISPOR 16th Annual European Congress in Dublin, Ireland on November 5th, 2013.

The correct full text of the abstract appears below.

**PMH19**

ASSOCIATION BETWEEN COGNITIVE FUNCTION AND 3 MONTH HEALTHCARE COSTS AMONG PATIENTS INITIATING AN ANTIDEPRESSANT FOR DEPRESSIVE DISORDER IN AN AMBULATORY CARE SETTING

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**Objectives:** Depression is associated with reduced cognitive function and significant healthcare costs; however, the extent to which these two are related remains unclear. This study compared follow-up healthcare costs for major depressive disorder patients with and without cognitive dysfunction after antidepressant (AD) initiation. **Methods:** A large US health plan affiliated with OptumInsight was used to identify depressed patients with a newly prescribed AD who could be surveyed to assess cognitive function. Patients with neurological diseases associated with cognitive dysfunction were excluded. Patients were mailed a survey invitation and consent form. Patients maintained eligibility by confirming a depressive diagnosis and no excluding diagnoses. Consenting, eligible patients were interviewed by telephone and completed 4 cognitive function tests. Patients were classified as “cognitive normal (CN)” or “cognitive dysfunction (CD)” based on test scores relative to normative data. All-cause healthcare costs in the 3 months post-AD initiation were calculated from pharmacy and medical claims. T-tests compared 3-month costs of CN versus CD. Gamma models with log link compared healthcare costs between CD and CN patients, adjusting for race, sex, age, education, employment, depression severity, and comorbidities. **Results:** 13,537 patients were invited to participate in the study and 564 patients maintained eligibility and completed the study. Patients were mostly female (80%), mean age was 41 years, 98% had a high school degree or higher, and 84% were employed. A total of 45% (n=225) met criteria for CD. Mean healthcare costs were $3,053 for all patients. Costs were $3,948 for the CD group compared to $2,312 for the CN (p = 0.113). In the gamma models with costs as the outcome, CD patients had costs 1.46 times higher than CN patients (95% CI 1.12, 1.92)(p=0.0059). **Conclusions:** In this study population, healthcare costs were significantly higher in patients with cognitive dysfunction compared to those without cognitive dysfunction.

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