Reply to Balta et al.

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We appreciate the observations made by Balta et al. [1] with regard to red cell distribution width (RDW) and lung cancer.

With regard to time from blood sampling to analysis for RDW, a Beckman LH750 was used for all analyses. Correspondence with Beckman, with regard to their coulter counter, advises that, as all samples were analysed within 12 h of collection, no significant errors in RDW measurement will have occurred. Each analyser has different stability parameters and RDW is stable for up to 24 h post-collection when analysed with the LH750.

With regard to disease state and RDW, we adjusted for cancer stage. However, tumour half-life was not available. We also adjusted for a number of medical conditions as listed by Balta et al.; however, we did not have liver function data available. Previous analysis has demonstrated that alcohol is a significant factor for in-hospital death, which we adjusted for [2].

Balta et al. quite rightly point out the confounding effect of haemoglobin on RDW values. We adjusted for this, as has been previously described via the use of multivariate regression [3].

With regard to the inflammatory status at the time of measurement, all patients were elective resections; however, we cannot rule out a low-grade systemic inflammatory response. Balta et al. are correct in pointing out the effect of inflammatory markers affecting the accuracy of prediction of clinical outcomes; however, the nature of our paper was identifying the effect of RDW on outcomes in thoracic surgery. We did not develop a model for risk prediction, and any such model would need to include inflammatory markers. Inflammatory markers that are cheap, clinically available and clinically significant remain to be defined and may vary from condition to condition.

As Balta et al. point out, RDW seems to be a predictive factor in a number of disease states. We thus speculate that RDW is a marker of bone marrow function, in the same manner as creatinine, ejection fraction and forced expiratory volume in 1 s are for the kidneys, heart and lungs, respectively [2, 4].

We thank Balta et al. for their insightful comments.

REFERENCES


