

6.16 Correcting haemoglobin in DLCO testing: The Importance of correcting DLCO for Hb in haematopoietic cell transplant patients

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Background: Patients who attend haematology departments in the work-up for hematopoietic cell transplants are subject to the Hematopoietic Cell Transplant Comorbidity- Index (HCT-CI) which predicts post-transplant morbidity and mortality. DLCO measurement is required during this process and is influenced by the patient's serum haemoglobin levels. This project examined the effect of using point-of-care techniques to measure haemoglobin and the impact of using an accurate live haemoglobin reading as part of DLCO reporting. **Method:** DLCO measurements were taken from a group of 40 pre-transplant patients before and after inputting measured haemoglobin levels and compared the results. A further test group of 19 post-transplant patients were examined using the same methods to compare pre and post correction DLCO. A paired t-test was carried out to examine the significance of inputting correct haemoglobin in both test groups. **Results:** DLCO when corrected for Hb was higher in the pre-transplant group and this was statistically significant ($p = 0.0001$). There was no significant difference seen in the post-transplant group ($p = 0.36061$). **Conclusion:** The clinical utility of the HCT-CI tool can be improved when DLCO is reported corrected. This study indicates that pre-transplant patients will benefit from routine correction of their DCLO for Hb. **Conflicts of interest:** The authors have no conflicts of interest