A comparison of multi-component indices of COPD severity in primary care: an UNLOCK study from the IPCRG

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Aim: To evaluate the performance of the BODE, DOSE and ADO indices in primary care datasets as predictors of current and future COPD severity and impact.

Method: Data routinely collected from primary care from the OPC COPD service provided prospective data from 131 practices. There was 12 month follow up data on 4414. Data from a pulmonary rehabilitation project in Holland provided 154 records over a 2 year period. The Devon COPD audit project had 370 records of primary care patients with confirmed COPD in a cross-sectional dataset.

Results: Correlations with current health status in the Devon and Holland datasets showed that the DOSE index was more closely correlated to CCQ and SGRQ total scores than ADO. In the domain scores there only 1 recorded item where was ADO more closely correlated than DOSE, the CCQ domain of function. DOSE but not ADO was significantly correlated to six minute walking test, BMI, BODE and pack years. In the OPC dataset, DOSE was a better predictor of exacerbations and admissions in the next 12 months. Using logistic regression the odds (95% CI) were for exacerbations: DOSE 1.60 (1.53-1.68) for ADO 1.14 (1.10-1.19); for hospital admissions: DOSE 1.45 (1.27-1.65) and ADO 1.22 (1.07-1.39).

Conclusion: In real life primary care data and in pulmonary rehabilitation patients, DOSE is more closely correlated than ADO with health status and exercise testing and is a better predictor of future exacerbations and admissions.

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