



Abstract S167 Figure 1

with an increase greater than 0.03% per month associated with a twofold escalated risk of mortality (Abstract S167 Figure 1B). Evolving ID was also associated with poorer survival (Abstract S167 Figure 1C).

Conclusions An elevated RDW alone and iron deficiency predict an amplified risk of death in COPD and could be utilised for risk stratification or therapeutically targeted to improve outcomes.

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EVALUATION OF THE MRC DYSPNOEA SCALE AND A NOVEL EXTENDED VERSION IN PREDICTION OF IN-HOSPITAL DEATH AND EARLY READMISSION IN ACUTE EXACERBATIONS OF COPD

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Introduction and objectives Acute exacerbations of COPD (AECOPD) requiring hospitalisation are associated with substantial in-hospital mortality and frequent readmissions. The MRC Dyspnoea Scale (MRCD) is a strong predictor of mortality in stable disease and may predict in-hospital mortality in AECOPD.¹ We investigated the relative value, for predicting mortality and early readmission, of both the MRCD and an extended MRCD scale (eMRCD),² which dichotomises MRCD 5 according to whether the individual can wash and dress independently (5a) or not (5b).

Methods We prospectively assessed MRCD and eMRCD (based on the patient's clinically stable state over the preceding 3 months) in

patients hospitalised with AECOPD. The ability of the two scales to predict (a) in-hospital mortality and (b) readmission within 28 days of discharge was evaluated.

Results 639 patients were identified; mean (SD) age 73 (10) years, 55.6% female and mean (SD) FEV₁ (n=412) 43.5 (18) % predicted. The distribution of scores for the MRCD and eMRCD are shown in Abstract S168 Table 1. Due to a small number of individuals with MRCD scores 1 (n=4) and 2 (n=26), groups 1–3 were combined. Abstract S168 Table 1 Compared to the reference category (MRCD 1–3), MRCD 5, eMRCD 5a and eMRCD 5b predicted both in-hospital mortality and early readmission (Abstract S168 Table 1). Of importance, eMRCD 5b was a stronger predictor of in-hospital death than eMRCD 5a (OR 2.30, 95% CI 1.25 to 4.26, p=0.008) however, the predictive strength of 5a and 5b, with regards to early readmission, was similar (OR 1.32, 95% CI 0.67 to 2.58, p=0.42). Paired comparisons between groups showed that MRCD 5 (OR 5.29, 95% CI 2.87 to 9.80, p<0.001), eMRCD 5a (OR 3.56, 95% CI 1.77 to 7.14, p<0.001) and eMRCD 5b (OR 8.20, 95% CI 4.15 to 16.20, p<0.001) were all stronger predictors of in-hospital mortality than MRCD 4, whereas only MRCD 5b was a stronger predictor of readmission (OR 2.24, 95% CI 1.20 to 4.18, p=0.011).

Abstract S168 Table 1 MRC Dyspnoea Scores and their association with in-hospital mortality and early readmission OR—OR

MRC Dyspnoea Score	n	OR for		n*	28-day readmission %	OR for 28-day readmission
		In-hospital mortality%	in-hospital mortality			
1–3	133	2.3	1	130	8.5	1
4	265	5.3	2.42	251	15.1	1.93
5	241	22.8	12.81†	186	25.3	3.66‡
5a	139	16.5	8.59†	116	23.3	3.28†
5b	102	31.4	19.81‡	70	28.6	4.33‡

*Patients surviving to discharge, total=567.

†= p<.05.

‡= p<.001.

Conclusion The MRCD during the stable state prior to hospitalisation predicts both in-hospital death and readmission within 28 days. Extending the scale to include an assessment of the patient's capacity to manage personal care (the eMRCD) improves the ability to predict in-hospital mortality and readmission, compared to the traditional instrument.

REFERENCES

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