BISOPROLOL VERSUS CELIPROLOL ON DYNAMIC HYPERINFLATION, CARDIOPULMONARY EXERCISE AND DOMICILIARY SAFETY IN COPD: A SINGLE CENTRE, RANDOMISED, CROSSTER STUDY

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Supplemental Figure

Safety Algorithm for Beta-blocker Dose Titration.

Assessment: BP, HR, (ECG), FEV₁ and diary

Symptomatic Potential adverse effects of beta-blockade?

Systolic BP ≥ 90
HR ≥ 50
≤15% (or 200 ml if greater) Fall FEV₁

No

Yes

Are symptoms ‘Severe’ (distressing, unpleasant or dangerous)?

No

Reduce dose or withdraw if on minimum dose

Dose Reduced

Dose Withdrawn

No

Complete treatment period on maximum tolerated dose

Dose Reduced

Dose Withdrawn

Yes

Systolic BP < 90
HR < 50
>15% and > 200 ml Fall in FEV₁

Asymptomatic

Systolic BP ≥ 90
HR ≥ 50
≤15% (or 200 ml if greater) Fall FEV₁

No

Yes

Continue current dose

Reduce dose or withdraw if on minimum dose

Abbreviations: BP, blood pressure. HR, heart rate. ECG, electrocardiogram. FEV₁, forced expiratory volume in 1 second. Diary, daily diurnal diary of symptom scores and reliever use. Dose, dose of study beta-blocker.