Evolving use of long-term NIV in COPD: Are we getting it right

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Body: Background The use of long-term NIV in COPD continues to be a controversial subject. Longer term trials show questionable benefit but there is debate over methodology such as the adequacy of ventilation and patient selection in the studies. We serve a population of 2.7 million offering a tertiary service with around 130 patients being established annually on NIV. Previously we observed that less than 5 percent of patients commenced on NIV had COPD. Methods We have reviewed the NIV set ups for 2011/12 to examine current practice, referral patterns and outcomes of the use of NIV in COPD. Results 72 of 262 (27.48%) of patients established had COPD; 34 (47%) men with a mean(SD)age 65 (7.6) years. 4 categories of indication were noted: overlap mainly with OSA and obesity 38 (53%) of patients, to allow weaning off tracheostomy ventilation post exacerbation 7(10%), oxygen sensitivity and or decompensating ventilatory failure without exacerbations 17(24%) and recurrent admissions with decompensated type 2 respiratory failure 10(14%). Referral from our catchment area hospitals ranged from 3-14, those with a sleep screening service sending more. 13/72 (18.05%) of patients died, the mean time to death at date of review was 9.19 months, 4/72 (6%) patients complied poorly and chose to return device, 33/72 patients (45.8%) of the patients had no readmissions. Conclusion The use of long-term NIV has increased considerably in the last 10 years and is now accounts for a quarter of new start ups. For our service overlap syndromes and oxygen sensitivity are main indication for the use of longterm NIV in these COPD patients. There remains a need for work to define the optimal use of NIV long-term in COPD.