

Clinical and scientific letters

Letters not directly related to articles published in *Clinical Medicine* and presenting unpublished original data should be submitted for publication in this section. Clinical and scientific letters should not exceed 500 words and may include one table and up to five references.

Acute hypercapnic respiratory failure (AHRF): looking at long-term mortality, prescription of long-term oxygen therapy and chronic non-invasive ventilation (NIV)

Background

Noninvasive ventilation (NIV) improves immediate outcomes in patients presenting with acute hypercapnic respiratory failure (AHRF). A previous national audit¹ has investigated NIV outcomes in AHRF patients with acute exacerbation of chronic obstructive pulmonary disease (COPD) over a 3-month period. But, a more protracted analysis of these patients is needed to determine long-term gains and fatalities. Also, although British Thoracic Society (BTS) guidelines recommend assessment for long-term oxygen therapy (LTOT) and need for chronic NIV after an episode of AHRF, this practice is variable.

Objectives

Our primary aim was to look at four-year data on mortality following an episode of AHRF. Our secondary aim was to look at the prescription of LTOT and chronic NIV at the time of discharge in the same group.

Methods

We retrospectively collected data from our NIV database on patients needing NIV for AHRF, in the year ending 31 December 2007. We excluded patients who were

established on domiciliary NIV. The follow-up data were collected up until 31 December 2010. Data analysis was done using Microsoft Excel and VassarStats.

Results

106 patients (male= 44%, female= 56%) were admitted with AHRF. Mean age was 72.1 years (range 31–93 years). 98% (n=104) were managed with NIV and only two patients needed intubation. 30% (n=32) patients had at least two comorbidities, the most common being ischaemic heart disease (29%, n=31) and congestive cardiac failure (19%, n=21).

All-cause mortality was 57% (n=60), of which 53% (n=32) died during admission. Median time to death during admission was 7 days (IQ range: 3–16 days) and post-discharge 315 days (IQ range: 43–408 days). Of those discharged (n=74), 28% (n=21) received LTOT, 7% (n=5) LTOT with chronic NIV and one chronic NIV alone. Patients with persistent hypoxia had LTOT assessment; however patients with the most severe hypoxia that were unable to tolerate the cessation of oxygen were prescribed LTOT on discharge. There was a trend towards fewer deaths (median time to death 703 days; IQ: 223–1119 days) in severely hypoxic LTOT group (27%, n=7) compared to those discharged without LTOT (44%, n=21) (Odds ratio 1.02 (95%CI 0.79–1.32)).

Conclusion

Data show: 1) 57% mortality at four years and of this more than half died during their admission. Hence, although NIV has been shown to improve outcomes in a select group of patients with AHRF; in an acute hospital setting short term and long-term outcomes are very different, indicating that admission with AHRF carries a poor prognosis. 2) LTOT following an AHRF may provide a survival advantage; therefore, further research is required to determine if the outcome of patients with persistent hypoxia following treatment for AHRF is improved with LTOT at the time of discharge compared to the current recommendations of performing LTOT assessment post discharge.

NAWAID AHMAD
Specialist registrar, respiratory medicine

ANIKA TAITHONGCHAI
Foundation year 1

REHANA SADIQ
Foundation year 1

NAVEED MUSTFA
Consultant respiratory medicine

*City General Hospital,
Stoke-on-Trent*

Reference

- 1 Roberts CM, Stone RA, Buckingham RJ *et al.* Acidosis, non-invasive ventilation and mortality in hospitalized COPD exacerbations. *Thorax* 2011;66:43–8.

European School of Internal Medicine summer meeting: September 2011

The European Federation of Internal Medicine (EFIM; www.efim.org) was founded in 1996 with the intention of fostering links between European doctors and national societies, including the Royal College of Physicians (RCP). The EFIM has general internal medicine at its heart and holds regular scientific meetings and conferences covering a broad range of topics relevant to the general physician.

A year after the conception of EFIM, the European School for Internal Medicine (ESIM) was born. ESIM was established to enable trainee physicians across the 35 member countries of the EFIM to meet. School meetings are held annually in winter and summer.

In 2011, the School meeting was held in Brighton at the Brighton and Sussex Medical School under the direction of Chris Davidson who, for the third year running, organised a varied and stimulating mixture of lectures, discussions and case presentations (www.esim2011.org).

Ramon Pujol, president of EFIM, gave the opening lecture. He discussed the history of internal medicine and highlighted the differences in the provision of health-care throughout Europe; for example, in some Mediterranean countries (eg France, Spain and Portugal) general internal medicine is thriving, whereas in others, such as