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Title: Changing trends in domiciliary non-invasive ventilation (NIV) set-up

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Body: Introduction: Domiciliary NIV is being increasingly used to treat chronic ventilatory failure, particularly due to obesity and neuromuscular conditions. At the start of an NIV unit, most domiciliary NIVs are set up at the end of an acute admission with hypercapnic acidotic respiratory failure to start with, but over time, as more at-risk patients come under surveillance for respiratory failure, we hypothesized that a unit supervising domiciliary NIV/Home Mechanical Ventilation is expected to do more elective set-ups which are associated with better quality of life. Methods: Comparison of the volume of new domiciliary NIV set-ups and the elective NIV set-up rate over two 12-month periods: Apr 2005-Mar 2006 (period 1) and Apr 2011-Mar 2012 (period 2) in a dedicated 11-bedded ward-based NIV unit (established: Aug 2004) in a 1000-bedded central England teaching hospital, providing domiciliary NIV support to >200 patients with >350 under surveillance for respiratory failure. Results: The volume doubled from 19 new domiciliary NIV set-ups in period 1 to 39 new domiciliary NIV set-ups in period 2; the elective domiciliary NIV set-up rate increased from 7/19 (36.8%) to 19/39 (48.7%) between periods 1 and 2. Discussion: Over time, both volume and elective set-up rate for new domiciliary NIV have gone up. This is due to that a larger proportion of people at risk of respiratory failure treatable with NIV are coming under the unit's surveillance and has clearly been associated with the expansion and maturation of the NIV service. The 'elective domiciliary NIV set-up rate' can therefore be tested as a metric for comparison of centres supervising domiciliary NIV/Home Mechanical Ventilation in this rapidly evolving field.