



**Abstract P291 Figure 1** Lung deposition, exhaled fraction and ratio of exhaled vs lung deposition as a function of MMAD (regression line and the 95% CI)

**Results** LD increased when MMAD decreased, so that when MMAD is about 1  $\mu\text{m}$  the LD is more than 50% of the delivered dose and becomes markedly lower when MMAD approach 4  $\mu\text{m}$ . EF is low and did not change markedly. On the contrary, the ratio EF/LD is independent of the MMAD, suggesting that the EF is proportional to the LD and not affected by MMAD.

**Conclusion** These data demonstrate that the EF/LD ratio is independent from the MMAD providing reassurance that a smaller particle size will not be associated with a higher exhaled fraction.

## Difficult symptom control and breathlessness

### M1 AN AUDIT OF ELECTRONIC OXYGEN PRESCRIBING AND OXYGEN SATURATION READINGS SHOWING A HIGH PREVALENCE OF RISK FACTORS FOR HYPERCAPNIA AND A HIGH INCIDENCE OF IATROGENIC HYPEROXAEMIA

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**Background** BTS audits have shown that about 14% of UK hospital patients are on oxygen therapy at any given time but only half of these patients have a prescription or written order for oxygen use. Our 600 bed teaching hospital has electronic prescribing linked to an electronic bedside observations system (modified NEWS score). Hospital policy is to set a target oxygen saturation range for all in-patients. Patients score points if their oxygen saturation ( $\text{SpO}_2$ ) falls below their target range or if  $\text{SpO}_2$  rises above their target range on oxygen therapy.

**Methods** We audited oxygen prescribing and  $\text{SpO}_2$  for all patients treated on medical and surgical wards during the month of December 2014. All data was contained within the electronic patient record.

**Results** We audited 80,391 sets of observations for 6,800 patients (2239 medical, 4561 surgical).

- 99.8% of all patients had an oxygen target range prescribed electronically
- 12.7% of all patients (18.9% of medical patients and 9.6% of surgical patients) had risk factors for hypercapnia with a prescribed target range of 88–92% or less
- Overall 90.6% of oxygen saturation measurements were within target range (or above the target range breathing air). 59.9% of measurements on oxygen and 97.2% of observations on air were within the target range
- 3.7% of oximetry measurements were below the target range (7.9% of those on oxygen)
- 5.8% of all oximetry measurements were above the target range due to use of oxygen (32.2% of measurements on oxygen were above target range)
- For patients using oxygen therapy with target range 94–98% or 88–92%, the percent of measurements within range, below range or above range is shown in the Table 1
- 53.2% of observations on patients using oxygen with target range 88–92% showed  $\text{SpO}_2$  above target range

**Conclusions** An oxygen target range is prescribed for almost all inpatients at this hospital but hyperoxaemia (with associated risk of hypercapnia) remains prevalent amongst patients on oxygen therapy, especially those who have been identified as at increased risk of hypercapnia. This has led to a revised educational programme for nursing staff with an emphasis on keeping patients within their target range.

### M2 USING A TRANSPORTABLE OXYGEN CONCENTRATOR (TPOC) TO FACILITATE PROMPT AND SAFE HOSPITAL DISCHARGE

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