AUTOMATIC VERSUS MANUAL OXYGEN TITRATION USING A NOVEL NASAL HIGH-FLOW DEVICE IN MEDICAL INPATIENTS WITH AN ACUTE ILLNESS: A RANDOMISED CONTROLLED TRIAL

SUPPLEMENTARY MATERIAL

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METHODS

Withdrawal criteria

- Sustained (> 10 minutes) requirement for >50% FiO$_2$ (92-96% group) or >40% FiO$_2$ (88-92% group) at rest
- Sustained (> 10 minutes) requirement for FiO$_2$ in excess of the maximum allowed limit to maintain target SpO$_2$. The maximum allowed limit is defined as the FiO$_2$ at the start of the randomized treatment plus 10
- An increase in FiO$_2$ of 10 is insufficient to maintain target SpO$_2$. This may be lower than the maximum allowed FiO$_2$ if the oxygen concentration has been decreased since the start of the randomised treatment.
- Requirement for a target SpO$_2$ range other than 88-92% or 92-96% as determined by the participant’s medical team after enrollment
- Requirement for NIV, CPAP or endotracheal intubation
- Admission to ICU
- Ineligibility (either arising during the trial or retrospectively having been overlooked at screening)
- Significant protocol deviation
- Significant non-compliance with trial requirements
- An adverse event which requires discontinuation of the trial
- Any concern over participant safety
## RESULTS

**Table S1: Difference in blood gas parameters between interventions**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Mean difference (automatic minus manual) adjusted for baseline (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>-0.001 (-0.02 to 0.02)</td>
<td>0.94</td>
</tr>
<tr>
<td>PCO₂ (mmHg)</td>
<td>0.50 (-2.0 to 3.0)</td>
<td>0.68</td>
</tr>
<tr>
<td>PO₂ (mmHg)</td>
<td>-3.1 (-14.7 to 8.6)</td>
<td>0.59</td>
</tr>
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