Second Clinical Evaluation Trial

Study coordinator: Nawaz Qureshi, MD Pulmonary Disease
Kindred Hospital Las Vegas, Nevada
Rollins 7 Multitask Mask Study Primary Endpoint: Assessing Oxygen Saturation in clinical setting
Beginning Date: June 2010
Patient number: 11
Diagnoses: COPD. Pneumonia. Congestive Heart Failure, Lung Cancer
Evaluation design: patients selected for use were randomly selected, there were no exclusionary criteria except for primary physician or patient request not to use mask; no denials were requested. Patient's ages were between 63 and 96. No patient had difficulty wearing or tolerating the mask.

Patient JL: 74 year old male with respiratory failure. Patient placed on Rollins7 and arterial blood gas obtained showing pH 7.45 pCO2 40.7 pO2 81. Showed efficacy of mask and no CO2 retention
Oxygen saturation at 12 L flow per minute on standard mask: 98%
Oxygen saturation at 3 L flow per minute on Rollins 7 mask: 98%

Patient FC: 75-year-old male with hypoxic respiratory failure
Arterial blood gases on Rollins 7 on 10 L flow pH 7.436 pCO2 46.5 pO2 98.9
Showed efficacy of mask and no CO2 retention

Patient MR 85 year old female with respiratory failure placed on Rollins 7 at 6 liters per minute flow with ABG showing 7.46 pCO2 47.4 pO2 160. Showed efficacy of mask and no CO2 retention.

Patient LS 67 year old female with respiratory failure on 8 liters per minute flow on Rollins 7 with ABG 7.43 pCO2 42.4 pO2 72.6 ; Showed efficacy of mask and no CO2 retention
Oxygen saturation on unknown liter flow before Rollins 7: 89%
Oxygen saturation on Rollins 7 at 6 L per minute flow: 95%

Patient UV 89-year-old female with hypoxic respiratory failure
ABG on 6 L flow with Rollins 7 pH 7.451 pCO2 50.6 pO2 60.5
Showed efficacy of mask and no CO2 retention

Patient BBJ 84 year old female with hypoxic respiratory failure
ABG on 4 liters nasal cannula 7.55 pCO2 48.7 pO2 41.2
ABG on 6 liters Rollins 7 showed 7.52 pCO2 50.5 pO2 82.5

Patient JS with hypoxic respiratory failure
ABG on BiPAP 14/5 showed 7.46 pCO2 53.7 pO2 56.5
ABG on Rollins 7 on 15 L/min: pH 7.408 pCO2 64.9 pO2 67.3

Patient GG 69-year-old male with hypoxic respiratory failure
ABG on 15 L/min flow Venti mask pH 7.253 pCO2 68.9 pO2 73.7
ABG on 4 L/min Rollins 7 pH 7.246 pCO2 65.2 pO2 90.4

Patient MV 96-year-old female with hypoxic respiratory failure
ABG on 15 L non-rebreather mask pH 7.374 pCO2 42 pO2 48.3
ABG 15 liter/min flow Rollins 7 pH 7.406 pCO2 39.5 pO2 68

Conclusions:

1. Rollins 7 multitask mask administers adequate oxygenation
2. While on Rollins 7 Multitask mask patients received equal or more often superior oxygenation at lower flow rates
3. Rollins 7 multitask mask does not induce carbon dioxide retention
4. There is no patient discomfort with the mask
5. There is no requirement to change masks when transitioning from an Fio_2 of 28% to 99%.