

# Work of breathing

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## CASE HISTORY

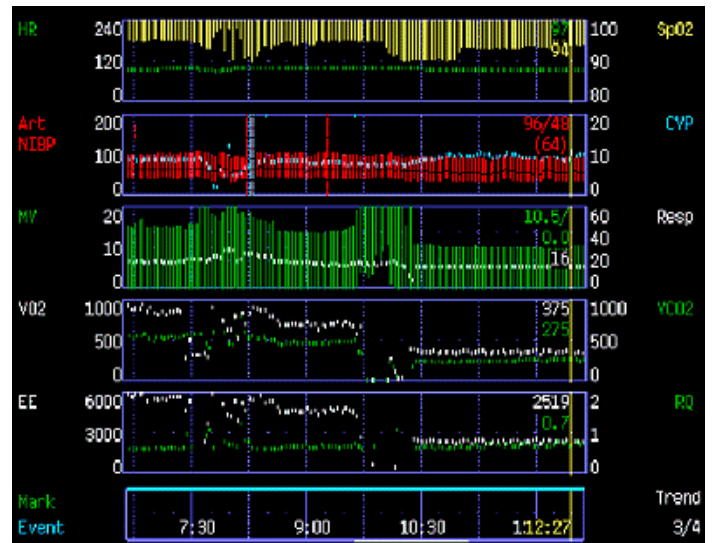
The patient is a 40 year-old male with pneumococcal pneumonia and ARDS and currently recovering from a severe oxygenation failure. He has been sedated and mechanically ventilated.

## CASE REPORT

Sedation was gradually decreased and the patient began to regain consciousness. The ventilation was changed to pressure support mode (PSV).

Both oxygen consumption ( $VO_2$ ) and carbon dioxide production ( $VCO_2$ ) increased as the work of breathing increased with spontaneous breathing. The trend picture shows no changes in hemodynamic parameters: heart rate,  $SpO_2$ , systemic arterial pressure, CVP or pulmonary artery pressure.

The patient was subsequently switched back to a controlled mechanical ventilation after which a dramatic drop in  $VO_2$  and  $VCO_2$  were noted as the patient's work of breathing was reduced.





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