

Awake proning in patients with COVID-19

W. Stilma (Amsterdam, Netherlands), L. Bos (Amsterdam, Netherlands), L. Pisani (Padova, Italy), M. Schultz (Amsterdam, Netherlands), F. Paulus (Amsterdam, Netherlands)

Abstract

Introduction. Awake proning may result in lower intubation and mortality rates in COVID-19 patients with hypoxemia refractory to simple oxygen therapy.

Aims. To summarize available evidence for benefit and develop a set of pragmatic recommendations for awake proning in COVID-19 patients.

Methods. An international group of 43 healthcare professionals searched MEDLINE for articles on awake proning, and formulated recommendations for its use.

Results. The professionals reached consensus regarding indications and contraindications, feasibility and safety; they recommended applying awake proning if $SpO_2/FiO_2 < 315$, or $SpO_2 < 93\%$ under supplementary oxygen, and if patient is able to follow instructions. Severe hypoxemia ($SpO_2/FiO_2 < 140$) and hemodynamic instability are absolute contraindications in the ward, but relative contraindications in the ICU. Morbid obesity was also seen as a relative contraindication, depending on assistance needed to help turn the patient. Pregnancy was not seen as a contraindication, but extra monitoring in the last trimester was seen as mandatory, and extra pillows for stabilization and prevention of aortocaval compression are necessary. Five steps may improve safety: i. adequate patient information; ii. help in positioning; iii. ensuring oxygen supply and placing of tubing free at sight; iv. optimized position to prevent harm; and v. monitor oxygen saturation and respiratory rate. Dissensus remained regarding duration, and number of sessions per day, and use of sedation during prone positioning.

Conclusion. Awake proning is an attractive, simple and safe way to improve oxygenation in hypoxemic COVID-19 patients. Studies remain needed to see if it effects intubation and mortality rates.