

NEW TECHNOLOGIES FOR RESPIRATORY ASSIST

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Objective

Review new technologies for respiratory assist.

Study Design

Review.

Methods

Review.

Results

Three types of artificial lungs/lung assist devices beyond ECMO are reviewed:

- Intravascular lung assist with catheter based intravenacaval gas exchange
- Interventional pumpless lung assist with an artificial lung interposed in a systemic arteriovenous shunt between femoral artery and vein.
- Total artificial lung interposed in a pulmonary shunt between pulmonary artery and left atrium.

Commentary

Artificial lungs have lingered behind progress with artificial hearts, but current experimental and clinical data generated with devices enabled by state of the art technologies may open new treatment options for patients with acute or chronic respiratory failure.

