



Aeroneb (Aerogen, Galway, Ireland) is an electronic 'vibrating metal mesh' nebuliser system. Modern, efficient and easy to use: there are many benefits for selected patients, but it is also moderately expensive compared to traditional 'jet' gas driven nebulisers.

What are the benefits of Aeroneb vs. traditional jet nebulisers?

- No leak on ventilator circuit at all: no loss of PIP or PEEP experienced by the patient
 - Filling the drug reservoir does not create a leak
 - Neb kit can remain inline when not in use: no recurrent breaking of the circuit
- No interruption to monitoring (e.g. End Tidal CO₂ & VTe trace not impaired during operation).
- Theoretically better drug nebulisation and delivery into the patients lungs
- Silent & easy to use.
- Minimal residual volume (all the liquid gets administered)

For selected patients only

- Only for patients who de-recruit quickly / do not tolerate breaking their circuit (e.g. ARDS)
- Not for use on patients who will tolerate traditional 'jet' / gas driven nebuliser kit

Consumables are moderately expensive (£30) compared to a simple neb kit (£1)

Top Tips

- Must be on **dry side** of humidifier for best drug delivery
 - Orientation as per images
 - Patient consumables are **multi-use, single patient (28 days)**:
 - Leave the t-piece and drug reservoir in-situ when not in use
 - The control unit and wire is £500
 - do not throw it away
 - Return ASAP to equipment room
- When you start the neb, visually check to see the vapour flowing into the humidifier
- Give it a 'tap' or flick if no output

Also see the [Official Aerogen User Guide](#), provided on the PICU website

Safety: if any concerns, remove the device from the ventilator circuit immediately and seek advice



Insert T-piece & drug reservoir into dry side of humidifier



DNase - Suitable for use with DNase

HFOV - Can be used in HFOV, but studies suggest drug delivery may be poor (but also will be poor with a traditional jet nebuliser system).

Place on dry side of humidifier, after the filter

References

- Ari A, et al. Jet, Ultrasonic, and Mesh Nebulizers: An Evaluation of Nebulizers for Better Clinical Outcomes. *Respiratory care*. 2010;55:845-51.
- <https://www.aerogen.com/>

Clinical Guideline - Version Control

Guideline Title	
Publication Date	Feb 2018
Publication location	SGH PICU Website
Review Date	Feb 2021
Primary Author(s)	Dr. N J Prince, PICU Consultant

These clinical guidelines are provided for use at St. George's Hospital only. Application of guidelines will be determined by the responsible healthcare professionals appropriate to the circumstances of individual patients.