

## Oxygen Enrichment of air for medical application

Hollow fiber membranes that are selective towards oxygen transport is developed at CSIR-NCL. They are bundled into modules and used for O<sub>2</sub>/N<sub>2</sub> enrichment of air. Air at 5 bars is passed over membrane with a desired flow rate. The prototype unit can supply ~ 5 liter/min of oxygen enriched air upto 35 % oxygen purity. By suitably increasing the membrane area, the enriched air flow rate can be increased.

The OEU can be used for post-operative cases, pediatric wards, rural health centers and home use. It is believed that more than 70% of oxygen therapy cases would be covered with this technology.

The performance and evaluation trials were conducted at following renowned hospitals:

1. KEM Hospital, Pune
2. Sevadham trust's rural health centers at Talegaon and Wadeshwar
3. AIIMS, Delhi
4. Safdurjng Hospital, Delhi
5. Cardiac Therapy Center (Military Hospital), Pune
6. JSS Medical college, Mysore
7. J.K. Cancer Institute, Kanpur

The technology has been transferred to M/s. Genrich Membranes Pvt. Ltd. for commercial manufacture of the membranes.

