

## Why is Transtracheal Oxygen (TTO) still the best kept secret in medicine?

By John R. Goodman BS RRT

January 2013 marked the 27<sup>th</sup> year that SCOOP transtracheal oxygen therapy (TTOT) has been available as an alternative to oxygen delivered via standard nasal cannula. Dr. Henry Heimlich first published on the safety and efficacy of TTOT in 1982. In 1986, Dr's Bryan Spofford and Kent Christopher dramatically advanced the concept of TTOT by improving the design of the catheter itself, and enhancing the product with a full program of supportive education and care. The SCOOP program was designed to be maintained within the respiratory therapy department of the participating hospital. This is a common sense model based on the respiratory therapists inherent expertise with the airway, as well as normally providing coverage on a 24/7 basis.

However, even after 27 years, the number of TTOT patients is still pretty small compared to the total number of patients on oxygen. If indeed there are somewhere around 1,000,000 patients on continuous supplemental oxygen in the United States, than TTOT patients make up less than 1% of this total. The single biggest explanation for this seems to be that in many (if not most) cases, the patient is simply not made aware that TTOT exists as an option. This is coupled with the fact that if a pulmonologist (and even a very good pulmonologist) doesn't have much or *any* practical experience with TTOT and what it can do for their patient, it is highly unlikely they will be strong advocates of TTOT in general. This is complicated by the fact that Transtracheal Oxygen Therapy is not offered in all parts of the United States.

The clinical benefits of TTOT are very well documented. There are over 160 references in the medical literature extolling the advantages of TTOT over any comparative form of oxygen delivery. There is more and more evidence proving that TTOT does much more than simply oxygenate our patients. Scientific evidence gathered over the past 10 years suggests that just the *flow* of oxygen through a transtracheal catheter can help reduce a patient's shortness of breath, both at rest and with activity. Actually, some very forward thinking pulmonologists use TTOT to "bridge" their patients who are listed for lung transplants.

If you are a patient who is interested in getting rid of your nasal cannula for good and becoming a TTOT patient, you really should speak with your pulmonologist. He/She knows your pulmonary history and will be best able to evaluate you as a prospective TTO patient. There is a very *short* list of absolute contraindications, and a very *long* list of reasons why a patient currently receiving oxygen via nasal cannula might want to consider TTOT for true 24/7 oxygen delivery.

One of the most important things a potential TTOT patient can do is speak with a current TTOT patient. A current patient can tell you what it is actually like living with a transtracheal catheter in their neck. Cleaning routines, mucus management and cough control can all be discussed with someone who has already "learned the ropes." If a patient is considering having a transtracheal catheter placed, make sure there is a TTOT

center in the area of the country where they live. This makes it easier for the patient to be seen, and insures a properly educated TTOT team will be available should the patient need them on short notice.

TTOT is obviously not for every patient. But in well selected patients, TTOT can be a life changing therapy. There are many patients who are well beyond their 10<sup>th</sup> year on SCOOP oxygen therapy. Compared to patients using a nasal cannula, TTOT patients live longer, spend less time in the hospital, sleep better, have better exercise capacity, reduced shortness of breath, and improved self-image. Probably the single greatest benefit a TTOT patient receives is the fact that a TTOT patient is truly getting their oxygen every minute of every day. We call this *compliance* or *adherence* and being adherent is very hard to do wearing an uncomfortable, unsightly nasal cannula. It is this improved adherence that probably explains the increased survival of TTOT patients over their nasal cannula counterparts. Remember; oxygen is a drug, and probably the most important *drug* our patients with chronic lung disease are taking. It is the only drug *ever* shown to improve survival. *Simply stated, patients who are most adherent with their oxygen therapy live longer than those who can't/don't/won't/ wear their oxygen 24 hours per day.*

If you would like more information on TTOT, you can access the SCOOP website at [www.tto2.com](http://www.tto2.com). If you want to speak to an existing TTO patient, or speak with a TTO Respiratory Therapist just call 800-527-2667 ext. 202. You can get many of your questions answered there. If a patient goes to their physician already prepared with questions, it will increase the likelihood that the physician will be more willing to assist the patient in determining if they are a good candidate for TTOT.