

Device and Method for In-Office Unsedated Tracheoesophageal Puncture (TEP)

Abstract

5

Various embodiments of the present disclosure are directed to apparatuses, devices, and procedures for unsedated in-office tracheoesophageal puncture (TEP) using transnasal esophagoscopy (TNE) and a measurement cannula, referred to as a TEP measurement and insertion device (MAID or TEP MAID). In some embodiments, a MAID is
10 configured for use with a mini-tracheostomy kit; in other embodiments, a MAID is configured to be carried and automatically or semi-automatically deployed, for instance, by a handheld mechatronic device or an automated device such as a medical robot that carries an automated tracheoesophageal puncture and voice prosthesis insertion end effector. In accordance with an aspect of the present disclosure, a MAID has a body that
15 carries or includes indicators, indicia, or markings that facilitate or enable substantially direct and/or immediate estimation, identification, or measurement of a tissue extent or thickness corresponding to or across a tracheoesophageal fistula (e.g., a tracheoesophageal dividing wall thickness), and selection and insertion of a voice prosthesis, such as a non-indwelling voice prosthesis from Blom-Singer. In certain
20 embodiments, a MAID includes at least an outer measurement cannula and an inner adaptor cannula configured to fit over or matingly engage with a dilator, such as a short dilator provided in Portex's mini-tracheostomy kit.

FIG. 5B