**Supplemental Digital Content 1: Procedural aspects of bronchoscopic guidance of percutaneous dilatational tracheostomy**

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| **Phase** | **Steps** |
| Before PDT | Prepare ventilator to volume-controlled mode, set adequate alarms and FiO2 at 100%. |
|  | Install Swell connector in endotracheal tube |
|  | Insert bronchoscope through endotracheal tube |
|  | Perform initial assessment of tracheal anatomy |
|  | Deflate endotracheal tube cuff and withdraw it into the glottis |
| During PDT | Identify the space between the 2nd and 3rd tracheal ring |
|  | Withdraw the bronchoscope into the orotracheal tube to protect from inadvertent puncture of the bronchoscope, while maintaining real-time visual assessment of the trachea |
|  | During the whole procedure, maintain fluent communication with tracheostomy operator |
|  | Assess the adequacy of tracheal puncture, with especial emphasis in posterior wall puncture and bleeding. |
|  | Confirm guidewire advancement into distal trachea |
|  | Assess the adequacy of progressive dilatation, including potential tracheal lesions and bleeding sites |
|  | Assess tracheostomy tube insertion |
|  | During the whole procedure, assist with suctioning of blood and secretions |
| After PDT | After tracheostomy cannula is installed, insert bronchoscope through cannula, confirm adequate position, potential inadvertent tracheal lesions and measure distance to main carina. |

PDT: Percutaneous dilatational tracheostomy. FiO2: Inspired fraction of oxygen.