Fig. S1 Experimental setup. A mannequin head was used to simulate the patient-mask interface. The ventilator, facemask, simulator and computer are depicted. Pmus, pressure applied by respiratory muscles.
Fig. S2 Airway pressure, flow and volume waveforms during pressure support ventilation, illustrating the characteristics of pressure support breathing. With a period of exponential decay flow, the pressure was maintained at a plateau (EIP). The difference between EIP and PEEP was determined by tidal volume ($V_T$) and respiratory system compliance. The measurement of pressure, volume and flow include: plateau pressure (EIP), pressure and volume at the peak inspiratory flow ($P_{PIF}/V_{PIF}$), and pressure and volume at the peak expiratory flow ($P_{PEF}/V_{PEF}$).