**Supplemental Figure Legends**

**Figure S1.** Funnel plot for meta-analysis of the effect of NIV on intubation rate in acute hypoxemic non-hypercapnic respiratory failure patients compared with standard oxygen therapy. Plots were symmetrically distributed, indicating no publication bias. Each point represents one trial.

**Figure S2.** Relative risk forintubation rate in acute hypoxemic non-hypercapnic respiratory failure patients available for NIV versus standard oxygen therapy related to the types of interfaces.

**Figure S3.** Relative risk forintubation rate in acute hypoxemic non-hypercapnic respiratory failure patients available for NIV versus standard oxygen therapy related to the NIV mode setting. BiPAP, bilevel inspiratory positive airway pressure; CPAP, continuous positive airway pressure.

**Figure S4.** Relative risk forintubation rate in acute hypoxemic non-hypercapnic respiratory failure patients available for NIV versus standard oxygen therapy related to PaO2/FiO2.

**Figure S5.** Funnel plot for meta-analysis of the effect of NIV on ICU mortality in acute hypoxemic non-hypercapnic respiratory failure patients compared with standard oxygen therapy. Plots were symmetrically distributed, indicating no obvious publication bias. Each point represents one trial.

**Figure S6.** Subgroup analysis forICU mortality in acute hypoxemic non-hypercapnic respiratory failure patients available for NIV versus standard oxygen therapy. (A) NIV mode setting; (B) PaO2/FiO2 ratio. BiPAP, bilevel inspiratory positive airway pressure; CPAP, continuous positive airway pressure.

**Figure S7.** Funnel plot for meta-analysis of the effect of NIV on hospital mortality in acute hypoxemic non-hypercapnic respiratory failure patients compared with standard oxygen therapy. Plots were symmetrically distributed, indicating no obvious publication bias. Each point represents one trial.

**Figure S8.** Subgroup analysis for hospital mortality in acute hypoxemic non-hypercapnic respiratory failure patients available for NIV versus standard oxygen therapy. (A) Types of interfaces; (B) PaO2/FiO2 ratio.