| **PICO #3. Noninvasive positive pressure ventilation compared to endotracheal intubation and positive pressure ventilation for adults age >65 years old with rib fractures and acute hypoxic respiratory failure refractory to nasal cannula and face mask****Bibliography:**  |
| --- |
| **Certainty assessment** | **Summary of findings** |
| **Participants(studies)Follow-up** | **Risk of bias** | **Inconsistency** | **Indirectness** | **Imprecision** | **Publication bias** | **Overall certainty of evidence** | **Study event rates (%)** | **Relative effect(95% CI)** | **Anticipated absolute effects** |
| **With endotracheal intubation and positive pressure ventilation**  | **With noninvasive positive pressure ventilation**  | **Risk with endotracheal intubation and positive pressure ventilation**  | **Risk difference with noninvasive positive pressure ventilation**  |
| **Pneumonia** |
| 112(2 RCTs) | not serious | not serious | seriousa | not serious | strong association | ⨁⨁⨁⨁High | 26/54 (48.1%)  | 7/58 (12.1%)  | **OR 0.15**(0.06 to 0.39) | 481 per 1,000 | **359 fewer per 1,000**(from 429 fewer to 216 fewer) |
| **Mortality** |
| 112(2 RCTs) | not serious | not serious | seriousa | not serious | strong association | ⨁⨁⨁⨁High | 9/54 (16.7%)  | 2/58 (3.4%)  | **OR 0.19**(0.04 to 0.86) | 167 per 1,000 | **130 fewer per 1,000**(from 159 fewer to 20 fewer) |

**CI:** confidence interval; **OR:** odds ratio

#### Explanations

a. Variations in age and injury severity