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## Early Tracheostomy vs Late Tracheostomy in Traumatic Brain Injury, Stroke



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A recent review aimed to determine whether early tracheostomy benefits patients with severe traumatic brain injury (TBI) and stroke and whether these benefits persist across different underlying conditions.

The included studies in the review were those written in English, French, Spanish, or Portuguese and with a formulated question that compared outcomes between early and late tracheostomy. A minimum of two outcomes had to be reported, including ICU length of stay, duration of mechanical ventilation, hospital length of stay, mortality rates, or ventilator-associated pneumonia (VAP). In addition, the study population had to be exclusively patients with head injury or stroke and severe TBI patients with Glasgow Coma Scale  $\leq 8$  at admission. The evaluated outcomes were the risk ratio of VAP, risk difference of mortality, and mean difference of the duration of mechanical ventilation, ICU length of stay, and hospital length of stay.

The study included 6211 patients in the early tracheostomy cohort and 8140 patients in the late tracheostomy cohort. The meta-analysis showed that the early tracheostomy group had a lower risk for ventilator-associated pneumonia, a shorter duration of mechanical ventilation, and a shorter ICU and hospital stay than the late tracheostomy group. However, the two groups had no statistical difference in mortality rates.

The findings from this review show that early tracheostomy can improve patient outcomes by reducing the risk of ventilator-associated pneumonia, decreasing the duration of mechanical ventilation, and reducing ICU and hospital length of stay.

Source: [Australian Critical Care](#)

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