Long-Term Increases in Mental Disorder Diagnoses After Invasive Mechanical Ventilation for Severe Childhood Respiratory Disease

A Propensity Matched Observational Cohort Study

115,335 children
Texas Medicaid-enrolled, 28 days - 18 years old hospitalized for a primary respiratory illness

9,131 admitted to PICU

1,351 required IMV
Propensity matched to 6,755 general hospital patients

7,780 without IMV
Propensity matched to 38,900 general hospital patients

**Hazard Ratio of Mental Disorder Diagnoses**

- General Hospital Patients: 1.0
- PICU Patients Without IMV: 1.08 [95% CI, 1.02–1.15]; p = 0.009
- PICU Patients Requiring IMV: 1.43 [95% CI, 1.26–1.64]; p < 0.0001

**Hazard Ratio of Psychotropic Medication Use**

- General Hospital Patients: 1.0
- PICU Patients Without IMV: 1.2 [95% CI, 1.0–1.22]; p = 0.049
- PICU Patients Requiring IMV: 1.67 [95% CI, 1.34–2.08]; p < 0.0001

**KEY TAKEAWAY:**
Identification of strategies for prevention, neurodevelopmental surveillance, and intervention after discharge may be warranted for children who underwent invasive mechanical ventilation.