

## Title: Social Needs Resource Provision in Critically Ill Children May Reduce Hospital Readmissions

**Background:** Critically ill children have higher risk of health disparities which may be worsened during hospitalizations. Inpatient social workers can address health disparities by providing emotional support and social resources (SR).

**Objective:** Describe characteristics of patients receiving SR during PICU hospitalizations. Hypothesized children receiving SR would have fewer 6-month hospital readmissions.

**Methods:** Single-center retrospective study of PICU encounters 1/1/23-9/30/23. No set criteria to determine social work involvement. Demographics and hospitalization characteristics associated with resource provision described. To analyze the effect of social work resource provision on readmissions, the cohort was matched 1:1 by nearest-neighbor propensity for resource administration on demographics, illness severity, and length of stay.

**Results:** 1,036 PICU hospitalizations. 706 (68%) met with PICU social worker and 344 (33.2%) received at least 1 SR. Food resources provided most frequently, to 235 (22.7%) children, followed by housing resources to 138 (13.3%). Children receiving resource(s) were younger (3.0 [0.8-12.0] vs. 5.0 [1.7-13.0] years,  $p < 0.001$ ), with higher proportion of complex chronic conditions (70.3% vs. 59.4%,  $p < 0.001$ ), public insurance (70.6% vs. 61.1%  $p < 0.001$ ), and lower median household income (\$54,958 [\$46,738-\$66,810] vs. \$53,316 [\$41,260-\$64,729],  $p = 0.009$ ). They had increased severity of illness (PELOD-2 1 [0-10] vs. 10 [0-11]  $p < 0.001$ ), mortality (4.8% vs. 1.3%,  $p < 0.001$ ) and hospital cost (\$37,673 [\$15,078.5-\$81,990] vs. \$16,510 [\$9,556-\$35,094]  $p < 0.001$ ). There were 890 (85.9%) PICU survivors with complete 6-month data for propensity matching, of whom 418 were matched. After matching, children with SR provision were less likely to be readmitted within 6 months (marginal risk ratio 0.689 [95% CI 0.537-0.884]).

**Conclusions:** Critically ill children are at high risk for social needs on presentation to the PICU. Providing SR during PICU hospitalization may reduce readmission rates.