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Emergency department (ED) visits for children with chronic pain are on the rise, but with brief physician-patient interactions the ED is ill equipped to manage these patients.^{1,2,3,4,5,6} This study looked at 3 years of data at an academic tertiary care center to identify risk factors predictive of chronic pain-related ED encounters to help focus future preventive measures. Medical records were reviewed for all patients seen at the Seattle Children's Pain Medicine Clinic (PMC) in 2010-12, and patients were identified who were seen in the ED for chronic pain-related complaints after establishing care at the PMC. Risk factors examined included age, psychological comorbidities and primary pain complaint. A logistic regression was used to correlate risk factors with ED encounters.

Of the 855 patients seen at the PMC a subset of 795 patients (93%) was included in the study that had a primary complaint of headache (HA), abdominal pain (AP), musculoskeletal pain (MSK) or some combination thereof. 213 (27%) of the patients were under the age of 13, and 115 (14%) had comorbid anxiety or depression. 412 patients (52%) complained primarily of MSK, 87 patients (11%) of HA, 75 patients (9%) of AP, 105 patients (13%) of both MSK and HA, 63 patients (8%) of AP along with either HA or MSK, and 53 patients (7%) with all three. 84 patients (11%) presented to the ED during the study period. Age did not correlate with risk of presenting to the ED. Patients with comorbid anxiety or depression had a 3.4 times greater risk of presenting to the ED (95% CI 2.0 to 5.9, $p < 0.01$) than those without. Patients with HA had a 2.4 times higher risk (95% CI 1.0 to 6.0, $p < 0.05$), and patients with AP had a 4.7 times higher risk (95% CI 2.1 to 10.6, $p < 0.01$) compared to patients with MSK alone. Patients with both HA and MSK had a 4.7 times higher risk (95% CI 2.3 to 9.7, $p < 0.01$), and patients with AP and either HA or MSK had a 4 times higher risk (95% CI 1.7 to 9.5, $p < 0.01$) compared to patients with MSK alone. Patients with all three complaints had a 12.2 times higher risk (95% CI 5.7 to 26.4, $p < 0.01$) of presenting to the ED compared to patients with MSK alone.

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Odds Ratios for Emergency Department Visit

