

***Comparing effectiveness of Duloxetine and Desipramine in patients with chronic pain: A pragmatic randomized controlled trial using point of care randomization***

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Over 100 million Americans suffer from chronic pain resulting in annual cost of roughly \$635 billion. Limited treatments are available for this widespread disease. The data supporting these treatments lack generalizability to patients with more serious medical and psychological comorbidities who are often excluded from explanatory trials. We aim to integrate randomized comparative effectiveness research with patient care. We will randomize the patients and collect data using a learning healthcare system already in use in our department to monitor patients' progress: Collaborative Health Outcomes Information Registry (CHOIR). CHOIR uses the NIH Patient Reported Outcomes Measurement Information System item banks for comparative metrics through computer adaptive testing. We will leverage this novel system to compare effectiveness of duloxetine and desipramine in decreasing pain in patients with chronic pain using point-of-care randomization. We will also compare adherence of patients to these two commonly used medications over a period of six months.