



## DEDICATED EMERGENCY DEPARTMENT PHYSICAL THERAPY REDUCES IMAGING, OPIOID ADMINISTRATION, AND LENGTH OF STAY

Asal Kareem ,HBS (Andrew Pugh, MBBS, Keith Roper, PT, DPT, Jake Magel, PhD, MSPT, DSc, Julie Fritz, PhD, PT, ATC, Nazaret Colon, BS, Sadie Robinson, BS, Caitlynn Cooper, BSN, John Peterson, BS, Troy Madsen, MD)

### School of Medicine

#### Background

Emergency department (ED)-initiated physical therapy (PT) is an emerging resource nationwide. Early data suggest that PT in the ED has a positive effect on a number of clinical and operational outcomes in patients presenting with musculoskeletal pain. However, there are few published narratives on this topic. This study assesses the impact of ED PT on imaging studies obtained, rates of opioids prescribed, and ED length of stay.

#### Methods

We prospectively identified patients presenting with musculoskeletal pain to an urban academic ED in Salt Lake City between January 2017 and June 2018. During the study, a physical therapist was in the ED three days a week and was available to evaluate and treat patients after consultation by the ED provider. We noted patient demographic information, imaging performed in the ED, medications administered and prescribed, and ED length of stay. We classified patients as those who received PT in the ED and those who did not and compared clinical outcomes between groups.

#### Results

Over the 18-month study period, we identified 524 patients presenting to the ED with musculoskeletal pain. 381 (72.7%) received ED-initiated PT.

The PT and non-PT groups were similar in average age (42.8 years vs. 45.1 years,  $p=0.155$ ), gender (% female: 53% vs. 46.9%,  $p=0.209$ ), and primary presenting chief complaint (cervical, thoracic, or lumbar pain: 57.7% vs. 53.1%,  $p=0.345$ ).

Patients who received PT had lower rates of imaging (38.3% vs. 51%,  $p=0.009$ ), ED opioid administration (17.5% vs. 32.9%,  $p<0.001$ ), and a shorter average ED length of stay (4 hours vs. 6.2 hours,  $p<0.001$ ).

Rates of outpatient opioid prescriptions were similar between groups (16% vs. 21.7%,  $p=0.129$ ).

#### Conclusion

In our experience, physical therapy within the ED reduced the use of imaging and time spent in the ED. Patients receiving PT were also less likely to receive an opioid in the ED, a potentially significant finding given the need for opioid reduction strategies.