# Improving Outcomes in the Emergency Department: Research on the Value of Physical Therapy



Emergency department PTs play a critical role in screening for appropriateness of care, in consultation with other practitioners, and in the direct care of patients.

Emergency departments increasingly are including physical therapist services to help reduce costs, increase patient satisfaction, and decrease the potential for readmission, through patient education and subsequent physical therapist follow-up.

#### Research on the Value of Physical Therapy in the Emergency Department

#### Physical Therapy in the Emergency Department: A New Opportunity for Collaborative Care [Am J Emerg Med. 2018 Aug;36(8):1492-1496]

Conclusion: As ED patient volumes continue to rise and the proportion of older adults grows larger, hospital systems have increasingly integrated physical therapist services into the ED workflow. The physical therapist is frequently consulted for clinical conditions relating to musculoskeletal conditions including back or neck pain, hip pain, knee pain, and shoulder pain, as well as vestibular disorders. By reducing downstream use of health care resources, such as diagnostic imaging, and preventing unnecessary hospitalizations, early initiation of physical therapy in the ED setting may ultimately result in cost savings to individual patients, hospital systems, and accountable care organizations.

## Association Between Physical Therapy in the Emergency Department and Emergency Department Revisits for Older Adult Fallers: A Nationally Representative Analysis [J Am Geriatr Soc. 66:2205-2212, 2018]

Conclusion: Receiving PT services in the ED during an index visit for a ground-level fall was associated with a significantly lower likelihood of a fall-related ED revisit within 30 days. Expanding PT services in the ED may reduce future fall-related ED visits for older adults.

### Time Between an Emergency Department Visit and Initiation of Physical Therapist Intervention: Health Care Utilization and Costs. [Phys Ther. 2020 Sep 28;100(10):1782-1792]

Conclusion: Early physical therapy following an ED visit was associated with a reduced risk of using some types of health care and reduced health care costs in the 12 months following the ED visit. Swift initiation of physical therapy following an ED visit for LBP was associated with lower LBP-related health utilization for some important outcomes and lower LBP-related health care costs.

## Dedicated Emergency Department Physical Therapy Is Associated With Reduced Imaging, Opioid Administration, and Length of Stay: A Prospective Observational Study [PLoS One. 2020 Apr 23;15(4)]

Conclusion: Being seen by a physical therapist for musculoskeletal pain within the ED was associated with reduced use of imaging and time spent in the ED. Patients seeing a physical therapist also were less likely to receive an opioid prescription within the ED, a potentially significant finding given the need for opioid reduction strategies.

### Pelvic Ring Fractures: Role of Physical Therapy in the Emergency Department. [J Orthop Sports Phys Ther. 2019 Dec;49(12):942]

Conclusion: Physical therapist evaluation within the ED reduced the likelihood of adverse events following discharge by expediting selection of appropriate intervention pathways.

GAPcare: The Geriatric Acute and Post-Acute Fall Prevention Intervention in the Emergency Department: Preliminary Data. [J Am Geriatr Soc. 2020 Jan;68(1):198-206]

Conclusion: The authors found it feasible to incorporate pharmacist-led medication review, motivational



interviewing, and PT fall-risk assessment successfully into routine ED care. Efficiencies were gained in the standard ED evaluation of patients who had fallen by recognizing the patient's postinjury level of functional impairment and discharge needs early in the ED visit. By bringing other specialists, such as physical therapists, to the bedside to help with discharge planning, "more" could be done without increasing ED length of stay.

Physical Therapy as the First Point of Care to Treat Low Back Pain: An Instrumental Variables Approach to Estimate Impact on Opioid Prescription, Health Care Utilization, and Costs [Health Serv Res. 2018 Dec;53(6):4629-4646]

Conclusion: Compared with patients who saw a PT later or never, patients who saw a PT first had lower probability of having an opioid prescription (89.4%), any advanced imaging services (27.9%), and an emergency department visit (14.7%). There was lower utilization of high-cost medical services or opioids, as well as cost shifts when patients with LBP saw a PT first.

Are Nonpharmacologic Pain Interventions Effective at Reducing Pain in Adult Patients Visiting the Emergency Department? A Systematic Review and Meta-analysis [Acad Emerg Med. 2018 Mar 15] Conclusion: Nonpharmacological interventions are often effective in reducing pain in the ED. PT services decreased patients' pain by ED discharge and after 1-4 months, improved function, and decreased disability. A higher percentage of patients receiving PT services expressed satisfaction (89%) than for patients in the control group (74%).

Physician Impressions of Physical Therapist Practice in the Emergency Department: Descriptive, Comparative Analysis Over Time [Phys Ther. 2016 Sep;96(9):1333-41]

Conclusion: ED physicians reported favorable impressions of ED physical therapist practice two years and nine years following its implementation in this hospital. ED physicians were shown to support standing physical therapist orders for certain musculoskeletal conditions, which suggests that direct triage to ED physical therapists for these conditions could be considered.

Omission of Physical Therapy Recommendations for High-Risk Patients Transitioning From the Hospital to Subacute Care Facilities [Arch Phys Med Rehabil. 2015 Nov;96(11):1966-72]

Conclusion: Medicare beneficiaries who did not receive PT recommendations demonstrated some trends toward greater frequencies of 30-day rehospitalization, emergency room visits, and/or death, compared with those without such omissions.

#### International Research

Emergency Department After-Hours Primary Contact Physiotherapy Service Reduces Analgesia and Orthopaedic Referrals While Improving Treatment Times. [Aust Health Rev. 2020 Jun;44(3):485-492] Conclusion: Even in after-hour settings, patients with musculoskeletal issues whose primary contact was with a PT tended to leave the ED with fewer orthopedic referrals and opioid prescriptions, and in less time, than did patients who were seen by another professional first.

Establishing the Diverse Value of the Emergency Department Physiotherapist. [Journal of Physiotherapy. Volume 62, Issue 1, January 2016, Pages 1-3]

Conclusion: Having physiotherapists commence treatment on complex patients in the ED sets up a model in which early intervention jump-starts the transition between hospital and the home.

Specialised Vestibular Physiotherapy in the Emergency Department: A Pilot Safety and Feasibility Study, [Emerg Med Australas, 2020 Oct;32(5):860-863]

Conclusion: The results of the present study support extending the role of physiotherapists to managing peripheral vestibular dysfunction in the ED.

Concordance Between Physiotherapists and Physicians for Care of Patients With Musculoskeletal Disorders Presenting to the Emergency Department. [BMC Emerg Med. 2019 Nov 10;19(1):67]



Conclusion: Significant concordance in terms of diagnosis and discharge plans was found between advanced practice physiotherapists and ED physicians for patients with musculoskeletal conditions presenting to the ED. There were more discrepancies between health care providers in terms of treatment plans, with advanced practice physiotherapists recommending more physiotherapy care and less prescription drugs than did ED physicians.

Impact of the Primary Contact Physiotherapy Practitioner Role on Emergency Department Care for Patients With Musculoskeletal Injuries in New South Wales. [Emerg Med Australas. 2020 Apr;32(2):202-2091

Conclusion: Patients seen by the primary contact physiotherapist were associated shorter timeframes for services compared with patients seen through usual care processes. ED length of stay was shorter by 108 minutes, wait time to treatment by 10 minutes, and time-to-first analgesia by 18 minutes.

Patients' and Healthcare Professionals' Experiences and Perceptions of Physiotherapy Services in the Emergency Department: a Qualitative Systematic Review. [Int J Emerg Med. 2018 Oct 11;11(1):42]

Conclusion: Patients and health care professionals perceived physiotherapists to have a wide-ranging skill set. Both population groups considered physiotherapists to be experts in musculoskeletal management, with the majority of patients feeling comfortable being seen by physiotherapists in the ED for MSK injury. Patients and health care professionals agreed that physiotherapy ED intervention is not just isolated to MSK care. Wider research reports that ED physiotherapists have a role in discharge planning, assessing mobility and falls, and treating patients with respiratory and neurological conditions.

Review Article: A Scoping Review of Physiotherapists in the Adult Emergency Department. [Emerg Med Australas. 2019 Feb;31(1):43-57]

Conclusion: Physiotherapists primarily managed patients with low-urgency musculoskeletal conditions. Physiotherapists appeared to have clinical effectiveness and costs similar to other health providers. Physiotherapists were associated with increased efficiency, reduced low-value care, and very low adverse event rates. The available evidence suggests that physiotherapists may be as effective as other health providers in managing low-urgency musculoskeletal conditions in the ED.

Advanced Musculoskeletal Physiotherapists Are Effective And Safe in Managing patients With Acute Low Back Pain Presenting to Emergency Departments. [Aust Health Rev. 2018 Jun;42(3):321-326] Conclusion: Patients seen by the advanced musculoskeletal physiotherapist had a significantly shorter ED wait time and ED length of stay. Significantly fewer patients seen by the AMP were admitted. There is evidence that AMPs effectively discharge patients admitted to the ED in a timely manner, without evidence of increased readmissions, compared with their medical and nursing colleagues.

Potential Impact of Early Physiotherapy in the Emergency Department for Non-Traumatic Neck and Back Pain. [World J Emerg Med. 2017;8(2):110-115]

Conclusion: Early physiotherapy for patients presenting to the ED for nontraumatic neck and back pain with or without peripheral symptoms was associated with reduced pain and disability, compared with patients with outpatient physiotherapy referral. This would result in overall improved patient satisfaction. Adopting this protocol can potentially decrease demand on outpatient orthopedic services, thereby freeing up available resources to treat patients who are most likely to benefit from it.

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