The Bottom Line

The Bottom Line is a translation of study findings for application to clinical practice. It is not intended to substitute for a critical reading of the research article.

[Archer KR, MacKenzie EJ, Castillo RC, Bosse MJ; for the LEAP Study Group. Orthopedic Surgeons and Physical Therapists Differ in Assessment of Need for Physical Therapy After Traumatic Lower-Extremity Injury. *Phys Ther*. 2009;89:1337–1349.]

What problems did the researchers set out to study, and why?

Traumatic injuries of the lower extremity are among the leading causes of hospitalization for adults under the age of 65, and they often result in long-term functional impairments and disability. Physical therapy interventions may have the potential to reduce these impairments; however, utilization of physical therapy for this population is lower than expected, and variability in physician referral patterns have been observed previously. The researchers explored variability and predictors of surgeon and physical therapist assessment of need for physical therapy for patients with lower-extremity traumatic injuries.

Who participated in this study?

Data from 395 patients (16 to 69 years of age) treated by lower-extremity reconstruction were obtained from the Lower-Extremity Assessment Project (LEAP) database. The LEAP database included a total of 601 patients who had lower-extremity trauma who were enrolled from March 1994 to June 1997 across 8 level I trauma centers. Patients were excluded if they had low Glascow Coma Scale scores, spinal cord deficits, previous amputation, third-degree burns, or inability to speak English or if they were on active military duty.

What new information does this study offer?

This study reports differences between surgeon and physical therapist perception of the need for physical therapy for patients who have had lower-extremity reconstruction and variability in assessment of need at the trauma center level. Surgeons were more likely to assess a need for physical therapy at 3 months when participants had low work self-efficacy, impaired knee flexion range of motion (ROM), and weight-bearing limitations. At 6 and 12 months, surgeons were more likely to assess a need for therapy when participants had impaired knee flexion ROM and weight-bearing and balance limitations. Physical therapists were more likely to assess a need for therapy at 3 months when participants had moderate to severe pain. At 6 and 12 months, physical therapists were more likely to assess a need for therapy when participants had low work self-efficacy, pain, impaired knee flexion ROM, and balance limitations.

What new information does this study offer for patients?

This study highlights differences in assessment of need for physical therapy across trauma centers and between surgeons and physical therapists for patients following traumatic lower-extremity injury. This difference in perception may result in no referral or inappropriate referral for physical therapy. Patients may benefit from improved communication between surgeons and physical therapists to ensure that those patients who would benefit from physical therapy are identified and referred appropriately.

How did the researchers go about this study?

The researchers looked at orthopedic surgeons' and physical therapists' assessment of need for physical therapy at 3, 6, and 12 months following hospitalization. At each assessment, physical therapists and surgeons independently rated each participant as needing or not needing physical therapy treatment prior to the next assessment. Patient demographic data, prior health status, pain, level of disability, work status, specifics of the injury, and receipt of physical therapy were recorded. Separate multilevel logistic regression analyses were performed to examine factors associated with likelihood of assessment of need for physical therapy at each time point.

How might the results be applied to physical therapist practice?

Appreciation of the factors associated with an assessment of need for physical therapy can be used to improve communication between surgeons and physical therapists. This research suggests that surgeons need to be informed about the benefits of physical therapy to improve postoperative pain and self-efficacy for work. This information can be used to help surgeons identify patients that are appropriate for physical therapy.

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What are the limitations of the study, and what further research is needed?

The data from the LEAP database were over 10 years old at the time of this analysis, and patterns of referral may have changed. Assessment of need for physical therapy was not confirmed by a documented prescription for physical therapy. The study was conducted at level I trauma centers, and these results may not be generalizable beyond level I trauma centers. Further investigation of surgeon and trauma center characteristics that contribute to referral variation is recommended. Further research into the optimal timing and effectiveness of physical therapy to reduce pain and disability for patients following lower-extremity trauma is also necessary.

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