

Depression Following a Traumatic Brain Injury

A systematic review of 115 studies for the Agency for Healthcare Research and Quality (AHRQ) was conducted to synthesize the evidence on what is known and not known about the diagnosis and treatment of depression following TBI. The results of this review are summarized here for use in your decisionmaking. The full report, with references for included and excluded studies, is available at www.effectivehealthcare.ahrq.gov/tbidep.cfm.

BURDEN OF INJURY

Depression may be masked by other symptoms related to TBI and can reduce quality of life and impair the ability to function in social and work roles. Depression can undermine planning and treatment adherence among patients with TBI who require physical therapy or rehabilitation. Estimates of direct and indirect costs associated with TBI exceed \$56 billion each year.³ The most salient consequence of depression is suicide.

EACH YEAR

- 52,000 die because of a TBI, 275,000 are hospitalized, and 1,365,000 are treated and released from an emergency department.²
- Nearly 5 percent of all injuries seen in emergency department visits and 16 percent of hospitalizations are TBI related.²
- 80,000 to 90,000 will have a long-term disability as a result of their TBI.³

BACKGROUND

Traumatic brain injury (TBI) occurs when external force from an event such as a fall, sports injury, assault, motor vehicle crash, or explosive blast injures the brain and causes loss of consciousness or memory. TBIs can range in severity from a mild concussion that may often heal without medical treatment to severe injuries that may require surgery and years of rehabilitation.¹ Approximately 1.7 million people sustain a TBI each year.²

BOTTOM LINE: REVIEW FINDINGS

- The prevalence rate of depression following TBI is 31 percent, compared to the rate of 8–10 percent found in the general population.
- A limited amount of evidence suggests that depression can occur regardless of whether the TBI is mild, moderate, or severe.
- There is not enough evidence to determine a timeframe for screening patients with TBI who are at risk of depression or the optimal tools for screening.
- Frequent screening for depression after TBI is warranted.
- While evidence exists for treatment of depression in the general population, studies involving individuals who have sustained TBI are insufficient to guide treatment for this specific population.

KEY POLICY IMPLICATIONS

- Delayed or prolonged rehabilitation and treatment of TBI could be related to unscreened and untreated depression in this patient population.
- Unscreened or untreated depression may contribute to increased costs and care for this population.
- Repeated screening for depression among patients with TBI may be necessary during initial treatment and rehabilitation phases of care as well as in long-term followup.

ADDITIONAL CONSIDERATIONS

- What reimbursement policies for depression screening are in place for patients with TBI that may pose barriers to access?
- In light of evolving information, what policies support monitoring for advances in research, screening, and treatment for TBI patients at risk for depression?

REFERENCES

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3. Crooks CY, Zumsteg JM and Bell KR. Traumatic brain injury: a review of practice management and recent advances. *Phys Med Rehabil Clin N Am* 2007 Nov;18(4):681–710, vi.

FULL REPORT

Guillamondegui OD, Montgomery SA, Phibbs FT, et al. Traumatic Brain Injury and Depression. Comparative Effectiveness Review No. 25 (Prepared by Vanderbilt Evidence-based Practice Center under Contract No. 290-2007-10065-I). Rockville, MD: Agency for Healthcare Research and Quality, April 2011. Available at: www.effectivehealthcare.ahrq.gov/.

