Module: Survivorship

Learning Objectives

Attitudes

- Appreciate the long-term whole-person impact of severe traumatic injury
- Respect the need for multidisciplinary care
- Embrace the role of the physician in helping navigate post-acute care trauma recovery

Knowledge

- Demonstrate knowledge of common impairments following severe traumatic injury
- Identify appropriate mental health screening following injury

Skills

- Discuss the impact of the different domains of care on trauma survivorship
- Demonstrate the ability to collaboratively care for the patient by documenting care plan and appropriate screening/referrals
- Recognize capabilities and limitations of local healthcare system to coordinate complex care

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Teaching Outline

Trauma is a major public health issue, disrupting the lives and livelihoods of people from all walks of life. Mature trauma systems and specialized centers have resulted in improved survivorship of patients sustaining severe injury, however, recovery is not complete at the time of hospital discharge. These patients have complex post-discharge needs, often requiring multiple specialty collaborative care. While individual healthcare systems will have different capabilities, the following are broad categories of care that must be addressed for comprehensive post-discharge care.

Domains of Care in Trauma Survivorship

1. Physical Health and Pain

a. Most patients will have some remaining physical limitation following discharge after traumatic injury, ranging from imposed limitations to weight bearing or range of motion for fracture recovery, deconditioning from time spent convalescing, ICU-acquired weakness, or permanent weakness as a result of their injury. Over 1/3 of these patients will have limitations in performing activities of daily living.

b. Many patients will have ongoing need for surgical care at various points in their recovery – wounds, external fixators, ostomies, hernias, second-stage reconstructive operations, etc. Plans for these outstanding surgical problems should be well-elucidated and follow-up clearly outlined at the time of discharge and at each successive follow-up visit.

c. Ideal follow-up care would have access to PM&R, Orthopedics, Physical and Occupational Therapy, and Plastic Surgery in addition to Trauma Surgery.

d. As nearly half of injury survivors report daily pain, a multidisciplinary approach to pain management and the ability to refer to or collaborate with a pain specialist is recommended. Specialized palliative care may be beneficial when the sequelae of trauma leaves patients with longstanding life-limiting physical symptoms and other burdens.

2. Behavioral Health

a. Anxiety, Depression, and PTSD are common in trauma survivors, with 22-48% of patients experiencing symptoms of any of these in the first year after injury.

b. Sleep disturbance is common with 18-61% of patients experiencing abnormal sleep 6 months after discharge. Poor sleep contributes to depression, anxiety, and diminished cognitive function.

c. Screening for the above symptoms should be performed at regular intervals in order to identify those appropriate for referral to appropriate services.

3. Cognitive Health

a. Multiple cognitive sequelae have been reported following critical illness and traumatic brain injury, including changes in attention, memory, processing speed, visuospatial perception, language and executive function.

b. This likely contributes to higher prevalence of unemployment following critical illness – approximately 40% of those experiencing critical illness after injury do not return to work within 1 year.

c. Neuropsychiatry, palliative care, cognitive, speech/language, and occupational therapy may be appropriate referrals for patients with cognitive health burdens of trauma refractory to initial interventions. First line treatments include:

    i. Cognitive rehabilitation with neuropsychological assessment and tailored interventions for cognitive retraining e.g attention, memory, executive function training

    ii. Physical rehabilitation with early mobilization and structured physical therapy being associated with improvement in cognition

    iii. Sleep optimization to address sleep fragmentation and promote sleep hygiene, including cognitive-behavioral therapy if needed for insomnia

4. Caregiver

a. Those caring for our trauma survivors also experience increased rates of anxiety, depression, and PTSD. They may experience changes in their employment or insurance status as a result of having to care for their injured family member. Survivor resources should provide education to caregivers so that they can seek care appropriate for their needs.

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Pre/Post Test

Questions

1. What are three domains in which survivors of severe traumatic injury commonly have needs following hospital discharge?
2. What behavioral health disorders should trauma survivors be screened for?
3. Name three cognitive disturbances commonly experienced by trauma survivors.

Answers

1. Physical, Behavioral, and Cognitive Health
2. PTSD, Anxiety, Depression, and disordered sleep
3. Cognitive health disturbances found among trauma survivors include changes in attention, memory, executive function, processing speed, visuospatial perception, and language.

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Module: Survivorship

Case 1

Mrs. Flores, a 62-year-old woman, presents to your Center for Trauma Survivorship for her first visit following hospital discharge. She was an inpatient for 46 days after being involved in a motor vehicle collision in which she sustained multiple bilateral rib fractures, bilateral diaphragm rupture, splenic, small bowel, and colon injuries, for which she underwent exploratory laparotomy, splenectomy, and bowel resection with loop ileostomy. She has been at an acute rehabilitation center for the past two weeks and is looking forward to going home at the end of the month, but she has some concerns about that transition.

Question

1. What do you recommend she do to prepare?

Discussion

2. Ask her what her specific concerns are. Address those first, then systematically consider her physical abilities/ADLs, presence of wound and new ostomy, mental and behavioral health including pain, sleep, and anxiety.

3. Assess what her resources are at home. Are there people who can help her? Will she need a home health aide or visiting nurse? What about outpatient therapy?

Case 2

It is now 2 months post-hospital discharge and Mrs. Flores has been home from rehab for one month. She is moving around better and now only needs her cane when she leaves the house. She has been seen at the wound and ostomy clinic and is feeling more confident with ostomy care.

Question

1. She notes she is still on a number of medications that she wasn't on before her accident and wants to know how long she needs to continue taking those.

Discussion

1. Perform a medication reconciliation and determine the indication for each medication; multimodal pain medications, anxiety and sleep medications should be weaned when possible to mitigate polypharmacy.
2. Screen for anxiety, depression, PTSD, and cognitive impairment. Assess quality of sleep and physical limitations to ADLs.

Case 3

Mr. Flores, the patient's 67-year-old husband, expresses how stressful this experience has been for him. While he is retired and has been able to be home, he feels overwhelmed with his new responsibilities. His

wife has been primarily responsible for shopping, cooking, cleaning, and paying the household bills for most of their marriage and he worries he is missing things.

Question

1. How will you address Mr. Flores's concerns?

Discussion

1. Remember that trauma affects the family and community of the patient as well, and anxiety, depression, and PTSD are also common in caregivers. Knowing local resources and strategies for navigating the healthcare system can help guide caregivers in the right direction to establish care/support as they navigate survivorship themselves.

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