

# Support Care Following Hospital Discharge: A Critical Unmet Need

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## ABSTRACT

Patients, who suffer catastrophic and non-catastrophic injuries, as well as debilitating diseases, are often left with physical and cognitive deficits that require support care following their hospital discharge. While the type and level of support varies according to the severity of the injury or the patient's condition, receiving the appropriate level of care is critical to reducing morbidity and mortality, for improving quality of life for these patients, and for minimizing overall healthcare costs. Given that the costs of the necessary ongoing care for disabled persons can be exorbitant, it is critical that these costs be covered by insurance. Debilitated conditions that result from injury and disease should not bankrupt patients and their families and instead should be managed by insurance organizations that exist and are regularly funded for the specific purpose of helping people whose suffering is unanticipated. Currently, there is a gap between what is medically necessary and what insurance covers, leaving people to choose between paying for services they cannot afford or forgoing the care they require. By enabling physiatrists to define long-term care needs and implementing covered support care services, secondary complications and associated expenses can be avoided or quickly treated, driving down burdens on patients and the overall healthcare system.

Keywords: Health insurance; Hospital discharge; Long-term care; Traumatic brain injury; Spinal cord injury

# INTRODUCTION

Millions of Americans suffer catastrophic and non-catastrophic traumas and diseases each year, and many of them are left in a debilitated state, requiring long-term care. Secondary complications in these patients are common and associated with poorer outcomes and higher costs. Though these complications occur in patients who have suffered dozens of distinct types of acute incidents, for brevity, we highlight examples from some well-known phenomena, such as stroke, Traumatic Brain Injury (TBI), and Spinal Cord Injury (SCI).

Many hospitals have a discharge planner. This person helps coordinate the information and care you'll need after you leave. You'll need to understand your injury or illness. You'll need to know the next steps to take. This may include taking medicine and caring for a bandage. Make sure you know who to contact if you have a question or a problem. The discharge planner and your healthcare provider will answer your questions.

Why would a hospital discharge a person who has not fully recovered? Hospital care is for people who need a high level of medical attention. It is also expensive, and often uncomfortable. Being in the hospital also exposes you to the possibility of infection, particularly if you have a weak immune system. Once a person is getting better and does not need a high level of care, a hospital stay is not needed. When the person is discharged, this makes a bed available to another person who needs a high level of care.

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# LITERATURE REVIEW

## Millions of Americans who experience catastrophic and non-catastrophic trauma and diseases each year suffer from costly secondary complications

More than 75% of those undergoing stroke rehabilitation experience secondary complications, which include pneumonia, falls, urinary tract and other infections, pain, depression, cardiac disease, and thromboembolism [1,2]. Similarly, while an estimated 50,000 people die each year from TBIs, the remaining 1.45 million who have experienced a TBI are at a higher risk of secondary complications [3]. These high prevalence complications can include urinary tract infections, pneumonia, pressure ulcers, joint contractures, and deep venous thrombosis [4].

Like TBI, SCI, which occurs in more than 12,000 people in the U.S. each year, heightens one's risk for secondary complications, particularly in the year following the injury [5]. Common complications following SCI include pneumonia, depression, urinary tract infections, pressure ulcers, fractures, deep vein thrombosis, spasticity, cardiovascular problems and more [6].

These secondary complications significantly increase healthcare costs. Data on the timescale of costs for stroke patients for instance are telling, as they show that costs associated with acute ischemic stroke are substantial initially but double within a year of the initial event [7].

Research on the economics of stroke that consider medical costs over the 4 years following stroke have revealed the exorbitant costs incurred following the initial medical incident [8]. The total projected cost for stroke in 2050 is expected to surpass \$1.5 trillion annually (in 2005 dollars) for certain groups [9].

# Pain and costs associated with secondary complications are preventable

Experts have pointed to the importance of identifying and treating secondary complications quickly, as some of these complications are fatal, and earlier intervention is associated with better outcomes [10]. With the right care and prevention strategies, secondary complications can be largely avoided. Safety at home, for example, is equally as important as safety in the hospital or other healthcare settings, and when people are in unsafe conditions, they are at risk for having to be hospitalized again [11]. Fall-related injuries, which are highly preventable and often occur in those who have suffered strokes or traumatic injuries, enhance costs due to hospitalization, diagnostic procedures, and potentially surgeries [12].

Lack of adequate support care has been identified as a major risk factor for adverse events, and many secondary complications have been recognized as preventable or treatable when promptly recognized [2,13,14]. Having the right kind of care in the home can help to provide safe conditions and to prevent hospitalization through other mechanisms. For instance, better communication between home health nurses and physicians is associated with a reduced risk of hospital readmission in highrisk patients [15]. Without home health nurses, this necessary communication amongst healthcare professionals is lacking. Physiatrists have the medical expertise to offer specific guidance for long-term care support and should be leveraged to help classify the type and volume of care each patient requires.

# Successful prevention requires the appropriate type and volume of care

Better and quicker care is all associated with better outcomes for those at risk for secondary complications following catastrophic events. Having more access to care increases the likelihood of early intervention in the case of complications. Quality of support following stroke is associated with improved behavioral and emotional outcomes [16]. There are significant discrepancies in data on the type and frequency of complications following stroke, which may be at least partially explained by differences in the type of support care patients received [2].

Deploying appropriate prevention strategies for complications, such as for bladder and bowel problems following stroke can prevent hospital readmissions and further medical complications [17]. Further, nurses can be trained to reduce the specific risks that patients face post-stroke, including the risk of falls, malnutrition, dehydration, dysphagia, altered glucose metabolism, pneumonia, delirium, and depression [18]. Recent research supports the notions that highly specialized nursing care can improve outcomes in stroke [19].

In TBI, only about 1 out of every 4 people achieves long-term functional independence [20]. Expert assessment of functional status following injury is critical for these patients to receive the appropriate amount and level of care to help prevent complications. Specially trained caregivers must also be deployed to improve outcomes for this patient population has also shown that the duration of medical attention required is lower when registered nurses spend more time with patients each day [21]. This observation is likely due to the enhanced likelihood that medical risks are rapidly addressed and new or worsened conditions or injuries are prevented.

## But what is medically necessary in the context of long-term care is not covered by insurance

Too many patients do not have the ongoing care required to quickly identify signs of secondary complications, largely because this type of care tends not to be covered by insurance companies. Though home care delivery was once the norm in healthcare, the needs for patients who require home health care are today poorly met under the current model of healthcare delivery [22]. There is thus a significant gap between what patients need and what insurance covers in cases where longterm care is needed.

Medicare, for example, does not generally cover long-term home health care [23]. In cases where Medicare does provide such coverage, that coverage is for part-time care and is only provided for a limited period. For home health care services to be covered by Medicare at all, those services need not only to be deemed medically necessary but must also be provided on a noncontinuous basis [24]. This policy, by definition, prevents people who need to be regularly monitored from getting adequate care unless they have the medical means to pay directly for the services. Patients and their families are thus left with the difficult decision of whether to forego necessary medical attention or incur significant debts to receive services they cannot afford.

# Without coverage for necessary medical support, patients and their families face exorbitant costs

Rising unmet needs in long-term home care is placing an increasing burden on family caregivers [25]. In addition to the emotional, physical, and work-related stresses, the financial costs of caring for patients who require care at home and who are at risk for new or worsening complications negatively affects families across the country. A family member with a disability is the second most common reason given for why medical bills have had a major impact on the family [26]. According to the U.S. Consumer Financial Protection Bureau in 2014, medical bills are by far the most common cause of unpaid bills [27]. Medical bankruptcy is common and receives significant attention because of the is perceived injustice of Americans suffering due to the health care finance system [28].

Exacerbating the problem of the personal financial burden of long-term disability is that indebtedness is known to negatively affect health, with severe financial distress increasing the risk for mortality in certain contexts [29,30]. Hospital admissions in turn have negative financial consequences, including enhancing out-of-pocket medical spending, increasing bankruptcy, reducing earnings, and minimizing access to credit [31]. While the Patient Protection and Affordable Care Act (ACA) provided more universal care, it did not provide the comprehensive care that prevents financial suffering in cases of long-term disability, and this unmet need must be addressed through new and innovative solutions [28].

# Coverage for appropriate care is urgently needed to reduce the burden of secondary complications

This vicious cycle where medical need leads to financial demise, which worsens health and leads to further financial destruction needs to be broken by ensuring that people's medical needs are covered from the moment they are needed. The Affordable Care Act pushed for improving quality of care while reducing costs, with one of the strategies for cost reductions to include shifting care from costly settings like hospitals to less expensive settings such as the home [32]. Indeed, moving delivery of care to the home has been deemed one of the best opportunities to improve care while driving down costs, as home care not only enhances health-related outcomes but also reduces the length of hospital stays and spending [33-40].

In the case of primary care alone, home-based care reduces emergency department visits, hospitalizations, and readmissions, saving \$ 2,700 on average per beneficiary annually while also enhancing satisfaction for both patients and caregivers [40]. In cases where more regular care is appropriate or urgently needed, these savings are undoubtedly significantly higher. In addition to driving down costs, home-based care tends to be preferred to other types of care by patients who require longterm medical attention. Even when people know that they cannot adequately care for themselves, they often express a preference to be able to stay at home [25]. Having them do so should be the least costly option for every healthcare stakeholder, including the patient.

#### Coverage must be standardized and transparent

There is currently no standardized, evidence-based way to provide effective support care for those requiring long-term home care, which obviates transparency on how to best support these patients. Instead, we need a clear, uniform approach for providing those who need long-term home care support with the care they need. As part of this protocol, rather than insurance companies, physiatrists, who are specially trained and uniquely qualified to prescribe and describe support care for the future, should dictate the amount and level of care patients can and do receive.

To capitalize on the opportunities of home-based care, a true shift away from fee-for service models toward value-based care is critical [40]. Currently, Medicare emphasizes office-based care and fee-for-service models, preventing clinical decision making that is conducive to improved long-term health outcomes [22,25]. The majority of experts interviewed on the topic believed that the Medicare home health benefit should be more flexible and should be based on patients' needs. The need to evolve Medicare to respond to increasing demands of patients with limitations in their daily activities was also highlighted.

# Physicians-not insurance companies-should dictate the care patients receive

Physicians as the gatekeepers to long-term care coverage is consistent with value-based care not only because it will improve long-term health outcomes and drive down costs associated with healthcare utilization but also because physicians can assign volume and level of care based on the specific needs of the patient to successfully balance care and cost. For instance, depending on the specific needs of the patient, physicians may deem different levels of care appropriate.

Research has shown that both Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) are valuable for maintaining the safety of nursing home residents, though RNs are uniquely able to contribute successful care in certain complex scenarios such as with medication reconciliation, which may be more relevant for certain patient populations [41]. Certified Nursing Assistants (CNAs), however, are important for care that does not require medical monitoring. For instance, rather than use a costlier care option such as an RN or LPN, a CNA is adequate for custodial care and prevention of falls, for medical stability, physically disabled patients.

Not only will a healthcare system that enables people to get longterm care in their own homes affordably improve health outcomes and health-related spending, but it is consistent with the trend toward personalized, on-demand care that is customized to and directed toward the consumer. Now is the

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time for a new pathway for home-based health care to be paved, supported by physiatrist recommendations, and fully integrated into the U.S. health care system [25].

#### Takeaway

Traumatic catastrophic and non-catastrophic injuries are not only painful, dangerous, debilitating and life-altering, but it is also an incredible financial burden [42].

## DISCUSSION

More than 12% of the U.S. population suffers significant disabilities, and there is growing consensus that persons with disabilities are an unrecognized health disparity population [43]. These patients require long-term care services, most of which are not covered by health insurance and thus place enormous financial burden on the patients and their families. Because each patient is different, and each injury is unique, careful expert evaluation is required to determine the most appropriate care for each patient, and medical coverage for such care should track with expert assessments and recommendations. In other words, those in need of higher levels of care should not be subject to the same coverage limitations as those with lesser disabilities and risks of complications. Though we have focused on stroke, TBI, and SCI, the number of Americans who suffer disability following injury are not limited to these conditions. Disability from myocardial infarction, amputation, burns; orthopedic trauma, progressive neurologic disease, cancer, and chronic pain are also common and add tremendously to the overall burden of disability in our country.

#### CONCLUSION

Though the injuries themselves are distinct, there is significant overlap in the secondary complications, likely owing to the way each of these injuries impacts patients' abilities to function normally, properly care for themselves, and identify secondary complications quickly. With better, more personalized support care that has been appropriately defined by physiatrists, the health outcomes associated with these complications and the accompanying costs could be significantly reduced.

### REFERENCES

- Hong KS, Kang DW, Koo JS, Yu KH, Han MK, Cho YJ, et al. Impact of neurological and medical complications on 3-month outcomes in acute ischaemic stroke. Eur J Neurol. 2008;15(12):1324-1331.
- Janus-Laszuk B, Mirowska-Guzel D, Sarzynska-Dlugosz I, Czlonkowska A. Effect of medical complications on the afterstroke rehabilitation outcome. NeuroRehabil. 2017;40(2):223-232.
- Report to Congress: Traumatic Brain Injury in the United States | Concussion | Traumatic Brain Injury | CDC Injury Center.
- Odgaard L, Aadal L, Eskildsen M, Poulsen I. Nursing Sensitive Outcomes after Severe Traumatic Brain Injury: A Nationwide Study. J Neurosci Nurs. 2018;50(3):149-154.
- Stillman MD, Barber J, Burns S, Williams S, Hoffman JM. Complications of spinal cord injury over the first year after discharge from inpatient rehabilitation. Arch Phys Med Rehabil. 2017;98(9): 1800-1805.

- Nas K, Yazmalar L, Şah V, Aydin A, Öneş K. Rehabilitation of spinal cord injuries. World J Orthop. 2015;6(1):8-16.
- Johnson BH, Bonafede MM, Watson C. Short-and longer-term healthcare resource utilization and costs associated with acute ischemic stroke. Clinicoecon Outcomes Res. 2016;8:53-61.
- Lee WC, Christensen MC, Joshi AV, Pashos CL. Long-term cost of stroke subtypes among medicare beneficiaries. Cerebrovasc Dis. 2007;23(1):57-65.
- Brown DL, Boden-Albala B, Langa KM, Lisabeth LD, Fair M, Smith MA, et al. Projected costs of ischemic stroke in the United States. Neurology. 2006;67(8):1390-1395.
- Sweis R, Biller J. Systemic complications of spinal cord injury. Curr Neurol Neurosci Rep. 2017;17(2):8.
- 11. Romagnoli KM, Handler SM, Hochheiser H. Home care: More than just a visiting nurse. BMJ Qual Saf. 2013;22(12):972-974.
- 12. Bamgbade S, Dearmon V. Fall prevention for older adults receiving home healthcare. Home Healthc. Now. 2016;34(2):68-75.
- Langhorne P, Stott DJ, Robertson L, MacDonald J, Jones L, McAlpine C, et al. Medical complications after stroke: A multicenter study. Stroke. 2000;31(6):1223-1229.
- Adamuz J, Juve-Udina ME, Gonzalez-Samartino M, Jiménez-Martínez E, Tapia-Pérez M, López-Jiménez MM, et al. Care complexity individual factors associated with adverse events and in-hospital mortality. PLoS ONE. 2020;15:e0236370.
- Pesko MF, Gerber LM, Peng TR, Press MJ. Home Health Care: Nurse-Physician Communication, Patient Severity, and Hospital Readmission. Health Serv Res. 2018;53(2):1008-1024.
- 16. Villain M, Sibon I, Renou P, Poli M, Swendsen J. Very early social support following mild stroke is associated with emotional and behavioral outcomes three months later. Clin Rehabil. 2017;31(1): 135-141.
- Chohan SA, Venkatesh PK, How CH. Long-term complications of stroke and secondary prevention: An overview for primary care physicians. Singapore Med J. 2019;60(12):616-620.
- Tamburri LM, Hollender KD, Orzano D. Protecting patient safety and preventing modifiable complications after acute ischemic stroke. Crit Care Nurse. 2020;40(1):56-65.
- Theofanidis D, Gibbon B. Nursing interventions in stroke care delivery: An evidence-based clinical review. J Vasc Nurs. 2016;34(4): 144-151.
- Ahmed S, Venigalla H, Mekala HM, Dar S, Hassan M, Ayub S. Traumatic brain injury and neuropsychiatric complications. Indian J Psychol Med. 2017;39(2):114-121.
- Needleman J, Buerhaus P, Mattke S, Stewart M, Zelevinsky K. Nursestaffing levels and the quality of care in hospitals. N Eng J Med. 2002;346(22):1715-1722.
- Yao NA, Rose K, LeBaron V, Camacho F, Boling P. Increasing Role of Nurse Practitioners in House Call Programs. J Am Geriatr Soc. 2017;65(4):847-852.
- 23. Medicare Coverage of In-Home Health Care.
- Ellenbecker CH, Samia L, Cushman MJ, Alster K. Patient safety and quality in home health care. Agency for Healthcare Research and Quality (US); 2008.
- 25. Landers S, Madigan E, Leff B, Rosati RJ, Mc Cann BA, Hornbake B, et al. The future of home health care: A strategic framework for optimizing value. Home Health Care Manag Pract. 2016;28(4): 262-278.
- 26. The burden of medical debt: Results from the Kaiser Family Foundation/New York Times Medical Bills Survey.
- 27. Consumer credit reports: A Study of Medical and Non-Medical Collections; 2014.

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- 28. Himmelstein DU, Woolhandler S, Lawless RM, Thorne D, Foohey P. Medical bankruptcy: Still common despite the affordable care act. Am J Pub Hea. 2019;109(3):431-433.
- 29. Turunen E, Hiilamo H. Health effects of indebtedness: A systematic review. BMC Public Health. 2014;14(1):489.
- 30. Ramsey SD, Bansal A, Fedorenko CR, Blough KD, Overstreet KA, Overstreet V, et al. Financial insolvency as a risk factor for early mortality among patients with cancer. J Clin Oncol. 2016;34(9): 980-986.
- Dobkin C, Finkelstein A, Kluender R, Notowidigdo MJ. The economic consequences of hospital admissions. Am Econ Rev 2018;108(2):308-352.
- 32. Changing patterns of health insurance and health-care delivery-Healthcare utilization as a proxy in disability determination-NCBI Bookshelf.
- 33. Barrett DL, Secic M, Borowske D. The gatekeeper program: Proactive identification and case management of at-risk older adults prevents nursing home placement, saving healthcare dollars program evaluation. Home Healthcare Nurse. 2010;28(3):191-197.
- 34. Counsell SR, Callahan CM, Clark DO, Tu W, Buttar AB, Stump AB, et al. Geriatric care management for low-income seniors: A randomized controlled trial. J Am Med Asso. 2007;298(22): 2623-2633.
- 35. Leftwich Beales J, Edes T. Veteran's Affairs Home Based Primary Care. Clin Geriatr Med. 2009;25(1):149-154.

- 36. Impact of home care on hospital days: A meta-analysis PubMed.
- Leff B, Burton L, Mader SL, Naughton B, Burl J, Greenough WB, et al. Comparison of functional outcomes associated with hospital at home care and traditional acute hospital care. J Am Geriatr Soc. 2009;57(2):273-278.
- Elkan R, Kendrick D, Dewey M, Hewitt M, Robinson J, Blair M, et al. Effectiveness of home based support for older people: Systematic review and meta-analysis. BMJ. 2001;323(7315):719-724.
- 39. Mamolen NL, Brenner PS. The impact of a burn wound education program and implementation of a clinical pathway on patient outcomes. J Burn Care Rehabil. 2000;21(5):440-445.
- 40. 5 Obstacles to home-based health care, and How to overcome them.
- 41. Vogelsmeier A, Anderson RA, Anbari A, Ganong L, Farag A, Niemeyer M. A qualitative study describing nursing home nurses sensemaking to detect medication order discrepancies. BMC Health Ser Res. 2017;17(1):531.
- Wiseman T, Foster K, Curtis K. The experience of emotional wellbeing for patients with physical injury: A qualitative follow-up study. Injury. 2016;47(9):1983-1989.
- 43. Krahn GL, Walker DK, Correa-De-Araujo R. Persons with disabilities as an unrecognized health disparity population. Am J Public Health. 2015;105(S2):S198-S206.