

Discharge Planning for a Patient with End Stage Liver Disease

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1. Introduction

Hospital discharge planning is important in order to facilitate the transfer of an individual from hospital to a designated alternative setting where there is continuity of safe, patient-centered care. The purpose is to help patients reach the goal of stable housing, recovery, and increased quality of life in the community (Backer, Howard, & Moran, 2007). Effective discharge planning begins upon patient admission to hospital and continues throughout the course of the patient's stay. It involves collaboration between the patient and an interdisciplinary team, to work toward the same goal of safe, appropriate transition out of the hospital. This paper look at discharge planning priorities in relation to Mr. N, a case exemplar with End Stage Liver Disease (ESLD).

2. Case Exemplar of Mr. N

Mr. N is a 54-year-old male admitted to a medicine unit for decreased level of consciousness (LOC) related to substance abuse. He has no fixed address or known family. He sleeps in shelters when bed is available, and spends the rest of nights on the streets. His food source prior to admission relied on dumpster scraps, and his mobility relied on a makeshift cane. He smokes and drinks alcohol daily. Mr. N is also an intravenous drug user and has been flagged by the emergency room staff

as verbally and physically aggressive. Mr. N has liver cirrhosis secondary to hepatitis C and alcohol abuse. His liver failure upon admission includes hepatocellular carcinoma (HCC). On assessment he complains of extreme itching of his back and legs and appears depressed and disoriented. Mr. N also has chronic leg pain secondary to cellulitis. In hospital, his pain is being managed by opioids and acetaminophen; however, he states that his pain is constantly a 10 out of 10 on a pain scale. He has recently lost a large amount of muscle mass and is now moderately malnourished. Because of his increased muscle weakness and cellulitis, Mr. N is no longer able to walk. He has been provided a wheelchair for use in the hospital.

2.1 Illness Trajectory and Treatment Options

Mr. N is in the final pathway of liver disease characterized by a loss of liver cells, reduced blood flow through the liver, and reduced ability to regenerate (The Canadian Liver Foundation, 2013). There are only two options left for him: liver transplant or palliative and end of life care. Whether he is aware of this reality and whether these options were discussed as part of his discharge planning is unknown. Since most patients with HCC also have cirrhosis, the team required for their treatment are very large and diverse. In B.C., management of liver disease with medical treatment is very limited. B.C. has

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two full time hepatologists, one liver transplant program, and no hospital beds designated for liver disease or specialized pathologists to see these patients (The Canadian Liver Foundation, 2013). Massive shortage of donor organs, expense and limited expertise are drawbacks to the transplant option for most patients. Having a shortage of donor organs means that many patients are forced to drop out of the waiting list as a result of death or disqualification as their liver disease has progressed to a state where their expected survival post transplant is low (The Canadian Liver Foundation, 2013). Figure 1 show the rate of deaths on the liver transplant list in Canada from 2002-2011 (The Canadian Liver Foundation, 2013). There are over 5,000 liver deaths each year and only about 400 trasplants (The Canadian Liver Foundation, 2013). This reality must be presented clearly to Mr. N when discussing his illness trajectory and treatment options.

If treatment is not desired, then palliative and end of life care should be discussed. The physicians caring for Mr. N have a duty to talk to him about end of life care options and code status in acute care settings. This should include wishes for cardiopulmonary resuscitation, intubation and medical ventilation, invasive medical procedures, and whether he would prefer future hospitalization for unstable illness (Sanchez & Talwalkar, 2006). Advance directives are also important to consider at this time (Sanchez & Talwalkar, 2006). Unfortunately, the prognosis of unresectable HCC is poor with a 5 year survival rate of less than 5% (Sanchez & Talwalkar, 2006), requiring Mr. N's

discharge planning to include end of life decision making.

2.2 Figures

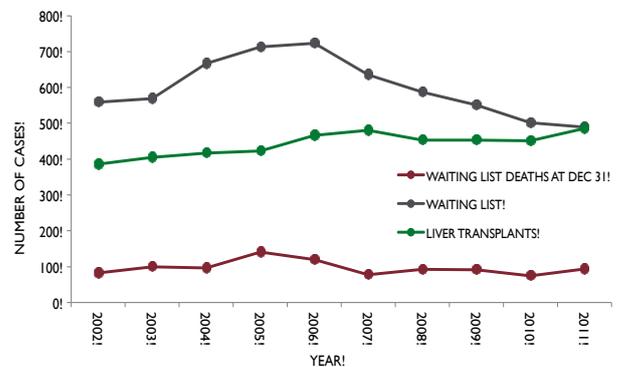


Fig 1. Liver Transplantation in Canada. This figure illustrate the rate of deaths on the liver transplant waiting list in Canada.

2.3 Housing

When considering discharge of a patient from hospital, it is also important for hospital staff to consider the patients' accommodation circumstances to ensure that they are not discharged into unsuitable conditions or homelessness (Backer, Howard, & Moran, 2007). In regards to Mr. N, housing options are very limited as he was homeless prior to hospital admission. He has no known family or social supports to assist him with his activities of daily living in private residence, nor the financial support to live in such housing. Options for housing include hospice facilities, palliative care, or last resort- homeless shelters.

In Mr. N's case, the hospital will have to complete the Department of Homeless Services (DHS) screening form for shelter and outreach services and planning worksheet (The Department of Homeless

Services, 2010). This works to prevent him from reentering homeless shelters. If this attempt is unsuccessful, he will be referred back to a shelter he previously stayed in. DHS outreach teams then work to find him permanent housing. Discharge to homeless shelters is not the optimal choice. Shelters provide a place to sleep at night, but during the day, its residents are forced to roam the streets until the shelter re-opens (The National Health Care Council for the Homeless Clinicians Network, 2008). Homeless patients like Mr. N are not safe in these facilities, as they generally have difficulty obtaining and taking medications, going to appointments and following other post-hospital instructions amidst competing demands for survival (Doran, 2012). If Mr. N were to leave the hospital homeless he would likely go through a dangerous cycle of expensive hospital admission, discharge to the streets or shelters, and back to the hospital again (Doran, 2012). Homeless patients are hospitalized 10 times more than housed patients. They have longer stays and cost \$2,500 more per hospitalization than housed patients (Doran, 2012).

Optimally, Mr. N would be discharged to a hospice or palliative care facility. The National Consensus Project for Quality Palliative Care (2009) defines palliative care as an effort to “prevent and relieve suffering and to support the best possible quality of life for patients and their families, regardless of the stage of disease and need for therapies”. Mr. N may benefit from a palliative consult for management of his chronic pain and ESLD related symptoms. Palliative care is an interdisciplinary team approach that identifies patients’ goals related to care

and treatment they are receiving (Hansen, Sasaki, & Zucker, 2010). It is offered simultaneously with medical treatment and should be offered well before end of life care. Alternatively, hospice care represents “the phase when life-prolonging therapies are no longer pursued” (Hauptman & Havranek, 2005). Referrals to hospice care are made when a patient has an expected survival of 6 months or less (Hansen, Sasaki, & Zucker, 2010). In Canada, Medicare provides a hospice benefit for patients with ESLD (Hansen, Sasaki, & Zucker, 2010).

2.4 Symptom Management

After Mr. N is discharged from hospital, his chronic pain must be managed. Acetaminophen, as needed, is recommended before consideration of NSAIDs, as the latter is more likely to cause renal toxicity (Hansen, Sasaki, & Zucker, 2010). However, it is important to educate him about combination medications that include acetaminophen, as taking these medications along with acetaminophen can quickly cause them to exceed the maximum dose, further damaging the liver. Mr. N should be educated to stop smoking and drinking to minimize the stress on his liver.

As ESLD progresses there is a shunting of hormones away from the liver. “Patients become insulin resistant, more ingested protein is oxidized and used for energy than protein synthesis, and the use of protein and lipids for fuel can occur after 12-14 hours of fasting”, causing muscle wasting (Hansen, Sasaki, & Zucker, 2010). Weakening of the facial muscles causes a patient to become fatigued even from chewing. Patients with ESLD also

experience pulmonary secretions of sulphur and have taste buds affected by neurotoxins, causing them to find food distasteful and unappetizing (Hansen, Sasaki, & Zucker, 2010). At this stage patients should be able to eat whatever they want, and emphasis should be on comfort. Mr. N should have a referral to a dietician, and his nurse should encourage intake of foods high in proteins and calories. Physical interventions, such as massage therapy, acupuncture, and reflexology may also be a consideration to alleviate muscle ache symptoms (Hansen, Sasaki, & Zucker, 2010).

Mr. N also suffers from pruritus, depression, and insomnia. Sleep quality should be maximized for him by controlling his leg cramps and pruritus (Sanchez & Talwalkar, 2006). Quinine sulphate 260-324mg daily is most frequently used to control leg cramps (Sanchez & Talwalkar, 2006). Pruritus is managed with oral antihistamines and barrier creams and depression is treated with a wide variety of antidepressant medications. Treating these symptoms can vastly improve Mr. N's quality of life.

In hospital, Mr. N was also being treated with lactulose in prevention of hepatic encephalopathy. Lactulose acidifies lumen contents that promote the formation of ammonium chloride from ammonia, which is excreted in stool (Sanchez & Talwalkar, 2006). Its goal is to achieve 3-4 soft, non-diarrheal stools per day (Sanchez & Talwalkar, 2006). However, this treatment did not show a positive effect when trials of high quality were analyzed (Als-Nielsen, Gluud, & Gluud, 2004). Instead, antibiotics are proven to be a superior treatment option for hepatic

encephalopathy (Als-Nielsen, Gluud, & Gluud, 2004).

3. Interdisciplinary Team Involvement

As previously, a multidisciplinary team will be essential in preparing Mr. N for discharge. A social worker will be involved to do a psychosocial assessment of Mr. N to determine whether he is coping with the demands of his illness and whether he has social supports in place in the community that can provide assistance post discharge (Providence Health Care, Saint Paul's Hospital, 2001). Since Mr. N was previously homeless and had no family contact, social work may provide counseling and help him with mobilization of community resources. The social worker would also identify any potential barriers to discharge Mr. N may have, and initiate discharge planning on admission (PHC, SPH, 2001).

A dietician would be involved in Mr. N's care to provide nutritional information and liaise with the facility where he is being discharged, to ensure that special ESLD diet needs are being met. The dietician would also order supplements for Mr. N as needed. An occupational therapist (OT) would be on the team to help Mr. N maximize his functional independence and prepare for discharge (PHC, SPH, 2001). The OT would do an assessment to establish his baseline physical, functional, and cognitive status, including safety implications (PHC, SPH, 2001). They would then organize appropriate equipment to meet his needs on discharge and teach him how they are used. A physiotherapist (PT) will be involved to assess Mr. N's mobility needs and muscle strength as his liver disease

progresses. They would also help to organize equipment for him to make mobility easier, such as a wheelchair or power scooter.

In addition, pastoral care would be implemented for Mr. N to ensure his spiritual and emotional needs are met as his illness progresses and he prepares for discharge (PHC, SPH, 2001). Pharmacy would be present to develop a therapeutic care plan for Mr. N, and a hepatologist and oncologist will follow his ESLD progression to determine treatment options and care.

The Registered Nurse caring for Mr. N will also have a very important role in his discharge planning. The nurse will be there to provide ongoing updates of Mr. N's health status and changing discharge needs. They will advocate for his psychological and pain management needs and update the care plan as necessary. Nurses will communicate discharge plans to Mr. N and make sure that his voice is heard in the decision-making process. They will be educated regarding ESLD and its trajectory in Mr. N, and will use this knowledge to provide comfort and patient-specific care. Nurses should collaborate with other care providers to provide continuity of care for Mr. N. They will also advocate for timely referral to palliative care and hospice facilities.

3.1 Risks of Inadequate Discharge Planning and Implications for Practice

As a nurse student, I have been able to observe the benefits of effective discharge planning and am aware of the ramifications that may result if such planning is not carefully delivered. As

previously stated, discharge of patients to facilities that do not meet their needs, functions as a revolving door, turning the patients out into the community only to have them back in the hospital soon after. This is very costly for the healthcare system and not an efficient use of the resources we have in place. Effective discharge planning that begins on hospital admission and carries on post discharge is the only correction for this challenge. It allows the healthcare team to ensure that the best possible care is provided for each patient in the hospital, as well as out in the community.

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