



Howland Health Consulting, Inc.

Wendie A. Howland RN MN CRRN CCM CNLCP

Life Care Planning

Case Management Services

LIFE CARE PLAN

Report Date:

Name: John Smith

Case #:

Date of Birth: 1/20/1953

Date of Referral:

Customer Name:

Medical Diagnoses: Arteriosclerosis, end-stage renal disease on hemodialysis, high blood pressure, nephrogenic systemic fibrosis related to gadolinium exposure, right pretibial wound with osteomyelitis, right tibial fracture, major depression; status post right common iliac angioplasty and external iliac arterioplasty and stent, right femoral-popliteal allograft, right nephrectomy for malignancy, multiple vascular access revisions, and failed renal transplant attempt due to arterial calcification, substance abuse, in recovery 15+ years

INTRODUCTION

A Life Care Plan is a tool used for the purpose of estimating medical and non-medical needs of a person with a catastrophic injury or chronic illness over an estimated life span. It is a dynamic document based upon published standards of practice, comprehensive assessment, data analysis and research. A Plan may include medical needs and costs, future projections, and a vocational assessment. The contents may be comprehensive or modified, based on the needs of the party making the request.

This Life Care Plan is not generalized for nephrogenic systemic fibrosis/nephrogenic fibrosing dermatopathy; it addresses the author's best nursing assessment of Mr. Smith's specific health status and needs. Note is taken that NSF/NFD presently has no known effective treatment or cure and that the natural history of the condition is not yet completely understood. Estimates for life expectancy and care needs are based on the nursing process as applied to similar presentations or syndromes. The assessment includes collecting subjective and objective data from observations, examinations, interviews, video, and written records. The Plan follows the nursing process to develop a goal-oriented plan of care as defined in the Nurse Practice Act.

All prices included in the Plan are based on today's dollars and are obtained from suppliers, facilities, pharmacies, vendors, and providers. Shipping is included in costs if the product is unavailable in the local area. Equipment maintenance varies with individual needs and frequency of equipment use. Costs do not reflect inflationary trends of the health care industry. Allowances for inflation and any medical care cost trends should be determined by a qualified medical economist.

This Plan cannot guarantee absence of errors and omissions, nor can it guarantee optional outcomes with suggested interventions. The plan provides a guideline for optimizing the client's rehabilitation in order to prevent possible complications. Implementation of this plan cannot guarantee the absence of complications, predict with certainty the client's future needs, or guarantee the all costs related to the client's future medical and care needs.

The Life Care Plan should be reviewed and updated by the author every 6 to 12 months. It does not include a vocational assessment to address loss of income. A qualified vocational

Smith, John
August 8, 200x

counselor should be consulted for this purpose if desired; however, Mr. Smith has been completely disabled for many years. Finally, the Plan includes recommendations for medical case management services to coordinate cost-effective medical care and address recommended equipment needs.

RECORDS REVIEWED

Approximately 450 pages of medical records from June 2006 to April 2008, two videos, and a chronology prepared by the client were received. All records received were reviewed. VNA records and more recent medicals including any physician notes, diagnostics, primary care notes, or functional assessments from physical/occupational therapy are not found in materials available for review, but I would be happy to review them at a later time and make amendments to this plan if necessary.

DIAGNOSIS

Mr. Smith is a 56-year-old male with chronic renal failure and nephrogenic systemic fibrosis. NSF is characterized by fibrosis (thickening) of the skin, joints, eyes, and internal organs. Patients develop large areas of hardened skin with fibrotic nodules and plaques; the skin is often described as “woody.” At the time of my visit I found that his left forearm felt like warm marble, hard and absolutely unyielding. The mechanism at the cellular level is not fully understood; the disease was first seen in patients with renal failure on hemodialysis. It was described in the literature as a skin condition in 2000.¹ Later research associated the condition with gadolinium used in diagnostic imaging; more severe effects were described in patients with more severe metabolic acidosis and higher gadolinium load.² Limits on gadolinium use in patients with renal failure were included in published safe practices from the American College of Radiology in 2007.³

NSF/NFD is now understood to be a severe and usually progressive systemic fibrotic disease affecting the dermis (skin), subcutaneous fascia (tissue surrounding muscle), and

¹ Scleromyxoedema-like cutaneous diseases in renal-dialysis patients, Cowper SE, Robin HS, Steinberg SM, Su LD, Gupta S and LeBoit PE The Lancet, Volume 356, Issue 9234, 16 September 2000, 1000-1001

² Nephrogenic fibrosing dermopathy associated with exposure to gadolinium-containing contrast agents-- St. Louis, Missouri, 2002-2006 Morbidity and Mortality Weekly Report. 2007 Feb 23;56(7):137-41.

³ ACR Guidance Document for Safe MR Practices: 2007 Kanal E, Barkovich AJ, et al of the ACR Blue Ribbon Panel on MR Safety AJR 2007; 188:1447-1474

Smith, John
August 8, 200x

striated muscles (skeletal muscles). It also appears that the disease can cause fibrosis of lungs, myocardium (heart muscle), diaphragm, and other organs.⁴ Symptoms include burning pain, pruritus (itching), and weakness.⁵ The gradual toughening of the skin restricts joint motion and results in painful contractures, in which the muscles of a joint shorten and the joint can no longer extend to its normal range. The skin lesions are also painful; minor injuries can develop into chronic painful wounds that may extend into deeper tissues, resulting in bone or other infections that may become systemic. Fibrosis of the organs leads to organ failure and death.

PAST MEDICAL HISTORY

Mr. Smith's past medical history includes arteriosclerosis with right common iliac angioplasty and external iliac arterioplasty and stent. end-stage renal disease on hemodialysis, high blood pressure, right pretibial wound with question of osteomyelitis; status post right nephrectomy for malignancy, multiple vascular access revisions, and failed renal transplant attempt due to arterial calcification.

SUMMARY OF MEDICAL CARE

According to records received for review, in November 2006 Mr. Smith began to notice skin hardening and swelling in his left forearm and hand. Over time this developed in his upper arm and fingers, right arm, lower legs, ankles, and feet and has been accompanied by loss of range of motion, pain, and the characteristic woody appearance and feel of the skin seen in NSF, which was diagnosed in early 2007. He was seen by several specialties including the behavioral health unit at City Medical Center, a pain clinic, and a dermatologist. He was also seen regularly by a vascular surgery service for significant arterial disease (treated with stents and allografting) thought to contribute to the chronic wound on his shin, which occurred when he fell at home,. He received home care for this wound, but this has presently stopped. He states that for some time that he was seen in his home

⁴ Description of 12 Cases of Nephrogenic Fibrosing Dermopathy and Review of the Literature, Mendoza FA, Artlett CM, Sandorfi N, Latinis K, Piera-Velazquez S, Jimenez SA Seminars in Arthritis and Rheumatism Volume 35, Issue 4, February 2006, 238-249

⁵ Nephrogenic Systemic Fibrosis, Relationship to Gadolinium and Response to Photopheresis Heather Richmond H; Zwerner J; Kim Y; Fiorentino D Arch Dermatol. 2007;143(8):1025-1030.

Smith, John
August 8, 200x

by a physical therapist from a visiting nurse association, but states this stopped “some time ago” reportedly because his income level was too high. He changes the dressing on his leg wound himself. Note that visiting nurse services are usually restricted to persons who are homebound; Mr. Smith is able to travel out of the home to dialysis and medical appointments. There are also no VNA records to review that might clarify this. Most recently, Mr. Smith sustained a fractured tibia in a mishap with his power scooter. This is at high risk for nonunion due osteomyelitis; he reports that amputation has been recommended but that he refuses this.

HEALTH CARE PROVIDERS

The health care providers involved in Mr. Smith’s care according to available medical records and Mr. Smith’s best recollection are outlined below. This may not be comprehensive as records were not available from all of them and his memory may not be complete.

Health Care Providers from Records - * indicates current providers according to Mr. Smith

Provider	Address	Contact Numbers	Specialty / seen for
City Medical Center			Dermatology, vascular surgery, pain management , physical/occupational therapy, general dentistry
Academic Medical Center			Work-up for renal transplant, hepatitis C
Big Medical School Med Center*			Nephrology, HIV, plastic surgery/wound healing, NSF, physical/occupational therapy
Suburban Hospital*			Orthopedics/leg fracture
Dr. A. Calhoun*	AMC Division of Nephrology		Nephrology, hemodialysis

Smith, John
August 8, 200x

Dr. Buchanan	Unknown, mentioned by Mr. Smith	Shunt revision?
Dr. T. Washington	CMC Department of Dermatology	Dermatology
Dr. C. Adams*	AMC Division of Plastic Surgery	Plastic surgery
Dr. G. Madison*	HMO Downtown Clinic	Primary care
Dr. C. Jackson*	HMO Downtown Clinic	Urology
Dr. J. Wilson*	BMSMC Division of Vascular Surgery	Vascular surgery
Dr. P. Hoover	BMSMC Division of Infectious Disease	HIV
Dr. J. Kennedy	Research Hospital	Rheumatology, recommended to consult for Gleevec therapy

CURRENT MEDICAL ISSUES

- Nephrogenic systemic fibrosis
- End-stage renal disease on hemodialysis
- Chronic wound, left pretibial area
- Right tibial fracture with osteomyelitis (bone infection) related to overlying chronic ulcer, high risk for nonunion
- High blood pressure
- Arteriosclerotic vascular disease with peripheral ischemia

CURRENT MEDICATIONS according to Mr. Smith on 8/4/09

- Abacavir 300mg twice daily, HIV
- Atazanivir 400mg daily, HIV
- Lamivudine 25mg daily, HIV
- Sevelamer 1600mg three times daily, decreases phosphorus for patients on hemodialysis, manages calcium levels
- Sensipar 30mg daily, reduces parathyroid for patients on hemodialysis, manages calcium levels
- Nephrovit 1 daily, vitamins specific for renal failure

Smith, John
August 8, 200x

- Famotidine 20mg daily, H2 blocker, decreases chances of gastric bleeding
- Simvastatin 20mg daily, reduces high cholesterol
- Metoprolol 6.25mg daily, beta blocker, for blood pressure
- Warfarin 5mg daily, anticoagulant
- Aspirin 81mg daily, antiplatelet
- Ascorbic acid 250mg daily, vitamin supplement
- Acetaminophen, pain relief
- Hydromorphone 4-6mg every 3 hours, pain
- Morphine sulfate 15mg, pain

CURRENT TREATMENT PLAN

- Hemodialysis three times per week, 3.75 hours per run
- Moisturizing cream to skin daily
- Dressing change to pretibial ulcer daily
- Cast to right lower leg for fracture
- Physical therapy to restart for range of motion

VOCATIONAL

Mr. Smith is a high school graduate with about one year of college. He worked for XXXX for about twenty years, leaving when his renal failure became disabling in about 1993. Prior to his current illness, Mr. Smith was very active in Narcotics Anonymous, counseling and training in this country and overseas.

LIVING ARRANGEMENTS

Mr. Smith lives in a secure handicap-accessible building in City. As seen in video and at a visit on August 4, 200x, the apartment is on the first floor accessible by a ramp.

The apartment is clean and neatly furnished, though somewhat cluttered with supplies, x-ray film jackets, and other objects on the floor around the perimeter. The apartment is heated and cooled satisfactorily according to Mr. Smith. Laundry is done by family or friends.

Smith, John
August 8, 200x

He does his grocery shopping with his daughter, traveling to the store in her car. He leaves his motorized scooter at home and has a standard folding Breezy wheelchair to get from home to her car and from car to the motorized scooter/cart at the store. Doors are wide enough to accommodate a standard wheelchair. Floors are carpeted except bath and kitchen, which have linoleum-like covering. Thresholds are flat. There is a buzzer system to allow guests to enter at the building vestibule, but the control panel is too high to reach easily from a wheelchair. Light switches require no dexterity to activate. Door handles are levers and also require no dexterity.

The kitchen is very small and narrow and not handicap-accessible. Mr. Smith must reach across the stove surface to reach the burner controls on the back of the stove, a clear risk for burns. He cannot use the oven because there is insufficient room for the door to open when he is in his wheelchair. Counters and sink are not accessible for safe wheelchair use due to lack of kick room under the edge of the counters. Most cupboards are out of reach. He has been told to eat a high-protein diet but it is difficult to cook meat and fish and he says he doesn't use the kitchen much.

The bathroom is very small. Mr. Smith bathes the best he can with a washcloth at the sink, which is poorly accessible. While he has a shower chair in the tub, it is not accessible by wheelchair and there is no room to put a tub-transfer bench, which he needs for safe transfer to the shower. The shower is hand-held but its bracket is out of reach. The hot water temperature was not measured but it is extremely hot and may be unsafe for a person of limited mobility and altered sensation, posing a risk for burns. The toilet has a raised seat, but the arms are fixed (do not drop down) and there is not enough room to put the wheelchair next to the toilet for safe sliding transfer, so he must do a stand-pivot, which is unsafe with his current mobility.

The bedroom is also small. Most of the floor space is taken up by the bed and dresser. One armchair was moved into the bedroom because there wasn't enough room in the living room to get around well in the wheelchair, but this makes the bedroom crowded. The bed is too high to slide from the chair, so Mr. Smith must stand-pivot; note is made that once he was unable to complete this maneuver and was on the floor for many hours

Smith, John
August 8, 200x

before being found. The closet pole is too high to reach from a wheelchair. Drawers are difficult to open from the wheelchair in part because it is too crowded.

TRANSPORTATION AND MOBILITY

Mr. Smith uses a motorized scooter chair (Shoprider Trooper #UL8W36) for home and community mobility. He was not fitted for this and had no professional consultation on wheelchair mobility. He states that a friend knew someone who could get it for him if his physician signed a paper, and then it was delivered. He has used it for about a year and a half and it has never had any preventive maintenance or been inspected for wear. It has a hard seat which, when I asked him, makes his weight-bearing surfaces sore; this puts him at risk for pressure ulcers over the ischial tuberosities due to his arterial disease, changes in sensation, and increasing immobility.

He uses the Public Transit Authority service "The Ride" for trips to dialysis, but accesses the bus about half a block from his front door because there are no curb cuts any closer. He also has a foldable Breezy wheelchair for going out in a private car; it has a removable cushion which is not truly suitable for pressure relief but is better than the Shoprider seat, so I put it in the Shoprider as an interim measure and explained why. Before his leg fracture he used a walker around the house. His NSF makes it painful to bear weight on his "good" left leg now that the right leg is casted, and the knee contracture makes it unsafe.

CURRENT FUNDING AND INCOME

Mr. Smith receives SSDI which covers his dialysis; with deductions for Medicare this nets him about \$1720 per month, which he states makes him ineligible for a personal care assistant from State Health. He gets about \$565 per month from a long-term disability pension from his working days at XXX. He says that he is eligible for a pension of about \$650 per month from XXX if he elects to take it now, but if he waits until he is 65 the amount will nearly double to \$1200. He plans to wait. Some of his medications are covered by special funding sources for persons living with HIV such as the Ryan White Foundation. He feels that he gets by.

FAMILY AND COMMUNITY SUPPORT

Mr. Smith has two daughters who each live about an hour away. He says they do what they can, but “they have their own lives.” He has a son who is incarcerated. His daughters do take him out shopping for groceries. He attended a family reunion in Baltimore the week before our meeting. He attends NA meetings weekly.

LIFE EXPECTANCY

Normal life expectancy for a 56-year-old black male is approximately 20 more years.⁶ However, Mr. Smith’s life expectancy can be expected to be less due to his renal failure. According to the *United States Renal Data System Annual Data Report (ADR) 2008*, the life expectancy for a black man with end-stage renal disease on hemodialysis at age 56 is approximately 6 years.⁷ Mr. Smith will turn 62 on 1/20/2015. The effects of NSF on life expectancy are not definitively known, but foreseeable increased risks of infection, organ failure, and complications of immobility can be assumed to decrease life expectancy. Lifetime costs are therefore projected for five and a half years with the caveat that this may be optimistic.

SUMMARY

Projected Evaluations Mr. Smith can expect to need evaluations for cardiac and pulmonary function to monitor for NSF effects on heart and lungs. These would include EKG, cardiac echocardiography, MUGA (radionuclide ventriculography), arterial blood gases, and pulmonary function testing. While arterial blood gases are commonly measured in pulmonary assessment to check oxygenation and carbon dioxide excretion, the severe limits on Mr. Smith’s arterial access might mitigate against them unless they could be drawn during normal access of his arterial line, i.e., at dialysis.

Periodic evaluations by occupational therapy and physical therapy should be done to monitor progress of his disability, teach and monitor adherence to a home exercise plan

⁶ National Vital Statistics Reports, Vol. 57, No. 14, April 17, 2009, <http://www.cdc.gov/nchs/fastats/lifexpec.htm>, table 7, retrieved 8/1/2009

⁷ United States Renal Data System Annual Data Report (ADR) 2008, Expected remaining lifetimes (years) of the general U.S. population, & of prevalent dialysis & transplant patients, <http://www.usrds.org/adr.htm>, table H31, retrieved 8/1/2009

(which may involve home care personnel), and evaluate for assistive technology for mobility (e.g., wheelchair fitting and accessories), activities of daily living, safety, communication, and home safety.

Projected Therapeutic Modalities Mr. Smith's physician indicated in records a year old that he should have regular physical therapy not to improve his mobility but to try to forestall NSF-related contractures. PT is normally discontinued due to lack of improvement and failure to make progress towards goals, but in this case, slowing progress constitutes success.

Diagnostic/Educational Testing Not indicated

Wheelchair Needs/Mobility/Maintenance Mr. Smith will require a power chair for the remainder of his life. At present the Shoprider meets his needs for mobility but as noted, its seat is completely inappropriate. It is also not fitted to his body and will not support him if his contractures become worse. As his disease progresses, a properly fitted power wheelchair will be safer and more convenient for him. Wheels will likely need to be replaced every 2 years. A specialty wheelchair cushion lasts approximately one year when used daily. The chair will require repairs every 1-2 years. Normally replacement is needed every 5-7 years; one replacement will be included in the plan, but may not be needed depending on how heavily it is used.

Wheelchair Accessories Wheelchair backpack, joy-stick hand controls, positioning supports with pressure-relief padding, drop-sides, and safety straps will be needed.

Orthotics/Prosthetics Splints to maintain positions of function for his hands will help him remain more independent with adaptive equipment.

Medical Equipment Mr. Smith's bathroom is fitted with a raised commode seat with arms for bowel movements; as he makes no urine, no accommodation for urinary function is needed. However, the commode should have drop sides for safe transfer, and room to place the wheelchair next to it for safe transfer. He may require oxygen for congestive heart failure and/or pulmonary failure. As noted, a tub transfer bench should be used daily for showering; the hand-held shower head needs a bracket installed lower

Smith, John
August 8, 200x

down so he can reach it. A non-shear, pressure relieving mattress and adjustable bed with rails may become necessary as he becomes bed-bound. If Mr. Smith becomes truly homebound and wishes to continue on hemodialysis, home dialysis equipment will be needed. A bed scale or Hoyer lift with scale will be necessary for transfers if he becomes unable to do sliding transfers with a transfer board.

Home Furnishings The apartment has light switches and door handles that can be operated without finger dexterity. Faucets should also be modified for this. Hot water temperature should be set to a maximum of 105°F (40.5°C). Kitchen facilities should allow safe access for cooking (e.g., stove with front-edge controls, automatic shut-offs, fire suppression system), storage, and washing.

Aids for Independent Function Mr. Smith could benefit by having a reacher/grabber to retrieve objects out of his reach while in his chair. Although he can presently stand briefly for this purpose, he isn't really safe doing it and it is foreseeable that he will lose this ability. A lift aid to move him safely between bed and chair or to the shower may be needed. Utensils with modified handgrips will enable him to eat, cook, write, and handle objects. Personal care assistant (PCA), home health aide (HHA) and homemaker services may prolong his ability to stay in his home. He should always have a wearable personal alarm in the event of a fall or other emergency. As he loses hand dexterity, a programmable automatic medication-dispensing device would allow him some independence; if he became dependent on an assistant, this would also decrease the chances of medication errors and provide a check on adherence to treatment plan.

Drug/Supply Needs Refer to the list previously in the report and to the list in the tables for complete medications and supplies related to the NSF diagnosis or complications. Medication and supply costs are based on the supplier in current use. Generics are being used where available.

Home Care/Facility Care Mr. Smith is presently largely independent. Although he is not strictly home-bound, due to the difficulty he faces with travel he would benefit by in-home visiting nurse services to assess his wound, home safety, nutrition, medications, mobility, and skin. In the event that he becomes unable to care for himself in an assisted

living facility, he may reside in a skilled nursing facility, or choose to remain at home with around-the-clock care and ambulance transport to a dialysis facility. Other considerations may include, in time, accessing the Medicare hospice benefit. It is important to remember that hospice does not provide 24/7 care; supplemental services will be needed.

Future Routine Medical Care can be expected to include

- ongoing dialysis three times per week
- follow up by nephrologist
- vascular surgeon consults for vascular access revisions
- periodic blood tests to monitor dialysis, liver failure, nutrition and testosterone levels (for healing), and for complications of medications
- physiatry consultation for equipment needs, therapy prescription
- plastic surgery care for ongoing wound management
- general medical care for cardiac, pulmonary, nutrition, immunizations
- psychological/psychiatric counseling

Future Medical Care, Surgical Intervention, or Aggressive Treatment Based on past treatment and medical diagnoses, it is reasonable to expect that Mr. Smith may experience the following due to his NSF diagnosis:

- congestive heart failure requiring care from cardiologist
- lung and/or ventilatory (diaphragm) failure requiring care from pulmonologist
- chronic wounds, including complication of immobility with pressure ulcers requiring care from plastic surgeon, nurse wound care specialist, and infectious disease specialist
- limb ischemia requiring care from vascular surgeon, possible amputation, probably without prosthesis
- cerebral ischemia/stroke requiring care from neurologist or neurosurgeon, physiatrist, and rehabilitation team

Potential Complications Some complications of NSF are already present. Vascular calcification is not uncommon in renal disease but may be accelerated in NSF.⁸ It is noted that a successful kidney transplant, which was aborted due to vascular calcification, may have ameliorated or avoided complications due to renal failure, including congestive heart failure, infection, lack of vascular access resulting in failure to dialyze and attempt trial experimental protocols, uremic syndrome, and fluid overload.

Pulmonary fibrosis:

- Pulmonary fibrosis causes ventilatory failure and recurrent infections. These will result in hospitalization which could be prolonged and involve critical care for ventilatory support. It is possible that at some point he will become permanently dependent on mechanical ventilation.

Cardiac:

- Congestive heart failure is due to fluid overload relative to the contractile ability of the heart. NSF can be expected to decrease his heart's ability to pump normally via direct effects on the myocardium and the effect of accelerated vascular disease in both coronary arteries (affecting myocardial oxygenation) and in systemic arteries (increasing resistance to pumping, increased work load for heart), and in decreased blood oxygenation from pulmonary fibrosis.

Skin:

- Mr. Smith already has one fairly extensive ulcerated area on his pretibial region. This may have spread to the bone, with osteomyelitis. This would require weeks of intravenous antibiotics and perhaps amputation due to the risk of systemic infection.
- Decreased mobility, accelerated cardiovascular disease, psychosocial maladjustment with depression and decreased self-care, poor nutrition, decreased serum testosterone with aging, abnormal skin, and changes in the fit and usage of equipment can lead to pressure ulcers, formerly called decubitus ulcers, and

⁸ Nephrogenic systemic fibrosis associated with stromal and vascular calcification, report of two cases
Song J, Volkov S, Shea CR, et al. Journal of Cutaneous Pathology 18 Dec 2008

prevent healing once they develop. These develop close to the bone, so by the time a break in the skin is visible, damage can be severe.

- Medical care should be sought quickly for small skin lesions, especially in pressure areas. Care of a pressure ulcer should be provided by a specialist team in wound care and healing (plastic surgery).
- A podiatry consult should be obtained twice annually to check for pressure areas on the feet and for prevention and care of ingrown nails.
- A second person should be involved in daily skin checks throughout the body to detect potential areas of breakdown, since Mr. Smith will be unable to do this himself.

Infection:

- As noted, breaks in the skin are risks for systemic infection. Pulmonary fibrosis also increases the risk of pneumonia, a lung infection. Presence of vascular access devices increases the risk of systemic infection. Mr. Smith already has osteomyelitis and an open chronic wound.

Psychological:

- Mr. Smith formerly enjoyed work and volunteer activities from which he derived considerable satisfaction and esteem even while suffering from end-stage renal disease. Due to loss of productive pursuits, hopelessness, and the progressive and incurable nature of his NSF he is at high risk to develop depression.

Transportation Mr. Smith presently uses The Ride, a service of the Public Transportation Authority, for wheelchair transit to dialysis and medical appointments. When he becomes unable to use a (properly fitted) wheelchair, he will require ambulance transportation for these.

Health & Strength Maintenance It cannot be overstated that Mr. Smith's care, while complex, has been fragmented and uncoordinated despite best efforts. Services of a certified registered nurse case manager, preferably with experience in terminal disease with mobility problems are recommended for complex medical case management. The cost of future medical care and anticipated complications could be decreased through

Smith, John
August 8, 200x

expert coordination of medical care. Consultation with a registered dietician or nutritionist in conjunction with home health aide/homemaker to provide a nutritious diet to minimize complications of poor nutrition will be essential,

Architectural Renovations Mr. Smith's first-floor apartment already has ramps for access and egress to the sidewalk. As he does not own the apartment, modifications will not be possible. However, he should consider moving to a better-accessible apartment as soon as possible. He states that he does not want to live in a nursing home with old people; however, there are better assisted living facilities with clientele of all ages and capabilities.

Recreation and quality of life Mr. Smith formerly enjoyed work and volunteer activities from which he derived considerable satisfaction and esteem. Due to loss of productive pursuits, hopelessness, and the progressive and incurable nature of his condition he is at high risk to develop depression. While it may not be feasible for him to return to world travel, better mobility and safety plans could improve his quality of life.

NOTE ON PROJECTED COSTS

When exact costs are not available and a range given, the number used in the total is the average within the range. Costs noted as obtained from providers are for self-pay rates; contracted rates or actual billed amounts may vary by payor.

LIFE CARE PLAN**TABLE OF CONTENTS**

TABLES	PAGE
Projected Evaluations	i
Projected Therapeutic Modalities	ii
Wheelchair Needs/Mobility/Maintenance	ii
Wheelchair Accessories	iii
Orthotics/Prosthetics	iii
Orthopedic Equipment	iii
Home Furnishings and Accessories	iv
Aids for Independent Function	iv-v
Drug/Supply Needs	v
Home Care/Facility Care	vi
Future Routine Medical Care	vi
Potential Complications	viii
Transportation	viii
Lifetime Cost Projection	ix

APPENDIX: ANNUAL COSTS PROJECTION