Data base and nursing care plan

Literature, Russian Literature

Data Base and Nursing Care Plan Student Name: Date: Pathophysiology (Include Normal Physiology, identify the Physiological Alteration, identify sings and symptoms). M. P. is a 56 year old African American male, with a history of progressive multiple sclerosis with multiple contractures, chronic decubitus ulcers, chronic indwelling urinary catheter and known osteomyelitis (infection of the bone). Mr. P. was admitted on October 25th with sepsis, a systemic response to infection. He presented with a fever (102. 7 F), confusion, tachycardia, and tachypnea and elevated WBC. Multiple sclerosis is a chronic disease of the central nervous system in which the myelin sheath are destroyed in regions of the brain and spinal cord. This results in temporary repetitive disruptions in never impulses conduction which causes symptoms of muscular weakness, loss of coordination, numbness, visual disturbances, and loss of bowel and bladder function. Mr. P has secondary progression of the disease which may result in a gradual accumulation of visual, motor or sensory disabilities. The cause of this disease is unknown (Tabers, 2005). Patient is full care related to his diagnosis of multiple sclerosis because of being unable to straighten legs. He currently lives at the VA in the Community Living Center. Patient must be kept on a strict turn schedule because of his multiple pressure ulcers. Patient also have PEG (percutaneous endoscopic gastrostomy), feeding tube that nutrition that is supplemental to soft food diet as tolerated. While we were there, patient only ate applesauce and ice cream. Past Medical & Surgical History (if any) and effect on Admitting Diagnosis: Multiple sclerosis diagnosed in 1979, tobacco use 3-4 packs per day, osteomyelitis, and contracture of joint at multiple sites. Multiple sclerosis has definitely lead to

depilating state, being unable to get out of bed has led to breakdown of skin causing multiple pressure wounds. Infection of bone (osteomyelitis) is a complication for wound healing because client has been on multiple antibiotic therapies that can cause resistance, which would open him up to further infection. Tobacco smoking also can cause a delay in wound healing. Diagnostic Tests Lab/Radiology/EKG/Other Procedures Test Normal Range Result Abnormal? Significance for THIS Patient/Primary Function in Maintaining Homeostasis/Where does this element reside in the cell? Na+ 136-145 mEq/L 134 N Vital for skeletal muscle contraction, cardiac contraction, nerve impulse transmission, and normal osmolality and volume of the ECF. K+ 3. 5-5. 0 mEq/L 5. 0 N Critical for excitable tissues to depolarize and generate action potential. CL 98-106 mEq/L 102 N Formation of hydrochloric acid in the stomach. HCO3 24-28 mEq/L 22 Y Vital component of the pH buffering system that maintains acid-base homeostasis. He has possible kidney impairment r/t numbness, and possible incontinence and the respiratory system may try to compensate for acid-base imbalance. BUN 7-21 mg/dL 27 Y Waste product derived from protein breakdown in the liver and a measurement of renal function. The kidney function is decreased r/t immobility, MS, and infection. Cr 0. 7-1. 3 mg/dL 0. 8 N Supplies energy to all cells in the body, primarily muscles. Increases formation of ATP. Glucose 70-130 mg/dL 116 N Source of energy Ca+ 9. 0-10. 5 mg/dL 9. 5 N Maintains bone strength and density, activating enzymes, allowing skeletal and cardiac muscle contractions, controlling nerve impulse transmission and blood clotting. Mg+ 1. 3-2. 1 mg/dL N Critical for skeletal muscle contraction, carbohydrate metabolism, ATP formation, vitamin activation and cell growth.

PO+ 3. 0-4. 5 mg/dL N Needed for activation of vitamins and enzymes, forming ATP, and assisting in cell growth and metabolism, as well as, acid-base balance and calcium homeostasis. CBC N Hgb 14-18 g/dL 9. 5 Y Carries oxygen and gives blood its red color. Hct 42%-52% 28. 5 Y The amount of volume the red blood cells take up in the blood. Platelets 150, 000-400, 000/mm3 293 N Important in blood clot formation. WBC 5000-10000/mm3 53 N Blood cells that protect the body against infection. He has a systemic infection which raises WBC count, he has been on antibiotic treatments for weeks, which could be why it has dropped back down to normal range. Plus his infection could be responding to treatment. Differential PT/PTT/NR 22. 9-37. 2 N Extended PTT times can be a result of anticoagulation therapy, liver problems, lupus and other diseases that result in poor clotting. UA: 3+ LE, 1+ bacteria, 2+ budding yeast, positive for bacteria (UTI) NURSING DIAGNOSIS: (Identify the nursing diagnoses for the client. ALL those determined from the data collected.) HIGH PRIORITY: 1. Self-care deficit r/t neuromuscular impairment a. e. b inability to perform ADL's independently 2. Impaired skin integrity r/t immobility a. e. b multiple pressure ulcers 3. Imbalanced nutrition: Less than body's requirement r/t neuromuscular impairment a. e. b. peg tube feedings, unable to straighten arms, confusion 4. Infection r/t invasion of microorganism a. e. b. increased WBC count, fever 5. Acute pain a. e. b. pressure wounds on hips, sacral and feet. INTERMEDIATE PRIORITY: 1. Impaired physical mobility r/t neuromuscular impairment a. e. b. contractures of hips and knees 2. Impaired urinary elimination r/t disease process a. e. b chronic indwelling foley, urinary restriction. 3. Risk for falls r/t neuromuscular impairment LOW PRIORITY: 1.

Hopelessness r/t disease process a. e. b. unable to be independent in ADL's, need for assistance, incurable disease. 2. Risk for ineffective coping Teaching Needs (include home care issues/needs- discharge instructions): Patient care is a priority with MS. Patient is advised to avoid fatigue, overexertion, exposure to extreme heat and cold (due to lack of sensations), Teach patient about possible symptoms and when to report worsening symptoms to primary health care provider. Physical and occupational therapy referral to assist the patients to maintain muscle tone and joint mobility, improve coordination and increase morale. A nutritious, well-balanced diet with adequate fiber and proteins is recommended. Bladder and bowel training. Educate patient and caregiver methods to provide assistance with ADL's, encourage patient to participate as much as possible. REFERENCES: (ATTACH A SEPARATE PAGE IF NECESSARY USING APA FORMAT) Copstead, L. & Banasik, J. (2010). Pathophysiology (4th Ed.). St Louis: Elsevier Sanders. 317, 325, 387 Davis, F. Taber's Cyclopedic Medical Dictionary (21st ed). F. A. Davis Company Gulanick, M. & Myers, J. (2003). Nursing Care Plans: Nursing Diagnosis and Intervention (5th Ed.). St. Louis: Mosby Elsevier. Ignatavicius, D., Workman, L (2010). Medical Surgical Nursing: Critical thinking for collaborative care (6th Ed.). St Louis: Elsevier Saunders. 231, 422, 115 Micromedex. Truven Health Analytics. (2012). Micromedex Drug Information. Mobile application for iphone. Last retrieved on October 6, 2012. Swearingen, Pamela, L. (2008). All-in-one care planning resource (2nd ed.). St. Louis, MO: Mosby Elsevier. DRUG/OTHER ALLERGIES - NKA MEDICATIONS Therapeutic Action SPECFIC to THIS patient & Pertinent Nursing Implications Administration Time(s) Brand Name & Dose Including safe range Generic

Name Chemical Classification Rationale for THIS Pt Common Side Effects: (CLIENT NEEDS AND EDUCATION) (focus on what you will teach parent's about medication at discharge) Given once per week Avonex 30mcg IM Interferon Beta-1a Immunological agent Treatment for patients MS, relapsing forms Common side effects: injection site reaction, abdominal pain, abnormal liver function, hyperbilirubinemia, lymphadenopathy, backache, MS pain, myalgia, asthenia, abnormal vision, UTI, sinusitis, URI, fatigue, fever, shivering. Teach patient: report depression, suicidal ideation, and unusual changes in behavior, s/sx of infection or hepatotoxicity, injection at same time every week (Micromedex). 0600 1400 2200 Primaxin 500mg IV q6h Cilastatin/Imipenem Antibiotic Treatment of patients bacterial septicemia, osteomyelitis, and UTI Common side effects: d/n/v, thrombophlebitis, anaphylaxis, seizures Teach patient: report severe diarrhea, patient should avoid concomitant ganciclovir (Micromedex). 0600 1000 1400 1800 2200 Vusion Small amt. topically Miconazole Antifungal Used to keep patient free from fungal infection in perineal area, and helps keep area dry between changes Prevents diaper rash complicated by candidiasis Common side effects; Pruritus Teach patient: notify healthcare professional if rash worsens or does not improve after 7 days, avoid eyes, nose, mouth, or injured skin (Micromedex). 1000 Delta D3 1000units orally Cholecalciferol Nutriceutical (vitamin D) Treatment of vitamin deficiency, osteoporosis, secondary to prophylaxis Common side effects: lipids abnormal, hypervitaminosis D Patient teaching: Monitor serum calcium and phosphorus concentrations, start a low-calcium diet, increase fluids, monitor vital signs and mental status (Micromedex). 1000 Santyl (topical ointment,

apply directly to wound daily) Collagenase Dermatological agent / Proteolytic enzyme Debridement of skin ulcer (necrotic tissue on unstageable ulcer) Can also be used for nipple tenderness and prolapsed lumbar intervertebral disc Common side effects: erythema, hypersensitivity disorder. Teach patient: report signs/symptoms of wound infection, proper application (Micromedex). 1000 2200 5000u/0. 5ml (SubQ) Heparin Anticoagulant Prevent blood clotting such as DVT and PE. Common side effects: drug-induced hepatitis, alopecia, rashes, urticarial, anemia, bleeding, pain at injection site, fever, osteoporosis. Teach patient to be careful about severe bleeding that may occur due to increased time for clotting (Micromedex). 1000 2200 Vancocin 15mg/kg IV q12h Vancomycin Antibiotic Treatment for patients staphylococcal infection r/t sepsis & multiple ulcer wounds Indications: bacterial infections Common side effects: ototoxicity, hypotension, n/v, nephrotoxicity, rashes, phlebitis, “ red man" syndrome with rapid infusion, super infection. Patient teaching: Report signs of hypersensitivity, tinnitus, vertigo, hearing loss, notify health care provider if no improvement in few days (Micromedex). 0600 1400 2200 Garamycin 5mg/kg IV, 3-4x daily Gentamicin Antibiotic (Aminoglycoside) Treatment of patients bacterial septicemia, UTI, osteomyelitis BLACKBOX WARNING: potential neurotoxicity, ototoxicity, nephrotoxicity. Teach patient: maintain adequate fluid intake, report s/sx of toxicity (Micromedex). NURSING CARE PLAN Assessment Data (pertinent to this Nursing Diagnosis) Multiple sclerosis Numbness below the knees in both legs Contractures in hips and knees Sepsis (systemic bacterial infection) Sinus tachycardia (fever, dehydration) HR 105 Temp 103. 7 O2 sat. 100% BP 89/54 Tremors in arms, not able to clean himself Confusion

Indwelling Foley catheter PEG tube (not able to feed himself) 10ml/hr PICC NS to keep vein open, also to administer antibiotics for systemic infection and fluids for dehydration Patient has the following pressure ulcers: Stage IV sacral Stage IV left trochanter Stage III right trochanter Stage II right inner foot close to toes that extends to the heal Stage I left inner foot medial Stage I right lateral calf Multiple stage I located on pressure points r/t immobility Nursing Diagnosis/Collaborative Problem Self-care deficit r/t neuromuscular impairment a. e. b inability to perform all ADL's independently (dressing, eating, ambulating, toileting and hygiene) Impaired skin integrity r/t immobility a. e. b. pressure ulcers Expected Client Outcomes (GOALS) Short/Long Term Short term: Within the first 24 hours of hospital admittance Patient will: - report bowel movements promptly - maintain on a turn schedule to prevent pressure ulcers and comfort Long term: By the end of hospital stay Patient will: -have assistance arranged for care at home or assisted care living prior to discharge Short Term: Within the first 24 hours Patient will: - not develop any new pressure ulcers - shows no new signs of infection Long Term: Within 1 week patient will: - show signs of healing by decreased wound size Nursing Interventions/ Implementation Teach patient to call promptly for assistance when needed for toileting and changing. Keep call bell within reach (I) With help from CNA, assist patient with ADL's, feeding, bathing, and hygiene, turning patient q2h (C) Insert & monitor foley catheter as order for signs of infection and patient output (D) Listen and allow patient to express concerns/feeling about negative changes in autonomy (I) Collaborate with OT, to help patient determine long term care facility or full time caregiver for assistance with all ADL's (C) After control of

infection, discharge of patient to assisted care living facility as order by physician (D) Keep patient on a strict turn schedule q1-2h (I) Work with CNA to keep client clean, providing hygiene care every AM and PM (C) Administer antibiotics as ordered by physician (D) Measure wound diameter during every wound change (I) Work with CNA to observe for any new pressure ulcers (C) Change wound dressing by physician order exactly as written (D) Scientific Rationale Patient needs to stay dry and clean in order to prevent skin breakdown. Assistance with ADL's ensures patient's positive self-image, and helps patient remain free of infection. Patient is unable to ambulate and has cognitive impairment r/t to disease process, foley is used to prevent urinary retention. Frustrations can be decreased and coping skills increased when patient expresses concerns and modifications can be addressed. Patients with full care need a reliable caregiver and or assisted living to help him receive appropriate care. Discharge is by physician order only. Patient must be stable before being discharged. The direct effect of pressure on the skin by immobility as compounded by changes in metabolism that accompany immobility. Any break in the skin's integrity is difficult to treat in the immobilized patient. Prevention of pressure ulcer is much less expensive than treating one. Thus immobility is a major risk for pressure ulcers and preventing nursing interventions are imperative. Always do a thorough skin assessment and note any new pressure ulcers. (Workman, 2010) Evaluation Short/Long Term Short term: Goal met. Patient expresses satisfaction with activities that are completed for him. Was able to report all BM's and was kept dry and changed promptly. Continue to monitor foley and provide assistance for ADL's during hospital stay. Long term goal met. Patient has

been arranged for discharge to VA's CLC. Patient expressed he was ok with staying there but was looking forward to moving to Missouri to another assisted care center closer to brother. Continue to allow patient to express feeling about disease process. Short term goal not met. Patient has developed new pressure ulcer. Follow up with CAN to make sure she is providing sufficient care, make sure to report all new pressure ulcers to oncoming RN. No new signs of infection noted, continue to turn patient q1-2h and administer antibiotics as ordered. Long term goal met. Patient's wounds are showing signs of healing by presents to red granulation tissue and decreased size. Continue wound dressing changes and report any new signs of infection or new or worsening pressure ulcers. Also make sure to keep all IV lines, foley tubing and PEG tube out from under patient to prevent further skin breakdown.