Adults Process Paper: R.S.

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Data Collection

Client Profile

R.S. is a 40 year old male. He came to the hospital from a group home and was diagnosed with pneumonia. His other medical conditions include scoliosis, cerebral palsy, seizures, profound MRDD, GERD, and osteoporosis. He was to get a PEG tube put in on the 2/19/2013, but, since all of his internal organs were all shifted up, this surgery was canceled and a PICC line was put in instead on 2/20/2013.

Pathophysiology

Pneumonia

Pneumonia is an inflammatory disease of the lungs that is associated with increase in interstitial and alveolar fluid. Some of the risk factors for pneumonia that R.S. had are immobility and having a chronic disease. It is usually caused by bacteria, but can as well be caused by viruses, mycoplasmas, fungal agents, and protozoa. Once the organism is inhaled, they multiply and go into the alveolar epithelium. At this point they spread from alveolus to alveolus producing inflammation and consolidation along the lobar compartments. Alveoli that are inflamed and filled with fluid cannot effectively exchange oxygen and carbon dioxide. As well, alveolar exudate consolidates, which makes it harder to expectorate (Black & Hawk, 2009, p. 1599).

The onset of pneumonia is usually marked with fever, chills, sweats, fatigue, cough, sputum production, and/or dyspnea. Auscultating the lungs over consolidated areas will reveal crackling sound and whispered pectoriloquy. If a large area of the lung is involved, unequal chest wall expansion may occur, which is due to a decrease in the desensibilty of the affected area.

Pneumonia can involve one lobe or many lobes in the lungs (Black & Hawk, 2009, p. 1599-1600).

A chest x-ray is used to provide information on the extent of consolidation and the location of the infection. Sputum cultures and sensitivity testing is used to provide a definitive diagnoses. Fiberoptic bronchoscopy and transcutaneous needle biopsy can be used for confirmation. Additional testing may include ABG's to assess the need for any supplemental oxygen, skin tests in case tuberculose or coccidioidomycosis is suspected, and blood and urine cultures to assess for any systemic spread of the infection (Black & Hawk, 2009, p. 1599-1600).

Treatment of pneumonia mainly focuses on antibiotic therapy. Initial antibiotic therapy starts with broad spectrum antibiotics until the specific organism is identified through culture analysis, which then the organism specific antibiotics are used. Oxygen, bronchodilators, postural drainage, chest physiotherapy, and nasotracheal suctioning can be ordered to maintain airway patency. Nutritional support and fluid and electrolyte management are also important in the treatment of pneumonia (Black & Hawk, 2009, p. 1600).

Scoliosis

Scoliosis is a disorder characterized by the lateral curvature of the spine, when there should be none (Black & Hawk, 2009, p. 497). The cause of scoliosis can be either congenital, neuromuscular, or idiopathic (Black & Hawk, 2009, p. 497-498). Congenital scoliosis results from a malformation of a segment of vertebrae. This can be cause by an absence of a portion of a vertebra or and absence of the normal separation between the vertebrae. Neuromuscular conditions that like cerebral palsy, polio, syringomyelia, myelomeningocele, muscular dystrophy, spinal muscle atrophy, and spinal cord tumors have been associated with scoliosis (Black & Hawk, 2009, p. 498).

Scoliosis is manifested with a curvature of 10 degrees or more. Anything less is considered to represent spinal spinal asymmetry (Black & Hawk, 2009, p. 498). Scoliosis is as well considered a restrictive lung disorder. These disorders limit lung expansion and usually exhibit rapid, shallow respiratory patterns (Black & Hawk, 2009, p. 1626). X-rays are used to exactly diagnose scoliosis. Moire topography and ISIS are two noninvasive diagnostic tests that can be used as well. Family history plays an important part of diagnosing scoliosis as well (Black & Hawk, 2009, p. 498).

Treatment of scoliosis can consist of nonsurgical and surgical treatments. Nonsurgical treatments consist of observing the curvature and bracing it. Surgical treatment is only used, if conservative treatments have failed and as well the patients emotional status and their readiness to proceed with the surgery. Spinal fusion is one surgery that is used and it consists of using bone grafts to attach adjacent vertebrae together, so that the curve will not continue to progress. Instruments, like rods, can be used to stabilize and correct the deformity, as well (Black & Hawk, 2009, p. 498).

Cerebral Palsy

Cerebral palsy is group of disorders that affects the brain and nervous system affecting things such as learning, thinking, seeing, hearing, and movement. It is usually caused by an injury to or an abnormality of the brain. Hypoxia to the brain can also cause cerebral palsy. The symptoms of cerebral palsy are many. In spastic cerebral palsy, the muscles are tight and the joints are tight as well, leading to contractures. If they are walking, they may also display an abnormal gait. For other types of cerebral palsy, floppy muscles, tremors, unsteady gait, loss of coordination, and abnormal movements are all symptoms. People with cerebral palsy usually also have learning disabilities, speech problems, hearing and vision problems, seizures, pain

difficulty chewing and swallowing, vomiting, constipation, decreased growth, irregular breathing, urinary incontinence, and increased drooling (Cerebral palsy, n.d.).

Cerebral palsy is diagnosed through a number of tests. An EEG, MRI, and CAT scan of the head, blood test, and vision and hearing are some of the normal ones. A full neurological exam is also necessary, as well. There is no cure for cerebral palsy. Treatment usually is based on and focuses on the person's symptoms and prevents any complications that may arise. This would be focusing on self and home care, communication, and learning (Cerebral palsy, n.d.).

Seizure

Seizures are when the brain sends out abnormal discharges which result in changes in sensation, movements, perception, consciousness, and/or behavior. Any process that disrupts the stability of the cell membrane of the neuron can cause seizures (Black & Hawk, 2009, p. 1811). After the integrity of the membrane of the neuron is altered, it starts firing with an increase in frequency and amplitude and when the intensity reaches the threshold, the firing spread to other neurons, which ultimately results in a seizure. Afterwards, inhibitory neurons slow down the firing, which in turn causes depression of CNS activity and consciousness. Seizures increase oxygen and glucose consumption and to meet these demands, there is an increase in cerebral blood flow (Black & Hawk, 2009, p. 1812).

There are two types of seizures, generalized and partial. Generalized seizure lead to a loss of consciousness and involve both hemispheres. There are six generalized seizures, absence, myoclonic, clonic, tonic, and tonic-clonic. In absence seizures, there is a period of staring and a lapse of awareness, which usually last from a couple of seconds to a couple of minutes. A myoclonic seizure involves jerking of the extremities, which may occur in a single muscle or in a group of muscles. A clonic seizure is characterized by muscle contraction and relaxation, which

last for several minutes. Tonic seizure is characterized by an abrupt increase in muscle tone and contraction and usually lasts from 30 seconds to several minutes. There is also a loss of consciousness and a loss of autonomic signs. Tonic-clonic seizures begin with a a loss of consciousness, then the tonic phase, and then is followed by a clonic phase (Black & Hawk, 2009, p. 1813-1814). The tonic-clonic seizure may last two to five minutes. Atonic seizure is associated with a loss of muscle tone and consciousness in impaired only briefly (Black & Hawk, 2009, p. 1814). Partial seizures include simple, which the person remains conscious throughout the seizure, and complex seizures, in which consciousness may be lost, but does not necessarily have to (Black & Hawk, 2009, p. 1812-1813).

The main diagnostic test used for those suspected of having a seizure is an EEG. CAT scans and MRI's may be used to rule out any lesions that may be the cause of the seizure. In caring for a patient with seizures it is important to prevent any injuries during seizures, eliminate any factors that could lead the client to seizure, control the seizure for to allow a more comfortable lifestyle, and to diagnose and treat the cause of the seizure. Medications, like antiepileptics, can be used as well to control seizures (Black & Hawk, 2009, p. 1815).

MRDD

Mental Retardation and Developmental Disability is a condition that is characterized by below average general intellect function and lack of skills that are needed for your daily living. The degree of impairment varies from mild to profoundly impaired. Manifestations of MRDD include decreased learning ability, lack of curiosity, child-like behavior, and failure to meet markers of intellectual development. There are many age appropriate adaptive behavior tests that can be used to check development and failure of these tests indicates intellectual disability. The

treatment for MRDD is to help to patient develop to his fullest potential. Special education and training may start while the person is still an infant (Intellectual Disability, n.d.).

When nursing a person with MRDD there are many models of care that a nurse can follow. In the Tidal Model, the patient with MRDD is empowered to lead their recovery through their own forms (Moulster & Ames, 2012, p. 16). This model requires the person with MRDD to have detailed accounts of their histories and to be able to communicate what would help them in their recovery, so this makes it struggle for most people with MRDD to follow this model as they lack the ability to communicate detailed ideas and thoughts (Moulster & Ames, 2012, p. 16-17). In the Self-Care Model, emphasis is placed on learned behaviors of the person with MRDD to maintain health and to become more independent. This model is unsuitable for people with profound mental disabilities. The Ecology of Health Model is a person-centered and holistic model that has its implementation rooted in contemporary learning disability practice. The last model is the Person-Centred Nursing Model. This model takes into account the care being delivered and by which context, as well as how the nurse can influence care delivery (Moulster & Ames, 2012, p. 17).

GERD

GERD, which is gastroesophageal reflux disease, is a chronic condition that has frequent exacerbations with the main manifestation being dyspepsia, which refers to heartburn, indigestions, and epigastric pain. The cause of GERD is not clear at the moment. In GERD, the defense mechanism of the esophageal mucosa becomes overwhelmed by the reflux material, which contains pancreatic enzymes, hydrochloric acid, and pepsin. Motility disorders, like inappropriate relaxation of the lower esophageal sphincter (LES) and delayed gastric emptying,

may also be one of the causes of GERD. Risk factors for GERD include alcoholism, smoking, high-fat diet, obesity, age, sex, and pregnancy (Black & Hawk, 2009, p. 609).

There exists a high pressure zone in the region of the LES, which permits the passage of foods and fluids down the LES, but prevents the passage of reflux up the LES. Delayed gastric emptying may cause an increase in gastric volume and pressure, which may lead to reflux. A decrease in salivation and buffering from salivary bicarbonate can lead to impaired clearing of reflux from the esophagus (Black & Hawk, 2009, p. 610).

GERD can begin suddenly or gradually with the symptoms being heartburn, epigastric pain, retrosternal burning, dysphagia, acid regurgitation, water brash, hoarseness, eructation, and odynophagia. Discomfort may sometimes be present with activities tact increase intra-abdominal pressure. To diagnose usually a family history and physical exam are needed, followed by 24-hour pH probe monitoring. An EGD and a manometry may be done as well (Black & Hawk, 2009, p. 610).

Treatment of GERD is done usually with medication and lifestyle and diet changes. Misoprostol and NSAIDs are two types of drugs that are commonly used in GERD. For lifestyle and diet, restricting you diet to small and frequent meals, drink adequate fluids, eating slowly and chewing thoroughly, avoid hot and cold foods, elevate the head of bed by six to ten inches, losing weight, if overweight, and avoiding smoking are all important in decreasing and relieving the symptoms of GERD (Black & Hawk, 2009, p. 610-611).

Osteoporosis

Osteoporosis is a skeletal disorder that is defined compromised bone strength (Black & Hawk, 2009, p. 487). There are many genetic and environmental factors that are involved in the development of osteoporosis. In osteoporosis, remodeling, which is the process by which old

bone is replaced by new bone, is compromised, in which the rate of bone loss is greater than the rate of bone growth resulting in compromised bone strength (Black & Hawk, 2009, p. 488-489).

The diagnosis of osteoporosis is usually made after a fracture, although lab tests, like calcium levels and phosphate levels, and biochemical markers of bone remodeling can be used to rule out other disorders. Measuring bone mineral density by using DXA and quantitative ultrasound can help diagnose osteoporosis as well (Black & Hawk, 2009, p. 489-490). Management and treatment of osteoporosis includes many things. It is important to have adequate calcium and vitamin D intake, exercising, and avoiding alcohol and smoking. There are as well many medications, like hormone replacement therapy, raloxifene, calcitonin, triparatide, and biphosphanates, that can be used to prevent and treat osteoporosis (Black & Hawk, 2009, p. 490-492).

Assessment

While assessing R.S. on 2/20/2013, there were a few parts of his assessment that were off. R.S. responded to touch and calling out his name. His speech was incomprehensible. He was alert. He could not follow my finger with his eyes. Both his eyes were at size 3 and both eyes reacted briskly to light. His Galsgow Coma Scale score was a 9 with his eye response being 3, his verbal response a 2, and his motor response a 4. His upper extremities were both contracted and movement in the lower extremities was absent. It was not possible to test his hand grasp. Sensation was present at all four extremities with R.S. moving his head towards touch or painful stimuli or moaning at painful stimuli.

R.S. was found in bed in a semi-flowers position. His breathing was shallow, but his breathing pattern and effort were normal. No accessory muscle use was seen. No cough was noted. Lung sounds were auscultated anterior and posteriorly with crackling heard in both lower

lobes. His internal organs are all shifted up and there were no lung sounds present below the middle of the rib cage. His respirations were 20 breathes per minute, which is on border of normal and high. His pulse ox was 92%, which is on border of normal and low.

The client's heart rhythm was rhythmic and normal. Hi radial pulses were both +2 and his dorsalis pedis pulses were both a +1. His pulse was 82 beats per minute, which is normal, and his blood pressure was 101/68. No JVD was seen. The client's capillary refill and skin turgor were both less than 3 seconds and no edema was noted. His skin was pink, warm, and dry. His skin was intact and no areas of redness were noted. His Braden Score was an 10 with the moisture score being a 4, the mobility score being a 1, the activity score a 1, the nutrition score a 1, and the friction score a 1.

R.S. is incontinent and voided in his diaper once during the shift. The color was yellow and no unusual order was noted. There was no blood or sediments noted. Assessment of pain with voiding was not possible to assess.

The patients oral mucosa was pink and dry. His tongue was pink, as well. His abdomen was flat and soft to the touch and no tenderness was noted. The client's last bowel movement was at 2/17/2013. His bowel sounds were present in all four quadrants, but were hypoactive. Client is NPO, since 2/18/2013.

The patient had a peripheral IV in the right forearm, which was a #22 gauge. No redness and tenderness was noted at the site. At around 1000 on 2/20/20123, R.S. had a PICC line successfully inserted in his right upper arm, which most likely will be used for TPN, since he did not get a PEG tube inserted because of his internal organs were all shifted up. His temperature in the morning was 97.5^{o}F. Using the facial scale, R.S. had a pain of 0 out of 10. He was weighed in the morning and his weight was 88 lbs. Although R.S. is ordered up as tolerated, he stayed in

bed for the whole shift and did not get up the previous day as well. As well, R.S. watched TV and participated in mouth and facial care. After about 10 minutes of each activity, R.S. went to sleep.

Medications

Medication	**Purpose/Mechanism of action**	**Why has it been ordered?**	**Side Effects**
Albuterol **-Bronchodilator, adrenergic** **-2.5mg/mL** ***Inhalation, q2h PRN, QID**	It causes bronchodilation through binding to the $beta_2$-adrenergic receptors that are located in the smooth muscle of the airways (Deglin et al., 2011).	It was ordered for R.S for airway patency and to help open up his airways and lungs if he has any difficulty breathing.	Nervousness, restlessness, tremor, headache, insomnia, hyperactivity in children, paradoxical bronchospasm, chest pain, palpitations, angina, arrhythmias, hypertension, nausea, vomiting, hyperglycemia, and hypokalemia (Deglin et al., 2011).

Acetaminophen **-Antipyretic, nonopioid analgesic** **-650mg** ***PO, q6h PRN** ***RC, q4h PRN**	It causes analgesia and antipyresis by inhibiting the synthesis of prostaglandins that can be mediators of pain and fever (Deglin et al., 2011).	It was ordered for any pain R.S. might be experiencing.	Hepatic failure, hepatoxicity, renal failure, neutropenia, pancytopenia, leukopenia, rash, and urticaria (Deglin et al., 2011).
Pantoprazole (Protonix) **-Antiulcer agent, proton-pump inhibitor** **-40mg** ***IV, QD**	It causes a decrease in accumulation of acid in the gastric lumen with lessened acid reflux, healing of duodenal ulcers and esophagitis, and decreased acid secretion in hypersecretory conditions by	It was ordered for R.S. Because he has a history of GERD.	Headache, abdominal pain, diarrhea, eructation, flatulence, and hyperglycemia (Deglin et al., 2011).

	binding to an enzyme in the presence of acidic gastric pH, preventing the final transport of hydrogen ions into the gastric lumen (Deglin et al., 2011).		
Heparin Sodium **-Anticoagulant, antithrombotic** **-5000u** ***SQ, BID** ***IV, PRN** **-300-900u** ***IV, PRN**	It causes prevention of thrombus formation and prevention of extension of existing thrombi by potentiating the inhibitory effect of antithrombin on factor Xa and thrombin (Deglin	R.S. is receiving this medication for prevention of thrombus formation because of his inactivity and staying in bed for the whole day, as well as for PICC line patency.	Drug-induced hepatitis, alopecia, rashes, urticaria, bleeding, anemia, thrombocytopenia, pain at injection site, osteoporosis, fever, and hypersensitivity (Deglin et al., 2011).

	et al., 2011).		
Piperacillin/Tazobactam SOD **-Anti-infective, extended spectrum penicillin** **-3.375g in NS 50mL** **-IV, q8h**	It causes death of bacteria by inhibiting beta-lactamase (Tazobactam) and by binding to bacterial cell wall membrane (Piperacillin). It has an active spectrum against piperacillin-resistant, beta-lactamase-producing bacteria (Deglin et al., 2011).	It was order for R.S. for his pneumonia.	Seizures, confusion, dizziness, headache, insomnia, lethargy, pseudomembranous colitis diarrhea, constipation, drug-induced hepatitis, nausea, vomiting, interstitial nephritis, rashes, urticaria, bleeding, leukopenia, neutropenia, thrombocytopenia, pain, phlebitis at IV site, hypersensitivity reactions, fever, and superinfection (Deglin et al., 2011).

Ciprofloxacin Lactate **-Anti-infective, fluoroquinolone** **-200mg in D5 100mL** **-IV, q12h**	It causes death of bacteria by inhibiting bacterial DNA synthesis through the inhibition of DNA gyrase. It has a broad spectrum, which includes manty gram-positive bacteria (Deglin et al., 2011).	It was order for R.S. for his pneumonia.	Seizures, dizziness, headache, insomnia, acute psychoses, agitation, confusion, drowsiness, pseudomembranous colitis, diarrhea, nausea, abdominal pain, increased liver function tests, vomiting, photosensitivity, rash, hyperglycemia, Hypoglycemia, phlebitis at IV site, tendinitis, tendon rupture, and hypersensitivity reactions (Deglin et al., 2011).
Cefazolin SOD **-Anti-infective, first-gen cephalosporin** **-1g in NS 50mL** **-IV, On call**	It causes death of bacteria by binding to bacterial cell wall membrane. It has an active spectrum against many gram-	It was order for R.S. for his pneumonia.	Seizures, pseudomembranous colitis, diarrhea, nausea, vomiting, Steven-Johnson Syndrome, rashes, pruritis, urticaria, agranulocytosis, eosinophilia, hemolytic

	positive cocci (Deglin et al., 2011).		anemia, neutropenia, thrombocytopenia, pain at IM site, phlebitis at IV site, allergic reactions, and superinfection (Deglin et al., 2011).
Bisacodyl **-Laxative, stimulant laxative** **-10mg** **-RC, Every other day**	It causes evacuation of the colon by stimulating peristalsis and producing fluid accumulation in the colon (Deglin et al., 2011).	This was ordered for R.S. because he barely moves around and stays in his bed the whole day, as well as his last BM was 3 days ago.	Abdominal cramps, nausea, diarrhea, rectal Burning, hypokalemia, muscle weakness, protein-losing enteropathy, and tetany (Deglin et al., 2011).
Ergocalciferol (Vitamin D) **-Vitamins, fat-soluble vitamins** **-50,000u**	It is used to treat and prevent deficiency states and improve calcium and	This was ordered for R.S. because since he came from a group home and	Headache, somnolence, weakness, conjunctivitis, photophobia, rhinorrhea, dyspnea, arrhythmias, edema, hypertension,

PO, Every month	phosphorous homeostasis by activating in the liver to create the active form of vitamin D2, which promotes the absorption of calcium and decreases parathyroid hormone concentration (Deglin et al., 2011).	he does not get out of bed, he most likely does not have enough Vitamin D, so he is getting this to supplement it, as well as keep calcium and phosphorus levels normal because he has osteoporosis.	pancreatitis abdominal pain, anorexia, constipation, dry mouth, liver function test elevation, metallic taste, nausea, polydipsia, vomiting, weight loss, albuminuria, azotemia, decreased libido, nocturia, polyuria, pruritus, hypercalcemia, hyperthermia, bone pain, muscle pain, and pain at injection site (Deglin et al., 2011).

Lab Values/Diagnostic Tests

Abnormal Labs	Normal Value	Patient's Value	Analysis
RBC	4.4-6.2 million/mm3 ("Lab Values," n.d.).	3.57 million/mm3 (Low)	This is relevant to the patient because he already has pneumonia, which will decrease his gas exchange, decreasing the

			amount of oxygen the body gets, and on top of that he is anemic, which will decrease his body's capacity to get the needed oxygen to each different part. His respiratory status will need to be watched, as well as he will need to monitored for fatigue ("Lab Values," n.d.).
Hemoglobin	12-15 g/dl ("Lab Values," n.d.).	11.5 g/dl (Low)	This is relevant to the patient because he already has pneumonia, which will decrease his gas exchange, decreasing the amount of oxygen the body gets, and on top of that he is anemic, which will decrease his body's capacity to get the needed oxygen to each different part. His respiratory status will need to be watched, as well as he will need to be monitored for fatigue ("Lab Values," n.d.).

Hematocrit	38-45% ("Lab Values," n.d.).	34.5% (Low)	This is relevant to the patient because he already has pneumonia, which will decrease his gas exchange, decreasing the amount of oxygen the body gets, and on top of that he is anemic, which will decrease his body's capacity to get the needed oxygen to each different part. His respiratory status will need to be watched, as well as he will need to be monitored for fatigue ("Lab Values," n.d.).
BUN	7--20 mg/dl ("Explanation of lab values," n.d.).	28 mg/dl (High)	This is relevant to the patient because it could indicate kidney problems, but this lab is most likely elevated because the client is NPO, since 2/18, and so is likely dehydrated, which would increase the lab value ("Explanation of lab values," n.d.).

BUN/Creatine Ratio	10-20:1 ("BUN," n.d.).	29:1 (High)	An increase in the ratio could indicate that the patient is having decreased blood flow to the kidneys, which could be due to dehydration, which could be caused by his NPO status ("BUN," n.d.).
pH	7.35-7.45 ("Explanation of lab values," n.d.).	7.47 (High)	This is relevant because this indicates he is alkalotic and since his HCO_3 is high, he has metabolic alkalosis.
paO_2	80-100 mmHg ("Lab Values," n.d.).	61 mmHg (Low)	This is relevant to the patient because he already has pneumonia, which will decrease his gas exchange, decreasing the amount of oxygen the body gets, as well as he is anemic. This lab shows that he is hypoxic as well and so is not taking in enough oxygen ("Lab Values," n.d.).

HCO_3	22-26 mEq/l ("Lab Values," n.d.).	26.3 mEq/l (High)	This is relevant to the patient because he is alkalotic, so this indicates that his alkalosis is caused by the mild increase in HCO_3, making it metabolic alkalosis, but also to note is that his $paCO_2$ is 37.4 mmHg, which is reaching the lower end of the normal range (35), so that could be a factor in the alkalosis as well. This could indicate that R.S. is could be experiencing a kidney problem and has trouble regulating HCO3.
Base Excess	-2-+2 ("Common Laboratory (LAB) Values - ABGs," n.d.).	+2.7 (High)	This is relevant to the client because a high value could indicate that the patient has metabolic alkalosis ("Common Laboratory (LAB) Values - ABGs," n.d.).

No diagnostic tests of R.S's were available at the time.

Nursing Diagnoses

Primary Nursing Diagnosis	Impaired gas exchange related to inflammation of alveoli, retained secretions, anemia, and shallow breathing as evidenced by hypoxia, crackling lung sounds, 20 respirations, and pulse ox of 92% (Doenges, Moorhouse, & Murr, 2010, p. 136; Black & Hawk, 2009, p. 1602)
Nursing Intervention #1	Auscultate breath sounds, using your stethoscope, noting any adventitious breathe sounds, anteriorly and posteriorly as this will identify the patient's respiratory status.
Nursing Intervention #2	Asses R.S.'s respiratory rate and depth, as well breathing pattern as this will identify the patient's respiratory status, as well as indicate the degree of lung involvement (Doenges et al., 2010, p. 136).
Nursing Intervention #3	Monitor pulse ox and ABG's as this will help identify the respiratory status, as well as follow the progression of the disease (Doenges et al., 2010, p. 136).
Nursing Intervention #4	Observe skin, mucous membrane, and nail bed, noting any changes in color because changes in color can be indicative of

	improvement or decline in oxygen saturation (Doenges et al., 2010, p. 136; Black & Hawk, 2009, p. 1602).
Short Term Goal	R.S. will maintain a pulse ox of 92% or above during the shift.
Long Term Goal	R.S. will stay free from any type of respiratory distress during his stay at the hospital.
Outcomes, Rationale, and Revisions	R.S.'s pulse ox stayed at 92% and he was free from any type of respiratory distress through the whole shift. The interventions worked because these interventions are preventative, as they could be used to catch respiratory distress early on and treatment of it could commence.
Secondary Nursing Diagnosis	Activity intolerance related to increased metabolic needs secondary to pneumonia, NPO status, anemia, and hypoxia as evidenced by 20 respirations, pulse ox of 92%, paO_2 of 61 mmHg, and patient going to sleep after activities (Doenges et al., 2010, p. 138; Black & Hawk, 2009, p. 1602).
Nursing Intervention #1	Evaluate R.S.'s response to activity because this will help establish R.S.'s base by identifying his capabilities and needs (Doenges et al., 2010, p. 138; Black & Hawk, 2009, p. 1602).

Nursing Intervention #2	Monitor body temperature because an increased temperature and fever increases oxygen consumption and metabolic demand (Doenges et al., 2010, p. 136).
Nursing Intervention #3	Provide a quiet environment because it will help reduce anxiety and promote rest (Doenges et al., 2010, p. 136; Black & Hawk, 2009, p. 1602).
Nursing Intervention #4	Elevate head of bed as this will increase lung expansion, which will maximize intake of oxygen (Doenges et al., 2010, p. 498).
Short Term Goal	R.S. will maintain current activity capabilities during the shift.
Long Term Goal	R.S. will maintain current activity capabilities during his stay at the hospital.
Outcomes, Rationale, and Revisions	R.S.'s activity capabilities were established. He maintained those capabilities for the shift. These interventions will help him keep his capabilities for the rest of his stay at the hospital because they will help him get his rest, increase oxygen intake, and decrease oxygen consumption and metabolic demand.

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