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This respiratory infection can vary in severity, ranging from mild to severe, and can worsen over time and even become life-threatening if not treated. Specific populations, such as older adults, those with chronic lung conditions, or young children, are more vulnerable to the infection and often experience the most severe consequences of the disease
Many people with pneumonia require acute treatment with antibiotics and other modalities, and some even require emergency room visits or hospitalization. The CDC reports that 1.5 million Americans needed emergent care for pneumonia in 2020 and that pneumonia accounted for more than 41,000 deaths in 2021 alone. This article provides
general nursing diagnoses and care plans for patients with pneumonia you can use to create patient-centered nursing school and beyond. Diagnosis Healthcare providers use the presence of specific symptoms to confirm the diagnosis of pneumonia. For example, the physician may perform a physical
exam, including auscultating lung sounds, and review the patient's medical history. If pneumonia is suspected, the healthcare provider may order the following tests: Chest x-ray - visualizes the location and severity of the pneumonia Blood tests - looks for increased WBCs and other indicators of infection and cultures to determine the pathogen
causing the pneumonia Sputum test - determines the cause of the infection Pulse oximetry - measures the blood's oxygen level CT scan - to obtain detailed images of the lungs, common in hard-to-treat or worsening pneumonia Pleural fluid culture - analyzes fluid from the lungs to determine the cause of the infection in hard-to-treat or worsening
pneumonia Diagnosing pneumonia in patients with atypical symptoms, such as children, is challenging. Pediatric patients don't have the respiratory drive of adults, so it's crucial to observe the patient closely and start treatments quickly before the situation becomes life-threatening. Types of Pneumonia There are a few different ways to classify
pneumonia. Classifications are done by determining where the patient acquired the disease and by the organism that caused it. First, pneumonia may be classifications include: Hospital-acquired pneumonia happens in patients who have recently stayed in a hospital or healthcare setting
These patients may experience complications because the microorganism causing the infection may resist antibiotics. Patients at increased risk include patients who: Require oxygen support Have difficulty coughing and deep breathing to remove mucus from their lungs Have a tracheostomy. Have a weakened immune system. Community-Acquired
Pneumonia captures pneumonia outside of the hospital or healthcare setting. People with chronic lung conditions are at an increased risk of acquiring this condition. The second way to classify pneumonia is based on the organism causing it. This includes: Bacterial Pneumonia is the most common type of community-acquired pneumonia in adults.
Streptococcus pneumoniae is the most common cause of bacterial pneumonia is the least common type. The following viruses common type. The following viruses common is the least common type. The following viruses common type.
populations, such as those with an organ transplant, undergoing chemotherapy, or taking medications used to treat autoimmune conditions. Symptoms of Pneumonia Nurses must be aware of the most common signs and symptoms of pneumonia. Hospitalized patients and those at high risk for contracting the condition should be monitored closely.
Report new or worsening signs to the healthcare provider for further assessment and treatment. Some of the most common symptoms of pneumonia include the following: Fever, shaking, and chills Wet cough that produces yellow, green, or bloody mucus Pleuritic chest pain that may worsen with deep breathing or coughing Dyspnea Fatigue and
general malaise Lack of appetite Shallow breathing in young adults, children, and babies Nasal flaring and accessory muscle use in young children Nausea and vomiting in young children, and babies Nasal flaring and accessory muscle use in young children Nausea and vomiting in young children.
of contracting pneumonia. We'll review each group below. Older Adults As we age, our immunity decreases, increasing our risk of infections like pneumonia. In addition, many older people also have comorbidities, such as COPD, asthma, or heart disease, that compound their risk further. Older adults may also be less likely to engage in physical
activity, which can help clear their lungs and reduce the risk of pneumonia and other lung infections. Young Children Some children may be at an increased risk of developing pneumonia because of other health conditions, such as: Chronic lung conditions, like cystic fibrosis or asthma Diseases causing the patient to be immunocompromised, such as
cancer Structural or genetic problems within the respiratory system A child's environment can also place them at an increased risk. This includes: Children exposed to secondhand smoke Children exposed to mold, water damage, or indoor
air pollution People with Comorbid Conditions Adults with specific comorbid conditions are at an increased risk of developing pneumonia. People at increased risk of developing pneumonia. People at increased risk of developing pneumonia worsens, even when treated. It can cause severe dyspnea and breathing difficulties in the patient that
can become life-threatening and lead to long-term complications or even death. Common complications of pneumonia include: Pleural effusion Lung abscess Bacteremia Treatments to cure the infection, reduce symptoms and discomfort, and prevent potential complications. Common treatments include:
Antibiotics to treat bacterial infections Antifungals to treat fungal infections Cough suppressants and expectorate it from the lungs Fever reducers to lower body temperature and associated discomfort Oxygen therapy for comfort and to increase blood oxygen Diet rich in vitamins and minerals Rest to allow the
body to fight the infection Patients with severe pneumonia may require hospitalization. Although this is less common, it may be necessary for those immunocompromised patients whose symptoms have worsened dramatically, such as those with very shallow
breathing, who require mechanical ventilation, or who have bradycardia. Nurse's Role Caring for a Patient With Pneumonia and performing routine assessments to monitor for new or worsening symptoms. A comprehensive nursing assessment includes auscultating lung sounds,
assessing blood oxygen levels and respiratory effort, and assessing for fever. Nurses also administer treatments as ordered by the physician, including antibiotics, IV fluids, antipyretics, breathing treatments as ordered by the physician, including antibiotics, IV fluids, antipyretics, breathing treatments as ordered by the physician, including antibiotics, IV fluids, antipyretics, breathing treatments as ordered by the physician, including antibiotics, IV fluids, antipyretics, breathing treatments as ordered by the physician, including antibiotics, IV fluids, antipyretics, breathing treatments as ordered by the physician, including antibiotics, IV fluids, antipyretics, breathing treatments as ordered by the physician and oxygen thereby.
care, including how and when to take antibiotics, how to use home oxygen, and when to call the healthcare provider or seek emergency medical treatment. Nursing Protocols for Pneumonia In-depth respiratory assessment to auscultate lung sounds, monitor respiratory effort, including respiratory rate and depth, assess for purulent sputum and use
of accessory muscles during breathing Head-to-assessment to watch for fever, tachycardia, pleuritic chest pain, and other physical symptoms. Risk Assessment to identify at-risk populations such as seniors and children. Nursing Care Plans Related to Pneumonia A well-written nursing care plan establishes essential assessments,
interventions, and patient outcomes. Below, you will find pneumonia nursing care plans you can use as a basis for patients in your care. This list of nursing care plans is not exhaustive, and, of course, all nursing care plans must be individualized to the patient's specific care needs. Nursing Care plans is not exhaustive, and, of course, all nursing care plans must be individualized to the patient's specific care needs. Nursing Care plans is not exhaustive, and, of course, all nursing care plans must be individualized to the patient's specific care needs. Nursing Care plans is not exhaustive, and, of course, all nursing care plans must be individualized to the patient's specific care needs.
occurs when the exchange of oxygen and carbon dioxide across the alveolar-capillary barrier is impaired. Certain conditions, such as pneumonia, can cause changes in lung function and alveolar collapse, negatively affecting ventilation. In addition, impaired gas exchange can lead to hypoxemia, fluid shifting into interstitial spaces, and pulmonary
edema. Potentially Related To Impaired gas exchange may be related to the following factors: Fluid-filled alveoli Excess mucus in the airways Inflammation of the airways 
symptoms of impaired gas exchange include: Tachypnea and dyspnea Cyanosis Dusky and pale skin color Tachycardia Restlessness Changes in the level of consciousness Hypotension Hypoxemia Confusion Desired Outcomes For an impaired gas exchange include: The patient will maintain gas exchange
within normal limits. The patient's ABGs will be maintained within an acceptable range for them. The patient will experience improved oxygen levels above 90%. Impaired Gas Exchange Nursing Assessment A thorough nursing assessment helps you determine the baseline and ongoing status
of the patient's condition. Your nursing assessment may include the following: Perform a thorough respirations' rate, rhythm, and depth and using accessory muscles and nasal flaring. Assess for abnormal lung sounds, such as crackles or rhonchi. Assess for peripheral and central cyanosis related to impaired perfusion
and oxygenation. Monitor for changes in mental status and consciousness. Assess blood pH electrolytes. Impaired Gas Exchange Nursing Interventions and Rationales Common nursing interventions for impaired gas exchange include: Assist the
patient in finding a comfortable position by elevating the head of the bed, sitting in a chair, or sitting up while leaning forward onto a table or other surface. Rationale: Improves ventilation by mobilizing secretions. Institute energy conservation
techniques, such as planned rest periods and clustering care activities. Rationale: Reduces oxygen demands and prevents over-exhaustion. Administer oxygen therapy as indicated. (Note: Use caution in patients with chronic lung disease.) Rationale: Maintains PaO2 within normal limits. Nursing Care Plan: Ineffective Airway Clearance Ineffective
airway clearance commonly occurs in patients with pneumonia. The patient's ability to clear their airway may be related to a weak or non-producing cough or excessive lung mucus build-up. In severe cases of infective airway clearance, the patient may require an artificial airway or ventilatory support. Potentially Related To Ineffective airways
clearance may be related to the following: Pleuritic chest pain Extreme fatigue and low-energy Aspiration Inflammation in the trachea, bronchi, or other areas of the respiratory tract Lung edema Excessive mucus Airway spasms Evidenced By Ineffective airway clearance may produce the following symptoms: Orthopnea Hypoxemia Hypercapnia
Dyspnea Tachypnea Cyanosis Dusky skin color Hypotension Confusion Abnormal ABGs Accessory muscle use Desired outcomes for a patient with ineffective airways with normal breath sounds, respiratory rate, and effort. The patient experiences improved
gas exchange. The patient demonstrates signs of improving respiratory status. Ineffective Airways Clearance Nursing Assessment Strategies to include in a pneumonia nursing care plan include: Assess the respiratory rate, rhythm, depth, and accessory muscle use. Auscultate the lungs for decreased breath sounds,
wheezing, rales, rhonchi, stridor, crackles, or grunts. Monitor for confusion, restlessness, or anxiety. Assess for signs of atelectasis, including crackles, impaired diaphragmatic excursion, tracheal shift, or tubular breath sounds. Monitor for changes in cardiac status, including heart rate and blood pressure. Assess the strength of the cough,
bronchospasms, and secretions. Assess the amount, texture, and color of the sputum. Track and trend oxygen saturations and Rationales Nursing Interventions and Rationales Nursing interventions for ineffective airways clearance
include: Assist the patient in a comfortable position with the head raised. Rationale: Assists in loosening mucus and movement of mucus. Encourage ambulation if indicated. Rationale: Assists in loosening mucus and
maintaining overall body strength. Maintain oxygen saturation at 90% or higher. Rationale: Assists removing mucus if the patient cannot do it independently. Encourage coughing and deep breathing. Rationale: Assists with oxygenation and mucus removal.
Administer oxygen, antibiotics, and other medications as ordered. Rationale: Treats pneumonia and improves oxygenation and expectoration of mucus. Educate the patient on
increasing fluid intake. Rationale: Promotes self-care to thin mucus. Educate the patient on understanding medications, therapies, and inhalers. Rationale: Promotes self-care strategies to cure pneumonia and treat symptoms. Nursing Care Plan: Ineffective Breathing Pattern Symptoms of pneumonia, such as fever and chest pain, can change the
patient's breathing patterns. These changes lead to compensatory tachypnea to meet the body's metabolic demands. The ineffective breathing pattern includes the
following: Hypoxia Anxiety Pleuritic chest pain O2/CO2 ratio alterations Decreased lung expansion Inflammation in the lungs Evidenced By The most frequent signs and symptoms of an ineffective breathing pattern include the following: Tachypnea Orthopnea Use of accessory muscles or nasal flaring Changes in respiratory patterns, such
as rate and depth Abnormal breath sounds, such as rhonchi, bronchial lung sounds, and egophony Decreased breath sounds over affected areas of the lungs Productive cough Reduced vital capacity Purulent sputum Hypoxemia Cyanosis Presence of infiltrates on chest x-ray Desired Outcomes The desired outcomes of an
ineffective breathing pattern are: The patient maintains respiratory rate and rhythm within normal limits. The patient maintains an oxygen blood saturation above 90%. Ineffective breathing patterns may include: Assess and record respiratory rate every 2-4 hours
as indicated. Monitor breathing patterns for abnormalities. Monitor for paradoxical motion. Monitor ABG levels. Auscultate breath sounds. Assess for nasal flaring and accessory muscle use. Evaluate the nutrition and activity
levels of the patient. Monitor vital signs for fever and tachycardia. Ineffective Breathing Pattern Nursing Interventions and Rationale: Promotes chest
expansion and reduces the risk of atelectasis. Administer medications and supplemental oxygen as needed. Rationale: Promotes oxygenation. Encourage ambulation and light activity as tolerated. Rationale: Promotes oxygenation.
mobility and movement of fluid in the lungs. Request a dietary consult. Rationale: Provides specialized assessment of patient to take frequent rest periods and to cluster activities. Rationale: Provides specialized assessment of patient to take frequent rest periods and to cluster activities.
techniques, and when to seek additional treatment before discharge from the hospital setting. Rationale: Promotes self-care. Nursing Care Plan: Risk for Infection or sepsis, especially in immunocompromised patient populations. Sepsis and other severe
secondary infections can lead to respiratory failure and even death if left untreated. Potentially Related To The risk for infection may be related to the following: Presence of existing pneumonia Suctioning, intubation, and other invasive procedures Ineffective lung function caused by mucus Secondary problems, such as immobility or malnutrition
Evidenced By The common signs of infection are: Fever Chills Body sweats Muscle aches Cough Increased white blood cells Desired Outcomes The most common desired outcomes are: The patient is free of the primary
infection, and it does not create a secondary infection. Risk for Infection Nursing Assessment Appropriate nursing assessment include: Monitor for signs of a worsening condition. Risk for Infection Nursing Interventions and Rationales Disinfect and sterilize
Rationale: Reduces the spread of infection in the community setting. Institute isolation protocols as needed. Rationale: Protects healthcare workers and visitors from infection in the community setting. Institute isolation protocols as needed. Rationale: Protects healthcare workers and visitors from infection. Administer medications, such as antibiotics and oxygen, per orders. Rationale: Protects healthcare workers and visitors from infection.
 Identifies the need for medication adjustments. Teach the patient about a nutrient-rich diet. Rationale: Promotes self-care and a healing diet. Remove waste, clean the room, and wear gloves and other PPE as indicated. Rationale: Promotes self-care and a healing diet. Remove waste, clean the patient's fluid intake as indicated. Rationale: Thins mucus in the lungs to
signs of worsening infection. Nursing Care Plan: Risk for Imbalanced Nutrition: Less Than Body Requirements The risk for imbalanced nutrition is when a person does not consume the proper nutrients or calories required to maintain a healthy weight. For example, patients with pneumonia may not have much of an appetite from the illness or might
not feel they can eat, related to their dyspnea and labored breathing. Potentially Related To Patients with the following conditions are at higher risk of developing imbalanced nutrition while they have pneumonia: Difficulty breathing Excessive coughing Increased metabolic needs secondary to infection and fever Swallowing air that leads to
abdominal distention and discomfort Evidenced By The most common signs of imbalanced nutrition include: Weight loss Physical weakness Swollen mucus membranes Confusion Pale skin Fatigue Desired Outcomes The desired outcomes for the patient include the following: The patient maintains a healthy appetite, food consumption, and weight
Risk for Imbalanced Nutrition Nursing Assessment Assess the patient's weight regularly. Monitor intake and output. Risk for Imbalanced Nutrition Nursing Interventions and Rationales Request a nutritional consult. Rationales Request a nutritional consult.
cause stomach upset at least an hour after meals. Rationale: Reduces side effects such as nausea just before meals. Provide small frequent meals and snacks. Rationale: Promotes healing and provides needed nutrients. Keep the
patient's area clean and remove any secretions or waste before meals. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Provides a pleasant environment during mealtime. Educate the patient on the prescribed diet after discharge. Rationale: Provides a pleasant environment during mealtime. Educate the patient of the patient of
ordered. Rationale: Provides additional calories and nutrients. Nursing Care Plan: Acute Pain Pleuritic chest pain is a common side effect of pneumonia. This condition, pleuritic chest pain can cause the patient to avoid coughing, causing an increase in mucus in the lungs
and creating more pain. This vicious cycle can be challenging to treat. Potentially Related to Acute pain is caused by the following: Pleuritic chest pain Excessive coughing and deep breathing Changes in sleep patterns
Grimacing with movement or coughing Desired Outcomes The patient will be pain-free within 2 hours after administration of pain medications. The patient will demonstrate non-pharmacologic methods to control pain, such as frequent position, and medications. The patient will demonstrate non-pharmacologic methods to control pain, such as frequent position changes and medications. The patient will demonstrate non-pharmacologic methods to control pain, such as frequent position changes and medications.
intensity, rating, and duration. Use the FACES Scale to evaluate the intensity of the pain. Observe for grimacing, crying, or other signs of pain. Evaluate the patient's mental ability to perform a multimodal approach to pain management strategies. Acute Pain Nursing Interventions and Rationales Provide
pain relief measures per the facility protocol. Rationale: Treats the pain appropriately. Educate the patient on non-pharmacologic pain relief strategies. Rationale: Reduces pain and increases chest expansion. Evaluate the effectiveness of pain
management techniques. Rationale: Indicates the need for new treatment modalities. Nursing Care Plan: Decreased Activity Tolerance Pneumonia may cause the patient to experience decreased activity tolerated due to poor oxygenation and increased metabolic demands. As a result, the condition may deplete the patient's energy reserves and reduced activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience decreased activity tolerance Pneumonia may cause the patient to experience pneumonia may cause the
the intake of adequate nutrients. Potentially Related To Common factors that cause activity intolerance in those with pneumonia include: Exhaustion General weakness and fatigue Poor activity tolerance Dyspnea and
tachypnea Change in vital signs during activity. Decreased Activity Desired Outcomes The patient will report improved tolerance to activity. The patient will be free of signs of respiratory distress. Decreased Activity Tolerance Nursing Interventions and Rationales
Encourage coughing and deep breathing. Rationale: Promotes oxygenation. Encourage rest and monitor the patient's sleep pattern. Rationale: Promotes energy conservation. Assist with care tasks that cause the patient
to tire quickly. Ratonale: Reduces exhaustion. Nursing Care Plan: Deficient Knowledge Some patients may be unfamiliar with pneumonia and common treatments. Educating the patient knowledge can be caused by the following: Lack of exposure to the
condition Inability to comprehend information Inability to learn Refusal t
pneumonia Confusion about pneumonia treatments Non-compliance with prescribed treatment regimens. The patient verbalizes the cause, side effects, and treatment program. The patient verbalizes the cause, side effects, and treatment program. The patient verbalizes the cause, side effects, and treatment program.
pneumonia resolves, and no secondary infection occur. Deficient Knowledge Nursing Assessment Assess the person's ability to comprehend new information and desire to learn. Ask the patient Knowledge Nursing Assessment Assess the person's ability to comprehend new information and desire to learn. Ask the patient Knowledge Nursing Assessment Assess the person's ability to comprehend new information and desire to learn. Ask the patient Knowledge Nursing Assessment Assess the person's ability to comprehend new information and desire to learn.
needs. Deficient Knowledge Nursing Interventions and Rationales Educate on the signs, symptoms, and treatment of pneumonia. Rationale: Establishes a baseline understanding. Create a peaceful mental and physical atmosphere for the patient. Rationale: Establishes a baseline understanding. Create on the need to follow up with a care
provider. Rationale: Establishes the need for ongoing care. Utilize the teach-back method. Rationale: Promotes learning and retention. Slowly progress the complexity of the material over time. Rationale: Promotes a natural progression to more
challenging information Educate on signs and symptoms that require the patient to notify the healthcare provider. Rationale: Ensures timely follow-up for worsening or recurrent infection. Anxiety Dyspnea and other signs of impaired breathing can evoke anxiety in patients. The patient's care team must treat the anxiety holistically so the patient can
relax and rest. Potentially Related To Anxiety can be caused by the following: Shortness of breath Feelings of not being able to breathe deeply Pain during breathing General feelings of illness Evidenced By The most common signs of anxiety include: Nervous feeling Hyperventilation Excessive worrying Increased difficulty breathing Desired
Outcomes The patient will experience reduced anxiety symptoms after using anxiety reducing strategies, such as medications or relaxation. Anxiety Nursing Interventions and
Rationale Administer medications as prescribed. Rationale: Reduces anxiety symptoms. Educate on using relaxation techniques, such as meditation and deep breathing. Rationale: Reduces symptoms of anxiety. Play soft music and keep the lighting in the room low. Rationale: Reduces symptoms of anxiety symptoms of anxiety.
anxiety and strategies to reduce symptoms. Rationale: Promotes recognition of anxiety and self-care strategies. More Pneumonia Diagnosis Risk for Deficient Fluid Volume Pneumonia NCLEX. There is a good chance you'll encounter
questions about caring for patients with pneumonia. Below are sample questions you might see on the NCLEX. Aminophylline is prescribed for a patient with acute bronchitis. The nurse knows the primary purpose of this medication is to: a. Suppress the patient's cough b. Relax the bronchial airway
 isoenzymes and soothes the lungs, vessels, and throat muscles. c. Prevent infection d. Enhance expectoration Dr. Smith prescribes Proventil for a patient with asthma. While teaching the patient about the side effects of this drug, the nurse should explain how this drug may cause: a. Congestion b. Anxiety
Proventil/Albuterol can cause anxiety, nervousness, tremors, headaches, and palpitations. c. Lethargy d. Hyperkalemia Sally, a student with acute rhinitis, sees the on-campus nurse due to excessive nasal drainage to diagnose the patient. Typically, the color of acute rhinitis
                                                            I. Rationale: Acute rhinitis presents with clear secretions, mouth breathing, dark eye circles, and sniffling. d. Gray A senior client with pneumonia usually has _____ as their first symptom. a. Altered mental status

    Rationale: Lower mental acuity, confusion, dehydration, and

                                                                                                               is a pathophysiological mechanism that facilitates pneumonia development. a. Efusion b. Inflammation
If you need more information about pneumonia, check out these great articles on AllNurses: Wrapping Up Pneumonia Nursing Care Plans While pneumonia is a common illness, it's critical to understand that it can become life-threatening without proper diagnosis and treatment. Use these nursing care plans as a basis for your nursing assessments
and interventions to provide holistic and comprehensive care for your patients or clients. Citations Learn about the nursing care management of patients with pneumonia is one of the most common respiratory problems and it affects all stages of life.
 Pneumonia is an inflammation of the lung parenchyma caused by various microorganisms, including bacteria, mycobacteria, fungi, and viruses. Pneumonitis is a more general term that describes the inflammatory process in the lung tissue that may predispose and place the patient at risk for microbial invasion. Pneumonia is classified into four:
community-acquired pneumonia (CAP) and hospital-acquired pneumonia (HAP), pneumonia in the first 48 hours after hospitalization. The causative agents for CAP that needs hospitalization include streptococcus pneumoniae, H. influenza
Legionella, and Pseudomonas aeruginosa. Only in 50% of the cases does the specific etiologic agent become identified. Streptococcus pneumoniae is the most common cause of pneumonia in infants and children. HAP is also called nosocomial pneumonia and is defined
as the onset of pneumonia symptoms more than 48 hours after admission in patients with no evidence of infection at the time of admission. HAP is the most lethal nosocomial infection and the leading cause of death in patients with such infection at the time of admission. HAP is the most lethal nosocomial infection and the leading cause of death in patients with such infections. Common microorganisms that are responsible for HAP include Enterobacter species, Escherichia coli
influenza, Klebsiella species, Proteus, Serratia marcescens, S. aureus, and S. pneumonia. The usual presentation of HAP is a new pulmonary infiltrate on chest x-ray combined with evidence of infection. Pneumonia in immunocompromised hosts includes Pneumonia, fungal pneumonias and Mycobacterium tuberculosis. Patients who are
immunocompromised commonly develop pneumonia from organisms of low virulence. Pneumonia in immunocompromised hosts may be caused by the organisms also observe in HAP and CAP. Aspiration pneumonia refers to the pulmonary consequences resulting from entry of endogenous or exogenous substances into the lower airway. The most
common form of aspiration pneumonia is a bacterial infection from aspiration pneumonia, H.influenza, and S. aureus. Having an idea about the disease process helps the patient understand the
treatment regimen and its importance, increasing patient compliance. Pneumonia arises from normal flora present in the oropharynx. An inflammatory reaction may occur in the alveoli, producing exudates that interfere with the diffusion of oxygen and carbon dioxide
White blood cells also migrate into the alveoli and fill the normally air-filled spaces. Due to secretions and mucosal edema, there are areas of the lung that are not adequately ventilation perfusion mismatch. Venous blood entering the pulmonary
circulation passes through the under ventilated areas and travels to the left side of the heart deoxygenated alot of people, especially those who have a weak immune system. Learning statistics on pneumonia could give you an idea about
how many has fallen victim to this respiratory disease. Pneumonia and influenza account for nearly 60,000 deaths annually. Pneumonia also ranks as the eighth leading cause of CAP occur in adults 65 years old and above in the United States. HAP accounts for 15% of
hospital-acquired infections and is the leading cause of death in patients with such infections. The estimated incidence of HAP 4 to 7 episodes per 1000 hospitalizations. Each type of pneumonia is cause of CAP in people younger
than 60 years of age without comorbidity and in those 60 years and older with comorbidity. Haemophilus influenzae. This causes a type of CAP that frequently affects elderly people and those with comorbidity. Haemophilus influenzae. This causes a type of CAP that frequently affects elderly people and those with comorbidity. Haemophilus influenzae. This causes a type of CAP that frequently affects elderly people and those with comorbidity.
of the organism. Impaired host defenses. When the defenses of the body are down, several pathogens may invade the body. Comorbid conditions that lower the immune system, causing bacteria to pool in the lungs and eventually result in pneumonia. Supine positioning. When the patient stays in a prolonged supine
position, fluid in the lungs pools down and stays stagnant, making it a breeding place for bacteria. Prolonged hospital infections or nosocomial i
pneumonia through its clinical manifestations. Rapidly rising fever. Since there is inflammation of the lung parenchyma, fever develops as part of the signs of an infection. Pleuritic chest pain. Deep breathing and coughing aggravate the pain in the chest. Rapid and bounding pulse. A rapid heartbeat occurs because the body compensates for the low
concentration of oxygen in the body. Tachypnea. There is fast breathing because the body tries to compensate for the low oxygen concentration in the body. Purulent sputum. The sputum becomes purulent because of pneumonia
instead of treating the disease itself. Here are several ways that can help prevent pneumonia. Pneumococcal vaccine can prevent HAP, the CDC (2004) encouraged staff education and involvement in infection prevention. Infection and
microbiologic surveillance. It is important to carefully observe the infection so that there could be an appropriate application of prevention techniques. Modifying host risk for infection should never be allowed to descend on any host, so the risk must be decreased before it can affect one. Pneumonia has several complications if left
untreated or the interventions are inappropriate. These are the following complications that may develop in patients who have received no specific treatment and inadequate or delayed treatment. Pleural effusion. In pleural effusion, the fluid is
sent to the laboratory for analysis, and there are three stages: uncomplicated, complicated, and thoracic empyema. Assessment and diagnosis of pneumonia must be accurate since there are a lot of respiratory problems that have similar manifestations. The following are assessments and diagnostic tests that could determine pneumonia. History
taking. The diagnosis of pneumonia is made through history taking, particularly a recent respiratory tract infection. Physical examination. Chest x-ray. Identifies structural distribution (e.g., lobar, bronchial); may also reveal multiple
abscesses/infiltrates, empyema (staphylococcus); scattered or localized infiltration (bacterial); or diffuse/extensive nodular infiltrates (more often viral). In mycoplasmal pneumonia, chest x-ray may be clear. Fiberoptic bronchoscopy. May be both diagnostic (qualitative cultures) and therapeutic (re-expansion of lung segment). ABGs/pulse
oximetry. Abnormalities may be present, depending on extent of lung involvement and underlying lung disease. Gram stain/cultures saud blood cultures may be done to recover causative organism. More than one type of organism may be fund transtracheal or transthoracic fluids; lung biopsies and blood cultures may be done to recover causative organism. More than one type of organism may be fund transtracheal or transthoracic fluids; lung biopsies and blood cultures may be done to recover causative organism.
present; common bacteria include Diplococcus pneumoniae, Staphylococcus aureus, a-hemolytic streptococcus, Haemophilus influenzae; cytomegalovirus (CMV). Note: Sputum cultures may not identify all offending organisms. Blood cultures may show transient bacteremia. CBC. Leukocytosis usually present, although a low white blood cell (WBC)
count may be present in viral infection, immunosuppressed conditions such as AIDS, and overwhelming bacterial pneumonia. Erythrocyte sedimentation rate (ESR) is elevated. Serologic studies. Volumes may be decreased
(congestion and alveolar collapse); airway pressure may be increased and compliance decreased. Shunting is present (hypoxemia). Electrolytes. Sodium and chloride levels may be increased and cytoplasmic inclusions (CMV), characteristic
giant cells (rubeola). The management of pneumonia centers is a step-by-step process that zeroes on the treatment of the infection through identification of the causal pathogen and prompt administration of antibiotics in patients in whom CAP is strongly suspected.
Administration of macrolides. Macrolides are recommended for people with drug-resistant S. pneumoniae. Hydration is an important part of the regimen because fever and headache. Administration of antitussives. Antitussives are
used for treatment of the associated cough. Bed rest. Complete rest is prescribed until signs of infection are diministration. Oxygen administration. Oxygen and to evaluate the effectiveness of the therapy. Aggressive respiratory measures. Other
measures include administration of high concentrations of oxygen, endotracheal intubation, and mechanical ventilation. Nurses are expected to perform both dependent functions for the patient to aid him or her towards the restoration of their well-being. SEE ALSO: 11 Pneumonia Nursing Care Plans for a comprehensive nursing
care plan and management guide Nursing assessment is critical in detecting pneumonia. Here are some tips for your nursing assessment for pneumonia. Assess respiratory symptoms. Symptoms of fever, chills, or night sweats in a patient should be reported immediately to the nurse as these can be signs of bacterial pneumonia. Assess clinical
manifestations. Respiratory assessment should further identify clinical manifestations such as pleuritic pain, bradycardia, tachypnea, and fatigue, use of accessory muscles for breathing, coughing, and purulent sputum. Physical assessment. Assess the changes in temperature and pulse; amount, odor, and color of secretions; frequency and severity of
cough; degree of tachypnea or shortness of breath; and changes in the chest x-ray findings. Assessment in elderly patients for altered mental status, dehydration, unusual behavior, excessive fatigue, and concomitant heart failure. Through the data collected during assessment, the following nursing diagnoses are made:
Planning is essential to establish the interventions that are appropriate for the patient's condition. Improve airway patency. Rest to conserve energy. Maintenance of proper fluid volume. Maintenance of adequate nutrition. Understanding of treatment protocol and preventive measures. Absence of complications. Maintain/improve respiratory function
Prevent complications. Support recuperative process. Provide information about disease process, prognosis, and treatment of the management of pneumonia. To improve airway patency: Removal of secretions. Secretions should be removed
because retained secretions interfere with gas exchange and may slow recovery. Adequate hydration of 2 to 3 liters per day thins and loosens pulmonary secretions. Humidification may loosen secretions and improve ventilation. Coughing exercises. An effective, directed cough can also improve airway patency. Chest physiotherapy. Chest
physiotherapy is important because it loosens and mobilizes secretions. To promote rest and conserve energy: Encourage avoidance of overexertion and possible exacerbation of symptoms. Semi-Fowler's positions frequently to enhance
 secretion clearance and pulmonary ventilation and perfusion. To promote fluid intake: Fluid intake to at least 2L per day to replace insensible fluid, calories, and electrolytes. Nutrition-enriched beverages. Nutritionally enhanced drinks and
 shakes can also help restore proper nutrition. To promote patient's knowledge: Instruct patient and family about the cause of pneumonia, management of symptoms, signs, and symptoms, and the need for follow-up. Instruct patient about the factors that may have contributed to the development of the disease. Expected patient outcomes include the
following: Demonstrates improved airway patency. Rests and conserves energy by limiting activities and remaining in bed while symptomatic and then slowly increasing activities. Maintains adequate hydration. Consumes adequate dietary intake. States explanation for management strategies. Complies with management strategies. Exhibits no
complications. Complies with treatment protocol and prevention strategies. Patient education is crucial regardless of the setting because self-care is essential in achieving a patient's well-being. Oral antibiotics. Teach the patient
breathing exercises to promote secretion clearance and volume expansion. Follow-up check up. Strict compliance to follow-up check up. Strict che
the bronchi. Documentation of data must be accurate and up-to-date to avoid unnecessary legal situations, use of accessory muscles for breathing. Document character of cough and sputum. Document respiratory rate, pulse oximetry/O2 saturation, and vital signs
Document plan of care and who is involved in planning. Document client's response to interventions, teaching, and actions performed. Document modifications to plan of care. See also: Respiratory System NCLEX Practice Questions
and Reviewer (220 Questions) FacebookEmailPrintBufferPinterestShare Learn about the nursing care management of patients with pneumonia is one of the most common respiratory problems and it affects all stages of life. Pneumonia is an inflat
of the lung parenchyma caused by various microorganisms, including bacteria, mycobacteria, fungi, and viruses. Pneumonitis is a more general term that describes the inflammatory process in the lung tissue that may predispose and place the patient at risk for microbial invasion. Pneumonia is classified into four: community-acquired pneumonia
(CAP) and hospital-acquired pneumonia (HAP), pneumonia in the immunocompromised host, and aspiration pneumonia. CAP occurs either in the community setting or within the first 48 hours after hospitalization. The causative agents for CAP that needs hospitalization include streptococcus pneumoniae, H. influenza, Legionella, and Pseudomonas
aeruginosa. Only in 50% of the cases does the specific etiologic agent become identified. Streptococcus pneumonia in infants and children. HAP is also called nosocomial pneumonia and is defined as the onset of pneumonia
symptoms more than 48 hours after admission in patients with no evidence of infection at the time of admission. HAP is the most lethal nosocomial infection and the leading cause of death in patients with no evidence of infection and the leading cause of death in patients with such infections. Common microorganisms that are responsible for HAP include Enterobacter species, Escherichia coli, influenza, Klebsiella species,
Proteus, Serratia marcescens, S. aureus, and S. pneumonia. The usual presentation of HAP is a new pulmonary infiltrate on chest x-ray combined with evidence of infection. Pneumonia in immunocompromised hosts includes Pneumonia, fungal pneumonia, fungal pneumonia and Mycobacterium tuberculosis. Patients who are immunocompromised
commonly develop pneumonia from organisms of low virulence. Pneumonia in immunocompromised hosts may be caused by the organisms also observe in HAP and CAP. Aspiration pneumonia refers to the pulmonary consequences resulting from entry of endogenous or exogenous substances into the lower airway. The most common form of aspiration
pneumonia is a bacterial infection from aspiration of bacteria that normally reside in the upper airways. Aspiration pneumonia, H.influenza, and S. aureus. Having an idea about the disease process helps the patient understand the treatment regimen and its
importance, increasing patient compliance. Pneumonia arises from normal flora present in the diffusion of foxogen and carbon dioxide. White blood cells also
migrate into the alveoli and fill the normally air-filled spaces. Due to secretions and mucosal edema, there are areas of the lung that are not adequately ventilation perfusion mismatch. Venous blood entering the pulmonary circulation passes through
the under ventilated areas and travels to the left side of the heart deoxygenated alot of people, especially those who have a weak immune system. Learning statistics on pneumonia could give you an idea about how many has fallen victim
to this respiratory disease. Pneumonia and influenza account for nearly 60,000 deaths annually. Pneumonia also ranks as the eighth leading cause of death in the United States. It is estimated that more than 915, 000 episodes of CAP occur in adults 65 years old and above in the United States. HAP accounts for 15% of hospital-acquired infections and
is the leading cause of death in patients with such infections. The estimated incidence of HAP 4 to 7 episodes per 1000 hospitalizations. Each type of pneumonia e. This is the leading cause of CAP in people younger than 60 years of age without
comorbidity and in those 60 years and older with comorbid illnesses. Mycoplasma pneumoniae. Hospital-Acquired Pneumonia Staphylococcus aureus. Staphylococcus pneumonia occurs through inhalation of the organism. Impaired
host defenses. When the defenses of the body are down, several pathogens may invade the body. Comorbid conditions that lower the immune system, causing bacteria to pool in the lungs and eventually result in pneumonia. Supine positioning. When the patient stays in a prolonged supine position, fluid in the lungs pools
down and stays stagnant, making it a breeding place for bacteria. Prolonged hospitalization. The risk for hospital infections or nosocomial infect
manifestations. Rapidly rising fever. Since there is inflammation of the lung parenchyma, fever develops as part of the signs of an infection. Pleuritic chest pain. Deep breathing and coughing aggravate the pain in the chest. Rapid and bounding pulse. A rapid heartbeat occurs because the body compensates for the low concentration of oxygen in the
body. Tachypnea. There is fast breathing because the body tries to compensate for the low oxygen concentration in the body. Purulent sputum. The sputum because of the infection in the body tries to compensate for the low oxygen concentration in the body. Purulent sputum.
Here are several ways that can help prevent pneumonia. Pneumococcal vaccine can prevent pneumonia in healthy patients with an efficiency of 65% to 85%. Staff education and involvement in infection prevention. Infection and microbiologic surveillance. It is important
to carefully observe the infection so that there could be an appropriate application of prevention techniques. Modifying host risk for infection should never be allowed to descend on any host, so the risk must be decreased before it can affect one. Pneumonia has several complications if left untreated or the interventions are
inappropriate. These are the following complications that may develop in patients who have received no specific treatment and inadequate or delayed treatment. Pleural effusion. In pleural effusion, the fluid is sent to the laboratory for analysis, and
there are three stages: uncomplicated, complicated, and thoracic empyema. Assessment and diagnosis of pneumonia must be accurate since there are a lot of respiratory problems that have similar manifestations. The following are assessments and diagnosis of pneumonia is made
through history taking, particularly a recent respiratory tract infection. Physical examination. Mainly, the number of breaths per minute and breath sounds is assessed during physical examination. Chest x-ray. Identifies structural distribution (e.g., lobar, bronchial); may also reveal multiple abscesses/infiltrates, empyema (staphylococcus); scattered
or localized infiltration (bacterial); or diffuse/extensive nodular infiltrates (more often viral). In mycoplasmal pneumonia, chest x-ray may be clear. Fiberoptic bronchoscopy. May be both diagnostic (qualitative cultures) and therapeutic (re-expansion of lung segment). ABGs/pulse oximetry. Abnormalities may be present, depending on extent of lung segment.
involvement and underlying lung disease. Gram stain/cultures. Sputum collection; needle aspiration of empyema, pleural, and transtracheal or transthoracic fluids; lung biopsies and blood cultures may be done to recover causative organism. More than one type of organism may be present; common bacteria include Diplococcus pneumoniae,
Staphylococcus aureus, a-hemolytic streptococcus, Haemophilus influenzae; cytomegalovirus (CMV). Note: Sputum cultures may not identify all offending organisms. Blood cultures may show transient bacteremia. CBC. Leukocytosis usually present, although a low white blood cell (WBC) count may be present in viral infection, immunosuppressed
conditions such as AIDS, and overwhelming bacterial pneumonia. Erythrocyte sedimentation rate (ESR) is elevated. Serologic studies, e.g., viral or Legionella titers, cold agglutinins. Assist in differential diagnosis of specific organism. Pulmonary function studies.
increased and compliance decreased. Shunting is present (hypoxemia). Electrolytes. Sodium and chloride levels may be increased. Percutaneous aspiration/open biopsy of lung tissues. May reveal typical intranuclear and cytoplasmic inclusions (CMV), characteristic giant cells (rubeola). The management of pneumonia centers is
a step-by-step process that zeroes on the treatment of the infection through identification of the causal pathogen and prompt administration of antibiotics in patients in whom CAP is strongly suspected. Administration of macrolides are recommended for
people with drug-resistant S. pneumoniae. Hydration is an important part of the regimen because fever and headache. Administration of antitussives are used for treatment of the associated cough. Bed rest. Complete
rest is prescribed until signs of infection are diminished. Oxygen administration. Oxygen and to evaluate the effectiveness of the therapy. Aggressive respiratory measures include administration of high concentrations of
oxygen, endotracheal intubation, and mechanical ventilation. Nurses are expected to perform both dependent functions for the patient to aid him or her towards the restoration of their well-being. SEE ALSO: 11 Pneumonia Nursing Care Plans for a comprehensive nursing care plan and management guide Nursing assessment is
critical in detecting pneumonia. Here are some tips for your nursing assessment for pneumonia. Assess respiratory symptoms. Symptoms of fever, chills, or night sweats in a patient should further identifyers.
clinical manifestations such as pleuritic pain, bradycardia, tachypnea, and fatigue, use of accessory muscles for breathing, coughing, and purulent sputum. Physical assessment. Assess the changes in temperature and pulse; amount, odor, and color of secretions; frequency and severity of cough; degree of tachypnea or shortness of breath; and changes
in the chest x-ray findings. Assessment in elderly patients. Assessment in elderly patients for altered mental status, dehydration, unusual behavior, excessive fatigue, and concomitant heart failure. Through the data collected during assessment, the following nursing diagnoses are made: Planning is essential to establish the interventions that are appropriate
for the patient's condition. Improve airway patency. Rest to conserve energy. Maintenance of proper fluid volume. Maintenance of complications. Maintain/improve respiratory function. Prevent complications. Support recuperative process. Provide
information about disease process, prognosis, and treatment. These nursing interventions, if implemented appropriately, would result in the achievement of the management of pneumonia. To improve airway patency: Removal of secretions should be removed because retained secretions interfere with gas exchange and may
slow recovery. Adequate hydration of 2 to 3 liters per day thins and loosens pulmonary secretions. Humidification may loosen secretions. To
promote rest and conserve energy: Encourage avoidance of overexertion and possible exacerbation frequently to enhance secretion clearance and pulmonary ventilation and perfusion. To promote fluid assume a comfortable position to promote rest and breathing and should change position.
intake: Fluid intake. Increase in fluid intake to at least 2L per day to replace insensible fluid losses. To maintain nutrition: Fluids with electrolytes. Nutritionally enhanced drinks and shakes can also help restore proper nutrition. To promote patient's knowledge:
Instruct patient and family about the cause of pneumonia, management of symptoms, signs, and symptoms, and the need for follow-up. Instruct patient about the factors that may have contributed to the development of the disease. Expected patient about the factors that may have contributed to the development of the disease.
by limiting activities and remaining in bed while symptomatic and then slowly increasing activities. Maintains adequate hydration. Consumes adequate hydration. Consumes adequate hydration strategies. Exhibits no complications. Complies with treatment protocol and prevention strategies. Patient
education is crucial regardless of the setting because self-care is essential in achieving a patient's well-being. Oral antibiotics. Teach the patient breathing exercises to promote secretion clearance and volume expansion. Follow-up
check up. Strict compliance to follow-up checkups is important to check the latest chest x-ray result or physical examination findings. Smoking cessation. Smoking should be stopped because it inhibits tracheobronchial ciliary action and irritates the mucous cells of the bronchi. Documentation of data must be accurate and up-to-date to avoid
unnecessary legal situations that might occur. Document breath sounds, presence and character of secretions, use of accessory muscles for breathing. Document plan of care and who is involved in planning. Document client's response
to interventions, teaching, and actions performed. Document if there is use of respiratory devices or airway adjuncts. Document response to medications and Reviewer (220 Questions) FacebookEmailPrintBufferPinterestShare Pneumonia is
an infection that causes severe inflammation in the lungs. This makes the alveoli fill with mucus, fluid, and debris, leading to impaired gas exchange occurs when CO2 can't get out, and oxygen can't get in. This results in hypoxia (low oxygen). Community-acquired pneumonia is when a person gets pneumonia from the general
population, instead of a medical center. Healthcare-acquired pneumonia occurs during or after a stay in a long-term care facility. Ventilator-acquired pneumonia occurs when a client gets sick after being on a ventilator. Pneumonia occurs when a client gets sick after being on a ventilator. Pneumonia occurs when a client gets sick after being on a ventilator.
(Influenza viruses, SARS-CoV-2, Respiratory syncytial virus (RSV))Bacteria (Streptococcus pneumoniae) (pneumococcus) and Mycoplasma pneumoniae) (pneumococcus) and Mycoplasma pneumoniae) (pneumococcus) and Mycoplasma pneumoniae) (pneumococcus) and Mycoplasma pneumoniae) (pneumococcus) (pneum
rateBeing over 65 years oldHistory of lung diseasesHospitalizationSmokingAltered mental status Restlessness, agitation, or confusionFever (Over 100.4 F/ 38oC)Productive cough "yellow sputum"Fine or coarse cracklesDyspnea (shortness of breath)Pleuritic chest pain (pleural friction rub)When assessing a client for pneumonia, you need to look for
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signs of respiratory distress. This includes listening closely to their clients' lungs using a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and wheezes that are characteristic of this condition. Elevated white blood cells you can be a stethoscope. You'll be able to hear the crackles and you can be a stethoscope. You'll be able to hear the crackles and you can be a stethoscope. You'll be able to hear the crackles and you can be a stethoscope. You'll be able to hear the crackles and you can be a stethoscope. You'll be able to hear the crackles and you can be a stethoscope. You'll be able to hear the crackles and you can be a stethoscope. You'll be able to hear the crackles and you can be a stethoscope. You'll be able to hear the crackles