

Diagnosing and treating problems with tracheostomy tubing nursing essay



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“ Airway management is an important priority for any critically ill patient”. (John, 2004, Pg. 93). Tracheostomy tube is a surgical procedure that creates stoma in the trachea to provide an open airway. (Brunner & Siddharth, 2010). In this procedure, a tracheostomy tube is placed in the anterior wall of the trachea, below the cricoids cartilage. (Russel, 2005, pg429). Indications for a tracheostomy include upper airway obstruction; infection, malignancy, foreign body or vocal cord palsy, respiratory insufficiency and poor coughing in advanced lung disease, prolonged artificial ventilation for more than 10-14 days and impaired swallow with risk of aspiration. (Russel, 2005).

Tracheostomy could be either temporary or permanent. In other to provide safe nursing care, nurses should have certain skills and knowledge for instance important of humidification, suctioning technique, respiratory assessment and emergency management in case of dislodgement. (Russel, 2005, pg 428). This essay will be based on the case study of Mrs. Jackson who has got a tracheostomy tube in situ. It will mainly focus on the care plan of Mrs. Jackson with a tracheostomy tube including four nursing diagnosis, and prioritised nursing care.

Nursing Diagnosis One

Ineffective airway clearance related to inflamed lung tissue, irritation to the respiratory tract and difficulty to expectorate respiratory secretion due to presence of artificial airway; tracheostomy as manifested by thick yellow tenacious sputum, presence of adventitious breath sounds, decrease SaO₂, elevated respiratory rate and increased body temperature. (Brown & Edwards, 2008)

Priorities of care: Assess the patient's respiratory status; respiratory rate and depth, O2 Sats, breath sound noting area of decreased ventilation and abnormal breath sound to establish a baseline of patient's status and to monitor for the effectiveness of the intervention. (Rodgers, 2008). Monitor patient for any signs of airway obstruction like cyanosis, whistling sound from tracheotomy, holding thread and also the colour and consistency of the nature of the sputum. (Rodgers, 2008). Keep patient in semi-fowler's position and change position frequently to promote secretions and also for the pressure area care(Brown & Edwards, 2008). Suction the tracheostomy as required to remove secretion by providing hyper-oxygenation and hyperinflation prior and after the suctioning to avoid hypoxia. (Buglass as cited in Russell, 2005, pg 430). Suction oropharyngeal cavity on completion of tracheal suctioning (Monahan, Sands, Neighbors, Marek, Green, 2007, pg 618)and provide mouth care after suctioning. Perform chest physiotherapy to ease drainage of mucosal secretion. Reassess respiratory status.

Evaluation: Compare respiratory assessment pre and post tracheostomy care. There should not be any signs of respiratory insufficiency. Inner and outer cannula is free of mucous secretions. Thick secretions plug the tube causing airflow obstruction. (potter, 2006, pg 847)

Nursing Diagnosis Two

Anxiety related to clinical condition, pain, impaired verbal communication, altered body image, lack of understanding of care required for the tracheostomy tube as evidenced by anxious appearance, elevated heart rate, high blood pressure and tachypnoea. (Rodgers, 2008)

Assess the patient for the symptoms of fear and anxiety and its level to get the knowledge of the extent of anxiety. Before providing any care or intervention gain consent and thoroughly inform the patient about the purpose and the rationale for the care to promote comfort and lessen fear. Use a calm, reassuring approach with patient (Rodgers, 2008) and facilitate with the means to access help readily (Monahan, Sands, Neighbors, Marek, Green, 2007, pg 618). Allow the family to visit and educate patient and family regarding the tracheostomy care. (Rodgers, 2008). Encourage patient to express any fear and concerns. And also provide alternate means of communication for instance pen and paper, picture cards. () Administer analgesics to relieve pain and promote sedation thereby reducing anxiety level. (Brown & Edwards, 2008)

Evaluation: physiological signs of anxiety for example tachycardia should be absent. Patient appears relaxed and calm and uses different means of communication to express the feelings. (Rodgers, 2008)

Nursing Diagnosis Three

Risk of infection and spread of existing infection related to bypass of upper airway defence mechanism, altered skin integrity at the stoma site, presence of pneumonia and MRSA as manifested by high temperature, existing pneumonia and MRSA, and tachycardia. (Brown & Edwards, 2008)

Priorities of care and rationale: observe for signs of infection; pain at wound site, purulent discharge, redness, heat and elevated temperature to detect early signs of stoma infection. Perform tracheostomy care and suctioning as required by using sterile technique to reduce occurrence of infection. Change

the inner cannula every 4-8 hours as necessary to reduce the growth of microorganism(Brown & Edwards, 2008). Keep the stoma area clean and dry to prevent skin irritation (Daniels, Grendell, Wilkins, 2010). Administer antibiotics as prescribed for existing infection. Consult Dietician as necessary for nasogastric feeding. (Brown & Edwards, 2008)

Evaluation: Assess skin integrity around the stoma site for any signs of infection and inspect for skin breakdown which indicates risk of infection development and need a change in a care plan. Skin will be intact around stoma site. (Potter, 2006 Pg 847)

Nursing Diagnosis Four

Risk for altered fluid and electrolyte status less than body requirement related to increased BMR, excessive secretion from respiratory tract, tachypnoea, modification in mode of nutritional intake as manifested by increased heart rate, increased body temperature and decreased immunological status. (Brown & Edwards, 2008)

Monitor vital signs and note any significant changes in other to provide early intervention. Check skin turgor and mucus membrane including hydration status to prevent from dehydration. Promote Intravenous therapy and NG feeding as per order to meet adequate nutritional requirements of the body. Maintain intake and output chart. Carry out actions to reduce fever like giving tepid sponge bath, remove excessive clothing and administer antipyretics as ordered. And also promote rest periods. (Ulrich & Canale, 2005)

Evaluation: Patient's body temperature will be within normal limit and no signs of dehydration will appear.

In conclusion, Tracheostomy tube provides open passage through the trachea down to the lower part of the respiratory tract. Tracheostomy care is provided to minimise the possibility of obstruction by secretions and keep the airway patent. The tracheostomy patient is more prone to develop infections due to the presence of invasive monitoring lines and equipments. So continued airway assessment and constant observation for complications plays a vital role in infection prevention. In addition nurses should also have knowledge about the the type of tracheostomy and correct procedure of changing tube and