



University of the Philippines Manila
THE HEALTH SCIENCES CENTER
COLLEGE OF NURSING



World Health Organization Collaborating Center for Nursing Leadership and Development
Commission on Higher Education Center of Excellence
 Sotejo Hall, Pedro Gil St., Ermita, Manila

N11 – NURSING FOUNDATION II

Name: _____ Group: _____ Date: _____

TITLE:	CHEST PHYSIOTHERAPY
DEFINITION/ DESCRIPTION:	Chest physiotherapy (CPT), also known as chest physical therapy, is the collective term for chest percussion and/or vibration that is performed with postural drainage and forced expiration. CPT is often used in combination with aerosolized medications, incentive spirometry, and suctioning to optimize removal of secretions and further improve respiratory status. CPT methods are employed on a case-by-case basis, depending on the patient’s underlying pulmonary condition.
PURPOSES:	CPT is an airway clearance technique administered to patients with pulmonary conditions that alter mucus clearance. CPT aims to mobilize pulmonary secretions, re-expand alveoli, reduce post-extubation atelectasis, decrease the risk of pulmonary infections, and strengthen and promote efficient use of the respiratory muscles.

IMPLEMENTATION

	Procedure	Done	Observed	Not Done	Remarks
1.	Verify the order. In addition, determine the following: <ul style="list-style-type: none"> • That nebulization to loosen secretions has been done (as prescribed) • The prescribed number of times for doing chest physiotherapy • The best time of the day for doing chest physiotherapy 				
2.	Confirm patient’s identity. Check the name on the patient’s identification bracelet (if available), using two patient identifiers (ask the patient’s full name and date of birth).				
3.	Assess for: <ul style="list-style-type: none"> • Client’s vital signs • Signs of increased production and retention of lung secretions • Use of accessory muscles for breathing • Abnormal breath sounds by auscultation • Complaints of discomfort or pain 				

	Procedure	Done	Observed	Not Done	Remarks
4.	Provide privacy and explain the procedure to the patient.				
5.	Wash your hand, wear personal protective equipment (PPE) as indicated, and follow standard precautions.				
6.	<p>Position the patient as ordered.</p> <p>Help the client assume the appropriate position based on the lung field that requires drainage:</p> <p>(Choose from the following 4 scenarios)</p> <p>a). <u>Apical areas of the upper lobes</u>: Have the client sit at the edge of the bed. Place a pillow at the base of the spine for support or places him in high Fowler's position.</p> <p>b). <u>Posterior section of the upper lobes</u>: Position the client in a supine position with pillow under his hips and knees flexed. Have the client rotate slightly away from the side that requires drainage.</p> <p>c). <u>Middle or lower lobes</u>: Place the bed in Trendelenburg's position. Position the client in Sims' position. To drain the left lung, positions the client on his right side. For the right lung, positions the client on his left side</p> <p>d). <u>Posterior lower lobes</u>: Keeping the bed flat, positions the client prone with a pillow under his stomach.</p>				
7.	<p>Instruct the patient to remain in each position for 10 to 15 minutes. During this time, perform percussion and vibration, as ordered.</p> <ul style="list-style-type: none"> To perform percussion, instruct the patient to breathe slowly and deeply, using the diaphragm, to promote relaxation. Covers the area to be percussed with a towel or the client's gown. Hold your hands in a cupped shape, with fingers flexed and thumbs pressed tightly against your index fingers. <i>Recall which areas to avoid.</i> Percuss each segment for 1 to 2 minutes by alternating your hands against the patient chest area in a rhythmic manner. Percuss each segment for 1 to 2 minutes by alternately striking cupped hands rhythmically against the client, flexing and extending the wrists rapidly to slap the 				

	Procedure	Done	Observed	Not Done	Remarks
	<p>chest. Listen for a hollow sound on percussion to verify correct performance of the technique.</p> <ul style="list-style-type: none"> To perform vibration, ask the patient to inhale deeply and then exhale slowly through pursed lips. During exhalation, firmly press your fingers and the palms of your hands against the chest wall. Tense the muscles of your arms and shoulders in an isometric contraction to send fine vibrations through the chest wall. Vibrate during five exhalations over each chest segment. 				
8.	<p>After postural drainage, percussion, or vibration, allow the client to sit up instruct the patient to cough at the end of a deep inspiration to remove loosened secretions.</p> <ul style="list-style-type: none"> First, tell the patient to inhale deeply through the nose and then exhale in three short huffs. Then, have the patient inhale deeply again and cough through a slightly open mouth. Three consecutive coughs are highly effective. An effective cough sounds deep, low, and hollow; an ineffective one sounds high pitched. 				
9.	<p>Have the patient perform coughing exercises for about 1 minute and then rest for 2 minutes. Gradually progress to a 10-minute exercise period four times daily. Try to schedule the last session just before bedtime.</p>				
10.	<p>If the patient's cough is ineffective, suction the patient.</p>				
11.	<p>Monitor the patient's response to the treatment.</p> <p>Be alert for significant color changes, particularly if the patient becomes dusky.</p>				
12.	<p>Dispose of secretions appropriately.</p>				
13.	<p>Provide oral hygiene.</p>				
14.	<p>Auscultate the patient's lungs and compare findings to baseline data.</p>				

	Procedure	Done	Observed	Not Done	Remarks
15.	Record the date and time of chest physiotherapy; which chest segments were percussed or vibrated; the color, amount, odor, and viscosity of any secretions produced and the presence of any blood; any complications and nursing actions taken; and the patient's tolerance of treatment.				

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N11 – NURSING FOUNDATION II

Name: _____ Group: _____ Date: _____

TITLE:	Oropharyngeal, Nasopharyngeal, and Nasotracheal Suctioning
DEFINITION/ DESCRIPTION:	<p>Suctioning is the aspiration of secretion through a catheter connected to a suction machine or wall suction outlet. Oropharyngeal and nasopharyngeal suctioning removes secretions from the upper respiratory tract. Nasotracheal suctioning provides closer access to trachea.</p> <p>Sterile technique is recommended for all suctioning to avoid introducing pathogens into the airways. It is necessary to check health care institution's policies and protocols on suctioning.</p>
PURPOSES:	<p>Oropharyngeal, nasopharyngeal and nasotracheal suctioning are performed to:</p> <ul style="list-style-type: none"> • remove secretions that obstruct the airway; • facilitate ventilation; • obtain secretions for diagnostic purposes; and • prevent infection that may result from accumulated secretions.

IMPLEMENTATION					
Preparation					
	Procedure	Done	Observed	Not Done	Remarks
1.	Examine the need of patient for suctioning and verify the order for suctioning (when indicated).				
2.	Prior to performing the procedure, introduce self and verify the client's identity by checking the client's ID tag and by asking the client's full name and date of birth.				
3.	Explain to the client what you are going to do, why it is necessary, and how he or she can participate. Inform the client that suctioning will relieve breathing difficulty, and that the procedure is painless but may be uncomfortable and stimulate the cough, gag, or sneeze reflex.				

	Procedure	Done	Observed	Not Done	Remarks
4.	Perform hand hygiene and observe other appropriate infection.				
5.	Provide for client privacy.				
6.	Prepare the client. <ul style="list-style-type: none"> • Position a conscious person who has a functional gag reflex in the semi-Fowler's position with the head turned to one side for oral suctioning or with the neck hyperextended for nasal suctioning. • Position an unconscious client in the lateral position, facing you. • Place the towel or moisture-resistant pad over the pillow or under the chin. 				
7.	Prepare the equipment. <ul style="list-style-type: none"> • Turn the suction device on and set to appropriate negative pressure on the suction gauge. The amount of negative pressure should be high enough to clear secretions but not too high to cause irritation or trauma. 				
8.	For Oral and Oropharyngeal Suction <ul style="list-style-type: none"> • Apply clean gloves. • Moisten the tip of the Yankauer suction tip or suction catheter with sterile water or saline. • Pull the tongue forward, if necessary, using gauze. • Do not apply suction (that is, leave your finger off the port) during insertion. • Advance the catheter about 10 to 15 cm (4 to 6 in.) along one side of the mouth into the oropharynx. • It may be necessary during oropharyngeal suctioning to apply suction to secretions that collect in the mouth and beneath the tongue. • Remove and discard gloves. • Perform hand hygiene. 				
9.	For Nasopharyngeal and Nasotracheal Suction <ul style="list-style-type: none"> • Open the lubricant. • Open the sterile suction package. 				

	Procedure	Done	Observed	Not Done	Remarks
	<ul style="list-style-type: none"> • Set up the cup or container, touching only the outside. • Pour sterile water or saline into the container. • Apply the sterile gloves, or apply an unsterile glove on the nondominant hand and then sterile glove on the dominant hand. • With your sterile gloved hand, pick up the catheter and attach it to the suction unit. 				
10.	<p>Test the pressure of the suction and the patency of the catheter by applying your sterile gloved finger or thumb to the port or open branch of the Y-connector (the suction control) to create suction.</p> <ul style="list-style-type: none"> • If needed, apply or increase supplemental oxygen. 				
11.	<p>Lubricate and introduce the catheter.</p> <ul style="list-style-type: none"> • Lubricate the catheter tip with sterile water, saline, or water-soluble lubricant. • Remove oxygen with the nondominant hand, if appropriate. • Without applying suction, insert the catheter into either naris and advance it along the floor of the nasal cavity. 				
12.	<p>Perform suctioning.</p> <ul style="list-style-type: none"> • Apply your finger to the suction control port to start suction, and gently rotate the catheter. • Apply suction for 5 to 10 seconds while slowly withdrawing the catheter, then remove your finger from the control and remove the catheter. • A suction attempt should last only 10 to 15 seconds. During this time, the catheter is inserted, the suction applied and continued, and the catheter removed. 				
13.	<p>Rinse the catheter and repeat suctioning as above if necessary.</p> <ul style="list-style-type: none"> • Rinse and flush the catheter and tubing with sterile water or saline. • Relubricate the catheter, and repeat suctioning until the air passage is clear. 				

	Procedure	Done	Observed	Not Done	Remarks
	<ul style="list-style-type: none"> • Allow sufficient time between each suction for ventilation and oxygenation. Limit suctioning to 5 minutes in total. • Encourage the client to breathe deeply and to cough between suctionings. Use supplemental oxygen, if appropriate. 				
14.	<p>Obtain a specimen if required.</p> <ul style="list-style-type: none"> • Use a sputum trap as follows: <ul style="list-style-type: none"> ○ Attach the suction catheter to the tubing of the sputum trap. ○ Attach the suction tubing to the sputum trap air vent. ○ Suction the client. The sputum trap will collect the mucus during suctioning. ○ Remove the catheter from the client. Disconnect the sputum trap tubing from the trap air vent. ○ Connect the tubing of the sputum trap to the air vent. • Connect the suction catheter to the tubing. • Flush the catheter to remove secretions from the tubing. 				
15.	<p>Promote client comfort.</p> <ul style="list-style-type: none"> • Offer to assist the client with oral or nasal hygiene. • Assist the client to a position that facilitates breathing. 				
16.	<p>Dispose of equipment and ensure availability for the next suction.</p> <ul style="list-style-type: none"> • Dispose of the catheter, gloves, water, and waste container. <ul style="list-style-type: none"> ○ Rinse the suction tubing as needed by inserting the end of the tubing into the used water container. ○ Wrap the catheter around your sterile gloved hand and hold the catheter as the glove is removed over it for disposal. • Perform hand hygiene. • Empty and rinse the suction collection container as needed or indicated by protocol. Change the suction tubing and container daily. • Ensure that supplies are available for the next suctioning (suction kit, gloves, water or normal saline). 				

	Procedure	Done	Observed	Not Done	Remarks
17.	<p>Assess the effectiveness of suctioning.</p> <ul style="list-style-type: none"> Auscultate the client's breath sounds to ensure they are clear of secretions. Observe skin color, dyspnea, level of anxiety, and oxygen saturation levels. 				
18.	<p>Document relevant data.</p> <ul style="list-style-type: none"> Record the procedure: the amount, consistency, color, and odor of sputum (e.g., foamy, white mucus; thick, green tinged mucus, or blood-flecked mucus) and the client's respiratory status before and after the procedure. This may include lung sounds, rate and character of breathing, and oxygen saturation. If the procedure is carried out frequently (e.g., every hour), it may be appropriate to record only once, at the end of the shift; however, the frequency of the suctioning must be recorded. 				

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Name: _____ Group: _____ Date: _____

TITLE:	Administering Oxygen by Nasal Cannula, Face Mask, or Face Tent
DEFINITION/ DESCRIPTION:	<p>Clients may experience hypoxemia because of poor airway ventilation and impaired tissue oxygenation related to certain pulmonary, cardiac, and other alterations. Oxygen therapy can be provided to reach acceptable blood oxygen levels and prevent the harmful complications of hypoxemia.</p> <p>The initiation and provision of oxygen therapy needs assessment of patient's status. It requires prescription from primary care provider who indicates the specific concentration, method of delivery, and level of oxygen. In emergency situations, nurses may initiate oxygen therapy and inform the primary care provider for order. In this case, it is important to assess the health care institution's policy on oxygen therapy.</p> <p>Oxygen can be delivered through low- and high-flow devices. Monitoring and evaluation of patient response is essential to determine the need to change, terminate, and continue oxygen therapy.</p>
PURPOSES:	<p>Nasal Cannula (low-flow system)</p> <ul style="list-style-type: none"> To deliver a relatively low oxygen concentration (24% to 45%) when only minimal O₂ support is required. This is easy to use, low cost, and disposable that allows uninterrupted delivery of oxygen while the client ingests food or fluids. <p>Simple face mask (low-flow system)</p> <ul style="list-style-type: none"> To provide moderate oxygen concentration at 40% to 60% at liter flows of 5 to 8L/min respectively. <p>Face tent</p> <ul style="list-style-type: none"> To provide oxygen with 30% to 50% oxygen concentration at 4 to 8L/min.

IMPLEMENTATION					
Preparation					
	Procedure	Done	Observed	Not Done	Remarks
1.	Examine the need of patient for oxygen therapy and verify the order of the therapy.				
2.	Prepare the patient and significant others.				

	Procedure	Done	Observed	Not Done	Remarks
3.	Place or assist the patient to semi-Fowler's position if possible.				
4.	Give explanation on the use of oxygen and the necessary safety precautions to observed with oxygen use.				
5.	<p>Introduce self.</p> <p>Confirm patient's identity. Check the name on the patient's identification bracelet (if available), using two patient identifiers (ask the patient's full name and date of birth).</p> <p>Explain the procedure to the client.</p>				
6.	Perform hand hygiene and observe other appropriate infection control measures.				
7.	Provide privacy to the client if appropriate.				
8.	<p>Set up the oxygen equipment and the humidifier.</p> <p>Connect the flow meter to the wall outlet or tank. The flow meter should be in the off position.</p> <p>If needed, fill the humidifier bottle.</p> <p>Connect the humidifier bottle to the base of the flow meter.</p> <p>Connect the prescribed oxygen tubing and delivery device to the humidifier.</p>				
9.	<p>Turn on the oxygen at the prescribed rate and check for appropriate functioning.</p> <ul style="list-style-type: none"> Examine that the oxygen is flowing freely through the tubing. There should be no kinks in the tubing, and the connections should be airtight. Bubbles should be present in the humidifier as the oxygen flows through. Oxygen must be felt at the outlets of the cannula, mask, or tent. Set the oxygen at the prescribed flow rate. 				
10.	<p>Apply the appropriate oxygen delivery device.</p> <p>Nasal cannula</p> <ul style="list-style-type: none"> Put the cannula over the client's face, with the outlet prongs fitting into the nares and the tubing hooked around the ears. 				

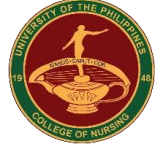
	Procedure	Done	Observed	Not Done	Remarks
	<ul style="list-style-type: none"> • If the cannula displaces, apply tape it at the sides of the face. • Pad the tubing and band over the ears and cheekbones as needed. <p>Face Mask</p> <ul style="list-style-type: none"> • Guide the mask toward the client's face, and apply it from the nose downward. • Fit the mask to the contours of the client's face. <i>Rationale: The mask should mold to the face so that very little oxygen escapes into the eyes or around the cheeks and chin.</i> • Secure the elastic band around the client's head so that the mask is comfortable but snug. • Pad the band behind the ears and over bony prominences. <i>Rationale: Padding will prevent irritation from the mask.</i> <p>Face tent</p> <ul style="list-style-type: none"> • Place the tent over the client's face, and secure the ties around the head. 				
11.	<p>Assess the client regularly.</p> <ul style="list-style-type: none"> • Assess the client's vital signs, level of anxiety, color, and ease of respirations, and provide support while the client adjusts to the device. • Assess the client in 15 to 30 minutes, depending on the client's condition, and regularly thereafter. <p>Assess the client regularly for signs of respiratory distress such as hypoxia, tachycardia, confusion, dyspnea, restlessness, and cyanosis.</p> <p>Nasal Cannula</p> <ul style="list-style-type: none"> • Examine the client's nares for encrustations and irritation. • Apply a water-soluble lubricant as required to soothe the mucous membranes. • Examine the top of the client's ears for any signs of irritation from the cannula tubing. If present, padding with a gauze pad may help relieve the discomfort. <p>Face Mask or Tent</p> <ul style="list-style-type: none"> • Assess the facial skin frequently for dampness or chafing, and dry and treat it as needed. 				

	Procedure	Done	Observed	Not Done	Remarks
12.	Inspect the equipment on a regular basis. <ul style="list-style-type: none"> • Check the liter flow and the level of water in the humidifier in 30 minutes and whenever providing care to the client. • Be sure that water is not collecting in dependent loops of the tubing. • Make sure that safety precautions are being followed. 				
13.	Document patient's response and other pertinent findings in the client record accordingly.				

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N11 – NURSING FOUNDATION II

Name: _____ Group: _____ Date: _____

TITLE:	TEACHING A PATIENT TO USE AN INCENTIVE SPIROMETER
DEFINITION/ DESCRIPTION:	Incentive spirometry provides visual reinforcement for deep breathing by the patient. It assists the patient to breathe slowly and deeply, and to sustain maximal inspiration, while providing immediate positive reinforcement.
PURPOSES:	Incentive spirometry encourages the patient to maximize lung inflation and prevent or reduce atelectasis. It helps the patient to take slow, deep breaths with the aim of improving lung function. Optimal gas exchange is supported, and secretions can be cleared and expectorated. It is often applied in postoperative care, especially after surgeries involving the chest or abdomen, as well as in managing various respiratory conditions.

IMPLEMENTATION					
	Procedure	Done	Observed	Not Done	Remarks
1.	Verify the order. In addition, determine the following: <ul style="list-style-type: none"> • That deep breathing exercises and coughing exercises has been taught and done. • The prescribed number of times or frequency for doing incentive spirometry. • The best time of the day for doing incentive spirometry. 				
2.	Review chart for any health problems that would affect the patient’s oxygenation status.				
3.	Prepare the necessary equipment to bring to the bedside stand or overbed table. <i>Make sure the patient has their own incentive spirometer available at the bedside.</i>				
4.	Perform hand hygiene and put on PPE, if indicated.				
5.	Confirm patient’s identity. Check the name on the patient’s identification bracelet (if available), using two patient identifiers (ask the patient’s full				

IMPLEMENTATION					
	Procedure	Done	Observed	Not Done	Remarks
	name and date of birth).				
6.	<p>Provide privacy as needed. Close curtains around bed and close the door to the room, if possible.</p> <p>Explain to the patient the steps to the procedure, the rationale for each step. Verify what instructions were provided to them by the physician.</p>				
7.	<p>Assist patient to an upright or semi-Fowler's position if possible.</p> <p>Remove dentures if they fit poorly.</p> <p>Assess the patient's level of pain. Administer pain medication <i>as prescribed, if needed</i>. Wait the appropriate amount of time for the medication to take effect.</p> <p>If the patient has recently undergone abdominal or chest surgery, place a pillow or folded blanket over the chest or abdominal incision for splinting.</p>				
8.	Demonstrate how to steady the device with one hand and hold the mouthpiece with the other hand. If the patient cannot use hands, assist the patient with the incentive spirometer.				
9.	<p>Set the gauge on the incentive spirometer to show the goal volume of inspired air.</p> <p>Instruct the patient to exhale normally and then place lips securely around the mouthpiece.</p>				
10.	Instruct the client to take a long, slow, deep breath through the mouthpiece without using nose while watching the piston go up. <i>(If desired, a nose clip may be used).</i>				
11.	<p>When the patient cannot inhale anymore, the patient should hold his or her breath and count to five.</p> <p>Check position of the gauge to determine progress and level attained. If patient begins to cough, splint an abdominal or chest incision.</p>				
12.	Instruct the patient to remove lips from mouthpiece and exhale normally. If the patient becomes lightheaded during the process, tell him or her to stop and take a few normal breaths before resuming incentive spirometry.				

IMPLEMENTATION					
	Procedure	Done	Observed	Not Done	Remarks
13.	After the client can return demonstrate the procedure, provide instructions on performing it independently.				
14.	Encourage the patient to perform incentive spirometry 5 to 10 times every 1 to 2 hours, if possible, or as prescribed.				
15.	Teach the patient to initially aim for the tolerable level. Then gradually increase until the target level is achieved.				
16.	Observe and assess the patient during the procedure. Note for any untoward signs and symptoms during the procedure. After the procedure, reassess patient's respiratory status. Place the patient in a position of comfort; adjust the head part of the bed as needed.				
17.	Teach the client or significant other how to clean the mouthpiece with water and shake to dry. Perform hand hygiene.				
18.	Document the procedure: note the target level to be achieved and the maximum inspiration volume achieved, the number of times the incentive spirometer was used, and time of day.				
19.	Notify the physician and/or the nurse-in-charge if: client experiences any signs of respiratory distress; volume obtained differs significantly from previous measurements, the client is unable to achieve the inspiratory goal.				

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REFERENCES:

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