

Underwater seal drainage tube management



**ASSIGN
BUSTER**

Underwater seal drainage tubes (chest tubes) are inserted to drain the pleural cavity (the potential space around the lung) which can contain blood, air or lymph (Rajaraman, Happy & Tony W., 2010). The chest tube is connected to a water-seal plastic container and there is only one-way movement of air and fluid from the pleural cavity. In general, the water-seal container should not be empty or changed unless it is full. The chest tube should not be clamped only if ordered by doctors. For the patient inserted with a chest tube, a trained nurse is responsible for managing the underwater seal drainage system (Rajaraman, Happy & Tony W., 2010).

Management is consist of monitoring the position and attachment of chest tube, adjusting the evacuation of the fluid and deciding when to change or empty the containers, and look after patient with the tube and drainage system when transport (Rajaraman, Happy & Tony W., 2010). Nursing students are not supposed to manage the drainage system without supervision of a trained nurse.

In surgical cases, various drains systems can be used, the management of these drains are different from each others. Wound drainage is a closed-suction drain with a vacuum container and fluid can be drawn from wound. When the vacuum containers are full or loss its vacuum, they are required to be replaced (Deborah, 2010). While the under-water seal drainage is a closed drainage system and the approach of managing it is different. The water-seal chamber allow the air and fluid to escape from the pleural cavity but cannot flow back from reverse direction (Deborah, 2010).

In patients with hemothorax (blood in the pleural cavity), pneumothorax (air in the pleural cavity), chylothorax (lymph in the pleural cavity), the negative

pressure is lost and lung expansion can be restricted (Deborah, 2010). The most important element of ensuring the expansion and deep inspiration of the lung is to maintain the negative pressure in the pleural cavity (Deborah, 2010). Consequently, because of the negative pressure in the pleural cavity, the air might enter to pleural cavity specially when the size of the chest tube is larger than the size of the trachea which can lead to pneumothorax (Deborah, 2010).

The water-seal drainage container is usually filled with about 375 ml of sterile water, chest tube is placed under the level of the water, so the air cannot be sucked into the chest, however the water-seal drainage container should always keep below the level of patient's chest to prevent back flow of the water to the pleural cavity (Rajaraman, Happy& Tony W., 2010).

When the chest tubes are inserted for treating pneumothorax, no clamp is excepting and when change the volume of the water in the water-seal container, close monitor is needed as re-expansion pulmonary can occur (Deborah, 2010). If the collapsed lung expands rapidly it can cause damage in the capillary and develop to unilateral pulmonary edema which is called re-expansion pulmonary edema. A specific care pathway for chest-tube insertion and management may be useful (Deborah, 2010).

Wound drainage

For the post operative patient who has a wound drainage tube, the main nursing goals will be healing promotion and infection control. To successfully achieve these goals, assessment of wound and intervention guidelines will be helpful (Bonnie S., 1992).

<https://assignbuster.com/underwater-seal-drainage-tube-management/>

First maintain the tube in proper position. Extraction still can happen accidentally even the tube is sutured to the skin properly. Apply tape on the tube to stabilize it down to the dressing of skin can contribute to reduction of the risk of extraction. If the tube has enough length, nurse can make a partial loop before taping (for slack) (Bonnie S., 1992).

Secondly, the skin around the wound should be assessed regularly (Bonnie S., 1992). Drainage tube usually inserted at the site of surgical incision. If the wound didn't heal well, infection can be a problem. Assess sites for signs and symptoms of infection which can be redness, swelling, pain and change in vital signs. To assess the drainage every 4 to 8 hours to see sanguineous fluid up to 36 postoperative. Purulent fluid usually indicates infection (Bonnie S., 1992).

Thirdly, change the dressing of the site frequently,

Depend on the type and amount of the drainage, routinely or frequently change the dressing (using sterile technique) can decrease the risk of infection and maintain a close monitor of skin condition of the drain site and incision site (Bonnie S., 1992).

After the tube is saturated and dressing applied, the dressing is suppose to be changed at least every 24 hours. If the doctors ordered to not change the dressing then reinforcement interventions are required to maintain the wound drainage system. Always use separate dressing on the incision and drain site to prevent cross-infection of bacteria (Bonnie S., 1992).

Critical analysis form different perspectives

Lack of knowledge of professional competency and evidence-based practice can be the factor that affect the first year RN and nursing student to make inadequate clinical decision.

In the education field of clinical health professionals, CPD (continuing professional development include a range of education activities to enhance profession competencies and good practice) is one program that has been developed to help clinicians to maintain updated evidence-based practice and theories (Brigitte & Jeannette, 2011). CPD has been used for postgraduate nurse and also undergraduate nursing students.

The purpose for these activities are to help health professionals to assess their feelings, connect new knowledge with experience and expose value issues (Brigitte & Jeannette, 2011). Incident reflection is one of the techniques, however critical analysis can be painful experience sometimes because it might bring discomfort feeling like anger, frustration, grief and guilty (Rachel, Joanna, Emma, Paul&Fehmidah, 2010). And participants of CIR (critical incident report) do not always feel supportive on difficult practice situation. A safer and more supportive environment is needed for clinician to discuss about the incident thus improve the understanding of the specific clinical practice and avoid incidents (Rachel etl, 2010). Through out the reported experimentation of small group of occupational therapists, it is found that discussing on current situation and interventions that can still be change will produce less negative feelings and encourage clinicians to transform the advance event into a learning opportunity compare to talk about the past incident and act that cannot be changed (Rachel etl, 2010).

A real issue of concern is the best trigger for clarifies meaning in policy and procedure and change in conceptual perspective. Practitioners can take this reflective process to review their knowledge and find out the assumptions for the cause of their specific intervention then improve in the future practice (Rachel etl, 2010). Different from instrumental education, reflective learning is aiming to revise clinicians' previous knowledge and form a new understanding and commitment to act. Continuously use of reflection on clinical incident is a lifelong learning cycle which can effectively develop a self-evaluation and self-regulation process (Rachel etl, 2010).

Another element that can cause the clinical incident is the workplace stress, it can include the inadequate distribution of workload and distressing working environment which involve the unit coordinator and the co-workers on the ward.

For professionals who work in the health care field, stress is a significant issue. Datas shows that particular nurses are at high risk for occupational burnout and physical and psychological fatigue (Jacoba, Anja, Ellen, Hugo J., Arnold B.&Bert J., 2011). In the study of THOR psychiatrists in UK, health and social welfare professionals are found to be the group with highest incident of work that related to metal unhealthy in 2003-2005 (Jacoba etl, 2011).

Manage intervention and stress-related incident can contribute to presence or absence of potential hazards in the work environment. (Jacoba etl, 2011) Management involves plan, administrate and evaluate the risk assessments and intervention. Leadership and the model of management have been constantly reported as the main reason of workplace stress in nursing. There

is an association between low management and poor psychological health in clinical nurses, found that low manager support was associated with poor psychological well-being in nurses (Jacoba etl, 2011).

Managing workload and resources are often referred than other competency (Jacoba etl, 2011). In specific, managers of the unit need to monitor the workload of the team and individual staff whether the workload is overly high or low. Design reasonable and achievable goals and deadlines (Jacoba etl, 2011). It is the manager's responsibilities to refuse additional workload for the team members. In one case of a supportive work environment. Staff was interviewed for her feeling about the management.

“ She recognises rightly that the work is too much for one person so that was good. Something about her, yes, her caving in and giving me an admin support person when I needed it, made such a difference to my stress levels, it was fantastic (Jacoba etl, 2011).”

On the other hand, insufficient management lead to failure in coping with the assigned workload and increasing pressure level (Jacoba etl, 2011). Cause of that can be various including the manager is lack of awareness of pressure level of the team or the manager misinterpret the knowledge level and type of work. Nurses who work in this type of environment always feel busy and stressful and find it difficult to cope with (Jacoba etl, 2011).

“ I've begun to lie about the amount of work I have. What I've discovered is my boss, she doesn't show it on her face, but I think she becomes quite stressed out herself by hearing how much work I have outstanding (Jacoba etl, 2011).”

When the managers are passing the pressure and deadline to the team, the team members will then pass the pressure to others which can be clients and other health professionals or students. In the end the quality of care will decline and the risk of clinical incident can increase (Jacoba et al, 2011).

From the customer's perspective, hospital consistently emphasized on the feedback and complains of the (Heejung & June, 2012). In fact, education for patient about their treatment is essential for preventing clinical incident and building good therapeutic relationship (Heejung & June, 2012). In this clinical incident, if the client was told how the under-water seal drainage system work, the nursing student might be able to be stopped from emptying the under-water seal container

The values of complaints is to improving the quality of care and enhancing the process of recovery (Heejung & June, 2012). Customers are given the right of doubting the competence of practice. When it comes to handling complaints, usually there is an adverse event or poor practice, it is not a preventive strategy for clinical incidents (Heejung & June, 2012). Also, customers complaints can be challenge for the contacted nurse and there has poor evidence of how the nurse handle the complaint from clients.

An exchange relationship benefit in develop trust with customers over time (Heejung & June, 2012). Customers diagnosis and treatment need to be fully explained and customers should always involved in clinical decision making. The core concept here is emphasizing the benefit of building emotional bonding between patients and nurses (Heejung & June, 2012). Literature has shown the positive connection between health relationship

and customer satisfaction. Also, well-built relationship with the customers tend to reduce the rate of failure in practice or adverse event (Heejung & June, 2012).

Incident report

As I considered, in this scenario, JC and shift coordinator need to be notified with patient's complaint of SOB and further interventions (like refill and connect the water-seal container) need to be consulted. During that period of time, patient's vital signs should be closely monitored. Also the first year RN and the student need to commence incident report.

Graduated nurse and student nurse may need to either perform written incident report or telephone incident report. Report incident on telephone, a nurse or student need to be able to identify him/herself, the ward, the client, the presenting issue and patient background information and current assessment (Sonja, Regula, Bernd, Daniel&Franziska, 2013). If there have orders been administrated, nurse must identify the order. Beside that, nurse should also consult for managing order in reasonable time frame. This model is called SBAR and has been used for many facility, situation (S), background (B), assessment (A) and recommendation (R) (Sonja etl, 2013).

To evaluate the effectiveness of a verbal clinical incident report there are three categories which emphasize on ability for listener to understand and receiving information.

Firstly, at the beginning of the report, patient's problem should be clear described which creating a conscious recognition of patient's situation

(Jacqueline A., 2014). Base on the aware of patient primary issue, the listener can have a better understanding.

Secondly, information should be provided in standardize order to enhance efficiency (Jacqueline A., 2014). For example, the patient had two sets of obs done, instead of report it separately, compare it and exhibit the decline or change in patient's status help listener to process information within minimum time.

Thirdly, key factors should be focused in the incident report, thus nursed should avoid descriptive and subjective information (Jacqueline A., 2014). This benefit the health team toward clear diagnosis specially in a emergency situation.

For the graduate nurse and student nurse, the ability of effectively communication with the health care team is vital in ensuring patient safety and preventing clinical incidents (Sonja etl, 2013). Expectation for graduate nurse in a clinical incident report is assess critical issue of a patient's experience and effectively report to health team, unfortunately, graduate nurses and nursing students are rarely preform this skill and receive positive feedback from the health team about the quality of their report (Sonja etl, 2013).

Clinical decisions skill is another important expectation of the graduate nurse and nursing student (Sonja etl, 2013). In the dimension of clinical decision-making, clear communication is one of the marking score. Clinical decision making involve other sills like background assessment of the patient, identify the major concern of patient's current situation. Head to toe assessment and

<https://assignbuster.com/underwater-seal-drainage-tube-management/>

ability to provide appropriate recommendations for current situation (Sonja etl, 2013).