# The importance of health assessment in understanding patients

Health & Medicine

# Introduction

As stated by Weilitz & Potter (2007), “ Healthassessment is the process of gathering, verifying, analyzing, and communicating data about a patient.” (p. 5). This sentence shows that health assessment is essential for fully understanding the situation of a patient.

In the following passage, there is acase studyto discuss which kind of health assessment can be used in order to provide a betternursingcare for a patient.

Case scenario

Mr Wong, aged 58, arrived at my ward with his wife. He was sweating and coughing. He had a difficulty of breathing and a wheezing sound was heard. After 15 minutes of rest, he felt better. He explained that while he was chasing a bus with his wife, he felt breathlessness and dizzy. He did not recovered after resting for awhile on the street so his wife brought him to the hospital.

Mr Wong was a retiree for a year and he was a constructive worker before. He explained that retirement was because of not enough energy for daily work. He had smoked for over 30 years, one and half pack of cigarette per day, and had 5 cans of beer every week. He was obese and had medical history of hypertension for 5 years with own medicine. He was married and lived with his wife in an old building. He was fatigued when climbing up the stairs as well as walking for awhile. Due to the fatigue, he reduced the social activities and stayed most of his time at home.

He complaint of not having a good sleep because of night cough (on-and-off for a year) and kept coughing with production of sputum for a year. Besides, he had respiratory track infection more frequently in this year. In recent 2 months, he had poor appetite and lost 8 pounds.

During the conversation, Mr Wong usually needed a rest for answering every 3 questions. He looked tired and had deep circles under his eyes. His lip was dry. He was upset about the fatigue and felt useless of himself. He said that his quality of life was affected and lost interest of his previous hobbies. He did not have any social activities in this year nearly.

Mr Wong had a low grade fever and blood pressure was around 145/90. His pulse was around 110. He had taken a chest X-ray after admission and the result was pending. He took the test of spirometry and FEV1 was between 40-50%. His 12-lead ECG was normal. 2-liters of oxygen was given through nasal cannula. He always sat up and seldom leaving the bed. Mr Wong was diagnosed with chronic obstructive pulmonary disease (COPD).

When Mr Wong arrived, I took vital signs of him as a baseline. His weight as well as height were recorded.

Then I took the health history by aninterview. The interview was started with the main complaint of Mr Wong. After that I took the past health status. They were medical history, done surgery, medication history, foodand drug allergy.

The lifestyle and health practice of Mr Wong were also asked. It included different areas. Smokingand drinking must be included as both were the risk

factors of COPD. From his diet, hobbies and activity level, I needed those information for discovering the reasons of weight loss andobesityof Mr Wong. I also asked Mr Wong if he had constipation while if he felt breathless during passing stool and bathing.

After the interview, I held a physical examination for Mr Wong. There were 2 parts, inspection and auscultation. I measured the respiratory rate and rhythm and observed the shape of his chest and any central or peripheral cyanosis. Auscultation was followed. I recorded the abnormal sounds like wheezing.

Advanced nursing health assessment

In the case of Mr Wong, a very simple and brief health assessment was done. It was unsatisfied because the health assessment was not completed and informative. The following passage is going to provide more health assessment and methods which can improve the case of Mr Wong.

Health history

The interview of Mr Wong was too brief. More questions should be asked.

First of all, Mr Wong’sfamilyhistory should be reviewed as COPD can be inherited (CMP Medica, 2007). More information of his blood relatives such as patients, grandparents and children has to be obtained. Nurse can find out any rare illness among the families which may relate to respiratory disease (Barnett, 2006).

Secondly, Mr Wong work history should be also assessed. Since he was a constructive worker, he usually exposed to the chemical irritant. The nature and theenvironmentof his work directly regard to COPD. Nurse needs to identify any personal protective equipment he used as well (Weilitz & Potter, 2007, p. 157).

Thirdly, information regarding home conditions is important to establish how Mr Wong coped at home. As he was living in an old building, the building may be without a lift or with many stairs. It is possible for Mr Wong having difficulty to go out or it may be the reason of reducing social activities (Barnett, 2006).

Fourthly, nurse has to question Mr Wong’s sleeping pattern as he did not sleep well because of night cough. Nurse should document how many hours he slept and why he could not sleep well. Sleeplessness or limited sleep may lead to tiredness and inability to cope with daily activities. By knowing the cause, doctorand nurse can treat the night cough of Mr Wong to deal with the insomnia. And they can prevent giving treatment with night sedative due to the side effects, which may depress the respiratorycentre(Barnett, 2006).

Physical examination

The physical examination includes different parts which can give a complete picture of Mr Wong’s condition. They will be introduced one by one, from simple to complicated.

Body mass index

From the article of Shepherd (2010), it states that “ Nutritional depletion in patients with COPD is common and has negative impact on respiratory and peripheral muscle function.”(p. 559). As Mr Wong had poor appetite and lost 8 pound in 2 months, the body mass index (BMI) should be recorded for follow-up. Nurse has to find out causes of weight loss and deals with those problems efficiently.

COPD assessment test

COPD assessment test is a simple questionnaire. It is used to measure the impact of COPD on the life of patient, and how this changes overtime. By this test, nurse takes it as a reference to improve the treatment. The test contains 8 questions. They are the frequency of coughing, if he feels any mucus in his chest, if his chest feels tight, if he feels breathless when climbing up hills or stairs, if he is limited doing any activities at home, if he is confident leaving his home despite his lung problem, if he sleeps soundly, if he has lots energy(GlaxoSmithKline, 2009).

Medical Research Council( MRC) Dyspnoea Scale

Measurement of breathlessness is essential for a COPD patient. The Dyspnoea Scale of MRC allows patients to grade their breathlessness on a scale of 1-5 according to activity carried out. The degree of breathlessness related to activities is from grade1-5 which means from mild to severe. It acts as a baseline and is useful for monitoring purposes for nurses and doctors (Barnett, 2009).

Physical examination of Chest

Through the process mentioned in above passages, nurse can receive higher proportion of basic information about Mr Wong' condition. In the coming passages, several techniques which focus on chest are going to introduce. There are 4 physical respiratory examination, inspection, palpation, percussion and auscultation. Although inspection and auscultation were applied in the case of Mr Wong, they were imperfect.

Inspection

Inspection consists of several parts. For the case of Mr Wong, nurse mainly focus on the inspection of breathing pattern, use of accessory muscles and positioning (Weber & Kelley, 2010).

Nurse needs to observe the rate, depth and rhythm of respiration. If these factors are abnormal, they represent the increasing workload of breathing. The pattern of respiration should be recorded if there is any special such as tachypnoea, hyperventilation, Cheyne-Strokes respiration, Biot's respiration…etc. It allows the doctor giving particular treatment (Massey & Meredith, 2010).

Abnormal posture shows the patient may have difficulty in breathing. Mr Wong always sat up or leaned forward because he can better tense the respiratory muscle and contractility (Massey & Meredith, 2010). In addition, using of respiratory muscles (trapezius, or shoulder) helps inspiration especially chronic airway obstruction (Weber & Kelley, 2010). Nurse should pay more attention and provide suitable nursing care (such as oxygen supply, suction, removing tight clothes…etc) when above symptoms occur.

Palpation

Palpation for tenderness and sensation can determine whether there is inflammation, muscle sore or infection. It can be performed by one or both hands following the sequences. It should be started towards the midline at the level of the left scapula then the nurse moves her hand from left to right. The moving is systematically downward and out to cover the lateral portions of the lungs at the bases. The nurse should compare the finding bilaterally. The nurse can also check if there is mass or tumor (Weber & Kelley, 2010).

During the palpation, a crackle sensation may be sensed which means crepitus. This sensation is because of air passing through fluid and exudates in the lungs. Fremitus should be assessed. It is a vibration of air movement through the chest wall. It can be increased, decreased or absent which represent different lung problem like consolidation or bronchial obstruction, pulmonary edema, pneumothorax…etc (Weber &Kelley, 2010).

Percussion

Percussion has 2 main functions, determining the tone as well as the diaphragmatic excursion.

When nurse percusses the chest wall, the sound produced can show whether lung tissue is filled with air, liquid or solid. Same as palpation, a sequence of percussion should be followed. The process is started at the apices of the scapulae then across the top of both shoulders. Next, nurse percusses the intercostals spaces across and down. Finally, she moves from the lateral aspects at the bases of the lung (Weber & Kelley, 2010). By comparing the

sound of percussed areas, nurse may discover the lung mass or other respiratory problems (Weilitz & Potter, 2007). Measuring the diaphragmatic excursion is also important. Emphysema may be a cause of limited diaphragmatic descent.

Auscultation

For auscultation, breathing sound is not the only element to assess. The voice sound can also be assessed. It is easy that nurse auscultates the chest wall while she asks the patient to repeat pronouncing “ ninety-nine”. This is the way to identify if there is consolidation from pneumonia, atelectasis, or tumor (Weber &Kelley, 2010).

Mental state

For the patient with CODP, they usually reduce the daily activities like Mr Wong did. The patient may not use to the changes of the quality of life( ?????, 2010). Closelyobservationand listening to the patient are the easiest and useful ways to assess the mental state of the patient. If there is any abnormal, the condition should be recorded and report to the senior nurse.

Conclusion

In this article, some health assessment tools and techniques are suggested for a CODP patient, Mr Wong. There is no traumatic procedure involved. However, the results of different examination can give large amount of information of the patient’s body condition. And this is essential for the

clinical staff to improve the clinical decision making in order to provide better treatments for the patient.

Reference

Barnett, M. (2009). An overview of assessment and management in COPD. British Journal of Community Nursing, 15(5), 195-201. Retrieved March 12, 2010, from

http://web. ebscohost. com. ezproxy. lib. ouhk. edu. hk/ehost/pdfviewer/pdfviewer? hid= 104&sid= ada13567-52a0-4268-b952-fd290eadc7a3%40sessionmgr104&vid= 3

Barnett, M. ( 2006). Chronic obstructive pulmonary disease in primary care. United Kingdom: New York John Wiley & Sons, Ltd.

CMP Medica (2007)??????????????????????: CMP Media Pacific Limited?

GlaxoSmithKline. (2009). COPD assessment test. Retrieved March 12, 2010, from

http://www. catestonline. co. uk/test/index. htm

Massey, D, & Meredith, T. ( 2010). Respirator assessment 1: Why do it and how to do it?. British Journal of Cardiac Nursing, 5(11), 537-541. Retrieved March 12, 2010, from

http://web. ebscohost. com. ezproxy. lib. ouhk. edu. hk/ehost/pdfviewer/pdfviewer? hid= 17&sid= ada13567-52a0-4268-b952-fd290eadc7a3%40sessionmgr104&vid= 4

Shepherd, A. ( 2010). The nutritional management of COPD: an overview. British Journal of Nursing, 19(9), 559-562. Retrieved March 12, 2010, from

http://web. ebscohost. com. ezproxy. lib. ouhk. edu. hk/ehost/pdfviewer/pdfviewer? hid= 104&sid= ada13567-52a0-4268-b952-fd290eadc7a3%40sessionmgr104&vid= 3

Weber, J, & Kelley, J. (2010). Health assessment in nursing(4th ed.). New York: Lippincott Williams & Wilkins

Weilitz, P. B., & Potter, P. A. (2007). Pocket guide for health assessment(6th ed.). Missouri: Mosby Elservier.