

# The assessment of a breathless patient



This case study is based on the treatment of an End Stage Renal Failure patient who has haemodialysis three times a week. The patient, who the author will refer to as Mr Tom, has given his permission to use details of his condition and treatment.

Mr Tom is a 25 year old male who was diagnosed with End Stage Renal Failure less than a year ago. He also was diagnosed with type-one diabetes as a child, and he tries to keep it under control with insulin injections. Mr Tom is a very shy and withdrawn gentleman who lives with his mother. He has a difficult time complying with his diabetic requirements as well as his renal treatment.

Mr Tom arrived in the renal unit on the day in question. The author was assigned as his nurse for that day. He was transported into the unit in a wheel chair by an auxiliary nurse. She had stated that she thought it might not be safe to allow him to walk to his dialysis machine, as he looked and sounded out of breath.

In the renal unit the patients are placed into groups of 10-12 in four different dialysis bays. On arrival at Mr Tom's dialysis bay the author noted that when the question " How are you feeling today" was asked, it was answered by a breathless " not good." The author quickly pulled the curtains around the dialysis space; the curtains are there for some degree of privacy for other types of medical treatment, or just too simply allow the patient to use the commode, this adheres with NMC (2008) guidelines. The author assisted Mr Tom onto his dialysis chair from the wheelchair.

The look, listen and feel approach (ERC 2010) can be very effective to evaluate a patient's breathing. Mr Tom's face looked slightly swollen and very pale, and his eyes were puffy. His breathing was fast and laboured but his skin was a normal temperature to the touch. His ankles and calves were found to have pitting oedema. Bailliere's Tindall (2002) describes oedema as an excessive amount of fluid accumulation in body tissues. Pitting oedema can be demonstrated by applying pressure to the area. If an indentation persists for some time the oedema is referred to as pitting.

Patients who are on regular dialysis need to limit their fluid intake. Mr Tom is on a one litre per day intake limit. Adhering to this allowance reduces the risk of volume overload between dialysis treatments (Abuelo, 1998). A reduced fluid allowance is generally the most difficult part of the dialysis diet for a patient to cope with. Oedema, hypertension, and shortness of breath are some of the many symptoms that can result from non-compliance with fluid restrictions. According to Pafrey & Foley (1999), non-compliance with fluid intake limits can lead to left ventricular hypertrophy. Patients who are receiving haemodialysis, who do not adhere to prescribed fluid restrictions are at risk of a premature death. Kimmel et al (2000), Leggat et al (1998), Port et al (2004), Saran et al (2003). An ABCDE (Airway, Breathing, Circulation, Disability and Exposure) was carried out by the author

The ABCDE was originally developed as ABC according to Thim, T. et al (2012). It was further developed, by an orthopaedic surgeon by the name of James K Styner. Styner emphasized the systemic approach to the critically injured patient. His work formed the basis of the Advanced Trauma Life Support courses. Consequently, the ABCDE approach is an extension of the <https://assignbuster.com/the-assessment-of-a-breathless-patient/>

initially described ABC approach. It covers patients in cardiac arrest as well as patients experiencing all medical and surgical emergencies.

Thim, T . et al (2012) states that an untreated airway obstruction can lead to a cardiac arrest. He goes on to say that the ABCDE approach is a strong clinical tool for patients in acute surgical and medical emergencies. This covers having their initial assessment, pre-hospital first aid and in hospital treatment. It helps in determining the level of seriousness of a condition as well as to prioritise the initial clinical interventions. The teaching and wide spread knowledge of ABCDE to all areas of healthcare can only enhance and improve the outcome of our patients.

Mr Tom was commenced on oxygen via a non-re-breather mask delivered at 8 litres per minute. According to Driscoll, Howard Davison (2011) oxygen is the most common drug to be used in the care of patients in medical emergencies. A national audit states that at any given time, 18% of patients in the UK are being administered oxygen as an inpatient. They continue to express that there are three main indications for the delivery of oxygen;

To correct hypoxemia, as there is good evidence to suggest that severe hypoxemia is harmful.

To prevent hypoxemia in unwell patients.

To alleviate breathlessness.

Although only the first delivery is evidence based. It is widely known in the health profession that oxygen has not been shown to have any effect on the breathless patient. Diroll A (2012) argues that oxygen therapy is definitely

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recommended for the dialysis patients. A low amount of oxygen in the blood can be due to any lung condition that interferes with a patient taking a deep breath and getting enough oxygen travelling from the air sacs into the blood. These include asthma, cancer, emphysema, fluid overload and osteoporosis.

A set of observations, including a blood sugar, were carried out on Mr Tom by the author. The results were as follows:

Blood Sugar = 9.6

Temperature = 36.7 Celsius

Blood Pressure = 211/100

Pulse = 105

Respirations = 27 breaths per min

The author started a MEWS chart, on which Mr Tom scored a five, due to his hypertension, raised respiration and pulse.

A Modified Early Warning Score (MEWS) is used as a guide to determine the degree of illness in a patient. It is also used to determine deterioration in a patient indicated by the MEWS score increasing. Fullerton J N et al (2012), states that a practitioner's clinical judgment alone demonstrates too low of a sensitivity to identify critical illness in the pre-hospital environment. The addition of MEWS improves the detection at the expense of reduced specificity. Burch, Tarr and Marroni (2008) state that MEWS is a useful tool for identifying patients in hospital that need a higher level of care. Use of MEWS as a triage tool, to identify patients that need hospitalization and

those at an increased risk of hospital death has been evaluated only to a limited extent.

As Mr Tom scored a five on the MEWS chart, the staff grade nephrologists was paged as he was covering the renal unit that day. A report was given to the Doctor over the phone using Situation, Background, Assessment, and Recommendation (SBAR).

SBAR is an easy way to frame conversations between a clinician and members of the nursing team. According to Quality Service and Improvement Tools (2008) the SBAR consists of prompted questions within four sections. This allows for assertiveness and effectiveness in communication without repetition. This can be most helpful when staff have worries or don't feel confident enough to make recommendation themselves. It provides a clear discussion with a medical practitioner on a patient's degree of illness.

Due to Mr Tom's high MEWS score, the Dr arrived in the unit to exam the patient. A score of 5 is an indication that the patient needs to be assessed by a medical doctor. An examination was started using Bates guide to Physical Examination and History Taking (2007). After getting his permission, Mr Tom's shirt was opened by the author. This adheres to NMC (2008) guidelines to preserving dignity during an examination. Assessment of a patient that has an altered or imbalanced respiratory function should focus on general appearance, information from the patient about onset of symptoms, past medical history and the physical examinations and observations. According to Bennett (2003) the patient's appearance should

be checked for colour, colour of nails, any other signs of cyanosis, finger clubbing, and is the patient alert and orientated. Bennett (2003) continues on by saying posture should be accounted for; does the patient slouch or crouch forward, does the patient's posture suggest pain anywhere; does the patient suffer from orthopnoea. Are there physical symptoms such as, can the patient speak a full sentence? Is there an increase in cough, chest size or increased respiratory secretions. On inspection of Mr Tom's chest, he appeared to be using extra muscles to aid in his breathing. According to Lippincott, Williams, and Wilkins (2008) physical exertion and pulmonary disease usually increase the work of breathing, taxing the diaphragm and external intercostal muscles. When this happens, accessory muscles provide the extra effort needed to maintain respiration. The scalene, sternocleidomastoid, and the trapezius muscles assist with inspiration, whereas the upper chest, sternum, internal intercostals and abdominal muscles assist with expiration. In inspiration, the scalene muscles elevate, fix and expand the upper chest anteroposterior and longitudinal dimensions. The pectoralis major muscles elevate the chest, increasing its anteroposterior size, and the trapezius muscles raise the thoracic cage.

On further assessment, Mr Tom's trachea seemed to be midline. Palpitation of the chest showed no pain, or abnormalities. On percussion there was some dullness in all regions. On Auscultation, bi-lateral inspiration produced some rattles. The question of "do you have any chest pain or discomfort in your chest" was answered by a breathless "Yes." According to Albarran (2002) one of the main problems with assessing a patient with chest pain is the manner in which the health provider asks questions. Mr Tom's response

confirms that using closed questions will result in a one word answer. By rephrasing the question you may get a more in-depth description and further interaction with the patient. Albarran (2002) continues on by saying that evidence shows patients very rarely use the word pain; it is more commonly used by health care professionals. Patients tend to use physical interaction, such as pointing, rubbing, or even guarding of the area of pain. On further questioning with Mr Tom, and using more open ended questions, he stated that it felt more of an uncomfortable feeling rather than pain. Mr Tom did struggle to answer these questions, but remained calm throughout the questioning and assessment. The author asked the doctor if he would like a 12 lead ECG prepared.

The doctor agreed with the author about performing an Electrocardiogram (ECG) prior to starting Mr Tom's dialysis. According to Malik (2009) of patients who have End Stage Renal Failure, more than 50% of them die from cardiovascular disease; this includes Congestive Heart Failure (CHF). There are several reasons for CHF in patients who dialyse such as left ventricular hypertrophy, which was previously mentioned, hypertension, and fluid overload, one of the most common between dialysis treatments. To the relief of Mr Tom and the author there were no significant changes in Mr Tom's ECG.

The doctor and the author summarized the entire assessment and concluded that as Mr Tom's ECG showed no changes, and there were no direct cardiac issues that could worsen whilst dialysing. The doctor re-emphasised that Mr Tom was breathless and hypertensive. He had pitting oedema, and all symptoms of fluid overload, and the best course of treatment would be to



start dialysis, take routine bloods and order an x-ray to rule out pulmonary oedema. Mr Tom was then started on his regular treatment of dialysis. Sixty minutes into Mr Tom's treatment, the author took a set of observations, the findings of which are as follows:

Blood Pressure= 180/90

Pulse= 88

Respirations= 19

Saturation level= 99% on oxygen.

Temperature= 36. 8

Blood sugar= 7. 8

Oxygen level was reduced to zero, and saturations remained 98-99%.

Within a further 30 minutes, Mr Tom had begun to eat his lunch and was feeling much better.

The author was curious to find out the events that led up to Mr Tom's breathlessness and why he was fluid overloaded to the point that it made him breathless. A proper history taking was initiated by the author. Mr Tom had stated that he had been socializing a lot in the past few weeks. He had a new girlfriend and he did not want to think about his treatment out with the renal unit. According to Welsh & Perkins (2006), the first year of dialysis is the most difficult time for renal patients, in addition to dialysing 3 times each week, they need to adjust to restricted diets and fluid intake. The day-to-day

management and adjustment to this lifestyle is extremely difficult, especially to the younger adult who has many other activities to be getting on with. Welsh & Perkins (2006) also stated that the time of the year plays a large part on patients adhering to their proper treatment. Mr Tom falls into the category of the younger adult.

In the conversation between the author and Mr Tom, he also stated that he had stopped going to the bathroom to urinate. According to Welsh (2003) when a patient becomes anuric they must adhere to a strict fluid intake. This also includes foods with high fluid content, such as soups, ice cream and jelly; also any foods that are made with water have to be included in the one litre restriction. The author listened to Mr Tom and gave nursing advice and support as best as possible. In Accordance to NMC guidelines (2010) on record keeping, a recording of all the issues, treatments and data was documented in the patients nursing notes. This recording will show a step by step guide into how Mr Tom was cared for. This will provide history and clear continuity in future episodes.

Having a renal patient come into the unit who was as breathless as Mr Tom, may make the nursing team automatically assume that he is fluid overloaded. As with any patient this may not always be the case. Without a full assessment of observations, both physical and verbal, and a full history of the patients illness and complaint, vital information may be missed and lead to a misdiagnosed patient. Dialysing a patient who is breathless, due to cardiac issues for example, could be the makings of a fatal mistake. As with Mr Tom, asking the proper questions, and not closed questions, can also make the difference between a proper and a misdiagnosed patient. Being

over cautious could also take up precious time and unnecessary expense, with expensive blood test and procedures.