Analysis of the nursing interventions for a patient with the chronic condition of...

Health & Medicine, Diabetes



Those suffering from the chronic condition of diabetes are amongst many people in the United Kingdom. If the diabetes condition is not managed correctly in can affect the quality of life which affects both children and adults and can effectively be taken looked after with good quality care. This assignment aims to critically analyse and justify the nursing interventions implemented, for a patient experiencing a low blood glucose level of 1.

8mmols/litre. Under the data protection act, staff have a legal requirement to keep patient's identity and information protected from any form of harm.

Therefore, the individual in this scenario will be addressed as Mary for confidentiality purposes.

Mary a 23 year old female suffers from Type 1 Diabetes and is insulin dependent. Mary was admitted via the accident and emergency to the medical assessment unit. On admission, Mary was very shaky and confused. Prior to Mary's admission, she is also known by the health team due to her suffering from depression, self-neglect, poorly managed diabetes and Diabetic Ketoacidosis also known as DKA which is a secondary condition which occurs due to individuals not controlling their levels of blood glucose levels. The Roper-Logan-Tierney Model 1996, for Nursing is a theory of nursing care based on activities of daily living. Whilst Mary was being assessed and cared for, it was ensured that she was treated as an individual in the best interest of her needs and her preferability.

The pathophysiology of Type 1 diabetes is when the pancreas does not produce any insulin to the body and can cause long term affects. The normal

procedure of the regulation of blood glucose happens in the pancreas itself in the areas also known as islets.

When food is consumed, it is converted into glucose in order for the human body to use it for energy. The pancreas makes a hormone called insulin, which helps the glucose enter the cells. When an individual is diagnosed with diabetes, the body does not excrete enough glucose or cannot use the insulin formed to get into the cells of our bodies which causes the sugars to build up in the blood. The long-term effects of diabetes can be severe and can cause health complications including heart disease, blindness and kidney failure. Type 1 diabetes is where the pancreas does not produce any insulin and Type 2 diabetes is when the pancreas does not produce enough insulin or the body's cells do not react to insulin. Due to Mary not controlling her diabetes well and self-neglecting, it has led to her having a hypo at 1. 8mmols/litre. Mary had admitted on admission that she would consume food as and when she could or felt the need to do so. This issue had built up and also been an affecting factor to her suffering from a hypo. When the levels of the blood glucose are not within range due to lack of control, the body may not receive enough glucose from the cells in return for energy therefore, the body then starts to burn fat for energy which produces ketones when there is insufficient insulin. Ketones do make the blood more acidic, which is an indication of loss of control which can lead to diabetic coma and on occasion death. This was explained to Mary in order for her to be aware of the effects on her body. During the last 40 years, the prevalence of type 1 diabetes mellitus has raised in the whole world and the tendency for the future is of

continuous increase in all ethnic groups, male or female, for all age groups.

There has also been a visible increase visible for type 2 diabetes which occurs later in life resulting in blood levels being high resulting in the body becoming resistant on insulin.

The tools for nursing assessment implemented to evaluate Mary's care were the Body Mass Index (BMI), Malnutrition Screening and Assessment Tool (MUST), Food and fluid charts and a mental capacity assessment due to her suffering from depression. These tools were implemented in order for assessment to be carried out effectively in order for the planning of Mary's care including interventions and evaluations of Mary to be carried out accordingly having her best interests in mind. The tools also give a suggestion as to further care Mary may need. MUST is a system where individuals are scored by numbers and the BMI results in the risk of low, medium or high. Due to Mary self-neglecting, having a poor diet and not keeping track on her diabetes, a MUST score was carried out. 'MUST' is a five-step screening tool which identifies adults, who are malnourished, at risk of malnutrition (undernutrition), or obese. In this case, Mary is as at risk due to self-neglect and does not see herself or eating as a priority. There are five steps which were carried out in order for a plan to be put in place for Mary's care in order to comply for her best interest and ensure there is no further harm or risk of malnutrition. Her height and weight were measured to get a BMI score, her percentage of weight loss which was 7% over the last year and the acute disease effect and the score of this was looked at. All these three scores were then put together which obtained the overall risk of Mary

suffering from malnutrition. Mary was given advice by the nurse who discussed the importance of oral intake and what was balanced in order for her health promotion. Mary's insulin dose had also been changed as Mary's diabetes needed to have a review based on the indication of her levels over the past couple of months. This was achieved by having a HBa1c test. This test had shown and proved the fact that Mary had lost control of her diabetes resulting in her suffering from a hypoglycaemic episode. Therefore, before this had lead to any further deterioration it was to be dealt with by the appropriate supporting staff long term as well as inpatient care. Mary's weight loss did concern the nursing staff as she was recovering from DKA and had suffered from a hypoglycaemic episode resulting in withdrawal from her day to day life. According to Bapen (2011) a score of three is a high risk of malnutrition. Therefore, her oral intake was also monitored. This score was high, at which point a MDT (Multidisciplinary Team) meeting was put in place for Mary's care to use the management guidelines by looking at the local policy and developing a care plan best for Mary's care.

Mary's nutritional intake will affect her immune system by making it weaker resulting in delayed recovery. Mary's care is complex due to her past medical history of depression and therefore the approach must be carried out in a manner where her best interests are put first. It is essential that her food and fluid balance chart is filled in regularly by healthcare staff and reviewed in the MDT meetings. The major role of health professionals consists of treating and preventing individuals malnutrition with assessment and planning.

A plan was then implemented for Mary to remain on the build-up shakes amongst her meals. It has been recommended by NHS England, 2016 and the NICE guidelines 2015 that the build up shakes would help and be beneficial for Mary. This is for the reason that alternate routes such as peg feed, IV and the insertion of cannulas can be avoided. Mary's age had been taken into consideration and with her being so young, although her immune system had weakened, it was still possible to fulfil her nursing needs appropriately without alternate methods. This was due to her severe lack of nutrition which had a effect on her diabetes maintenance. The supplementary shakes are in a range which is dedicated to be a nutritionally complete, high energy or high protein supplement for the management of disease related malnutrition, ranging from 100kcal per 100ml. This would lower the risk of a Mary suffering from a hypo in the future. This would lower the risk of Mary suffering from a hypoglycaemic episode in the future which would also be explained to her in great depth and be provided with leaflets. Mary would also be given a choice of flavours and be given the option to choose. This would increase Mary's oral intake and the chances of her having them regularly. To ensure Mary is compliant with shakes, a follow up with her GP and a district nurse would be completed to discuss her oral intake and be weighed with her consent. Health professionals must ensure that individuals do have the capacity unless or until proven otherwise. However, a study within a team in the US 1998 by Leslie et al, claims that adults with depression, or other mental impairments do have an impaired capacity due to the condition they are in. On the other hand, the study is not within date and the outlook towards mental conditions has now changed. Therefore, the

nurse had made the clinical decision that Mary does have the capacity and does not need a capacity assessment to take place in order to proceed with her care.

Diabetes has now become more prevalent in the UK and study's show that 1 in 6 hospital patients have diabetes. The UK National Diabetes In-Patient Audit in 2012 estimated that 30% of patients experience one episode of hypoglycaemia during admission. Hypoglycaemia is associated with increased morbidity and mortality, and longer length of hospital stay. Mary's blood glucose was monitored twice daily in hospital which is an essential regulation for type 1 diabetes. The nurse had also referred Mary to the diabetes team who came to see her in hospital to educate her on how to monitor her own blood sugar levels and document them in a book. When educating Mary on taking her own blood sugar levels and showing her the importance of using soap to wash her hands prior of checking her blood sugars. According to the NICE Guidelines (2016), using soap prior increases the chances of a more accurate results. Dale (2006) challenged this and had tested the blood glucose monitoring on two different groups using either hand gel or soap and had seen that the NICE guidelines were in fact correct. However, according to Mahoney et al (2011) had shown that using soap or alcohol hand sanitizer makes no difference. Therefore, Mary was advised on using either and shown how to do so to maintain long term care. She was also educated on the ranges of the normal limits 5. 0 to 7. 0mmols before having breakfast and 4. 0 to 7. 0 before consuming other meals. The district diabetes nurse team were also referred to follow Mary on her discharge

home to ensure she is compliant with her care. The Department of Health (2012) recognises the importance for individuals to look after and maintain their own diabetes and the improvements in health were shown evidence through the National Service Framework for Diabetes. However, when the nurse was discussing this with Mary, she became very withdrawn and not showing any interest to the maintenance of her diabetes and insulin intake. Documentation is vital in nursing care for inpatients. Nursing documentation is essential for good clinical communication. Appropriate legible documentation provides an accurate reflection of nursing assessments, changes in conditions, care provided and pertinent patient information to support the multidisciplinary team to deliver efficient, safe and appropriate care. The fluid and food balance records were implanted in order for Mary's intake to be assessed amongst the healthcare staff. The rationale of this is to allow strict monitoring of input and output and to document in order to provide evidence of kidney function and also sustain adequate hydration at cellular level. This was essential as it was easy for the MDT members to assess and relate back to the records. If the oral intake was not successful or adequate, alternate routes were also looked at such as intravenous fluids, dextrose and other alternatives for nutrition.

To implement a plan following the MDT for Mary's diabetes to be reviewed, the nurses as well as the specialist for diabetes must both liase with one another and implement a plan appropriate for Mary. Therefore, the care for diabetes and care provided to Mary whilst admitted to hospital whatever the cause should aim to support quality improvement. A care plan should be set

out with the consent of Mary by planning is a process that puts her firmly in the driving seat of her care. It offers Mary to be active and have involvement in deciding, agreeing and owning how her diabetes is managed. However, this could be difficult as Mary has a depressive illness and may be in denial or refuse any input from a team of professionals as having a mental health state It keeps us from being able to accept and move past the event occurring.

Other healthcare professionals who were also part of Mary's care were the counselling service. Counselling is known as a talking therapy that involves a trained therapist whom listens to you and helps you find ways to deal with emotional issues. Sometimes the term counselling is used to refer to talking therapies in general, but counselling is also a type of therapy in its own right. Counselling can help you cope with a mental health condition, such as depression, anxiety or an eating disorder, This was implemented to support Mary with her personal issues such as self-neglect and poor oral intake. The counsellor can support Mary with one to one sessions where she can be herself and take her time with expressing herself and her needs. This was implemented by having the one to one session, allowing Mary to have her own space and own time in regard to how she felt and was ready to speak. Counselling will assist Mary to cope with her health and personal issues better and help Mary focus on and improve the complexity of her condition. Counselling will give and make Mary more self-aware and give her those selfcare attributes as Mary suffers from depression and this would be great support for her long term. Due to Mary having depression, she had let this

take over her life and had began self-neglecting and could not come to terms with her diagnosis and maintenance of diabetes. Depression is known and described as a common mental disorder which causes people to experience a depressed mood, a loss of interest, feelings of guilt or low self-worth, disturbed sleep or having a loss of appetite, low energy, and poor concentration. Mary is affected by a majority of these factors which has taken a toll on her self care and control of her diabetes which resulted in a hypo and hospitalisation. Mary had not found the urge or the need to eat and have a balanced diet to maintain her blood glucose levels, This had led to the deterioration of her immune system which had then lead to her having a hypo episode resulting in admission to hospital. The role of the MDT is to ensure the patients care is dealt with by the correct member of staff to ensure they receive the best outcome. This would help patients feel that they are receive the support they need with a long term plan for them to be helped with their care.

Having liaised with the Diabetes specialist team in order for a back track of Mary's blood glucose levels and how they can be maintained was vital. This was to ensure that readmission can be avoided and can be dealt with appropriately. The diabetes nurse would come once a week as an inpatient and in the community to ensure that the diabetic nurse had also liaised with the dietician on deciding the best type of nutritional intake was for Mary to maintain her nutritional intake.

As Mary had several affecting factors, all these were discussed and dealt with accordingly in the MDT staff with the appropriate staff. As the Doctor

was reviewing her medication and her records, it was the Doctor who had to feedback to the relevant staff in relation to Mary's short and long term care and goals, ensuring she was safe and comfortable. In conclusion of Mary and her care, once implementing the Roper-Logan-Tierney Model 1996, of nursing care based on activities of daily living, this essay explains the control of a young adult, Mary, dealing with diabetes after an admission of suffering from a hypo episode at a range of 1. 8mmols/litre and how it was treated and advised to avoid in the future by implementing care plans with Mary herself.

Professionals such as dieticians, counselling and diabetes specialists were all involved to ensure the could act upon Mary's care efficiently to avoid any further deterioration. Mary's care was also regularly reviewed in MDT meetings by healthcare professionals who liaised together to improved her care to avoid a readmission in the future and supporting her and showing her that people with mental health problems can get better and many recover completely in the community. As Mary will be discharged and require a district nurse follow up, they will need to handover to the district nurse team before Mary leaves the hospital as they cannot access the hospital documentation. This is a disadvantage as the team need to meet Mary's needs sooner in the community.