Wound Management Plan

[Name of the Writer]

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**Wound Management Plan**

**Case study**

Patient

 John Levine is a 47-year-old man who lives with his wife and two teenage daughters. He was admitted to the hospital with a diabetic foot ulcer. John was diagnosed with type two diabetes around five years ago. He was a loving family and has his brother living in the neighbourhood as well. John stopped working two years ago and has been focusing on writing a book ever since. This has caused him to gain weight as well. he does not smoke or even drinks. However, John does not have a very good diet (Khalil, Cullen, Chambers, Carroll & Walker, 2016). He loves processed food and has been exposing his body to high amounts of sugar every now and then and trying to counterbalance it by taking insulin. He is on insulin and metformin currently to manage his diabetes.

Wound Assessment

The foot ulcer developed on the lower portion of John’s leg two months ago. The dimensions have stayed the same over the course of time as per the measurements that the healthcare givers have been taking of the wound. In accordance with the last measurement, the wound was around 12cm x 4cm in dimension (Khalil, Cullen, Chambers, Carroll & Walker, 2016). The wound is not showing any signs of getting smaller. Initially, the wound was quite red and shallow but now it seems to be deeper. Recently, the skin around the wound started to get darker and the wound turned slightly darker as well. this fact indicates that the wound on John's leg is undergoing an infection.

Influence of the Wound on John’s life

The wound has had a bad impact on John's life. He suffers from social anxiety as he no longer can move around his social circle like he used to. Further, he claims that he has severe pain in his wound which has been causing discomfort. This discomfort is also influencing his sleep pattern, he hardly gets any sleep now (Khalil, Cullen, Chambers, Carroll & Walker, 2016). He feels like his quality of life is being compromised. He cannot make to both his daughters' school recitals anymore which is adding to his depression. The added stress is also making him eat more than he usually does, which has caused weight gain. The access weight and the wound has taken a toll on his self-esteem.

Wound Composition

 There are a total of three phases to wound healing which are as follows:

1. Inflammatory stage

The healing process starts with the inflammatory stage in which the primary curing starts. This has more to do with the body's own feedback to trauma. When the human physique faces a wound, it starts the homeostasis. In this step, the blood vessels cover and tighten themselves as the platelets start to form a matter that will form a lump which will halt the bleeding. Once this procedure is over and done with the blood vessels start to dilate, which further lets in the white blood cells, nutrients, enzymes, antibodies and other elements that are vital for the advancement of good wound curing and help in regulating the infection (Goodwin, Spinks & Wasiak, 2016). This is also the step when John would be facing the inflammation; swelling, pain, redness, and heat is experienced in the area that has been affected.

1. Proliferative stage

This is the second stage, the stage of proliferation. In this phase, the wound starts to reconstruct itself through healthy and new granulation tissue. It is a known fact in the medical world the colour of the granulation tissue stipulates the health status of the wound. If the wound is red or pinkish in colour it is a pointer that the wound is curing correctly but if the wound is dark in colour that means that an infection is emerging or has developed (Armstrong, Boulton & Bus, 2017). In John's case, the wound was red in colour in the beginning, but it started to change colour within the three-month span. That means that the wound has undergone an infection.

1. Maturity stage

This is the last stage of the healing process. It initiates when the injury has healed, it can take two-three years of time. In this stage, the dermal tissues are mended to improve their stretchable strength. The fibroblasts that are nonfunctional are substituted by functional ones. Further, cellular activity decreases by time and the number of blood vessels that are present in the area that has been affected also decrease and withdraw. It should be kept in mind that even if the wound is in the maturation stage the patient should go on with the treatment plan. If the patient ignores the wound, there is a chance of risk that the wound will start to deteriorate again as it has still not healed totally. Even after the wound has gone under complete maturation, it still stays weaker than it was originally (Armstrong, Boulton & Bus, 2017). In cases when the patient is older, they should take care of the area that had the wound even after the maturation process has been experienced.

The Wound Management Plan

 Before the initiation of the wound management plan, it should be made sure that the conditions are preferable for the wound to go under the process of healing. There are certain factors that can hamper the healing of the wound. If the wound is kept in a manner that moisture develops, it can lead to the affected area getting infected. In John's case, the wound was badly infected. In the past three months, John was prescribed with many regimens to initiate the healing process of his wound. Since the wound was infected John was asked to take an antibiotic to contain the infection (Bus & van Netten, 2016). He was also prescribed with intrasite gel to be used on the wound, but later he was asked to discontinue the use because of the dryness the gel was causing. There are many nurses who swear by the fact that good dressing and bandaging is key in the healing of the wound. 80% of the work is done if the patient's wound is properly cleaned and dressed. So, it is made essential that all the caregivers out there are trained well in regards to dressing a wound.

To initiate a good wound healing, the caregiver should start by cleaning the wound with normal saline. They should make sure that the wound has been cleaned properly and all the dead skin that is around the affected area has been removed carefully. Further, a good antiseptic should be used to take the extra step in making sure that the wound is completely cleaned. This step is essential as it gets rid of all the bacteria that can become the cause of an infection. After this, the healthcare nurse prescribed John to take oral supplements and vitamins that will aid in the healing process (Bus & van Netten, 2016). Now comes the key, choosing the perfect dressing, as it will be the primary factor that will aid in the healing. John has been prescribed to get inadine dressing done. Inadine is a non-adherent surgical dressing. It is said to be one of the most effective disinfectants. However, it cannot be used on patients who have a hypersensitivity to iodine. So, one has to be careful when using it on a patient.

Choosing the bandaging technique or dressing is one of the most crucial steps of wound management. In this case, no second dressing was required for the wound. The second dressing that was used on John was Mesorb. This dressing is very absorbent and works very quickly. The first dressing was changed every four days and the second dressing was changed weekly. It was evident by the second week of the changing of the bandage that the wound had started to heal. John added that the wound was less itchy and the skin around it was not getting rough either. He also said that the inflammation and pain were much better. The combination of both the dressings had started to work and the wound eventually healed completely towards the end of the treatment. The healthcare givers were very happy with the results (Zhang, Lu, Jing, Tang, Zhu & Bi, 2017). They could see that the wound had completely closed and the maturation period had started. There are studies that have proven the fact that good dressing and bandaging are vital and the key factors that aid in

The Importance of giving Health Education to the Patient

It is necessary that John is educated and made aware of the factors that can have an impact on the wound management process. John was concerned about his hygiene and how can he take showers with a wound on his leg. It is pretty simple, all he has to do is wrap a plastic sheet on the affected area before stepping in the shower (Zhang, Lu, Jing, Tang, Zhu & Bi, 2017). It is vital that the wound is kept dry, so it heals faster, but the hygiene of the area around the wound is also necessary. For this purpose, John can take a small soft body brush, wet it and gently remove all the dead skin around the area and clean it.

 Even after the patient is discharged they should take care of themselves and keep a close eye on the wound. If they witness any abnormality in the wound or the area around it, they should immediately consult their doctor. John should make sure that he is taking proper care of the wound and keeping tabs on all the symptoms. Lastly, he should take proper care of his diet. He has already gained more weight that he already has. He has type two diabetes and on top of that diabetic foot ulcer can reoccur. In order to manage both the issues, he should have a weight that is easier for his bone structure to manage and carry (Zhang, Lu, Jing, Tang, Zhu & Bi, 2017). Eating unhealthy can also increase his cholesterol levels, which is not good for his health. He should exclude processed food form his life and add leafy greens and lean meat to his diet. This will also help him feel energetic and more active. He should also incorporate fruits in his diet, especially the ones that aid in the healing process. Further, he will also be given multivitamins and supplements that will aid in the healing process.

The Management of Pain

Just like every other patient who has had a diabetic foot ulcer, John also complained about pain. The main management is essential in this case since the pain has an impact on his sleep pattern and daily life. For this he will be given ibuprofen, it is mild enough to not have side-effects and strong enough to manage the pain (Zhang, Lu, Jing, Tang, Zhu & Bi, 2017). This medication along with the two dressing will aid in the pain management and healing of the wound. Further, a person starts to feel 50% better when the pain subsides, so this step is crucial in order to help John feel better.

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