Wound Management Plan

[Name of the Writer]

[Name of the Institution]

**Wound Management Plan**

**Introduction**

Jessica Adams is a 60-year-old woman was part of a house explosion that resulted in the fire. She had a son and two daughters. At the scene, she was awake and conscious but suffered from grave thermal injuries as per the EMS report. She suffered from the fourth-degree burns. Facial burns, with inhalation injury, were the prominent menace for which she was admitted in the hospital on an emergency basis. The secondary survey manifested no additional injuries. She was activated with level trauma alert and it is essential to highlight that a thermally ill patient is still deemed a trauma patient.

**Wound Evaluation**

Jessica was evaluated in the specialized burn operating room immediately. The upper body burns were critically debrided and dressed with the antimicrobial dressings. She suffered from the fourth- degree burns. The full thickness burns were apparent on the neck, ear, face, torso, bilateral legs, bilateral arms and anterior For the next two days, she was resuscitated. She received wound preparation procedures and serial excisional debridement for a few weeks. The evaluation of the burn size can prove challenging to be untrained. The symptoms revealed that Jessica was suffering from grave burns on different parts of her body. The size of the burns made the application of cultured epidermal autografts plausible for assistance with the wound and skin coverage.

**Impact of the Wound**

The wound cast several detrimental impacts on Jessica’s life. The burn trauma manifested adverse consequences on all areas of burn. The fundamental adversity she faced was deeming herself helpless in the face of the tragedy. It was both physically and psychologically overwhelming. She lost a significant sense of power and self-esteem after losing her natural bright skin. For instance, post-traumatic stress caused her to confront difficulties while staying or falling asleep. The flashbacks and intrusive recall of the house explosion make her sense the smell the smoke of the fire. The bottom line is that it was not only the physical structure that received adverse impacts. The cognitive complications and remorse of being the victim deteriorated her very purpose of living a healthy life (Gacto-Sanchez, 2017). Such perilous were the consequences of the wound on Jessica. Moreover, she hardly sleeps at night because of pain and has to take sleeping pills and painkillers to feel comfortable. The essential quality of life degraded to a significant extent and these proved to be the worst days of her life.

 **Wound Physiology**

 In Jessica’s case, her tissues burnt to a significant extent that comprised microvascular reactions and direct coagulation in the surrounding areas. It is critical to comprehend and take effective steps to mitigate the impact or the condition is likely to get further worse. Her face suffered injuries which covered a major portion of her face and thus was associated with an integral response as a consequence of skin barriers, subsequent infection and the release of the vasoactive edema from the burn wounds. The primary phase is the resuscitation of the wounds. These responses are triggered by the assistance of insulin resistance, accelerated gluconeogenesis and enhanced protein catabolism supplement the response. For Jessica, peculiar benchmarks have been set (Rinkinen et al., 2015). For instance, modification of the nature of physiology through the supervision of beta-adrenergic blockade, nonsteroidal and anti-inflammatory agents, beta-adrenergic supplementation, insulin-like growth factor and androgenic steroids will be utilized to modify the peculiar physiology.

 The fourth-degree burns of Jessica demonstrate the graded capillary leak that enhances as the size of the injury grows. For resuscitation, hypertonic saline will best serve the purpose for her. Another critical adversity identified in the process of the burn physiology of deep thermal injury of Jessica is the pigmented urine. It will be imperative to prompt the pigment to explicitly avoid renal failure. This is essentially accomplished through administration of supplementary crystalloid.

 Throughout the process, the electrolytes level is critically corrected and monitored persistently. In case of severe hyponatremia, seizures and cerebral edema are likely to occur. Jessica suffered the fourth-degree burns which must be addressed in an organized manner. For instance, monitoring the potassium, serum sodium, magnesium levels, ionized calcium and phosphorus ought to be kept in the physiologic range (“Classification of Burns - Health Encyclopedia - University of Rochester Medical Center,” n.d.). Since Jessica is suffering from fourth-degree burns, the nerve endings in her skin are nearly destroyed. Thus, implementing the process of eternal feedings during resuscitation must be thoroughly assessed to keep her safe.

 **The Wound Management Plan**

Jessica, a 60-year-old woman has a fourth-degree burn. Her burn includes the demolition of the parts of the dermis and epidermal layer. Moreover, it does not spread by both layers. Her wounds are critically affected by the intensity of the fourth-degree burn and hence require an immediate examination and care to her highly damaged nerve tissue. Each of the depth deals with a foreseeable time of healing, outcome and treatment modality. Her fourth-degree burns have gone through both; skin's layers and tissues which lie underneath the skin. Microvessels that are perfusing this particular area are wounded, it is further leading to the leakage of the great amount of plasma. This causes a blister to form and lifts off the epidermis that was destroyed by heat. Jessica’s resulting wounds are wet, painful and pink. These wounds are the extremely painful wounds as the endings of nerves are revealed to air. Infection risk is low and blood flow which remains is adequate. It is possible that her wounds heal in 1-2 weeks. In Jessica’s case scaring is uncommon unless and until her wound gets contaminated very grossly.

Her treatment starts with the debridement and cleansing of remaining big blisters and loose epidermis from the surface of the wound. Big blisters would remain no more than 4 days as the risk of infection is elevated. An antibiotic is not necessarily required. Her area of wounds; ears and face will be treated openly without even dressing them. For her wounds, an ointment like bacitracin is usually required to retain the moisture of the wound and take predominantly control of the gram-positive bacteria on her face. Her wound areas will be gently cleansed on a daily basis with a dilute solution of chlorhexidine to remove surface exudate and crust. A fourth-degree burn can also be handled with a substitute for temporary skin that shields the surface of the wound and delivers moist healing of the wound. Gauze's outer layer should be changed if gets soaked with the plasma oozing out of the surface of the wound. Once the wounds stop oozing, substitute of the skin can possibly be left open for healing. Furthermore, if her case gets serious, treatment of her burns require instant wound closure and surgical debridement with permanent skin substitute or skin graft. If her case requires surgery, her wounds will be treated with dressing, anti-biotic cream that is silver-based and by using a closed technique of dressing.

Her burn requires special care. Her burns of hands, face, ears and feet have an ultimate risk of cosmetic abilities, complications and potential function. Such burns need immediate care and management in a burn care facility(“Wound Care After Burn Injury | Model Systems Knowledge Translation Center (MSKTC),” n.d.). Burns on the face of Jessica are at great risk of functional and cosmetic disability. Her deep face burns need a more attentive approach to aid in the prevention of the infection, involving loose necrotic tissues' frequent debridement and use of products of silver. Typically, surgical management is needed. Moreover, her ears burns can be treated with a similar approach that is used in treating her facial injuries. Although, pressure from outside must not be functionally applied to the helix that is injured. In this area, the cartilage is poorly vascularized already and any pressure will ruin the injury more. In addition, burns on the feet and hands of Jessica may result in functional disability. Such burns are handled with a skin substitute and petroleum-impregnated gauze. This helps in pain control and wound protection. As her burns are deep, they will require therapy of silver-based products. Each wound needs to be wrapped particularly to allow body part of the patient to functionally move. Her major burns may lead to serious mortality or morbidity. Treatment of her wounds requires professional help in the burn care centre.

 **The need for giving Health Education to the Patient**

First, the critical intensity of the burn wound will make Jessica ignorant of maintaining a schedule to look after her because of the post-traumatic stress. It is imperative to recommend her a seasoned therapist during and after her treatment or she may face detrimental ramifications. The principle which defines the need for giving essential health education to the patient is dispensing awareness. Jessica is always conscious of her hygiene and taking showers on a persistent basis. If she advances to take shower in such critical condition even after her burns reflect significant healing, her skin may swell or become prone to establishing an infection (“Burn Wound Infections | Clinical Microbiology Reviews,” n.d.). She has to thoroughly adhere to the directions of the doctors.

 Jessica will have to follow the directions of the doctor to keep her wounds safe from bacteria and keep a tab on the wounds. Surrounding the wound with a bandage is crucial irrespective of personal likings or disliking of Jessica. To take a shower, a cloth should be soaked in water and then cleaned on the body. However, the burnt body parts ought not to be exposed to even a drop of water. In addition, the antibiotics and gel tubes play an instrumental role to rejuvenate the healthy tissues of the body and thus should not be missed at any instance. The fourth-degree burn is very critical and inflicts severe pain. She will have to keep a strict check on the condition of the affected skin and in case of swelling; she must consult the doctor immediately. Diet will also play a fundamental. The diet rich in essential proteins and vitamins will serve as the primary trigger to establish the damaged skin surface and deep tissues in an expedite manner. Jessica loves to eat vegetables which are an added benefit for her. Moreover, the incorporation of several fruits and their juices in the diet plan will be imperative to confront the critical burns.

 **Pain Management**

 Pain management lies at the very heart of ensuring that Jessica is able to confront the critical burns in an organized and systematic manner. Anxiety and depression will take a severe toll on the patient which will require her to modify her lifestyle through deep pressure therapy. In case she suffers a severe emotional breakdown, sedatives will be essential to keep her in a sustainable emotional state. Therefore, pain management of the burn wounds is an integral part of the treatment besides surgical methods and care.

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