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DILEMMATIC OF MANAGEMENT OF WOUND CARE OF DIABETIC FOR RISK AMPUTATION IN RURAL AREAS: A CASE REPORT

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ABSTRACT
Diabetic wounds are one of the most challenging complications faced by individuals with diabetes. These wounds not only pose serious physical threats, such as infection and limb loss, but also cause significant psychological distress. One ethical dilemma commonly encountered in diabetic wound care involves decision-making about treatment options, especially when patients request amputation due to pain or economic burden, while healthcare providers aim to preserve the limb through advanced wound care techniques. This situation requires careful consideration of both medical and ethical aspects to ensure patient-centered care. The objective of wound care in such cases is not only physical healing but also improving the patient's psychological well-being. When care is holistic and empathetic, patients are more likely to engage in treatment positively and without fear, especially during painful procedures such as dressing changes. This case highlights a 55-year-old man with a 20-year history of uncontrolled diabetes and a chronic, infected wound on his right leg. The patient's initial desire for amputation was addressed through a multidisciplinary approach using the TIME method Tissue management, Inflammation control, Moisture balance, and Epithelial advancement. The structured, ethical, and compassionate care helped the patient reconsider amputation, demonstrating that rural nurses and health teams can resolve ethical dilemmas and support better patient outcomes.

Keywords: dilemma ethtic; management of care; wound care of diabetic

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INTRODUCTION

Diabetic wounds are a serious complication that many people with diabetes experience. Patients may experience a number of issues as a result of this condition, both physically and psychologically(1).One of the ethical dilemmas that often arises in diabetic wound care is related to providing information to patients regarding treatment options, especially when considering the patient's desire for amputation or efforts to maintain limbs. On the one hand, wound nurses have an obligation to provide complete and honest information about all treatment options that can be given, including their risks and benefits. On the other hand, patients have the right to autonomy to determine the treatment options that are most appropriate to their condition and wishes(Beauchamp & Childress, 2019). The situation becomes more complex when the patient's wishes conflict with medical recommendations. For example, a patient may want an amputation because he or she is desperate for a wound that is not healing and causing severe pain, while the nurse believes that there is still a possibility of saving the limb through intensive care and a multidisciplinary approach. In such circumstances, nurses are in a difficult position, where they must balance respecting the patient's autonomy with their professional obligation to provide the best care.

This case report discusses the ethical dilemma that arises in the care of a patient with diabetic wounds who desires amputation despite medical options to save the limb. This case highlights the importance of comprehensive holistic assessment, effective therapeutic communication, and solid medical team collaboration in the process of ethical and patient-centered care

decision-making, especially in the context of diabetic wound care (Fearns et al., 2017). This case study contributes to the scientific literature by demonstrating how the Nursing Process model approach can be applied in dealing with ethical dilemmas in nursing in patients with diabetic wounds, which involve not only physical aspects, but also psychological, social, and economic aspects. Through the nursing process, nurses can apply structured problem solving in making ethical decisions.

METHOD

The method used in this case study involved a structured nursing process approach, guided by ethical consent, comprehensive patient assessments including wound evaluation using BWAT, pain scale, GDS for depression, MSPSS for social support and the SOAP (Subjective, Objective, Assessment, and Planning) format to monitor and evaluate the patient's progress over three clinical visits. Before the researcher made Mr. S's case into a case study report, the researcher had asked for the patient's consent by signing the consent form for the case study report. The patient's history was obtained from the patient's medical resume discharged from Dr. Haryoto Lumajang Regional Hospital (28-08-2024) and RSUM Lumajang (13-09-2024) with a diagnosis of type 2 hyperglycaemic DM, gangrene pedis dextra, and dyspepsia syndrome. For research purposes, the researcher conducted periodic patient assessments during 3 visits by including information consisting of age, name, gender, weight, and place of residence, habit patterns, activities, worship patterns before and during illness and patient income by conducting BWAT (Bates-Jensen Wound Assessment Tool)(Gupta et al., 2023), pain scale, Geriatric Depression Scale (GDS)(Hadrianti et al., 2024) and Multidimensional Scale of Perceived Social Support (MSPSS)(Laopoulou et al., 2020). The researcher also reviewed the family health history such as history of Diabetes mellitus, Hypertension, and other infectious diseases. The approach used in this case study is the Nursing Process model (American Nurses Association, 2021). Wound assessment at the first visit on August 15, 2024 using BWAT (Bates-Jensen Wound Assessment Tool) obtained a score of 52. The pain scale when changing the dressing was 7. The patient's Depression Assessment used the Geriatric Depression Scale (GDS) assessment with a score of 10 (moderate depression). Family support with the Multidimensional Scale of Perceived Social Support (MSPSS) with a Total Score of 55. Regarding nursing assessment, nurses' rural health clinic arranged nursing care plan using nursing care planed approached that showed in Table 1. In the evaluation process, the nurses' rural health clinic evaluated patients' condition, including subjective (S), objective (O), assessment (A), and planning (P) for the progress of patients during 3 times of care.

Table 1.
Nursing care plan (diagnosis, planning, implementation, and evaluation)

Nursing Diagnosis	Planning	Implementation	Evaluation
Disruption of skin or tissue integrity related to impaired circulation and sensation characterized by damage to tissue and/or skin layers (D.0129)(Tim Pokja SDKI DPP PPNI, 2016)	Wound Care (I.14564) (Tim Pokja SIKI DPP PPNI, 2018)	1. Monitor wound characteristics 2. Monitor signs of infection (no signs of infection) 3. Carrying out wound care based on TIME Management a. Tissue Management using autolysis debridement using hydrogel as a primary dressing b. Infection/inflammation control is carried out by washing the wound using wound soap and compressing the wound using PHMB fluid for 5 minutes. c. The wound moisture balance is maintained by using tertiary dressing using orthopaedic	S: Mr. S. stated that his wound was painful and uncomfortable, but after treatment he felt more comfortable. O: • BWAT (Bates-Jensen Wound Assessment Tool) score: 52. Large, deep wound with exposed tendon. • Bleeding wound during dressing change • No signs of infection (no redness, swelling, or pus). • Wound care is performed every 3-4 days

		wool so that it can absorb excess fluid from the secondary dressing, so that the duration of treatment can be done once every 3-4 days d. Edge/wound epithelialization using a Low adherent dressing as a secondary dressing but has minimal exudate absorption capacity. 4. Change dressings according to the amount of exudate and drainage 5. Provide a diet with 30-35 kcal/kgBW/day calories and 1.25-1.5 g/kgBW/day protein 6. Explain signs and symptoms of infection 7. Encourage consumption of foods high in calories and protein 8. Collaborate with a multidisciplinary team (surgeons and nurses' rural health clinic) to formulate and implement an integrated care plan	• Collaboration with surgery to plan skin grafts and nurses' rural health clinic nurses who are trained in changing dressings. A : Increased wound healing (L.14130)(Tim Pokja SLKI DPP PPNI, 2018) • Granulation tissue increased • Wound inflammation decreased • Wound pain during dressing changes decreased • Purulent drainage decreased • Surrounding skin erythema decreased • Increased skin temperature decreased • Necrosis decreased • Infection decreased P: continue intervention
Acute pain related to physical injuring agents (D.0077)(Tim Pokja SDKI DPP PPNI, 2016)	Pain Management (I.08238) (Tim Pokja SIKI DPP PPNI, 2018)	1. Identify the location, characteristics, duration, frequency, quality, intensity of pain 2. Identify the pain scale 3. Identify non-verbal pain responses 4. Identify factors that aggravate and alleviate pain 5. Identify knowledge and beliefs about pain 6. Identify cultural influences on pain responses 7. Identify the influence of pain on quality of life 8. Monitor the success of complementary therapies that have been given 9. Monitor the side effects of analgesic use 10. Provide non-pharmacological techniques to reduce pain (eg: massage therapy, aromatherapy, guided imagery techniques) 11. Control the environment that aggravates pain (eg: room temperature, lighting, noise) 12. Facilitate rest and sleep 13. Consider the type and source of pain in choosing a pain relief strategy 14. Explain the causes, periods, and triggers of pain 15. Explain pain relief strategies 16. Encourage pain monitoring regularly independent 17. Advise the use of analgesics appropriately 18. Teach pharmacological techniques to reduce pain 19. Collaborate in providing	S: Mr. S. reported pain of 7 (scale 0-10) during wound dressing changes. O : • Pain was evident from Mr. S.'s facial expression and behavior during wound dressing removal • Vital Sign: (BP: 135/90mmHg, HR: 85x/mnt, RR: 16x/mnt, T:36^{o}C • Mr. S took analgesics before wound care. • Hydrogel and non-adhesive dressings were used. A : Pain level decreased (L.08066)(Tim Pokja SLKI DPP PPNI, 2018) • Pain complaints decreased • Grimace expression during wound care decreased • Protective attitude decreased • Anxiety decreased • Difficulty sleeping decreased • Pulse rate improved P : continue intervention

		analgesics, if necessary	
Disturbed body image related to changes in body structure(Tim Pokja SDKI DPP PPNI, 2016)	Stress management (I.09293)(Tim Pokja SIKI DPP PPNI, 2018)	1. Identify stress levels 2. Identify stressors 3. Reduce anxiety (eg, encourage deep breathing before procedures). 4. Understand angry reactions to stressors 5. Discuss feelings of anger, sources, and meanings 6. Give the patient a chance to calm down 7. Provide adequate rest and sleep to restore energy levels. 8. Use methods to promote spiritual comfort and calm 9. Ensure adequate nutritional intake 10. Encourage time to reduce stressful events 11. Encourage anger management 12. Encourage meeting priority needs that can be resolved. 13. Encourage physical exercise to improve biological and emotional health 30 minutes 3 times a week 14. Encourage the use of stress-reducing techniques appropriate for the hospital or other conditions. 15. Encourage stress management techniques (eg, breathing exercises, massage, progressive relaxation, guided imagery, touch therapy, meditation)	S: Mr. S. reports feeling stressed and anxious about his condition and treatment. He expresses frustration and anger about his situation. He mentions difficulty sleeping and feeling fatigued. O : • Geriatric Depression Scale (GDS) assessment showed a score of 10 (moderate depression) • Patient engages in limited physical activity. • Uses limited stress management techniques (e.g., deep breathing or relaxation exercises) A : Improved body image (L.09067)(Tim Pokja SLKI DPP PPNI, 2018) • Verbalization of negative feelings about body changes • Verbalization of concerns about • rejection/reactions of others • Verbalization of lifestyle changes • Excessive hiding of body parts P : continue intervention
Anxiety related to situational crisis(Tim Pokja SDKI DPP PPNI, 2016)	Coping promotion (I.09312)(Tim Pokja SIKI DPP PPNI, 2018)	1. Assess the Patient's Coping Mechanisms 2. Provide Emotional Support 3. Educate the Patient on Coping Strategies 4. Encourage Problem-Solving Skills 5. Facilitate Social Support 6. Document Interventions and Outcomes 7. Collaborate with a multidisciplinary team (surgeons and nurses' rural health clinic nurses) to formulate and implement an integrated care plan	S : Mr. S expressed feelings of anxiety and worry regarding his situational crisis (amputation and ongoing treatment). He expressed concerns about his ability to cope with his changing health status and meet the needs of his family. O : • Geriatric Depression Scale (GDS): Score of 10, indicating moderate depression. • Multidimensional Scale of Perceived Social Support (MSPSS): Total score of 55, indicating that Mr. S feels high social support from his family. • Observation: Mr. S sometimes appears restless, asking when his wound will heal. He begins to do relaxation techniques taught during nursing interventions. • Wound condition: Stable, with no signs of infection or complications. • Family involvement: Family members actively provide emotional support and participate in care

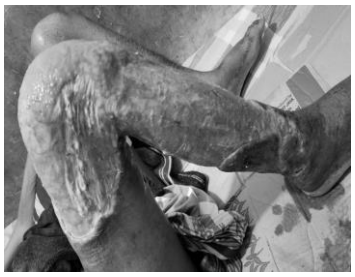
	discussions. • There is support from Community Health Center nurses in periodic follow-up wound care and control at the surgical specialist polyclinic with Indonesian National Health Insurance financing. A : increased social support (L.13113)(Tim Pokja SIKI DPP PPNI, 2018) • Ability to ask for help from others increases • Help offered by others increases • Emotional support provided by others increases • Helping social networks increase P : continue intervention

RESULT

From Pic 1. illustrated the wound of patient in the first day the nurses' rural health clinic visit to patients' home. The condition of the wound on the right leg, grade 5 wound with open tendons, with necrotic tissue of more than 35%. Pic 2. illustrated the wound of patient in the first day the nurses' rural health clinic visit to patients' home (at 15 August 2024). The wound appeared to be bleeding when the dressing was removed. Meanwhile, Pic 3. described of the wound at the 2nd visit. The condition of the necrotic tissue wound has decreased, 85% of the wound base is granulation tissue. Then, Pic 4. showed that photo of the wound at the 2nd visit (at 24 August 2024). The condition of the wound showed minimal bleeding when changing the dressing, there was no sticky dressing on the base of the wound.

Pic 1. Wound 1st day

Pic 2. Wound 1st day for care

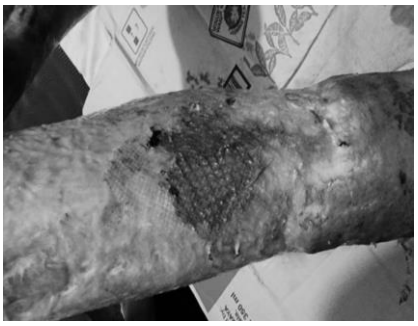


Pic 3. Wound at the 2nd visit

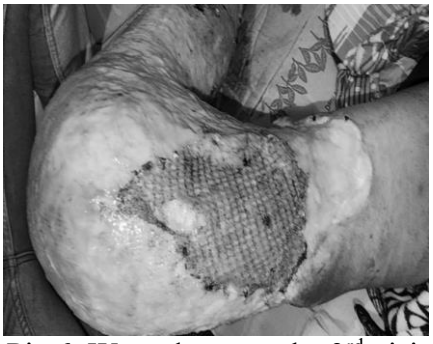
Pic 4. Wound care at the 2nd visit

Furthermore, Pic 5. illustrated of wound on medial side after skin graft procedure at 3rd visit. The wound condition appears epithelialized. Then, Pic 6. described that photo of the wound at the 3rd visit (at 13 September 2024). The wound condition the skin graft appears to be fused with the wound bed. Then, Pic 7. Explained that photo of the wound at the 3rd visit. The

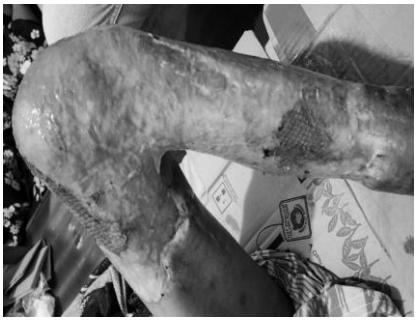
wound condition wound base 100% granulation, no bleeding during dressing change. Surprisingly, Pic 8. illustrated that the process of changing a patient's dressing on the first day of the nurse's visit to the health centre to the patient's home. The wound condition appears to be wrapped in gauze and there is a lot of exudate.



Pic 5. Wound at the 3rd visit



Pic 6. Wound care at the 3rd visit



Pic 7. Fused with the wound bed

Pic 8. Hanging a patient's dressing

After undergoing 3 treatments, the results of the pain scale decrease in score from 7 to 2, and no bleeding when changing dressing. Wound assessment using the BWAT (Bates-Jensen Wound Assessment Tool) showed a decrease in score from 52 to 44, which means that the wound is undergoing a process of repair/leading to healing. The results of the Geriatric Depression Scale (GDS) assessment from 10 (moderate depression) to 7 (mild depression) and the Multidimensional Scale of Perceived Social Support (MSPSS) from 55 to 58, which means that the patient experienced an increase in the perception of social support. The decision taken by Mr. S was to reconsider his desire for amputation. Researchers have also collaborated with surgical specialists and nurses' rural health clinic to discuss the most appropriate follow-up care plan for Mr. S's condition and the results showed that the patient received control services to the Surgical Specialist Clinic every 2 weeks and received dressing materials for care at home until the check-up and dressing changes were carried out by nurses' rural health clinic with all maximizing services from Indonesian National Health Insurance.

DISCUSSION

The case of Mr. S shows the complexity of ethical dilemmas in diabetic wound care. Mr. S's desire for amputation reflects his feelings of hopelessness and depression due to his non-healing wound and the heavy economic burden. On the one hand, health workers have an obligation to respect the patient's autonomy in making decisions regarding their care. On the other hand, health workers also have a professional responsibility to provide the best care and consider the principle of beneficence in nursing ethics. Resolving ethical dilemmas systematically is the key to identifying solutions. This case demonstrates ethical dilemmas in diabetic wound care and the importance of a holistic approach.

In the case of Mr. S, the researcher used the Nursing Process model approach in dealing with ethical nursing dilemmas where the complexity of the problems in diabetic wound patients, which involve physical, psychological, social, and economic aspects with the nursing process, means that problem solving can be applied in a structured manner by nurses in ethical decision making to guide data collection and analysis. Through in-depth assessment, nurses

can identify the factors underlying the patient's desire for amputation, namely due to wounds that do not heal, the experience of pain when changing dressings and the cost of care needed for the healing process (Teare & Barrett, 2002). After receiving 3 times wound care using hydrogel as primary dressing, the patient felt comfortable and the pain scale decreased. Hydrogel helps maintain wound moisture, and can encourage new tissue growth and prevent wound drying and can reduce pain and inflammation(Holbert et al., 2019). The application of low adherent dressings also significantly reduces pain levels during dressing changes. Low adherent dressings are made of non-sticky materials such as silicone or other non-sticky materials to minimize trauma and pain during dressing changes, very suitable for use on wounds with fragile/ damaged tissue (West Coast Wound Care, 2024). Providing comprehensive information and therapeutic communication helps patients understand their condition and available treatment options objectively.

By showing wound progress leading to healing (Bates-Jensen Wound Assessment Tool) experienced a decrease in score from 52 to 44. The results of the Geriatric Depression Scale (GDS) assessment from 10 (moderate depression) to 7 (mild depression) which means that reducing pain and physical discomfort can improve mood and reduce psychological freedom. Increased Multidimensional Scale of Perceived Social Support (MSPSS) from 55 to 58 which means that patients experienced an increase in perception of social support and experienced an increase in understanding their health condition which is always supported by the medical team and family. Collaboration with other medical teams is also important to formulate a comprehensive care plan and provide optimal support to patients. To provide ongoing wound care support, the role of nurses' rural health clinic has the authority to carry out nursing care which includes assessment, determination of nursing diagnoses, planning, carrying out nursing actions (including nursing interventions, nursing observations, health education and counselling) and evaluation in accordance with nursing care standards(Pemerintah Provinsi Jawa Timur, 2010). By utilizing Indonesian National Health Insurance services, sick people can get proper and appropriate therapy so they don't need to worry about the cost of their treatment, including diabetes treatment. The patient's limited ability to have PBI BPJS health insurance facilities covered by the government for the poor, there is assistance for intervention care from the East Java provincial government's village health post program, and the referral hospital has skin grafting facilities(dr. Alvin Nursalim, 2021). The wound dressings used by Mr. S are hydrogel (Cavida gel), Low adherent dressing (Melolin) and Orthopaedic wool (Mediban), all of these products are in the e-catalogue, which means that these products can be provided by Government Agencies for use in wound care(Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah (LKPP), 2022).

CONCLUSION

Mr. S's case provides an important lesson that ethical dilemmas are common in diabetic wound care. Nurses have a crucial role in bridging patient desires with medical recommendations by prioritizing ethical principles and a holistic approach that considers all aspects of patient needs. The main goal of care is to help patients achieve healing and improve their quality of life, both physically and psychologically care, patients will feel comfortable and more enthusiastic about healing without anxiety, especially when changing dressings. Multidisciplinary collaboration is essential, especially in handling patients with low incomes, of course by utilizing and maximizing existing resources such as Indonesian National Health Insurance and Nurses' rural health clinic nursing services, allowing patients to get sustainable and affordable services.

REFERENCES

American Nurses Association. (2021). Nursing: Scope and standards of practice (4th ed.) (4th ed.). American Nurses Association.

Beauchamp, T., & Childress, J. (2019). Principles of Biomedical Ethics: Marking Its Fortieth Anniversary. In American Journal of Bioethics (Vol. 19, Issue 11, pp. 9–12). Routledge. https://doi.org/10.1080/15265161.2019.1665402

dr. Alvin Nursalim, S. (2021). Bisakah Penderita Diabetes Berobat dengan BPJS? Https://Www.Klikdokter.Com/Info-Sehat/Diabetes/Bisakah-Penderita-Diabetes-Berobat-Dengan-Bpjs?Srsltid=AfmBOooGKGVR8rVd3OcU_FQ4EVzs2ZcBrjzou3FRzecqYxfFGUwgraPI.

Fearns, N., Heller-Murphy, S., Kelly, J., & Harbour, J. (2017). Placing the patient at the centre of chronic wound care: A qualitative evidence synthesis. In Journal of Tissue Viability (Vol. 26, Issue 4, pp. 254–259). Tissue Viability Society. https://doi.org/10.1016/j.jtv.2017.09.002

Gupta, S., Srivastava, A., Malhotra, R., Chadha, M., & Aggarwal, A. N. (2023). Wound Assessment Using Bates Jensen Wound Assessment Tool in Acute Musculoskeletal Injury Following Low-Cost Wall-Mounted Negative-Pressure Wound Therapy Application. Indian Journal of Orthopaedics, 57(6), 948–956. https://doi.org/10.1007/s43465-023-00861-2

Hadrianti, D., Saherna, J., Arji, A., Pratama, Z., Putri, A., & Khaliza, N. (2024). Geriatric Depression Scale (GDS) sebagai Pengkajian Status Psikologis pada Lansia. Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM), 7(3), 1236–1246. https://doi.org/10.33024/jkpm.v7i3.13387

Holbert, M. D., Griffin, B. R., McPhail, S. M., Ware, R. S., Foster, K., Bertoni, D. C., & Kimble, R. M. (2019). Effectiveness of a hydrogel dressing as an analgesic adjunct to first aid for the treatment of acute paediatric thermal burn injuries: Study protocol for a randomised controlled trial. Trials, 20(1). https://doi.org/10.1186/s13063-018-3057-x

Laopoulou, F., Kelesi, M., Fasoi, G., Vasilopoulos, G., & Polikandrioti, M. (2020). Perceived Social Support in Individuals with Diabetic Foot Ulcers: A Cross-sectional Survey. Journal of Wound, Ostomy and Continence Nursing, 47(1), 65–71. https://doi.org/10.1097/WON.0000000000000614

Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah (LKPP). (2022). MELOLIN MELOLIN Low Adherent Dressing Pads. Https://E-Katalog.Lkpp.Go.Id/Katalog/Produk/Detail/58652359?Lang=id&type=general.

Pemerintah Provinsi Jawa Timur. (2010). Peraturan Gubernur Jawa Timur Nomor 4 Tahun 2010.

Polikandrioti, M., Vasilopoulos, G., Koutelekos, I., Panoutsopoulos, G., Gerogianni, G., Alikari, V., Dousis, E., & Zartaloudi, A. (2020). Depression in diabetic foot ulcer: Associated factors and the impact of perceived social support and anxiety on depression. International Wound Journal, 17(4), 900–909. https://doi.org/10.1111/iwj.13348

Teare, J., & Barrett, C. (2002). Using quality of life assessment in wound care. Nursing Standard (Royal College of Nursing (Great Britain) : 1987), 17(6), 64, 59—60, 67—8. https://doi.org/10.7748/ns.17.6.59.s54

Tim Pokja SDKI DPP PPNI. (2016). Standar Diagnosis Keperawatan Indonesia (SDKI) (1st ed.). DPP PPNI.

Tim Pokja SIKI DPP PPNI. (2018). Standar Intervensi Keperawatan Indonesia (SIKI) (1st ed.). DPP PPNI.

Tim Pokja SLKI DPP PPNI. (2018). Standar Luaran Keperawatan Indonesia (SLKI) (1st ed.). DPP PPNI.

West Coast Wound Care. (2024). Types of Wound Dressings and When to Use Them. Https://Westcoastwound.Com/Types-of-Wound-Dressings-and-When-to-Use-Them/#:~:Text=Non%Adherent%20%20dressings%20are%20%20designed,Skin%20grafts%2C%20and%20donor%20sites.