Course Title

## Nursing Care Plan – A Deep Partial-Thickness Burn Injury with 4% TBSA

Name, Middle Name, Last Name

Student ID:

Professor Name:

University Name:

Date:

## Nursing Care Plan

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Identification	of	Risk of anxiety related to sudden injury, pain, uncertainty of
problem		outcome and treatment
		Risk of severe pain because of the nerve and tissue injury
		Risk of Deficient Diversional Activity due to physical
		limitations, prolonged hospitalisations and monotony of
		confinement
		$\clubsuit$ Risk of reduced range of motion (ROM) and impaired
		physical mobility due to painful burn
		$\boldsymbol{\diamondsuit}$ Risk of impaired gas exchange related to the inhalation of
		smoke, poisoning due to carbon monoxide, and obstruction
		of upper airway
		<ul> <li>Risk of hypothermia because of open wounds and the loss of</li> </ul>
		skin microcirculation
		$\boldsymbol{\diamondsuit}$ Risk of ineffective clearance of the airway related to the
		effects of inhaling smoke and oedema
		$\clubsuit$ Risk of deficit in the fluid volume related to evaporative
		losses from the burn wound and increased permeability of
		capillaries
		(Herndon, 2007)
Expected outcome		The burn wounds should appear pink and clean, free of any
		purulent drainage
		The wound remains free from any signs of infection
		Restoration of optimal electrolyte and fluid balance as well
		as perfusion of vital organs
		<ul> <li>Maintenance of proper airway clearance and patient airway</li> </ul>
		as well as adequate oxygenation of the tissue
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	<ul> <li>Restoration of the circulating volume/hemodynamic stability, and</li> <li>Providing information about the condition, prognosis and treatment</li> <li>(Herndon, 2007)</li> </ul>
Aetiology	Physiology: A human skin has three main layers, epidermis (50-
	100 $\mu$ m), dermis (1-2mm) and hypodermis (1-2mm). The most
	superficial layer of the epidermis is the stratum corneum which acts
	as a barrier for percutaneous absorption. The primary function of
	stratum corneum is to provide protection against microorganisms
	and abrasive action, loss of water, and acts as a permeability barrier
	to the environment (World Health Organization, 2009; Bikle, 2011).
	Pathophysiology of burn wounds is significantly characterised by
	the acute inflammatory response which increased the permeability
	of the capillaries resulting in significant loss of fluid, electrolytes and
	proteins as reflected across the injured area of the skin. Can also
	lead towards hypovolemic shock if resuscitation is not conducted
	immediately and rapid colonisation of gut flora starts to occur. A
	deep partial-thickness burn significantly destroys the dermal layer
	and only a few epidermal cells are remaining. The wound appears
	dry and white, whereas, compromising the blood flow. It also results
	in decreasing the tissue of perfusion ( <i>zone of stasis</i> ) and also causes
	an irreversible loss of tissue due to the coagulation of the
	constituent proteins (zone of coagulation) (DeSanti, 2005; Bikle,
	2011).
Nursing interventions	The focus of the treatment can be on utilising the topical antibiotics
	during the process of debridement or removing eschar. However,

grafting and excision are preferred for a deep partial-thickness wound with 4% TBSA because of they are healed through primary interventions, dense scars will be visible (Monstrey et al., 2008). Another intervention is to use the renowned antimicrobial – an agent containing silver – either in the form of a silver-impregnated membrane or a cream and should be used as a dressing on the injured surface (Holder et al., 2003). The ROM exercises should also be performed timely as it is also reported that the patient has become less active after the loss of her husband (Carpenito-Moyet, 2008). Sterling et al., (2010) have also recommended the use of silver sulfadiazine dressing and skin grafting (surgical excision) if the wound is not healed after 3 weeks.

## References

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