

IN THE NAME OF GOD

MANAGING AN UNSTAGEABLE SACRAL PRESSURE INJURY WITH HONEY-BASED DRESSING



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- **DEFINITION**

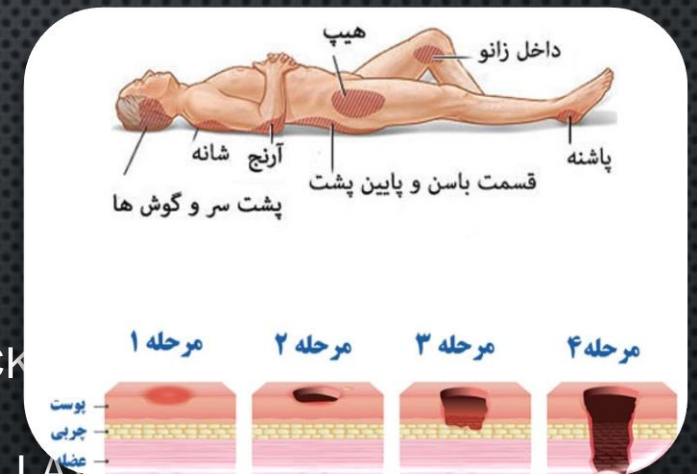
- **WHAT DOES BED SORE MEAN?**

- **DAMAGE TO AN AREA OF THE SKIN CAUSED BY CONSTANT PRESSURE ON THE AREA FOR A LONG TIME**

- **GRADES OF PRESSURE SORES**

PRESSURE SORES ARE GRADED TO FOUR LEVELS, INCLUDING:

- **GRADE I** – SKIN DISCOLOURATION, USUALLY RED, BLUE, PURPLE OR BLACK
- **GRADE II** – SOME SKIN LOSS OR DAMAGE INVOLVING THE TOP-MOST SKIN LAYERS
- **GRADE III** – NECROSIS (DEATH) OR DAMAGE TO THE SKIN PATCH, LIMITED TO THE SKIN LAYERS
- **GRADE IV** – NECROSIS (DEATH) OR DAMAGE TO THE SKIN PATCH AND UNDERLYING STRUCTURES, SUCH SUCH AS TENDON, JOINT OR BONE.



- **CASE STUDY**

- **MEDICAL HISTORY**

- **A 44-YEAR OLD MALE PATIENT WITH NEWLY_DIAGNOSED CEREBELLAR STROKE PRESENTED WITH A WOUND OVER THE SACRUM REGION THAT HAD DEVELOPED DURING HIS HOSPITAL STAY.**
- **THE PATIENT WAS ADMITTED TO HOSPITAL FOLLOWING THE ONSET OF SUDDEN SEIZURES AT HIS PLACE OF WORK. A COMPUTED TOMOGRAPHY SCAN REVEALED AN **ACUTE CEREBELLAR STROKE**.**
- **SUBSEQUENTLY, THE PATIENT WAS BEDRIDDEN AND DEVELOPED PRESSURE INJURY ON **DAY 4** OF ADMISSION.**



- **CASE STUDY**

- **MEDICAL HISTORY**



- REGULAR REPOSITIONING HAD NOT BEEN CARRIED OUT AND THE WOUND WAS NOT RESPONDING WELL TO CONVENTIONAL DRESSINGS, WHICH INCLUDED NORMAL SALINE AND GAUZE DRESSING.
- THE PATIENT WAS REFERRED TO THE WOUND CARE UNIT ON DAY 6 OF ADMISSION DUE TO WORSENING OF THE WOUND. THE INITIAL WOUND ASSESSMENT SHOWED AN UNSTAGEABLE PRESSURE INJURY, MEASURING **10.0cm x 8.5cm x 0.5cm** WITH SIGNS OF LOCAL INFECTION.
- THE WOUND CONSISTED OF ALMOST 60% SLOUGH AND 40% NECROTIC TISSUE. IT HAD MINIMAL AMOUNT OF EXUDATE AND WAS 6CM FROM THE ANUS. MINIMAL PERIWOUND SKIN EXCORIATION WAS OBSERVED.

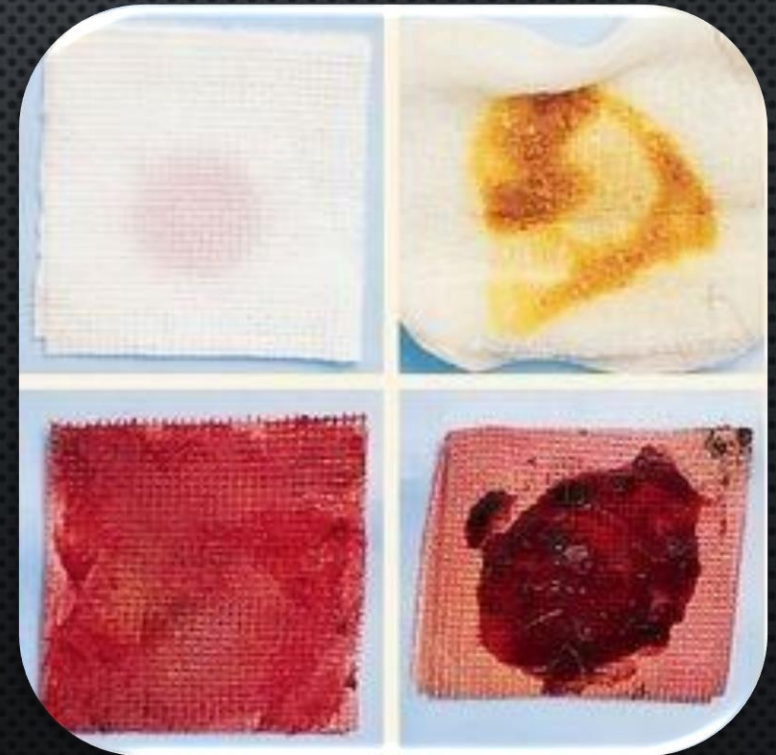
- **DEFINITION**

- **WHAT IS EXUDATION IN TISSUE?**

- EXUDATE IS FLUID THAT LEAKS OUT OF BLOOD VESSELS INTO NEARBY TISSUES. THE FLUID IS MADE OF CELLS, PROTEINS, AND SOLID MATERIALS.

- **WHAT DOES EXUDATE DO TO WOUNDS?**

1. PREVENT THE WOUND BED FROM DRYING OUT.
2. SUPPLY OF NECESSARY NUTRIENTS





Day 1: Unstageable sacral pressure injury measuring 10.0cm x 8.5cm x 0.5cm with 60% slough and 40% necrotic tissue.

- **CASE STUDY**

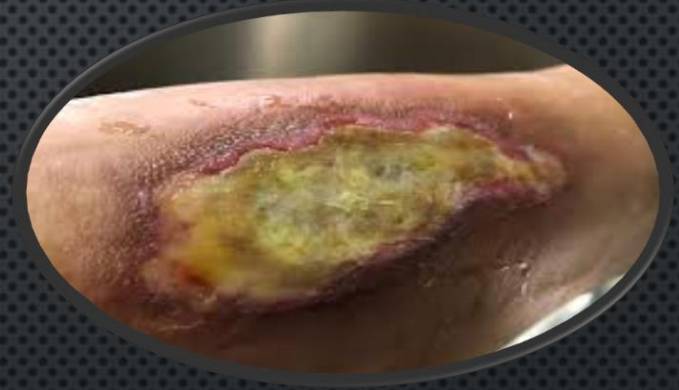
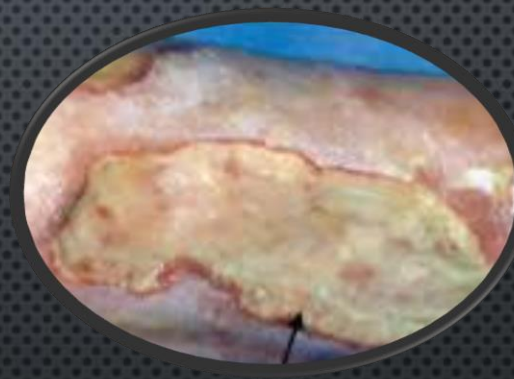
- **TREATMENT**

- THE WOUND PROGRESSION WAS CHARTED USING THE HOSPITAL'S WOUND ASSESSMENT FORM. THE DRESSING REGIMEN INVOLVED CLEANSING THE WOUND WITH STERILE WATER AND THEN APPLYING HONEY GEL ONTO THE WOUND BED FOLLOWED BY **HONEY HYDROCOLLOIDAL SHEET**. THE WOUND WAS COVERED WITH CONVENTIONAL DRESSINGS THAT WERE SECURED BY SURGICAL TAPE.
- THE DRESSING WAS CHANGED **EVERY 2 DAYS**. ALL DRESSING CHANGES WERE CONDUCTED FOLLOWING THE MALAYSIAN MINISTRY OF HEALTH STANDARD OPERATING PROCEDURES. ALL NURSING INTERVENTIONS WERE PREPLANNED BY THE MULTIDISCIPLINARY MEDICAL TEAM.
- THE PATIENT WAS TURNED REGULARLY AS PER NURSING PROTOCOL AND WAS PLACED ON PRESSURE_RELIEVING MATTRESS. SUPPLEMENTARY MILK FORMULA WAS ADDED TO IMPROVE THE PATIENT'S NUTRITIONAL INTAKE.
- ALL NURSING PROCEDURES WERE EXPLAINED AND TAUGHT TO THE PATIENT'S CARER. THE PHYSIOTHERAPIST WAS ALSO CONSULTED AND RELEVANT LIMB AND CHEST EXERCISES WERE PRESCRIBED.

- **DEFINITION**

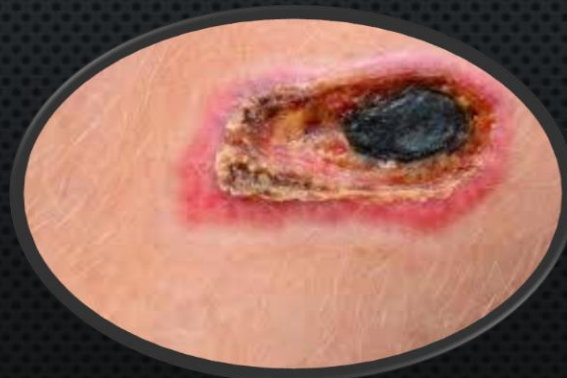
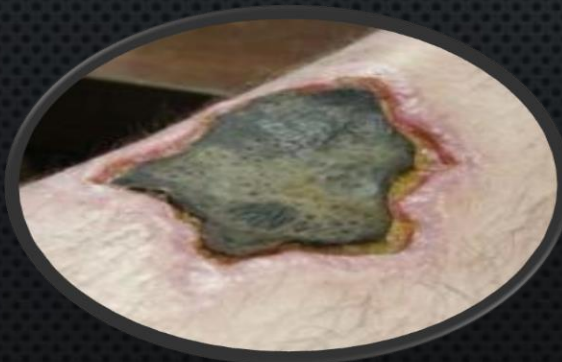
- What is **slough** tissue?

Slough: Devitalised tissue containing **white blood cells** and wound debris. Appears **yellow/white** and can be soft or leathery, and thick or thin. Requires removal to facilitate healing.



- What does **necrotic** tissue indicate?

Necrosis is the death of the cells in your body tissues . It is a **dry, thick, leathery** tissue usually a **tan, brown, or black** color



- **DEFINITION**

- **WHAT IS GRANULATION OF A WOUND?**

- **GRANULATION TISSUE** IS A TYPE OF NEW CONNECTIVE TISSUE, AND MICROSCOPIC BLOOD VESSELS

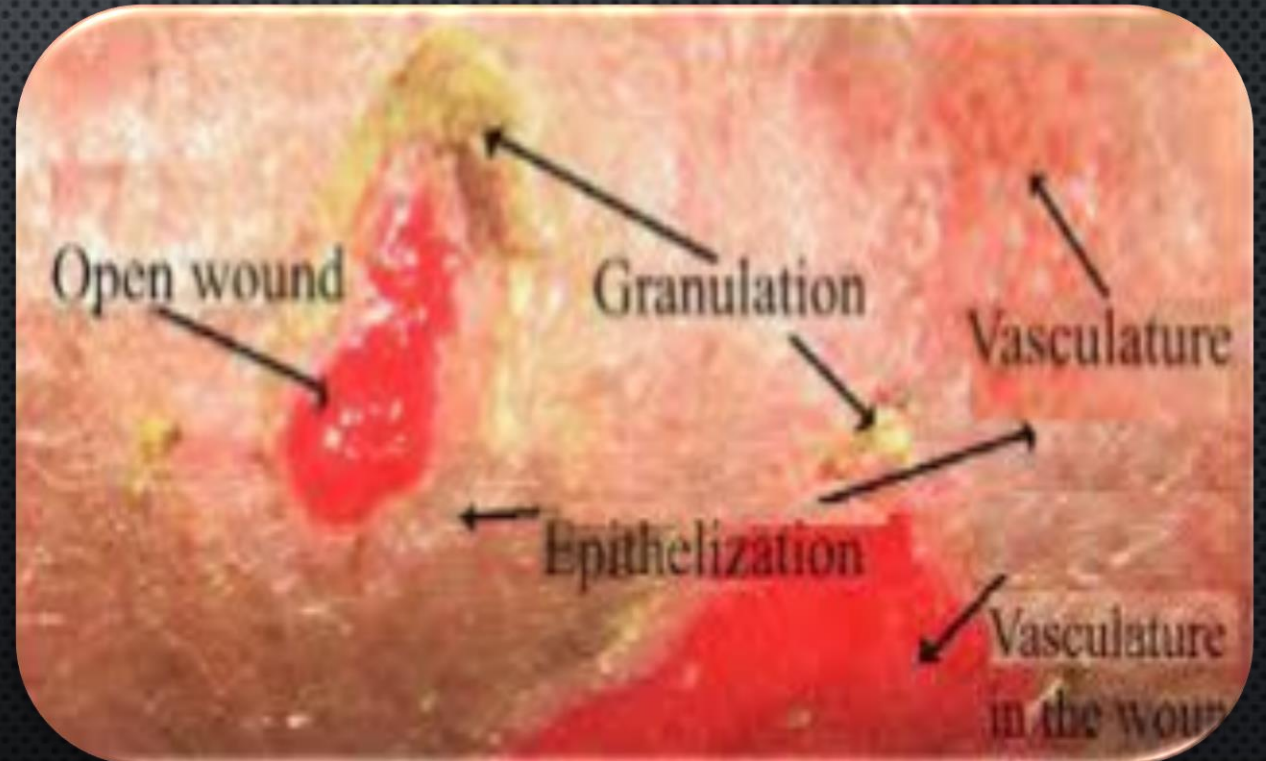
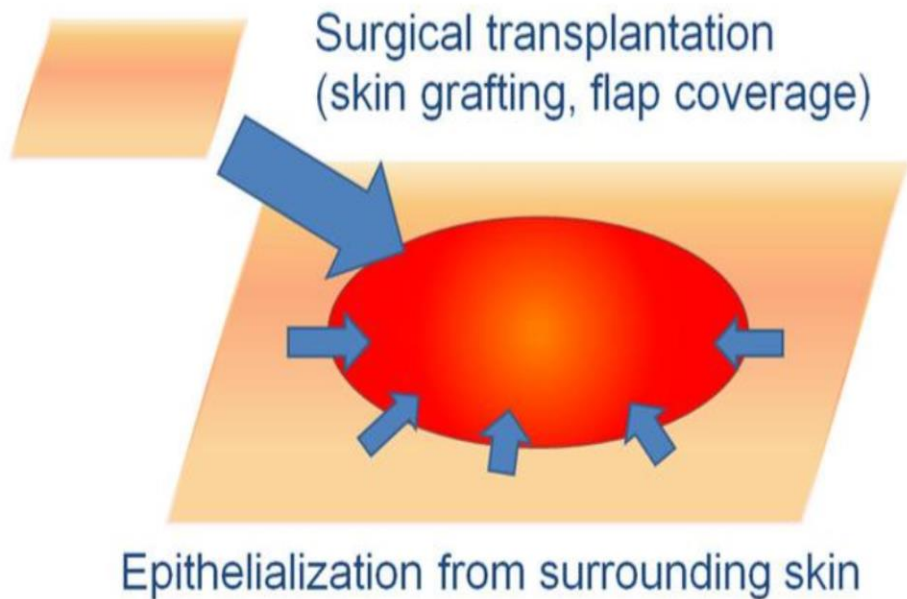
HAVE THREE MAIN FUNCTIONS:

1. **IMMUNE:** PROTECTS THE WOUND SURFACE FROM MICROBIAL INVASION AND FURTHER INJURY.
2. **PROLIFERATIVE:** FILLS THE WOUND FROM ITS BASE WITH NEW TISSUE AND VASCULATURE.
3. **TEMPORARY PLUG:** REPLACES NECROTIC TISSUE UNDERGOING REMOVAL AND REPLACEMENT BY SCAR TISSUE.



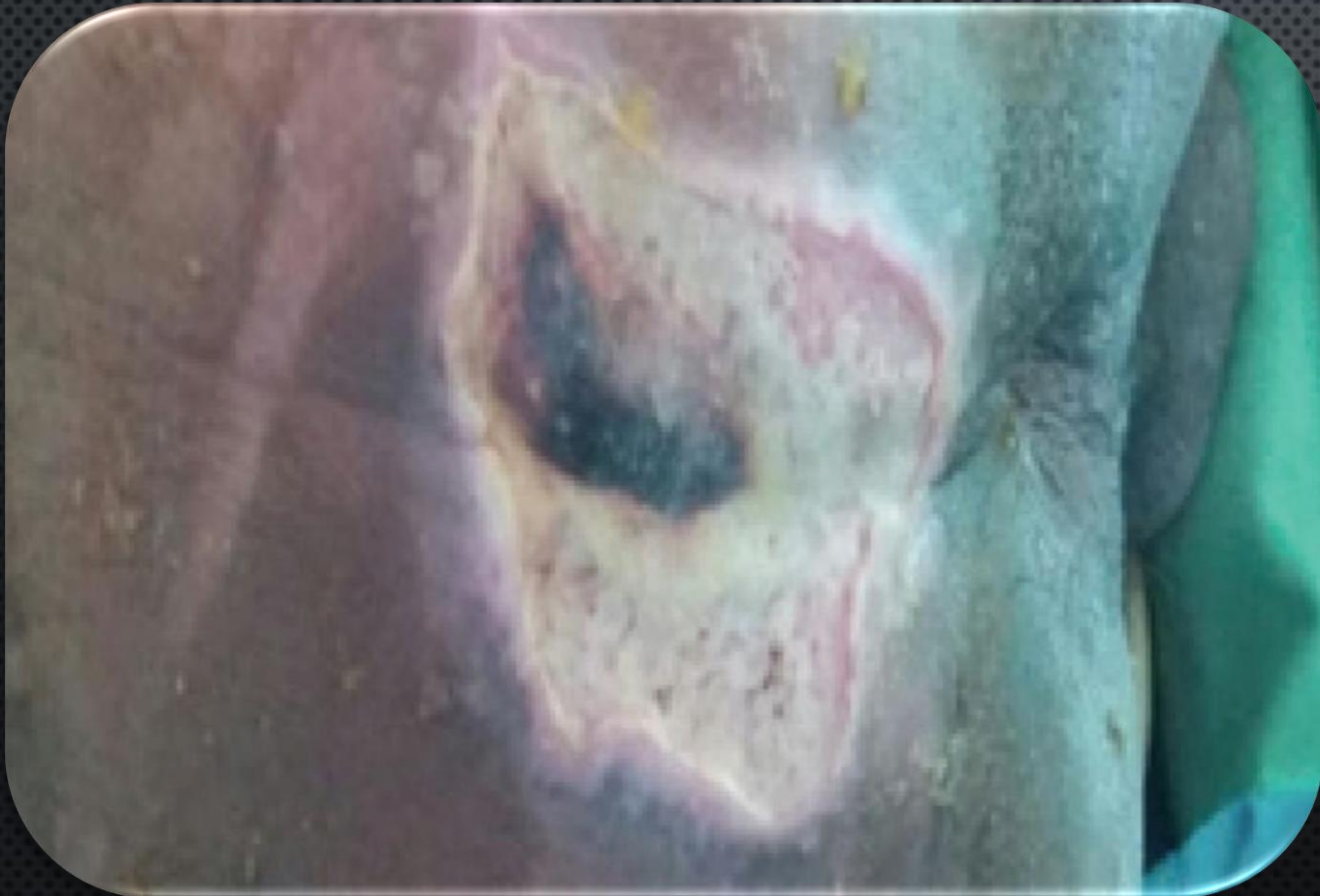
• DEFINITION

- **WHAT IS HEALING BY EPITHELIALIZATION?**
- **EPITHELIALISATION** IS THE FINAL STAGE OF WOUND HEALING AND IS **PINK/WHITE IN COLOUR**.
- IT IS THE FINAL STAGE OF WOUND HEALING AND ONLY OCCURS ON TOP OF HEALTHY GRANULATION TISSUE



- **RESULT**

- THE LOCAL WOUND INFECTION HAD SUBSIDED AT DAY 5 AND GRANULATION TISSUE HAD STARTED TO FORM



Day 5: Unstageable sacral pressure injury with 60% slough, 30% necrotic tissue and 10% granulation tissue

- **RESULT**

- THE PAIN LESSENERED FROM **DAY 7** ONWARDS. A REDUCTION OF WOUND SURFACE OF 23% WAS OBSERVED ON DAY 7 AS THE SLOUGH AND NECROTIC TISSUE GRADUALLY DECREASED



Day 7: Unstageable sacral pressure injury with 30% slough, 20% necrotic tissue and 50% granulation tissue

- **RESULT**

- THE NECROTIC AND SLOUGHY TISSUES WERE DEBRIDED ON **DAY 11** AT THE PATIENT'S BEDSIDE AND IT WAS NOTED THAT EPITHELIALIZATION TISSUE HAD STARTED TO FORM



Day 11: Unstageable sacral pressure injury with 20% slough, 70% granulation tissue and 10% epithelization tissue

• RESULT

- HEALING CONTINUE DTO PROGRESS, WITH GRANULATION TISSUE COVERED ABOUT 70% OF THE WOUND AREA ON **DAY 13**



Day 13: Grade 3 sacral pressure injury with 10% slough, 70% granulation tissue and 20% epithelialization tissue

- BY **DAY 15** THE AMOUNT OF EPITHEALIZATION TISSUE HAD INCREASED TO COVER 25% OF THE PRESSURE INJURY . THE PATIENT WAS DISCHARGED HOME ON DAY 17.



Day 15: Grade 3 sacral pressure injury with 10% slough, 65% granulation tissue and 25% epithelialization tissue



CONCLUSION

HONEY-BASED DRESSING AIDED THE HEALING OF THIS PATIENT'S PRESSURE INJURY, HOWEVER A HOLISTIC APPROACH IS NEEDED TO COMBAT PRESSURE INJURIES. SUCH AN APPROACH SHOULD COMPRISE OF REGULAR REPOSITIONING, GOOD NUTRITIONAL SUPPORT, INCONTINENCE CARE, AND APPROPRIATE USE OF PRESSURE INJURY PREVENTIVE DEVICES, SUCH AS A RIPPLE MATTRESS, IN ADDITION TO BEST WOUND CARE PRACTICE.

THANKS