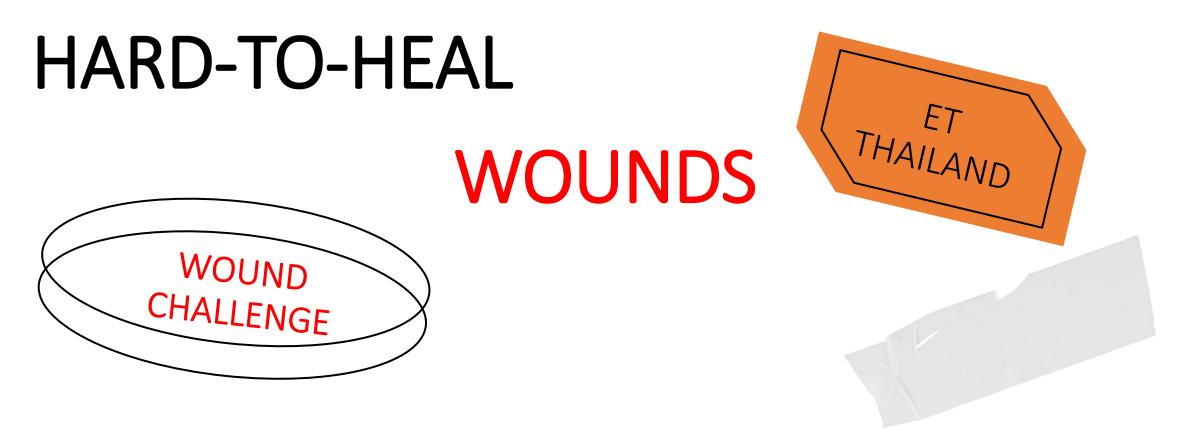
# Management hard to heal wound nursing perspective

Compression therapy on leg ulcer Calluses in DM foot Dehiscence wound in orthopedic surgery The beneficial of Bio-plasma technique



Prapai Ariyaprayoon

APN,ETN Ramathibodi Hospital

#### What is the process of wound healing

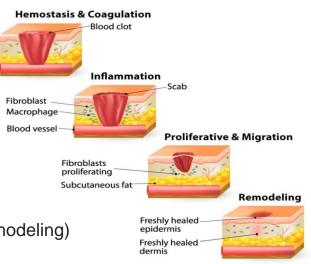
**Wound healing** is a complex **process** in which the skin, and the tissues under it, repair themselves after injury. ...

**Phase 1 :** Hemostasis Phase. blood clotting (hemostasis)

Phase 2 : Defensive/Inflammatory Phase.

**Phase 3 :** Proliferative Phase. (tissue growth)

Phase 4 : Maturation Phase.(tissue remodeling)



#### WOUND HEALING

#### Stage of wound healing

Platelets

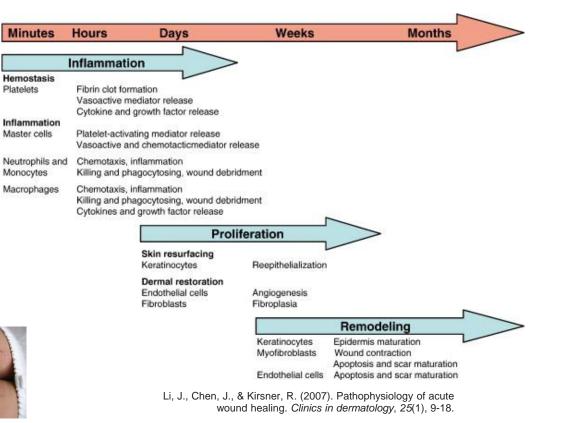
2 wk

4wk









6wk



### Factors delaying wound healing

### **Local Factors**

- Slough
- Necrosis
- Oedema
- Infection
- Biofilm
- Ischaemia
- Excess exudate
- Low oxygen levels
- Elevated proteases
- Neuropathy
- Venous insufficiency



#### **Systemic Factors**

Inadequate perfusion Elevated inflammation Poor diet Co-morbidities e.g. diabetes Obesity Polypharmacy/medication Stress Immunosuppression









### 60 DAYS





























### 40 DAYS



### **30 DAYS**







เคสมะเร็งเม็ดเลือด หลังทำ biopsy แผลไม่หาย ใหญ่ขึ้น เลือกใช้ superabsorbent รูปแบบแผลไม่คงที่ ใช้ทั้งหมด 5 ซอง







30/7/63





### เคส **DFU** หลังขยายหลอดเลือด รักษาแผลด้วย Keracis







4 AUG 63

18 AUG 63







# เคส **DFU** แผลติดเชื้อ







#### > **D**EBRIDEMENT

> **NEGATIVE WOUND PRESSURE THERAPY** 

> OMEGA 3 FISH SKIN FOR TISSUE REGENERATE-KERECIS

# **Identification Risk Factors**

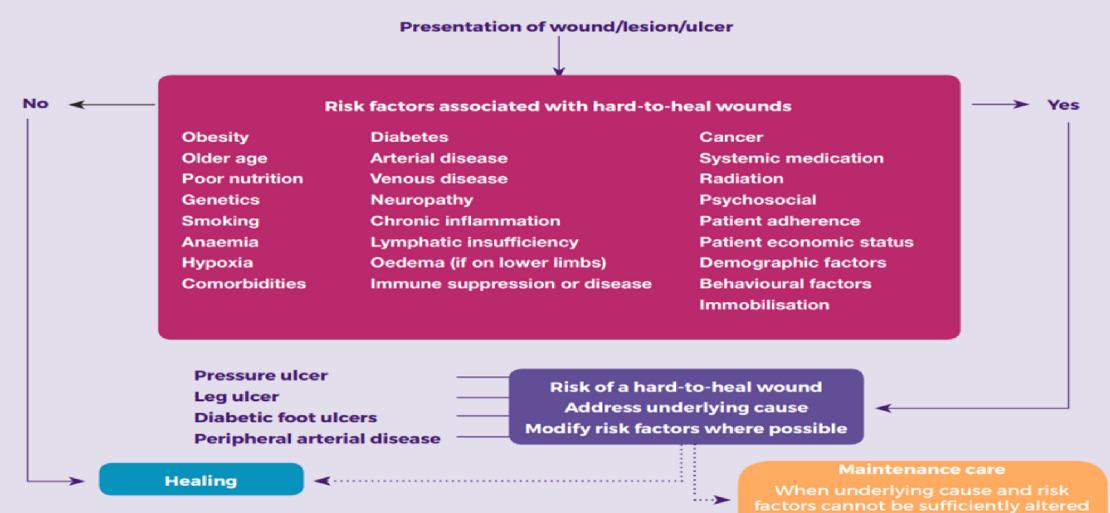
 A wound that has <u>not reduced in size by >40–50% at 4 weeks</u> should be regarded as hard-to-heal and be *referred to a specialist wound practitioner* or a complex *wound clinic*



Action plans should not be static; they should be consistently reevaluated as the patient heals or fails to heal

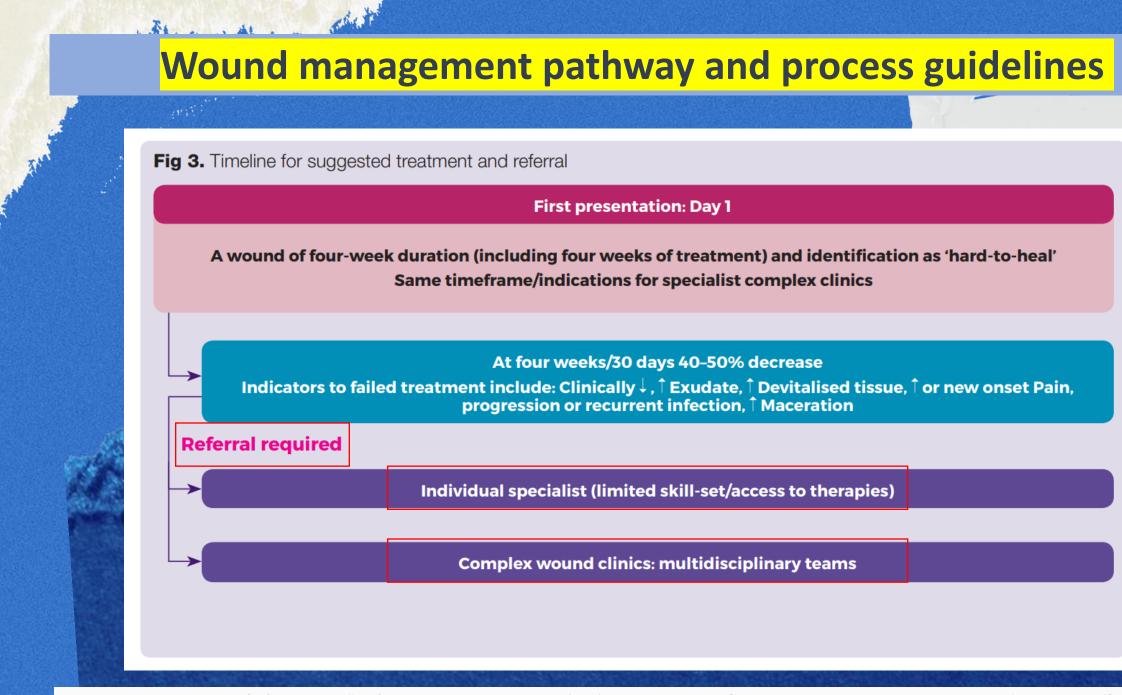
# Risk factors for hard to heal wound

Fig 1. Risk factors for hard-to-heal wound formation. Note: the more factors a patient has, the more likely the wound will not heal



to facilitate healing

Atkin, L., Bućko, Z., Montero, E. C., Cutting, K., Moffatt, C., Probst, A., ... & Tettelbach, W. (2019). Implementing TIMERS: the race against hard-to-heal wounds. *Journal of wound care*, *28*(Sup3a), S1-S50.



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#### **Wound management pathway and process guidelines**

Fig 4. Fundamentals of wound assessment and referral

Holistic assessment: international/local guidelines/best practice statements, Patient risk factors of a hard-toheal wound, additional assessment (eg venous duplex, biopsy) Wound assessment: volume, extent, area, exudate

Diagnosis: refer on if appropriate/required

**Treatment:** standard to best practice, including wound bed preparation, initiation of biofilm prevention/treatment, TIMERS wound assessment, control oedema, refer to local formulary

**Patient-centred outcomes**: healing or maintenance (this needs to be a multidisciplinary team approach)

Atkin, L., Bućko, Z., Montero, E. C., Cutting, K., Moffatt, C., Probst, A., ... & Tettelbach, W. (2019). Implementing TIMERS: the race against hard-to-heal wounds. Journal of wound care, 28(Sup3a), S1-S50.

## Mangement of patient-related factors

#### Best practice for the most common wound types

Venous leg ulcer : Compression therapy and venous interventionPressure injury : Pressure reduction, relief and redistributionDiabetic foot ulcer: Offloading and management of diabetesArterial ulcer : Vascular reconstruction

Standard of care : Holistic Assessment and accurate diagnosis Management of the underlying causes Using best practice according to expert guidelines

Atkin, L., Bućko, Z., Montero, E. C., Cutting, K., Moffatt, C., Probst, A., ... & Tettelbach, W. (2019). Implementing TIMERS: the race against hard-to-heal wounds. *Journal of wound care*, *28*(Sup3a), S1-S50.

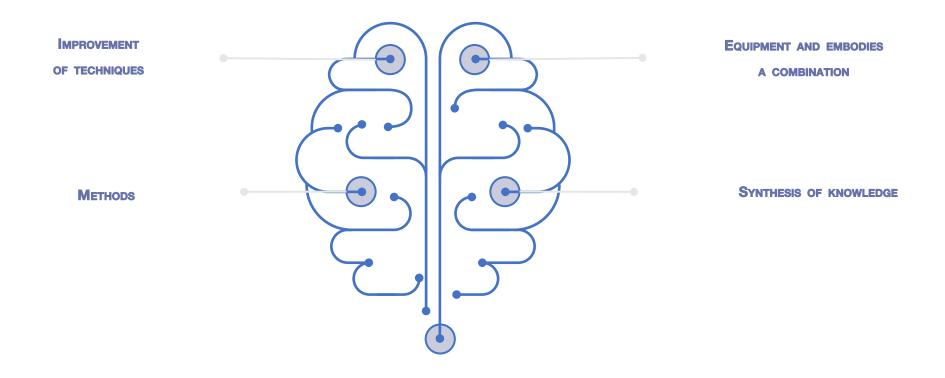




# INNOVATION in WOUND CARE



#### WHAT IS NEWS IN WOUND CARE ?

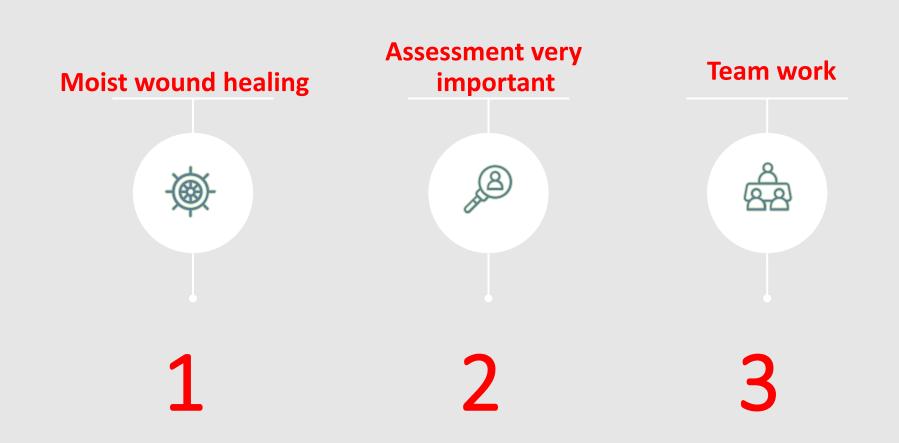


CREATE NEW PRODUCTS, PROCESSES, OR

SERVICES



#### TAKE HOME MASSAGE



# Thank you

# QUESTIONS?

