

# FAST TRACK PATHWAY FOR DIABETIC FOOT ULCERATION DURING COVID-19 & BEYOND



- CO-MORBIDITIES**
- HEART FAILURE CLASS
  - END STAGE RENAL FAILURE
  - DEPRESSION

## FIRST ASSESSMENT

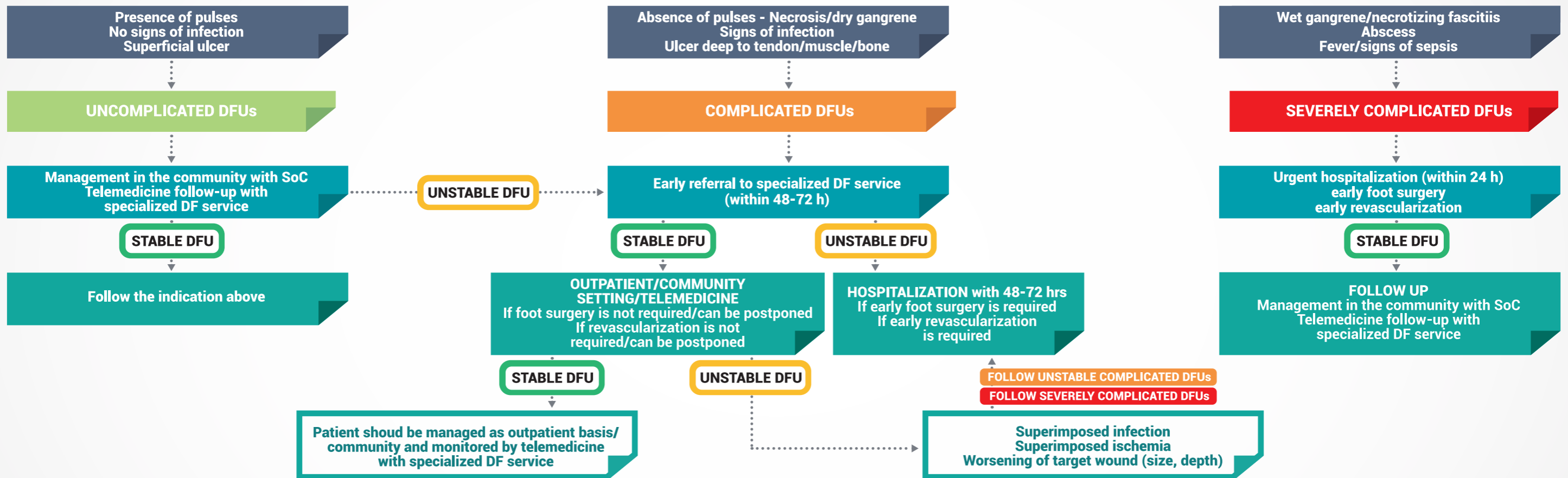
- HOLISTIC APPROACH\***
- MEDICAL HISTORY
  - CLINICAL EXAM.
  - BIOLOGY

INVESTIGATION FOR SIGNS/SYMPTOMS OF COVID-19 INFECTION

\* : take care of psycho-social context of patient



## PATIENT WITH DIABETIC FOOT ULCERATION



GOALS

- REDUCE HEALING TIME
- LIMB SALVAGE / ↑QUALITY OF LIFE
- DECREASE MORTALITY + LIMB SALVAGE

## PRINCIPLES OF STANDARD OF CARE

**Offloading:** Reduction of extrinsic and/or intrinsic biomechanical stress/plantar pressure is essential for ulcer protection and healing. The use of Non-removable knee-high offloading devices, total contact casts (TCC), removable walkers or specific footwear should be used tailored to individual need and according to local available resources. Patients should be educated to minimise standing and walking. Regular follow -up should be undertaken to ensure clinical effectiveness and compliance.

**Restoration of foot perfusion:** In patients with peripheral arterial disease (ankle pressure <50mm Hg, ABI <0.5, toe pressure <30mmHg or TcpO2 <25 mmHg), revascularisation should be considered. When an ulcer does not show signs of healing within 4 weeks, despite optimal management, further vascular assesment and revascularisation should be considered (even if the tests above fall within acceptable /normal ranges).

**Treatment of infection:** When there are clinical signs of infection, empiric and

broad-spectrum antibiotic therapy should be administered after obtaining microbiological samples (ideally deep tissue), followed by adjustments according to clinical response and microbiological results. Removal of any necrotic or non-viable tissue following comprehensive assessment of infection severity is required.

**Metabolic control/Holistic management:** Metabolic approach requires optimisation of glycaemic control (if necessary with insulin), the treatment of malnutrition and oedema if present. Optimal management of relevant co-morbidities is mandatory.

**Local wound care:** Frequent ulcer inspection/assessment, debridement and redressings should be undertaken. Dressing selection is based upon ulcer findings (characteristics of wound bed, exudation, size, depth, local pain). In case of neuro-ischemic ulcers, dressings with TLC-NOSF (Lipido-Colloid Technology with Nano-OligoSaccharide Factor) should be considered.

### SIGNS OF ALERT : CLINICAL PICTURES TO CONSIDER EARLY REFERRAL TO SPECIALIZED DIABETIC FOOT SERVICES)

- Superimposed infection (onset of hyperemia around the wound, cellulitis, pus secretion, new area of wet gangrene, oedema, pain, fever)
- Superimposed ischemia or ischemia evolution (new areas of necrosis or gangrene, rest pain, hyperemia of the foot)
- Worsening of target wound (extension of ulcer size, involvement of soft tissues/bone, signs of ischemia or infection as above)

# GLOSSARY

a. **Heart failure:** Patient on current treatment for heart failure. For GPs: Structural Heart disease with prior or current treatment for Heart Failure (e.g. patients with known structural heart disease and shortness of breath and fatigue, reduced exercise tolerance)

b. **End stage renal disease:** Patient on renal replacement (i.e peritoneal dialysis or Hemodialysis)

c. **Depression:** patient on medical therapy for depression or depression symptoms which include feeling sad or having a depressed mood, loss of interest or pleasure in activities once enjoyed, changes in appetite (weight loss or gain unrelated to dieting), trouble sleeping or sleeping too much, loss of energy or increased fatigue, increase in purposeless physical activity (e.g., hand-wringing or pacing) or slowed movements and speech (actions observable by others), feeling worthless or guilty, difficulty thinking, concentrating or making decisions, thoughts of death or suicide. The symptoms must last at least two weeks for a diagnosis of depression

d. **Necrosis:** Devitalized (dead) tissue

e. **Gangrene:** Death of tissue in all tissue layers (cutis, tendon, fascia, muscle) due to insufficient blood supply. Without infection this generally results in dry and black tissue, frequently called dry gangrene; when the tissue is infected, with accompanying putrefaction and surround cellulitis, it is often called wet gangrene

f. **Abnormal pulses:** absence of foot pulses on palpation

g. **Signs of granulation:** This is a light red, soft, moist and granular new connective tissue that appears on the surface of a lesion during the healing process.

h. **Signs of epithelization:** appearance of new epithelium tissue covering the wound with reduction of ulcer surface

i. **Cooperation with first line:** sharing data at the initial treatment of the patient and referral after acute phase with periodical re-check

j. **Phlegmon:** spread inflammation of soft or connective tissue with purulent exudate due to bacterial infectious process

k. **Fever or signs of sepsis:** Patient with a raised body temperature, and an associated cold sweat and shivering or drop in blood pressure due to infection. See guidance doc

l. **Criteria of a specialist Diabetic Foot Clinic:** Diabetic Foot Center which provides out patient and preferable inpatient care with a multidisciplinary team composed of diabetologist/,internist, podiatrist or specialist nurse and a surgeon , preferable with skills of revasculariation and good knowledge of surgery of deep foot infections with a 24H urgency service

**STABLE DFU**

an ulcer that is healing or not healing but not impairing

**UNSTABLE DFU**

a foot ulcer that is progressing due to underlying infection or ischemia or with impairment in size and depth

**COVID Symptoms** – Please follow local & national agreed guidelines. As a guide : high temperature, new continuous cough and a loss or change to your sense of smell or taste have been described as symptoms consistent with COVID 19

## GENERAL REMARKS

- ALARM 1:** Patient with recurrent ulcers need to be followed immediately by their foot team  
**ALARM 2:** The document may need alterations according to individual legislation in countries