

قَالَ تَعَالَى: ﴿وَاللَّهُ يَكْفُرُ إِلَىٰ ذَارِ السَّلَامِ وَهُدًى مِّنْ يَّشَاءُ إِلَىٰ صِرَاطٍ مُّسْتَقِيمٍ﴾ (25) {يونس}


INFECTIONS: *MANAGEMENT*

Ehab Abdulkader, MD.

Lecturer of General Surgery,

School of Medicine, Helwan University.

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“For the things we have to learn before we can do them, we learn by doing them”

Aristotle (384- 322 BC)

OBJECTIVES



Overview.

Classification.

Pathology.

Management.

Complications.



OVERVIEW

OVERVIEW

- **Surgical infections.**
 - Predisposing factors.
 - Bacteremia.
 - Septicemia.
 - Toxemia.
 - Pyemia.

OVERVIEW

- **Systemic inflammatory response syndrome.**
- A systemic manifestation of sepsis.
- May also be caused by major trauma, burns or pancreatitis without infection.
- Septic manifestations and multiple organ dysfunction syndrome (MODS) in SIRS are mediated by the release of proinflammatory cytokines such as interleukin-1 (IL-1) and tumor necrosis factor alpha (TNF α).

OVERVIEW

- **Systemic inflammatory response syndrome.**

Two of:

- Hyperthermia ($>38^{\circ}\text{C}$) or hypothermia ($<36^{\circ}\text{C}$).
- Tachycardia ($>90/\text{min}$, no β -blockers) or tachypnoea ($>20/\text{min}$)
- White cell count $>12 \times 10^9/\text{l}$ or $<4 \times 10^9/\text{l}$.

OVERVIEW

- **MODS.**

the effect that SIRS produces systemically.

- **MOFS.**

the end stage of uncontrolled MODS.

OVERVIEW

- **Sepsis:**
- Sepsis is SIRS with a documented infection
- Severe sepsis or sepsis syndrome is sepsis with evidence of one or more organ failures.

OVERVIEW

- **Organ failures:**
 - Respiratory (acute respiratory distress syndrome),
 - Cardiovascular (septic shock follows compromise of cardiac function and fall in peripheral vascular resistance),
 - Renal (usually acute tubular necrosis),
 - Hepatic,
 - Blood coagulation systems or
 - Central nervous system.



CLASSIFICATION

CLASSIFICATION

- **Pathological classification:**
 - Non- specific infections:
 - Cellulitis, Erysipelas.
 - Abscess.
 - Folliculitis, Boil, furuncle.
 - Carbuncle.
 - Hidradenitis suppurativa.

CLASSIFICATION

- **Pathological classification:**
- Non- specific infections (cont.):
 - Granuloma, pyogenic.
 - Impetigo.

CLASSIFICATION

- **Pathological classification:**
- Non- specific infections (cont.):
 - Surgical site infection.

CLASSIFICATION

- **Pathological classification:**
- Specific infections:
 - Tetanus.
 - Gas gangrene.
 - Necrotizing fasciitis.

CLASSIFICATION

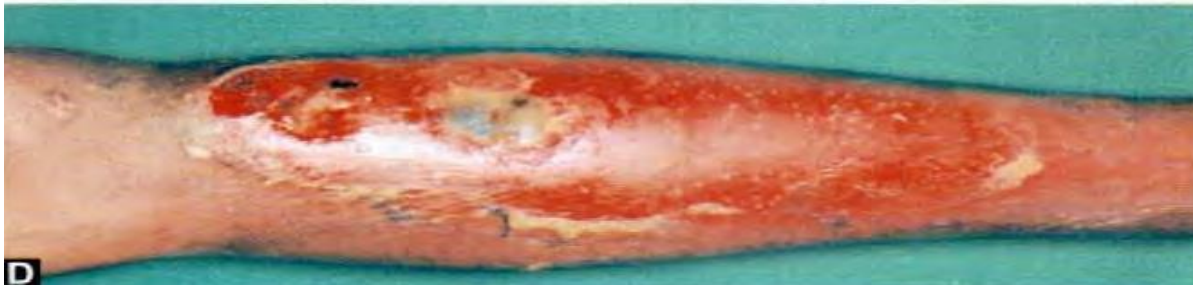
- **Pathological classification:**
- Specific infections (cont.):
 - Tuberculosis.
 - Syphilis.
 - Leprosy.
 - HIV.



MANAGEMENT

MANAGEMENT

- **Cellulitis, Erysipelas.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.





MANAGEMENT

- **Abscess, pyogenic.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.

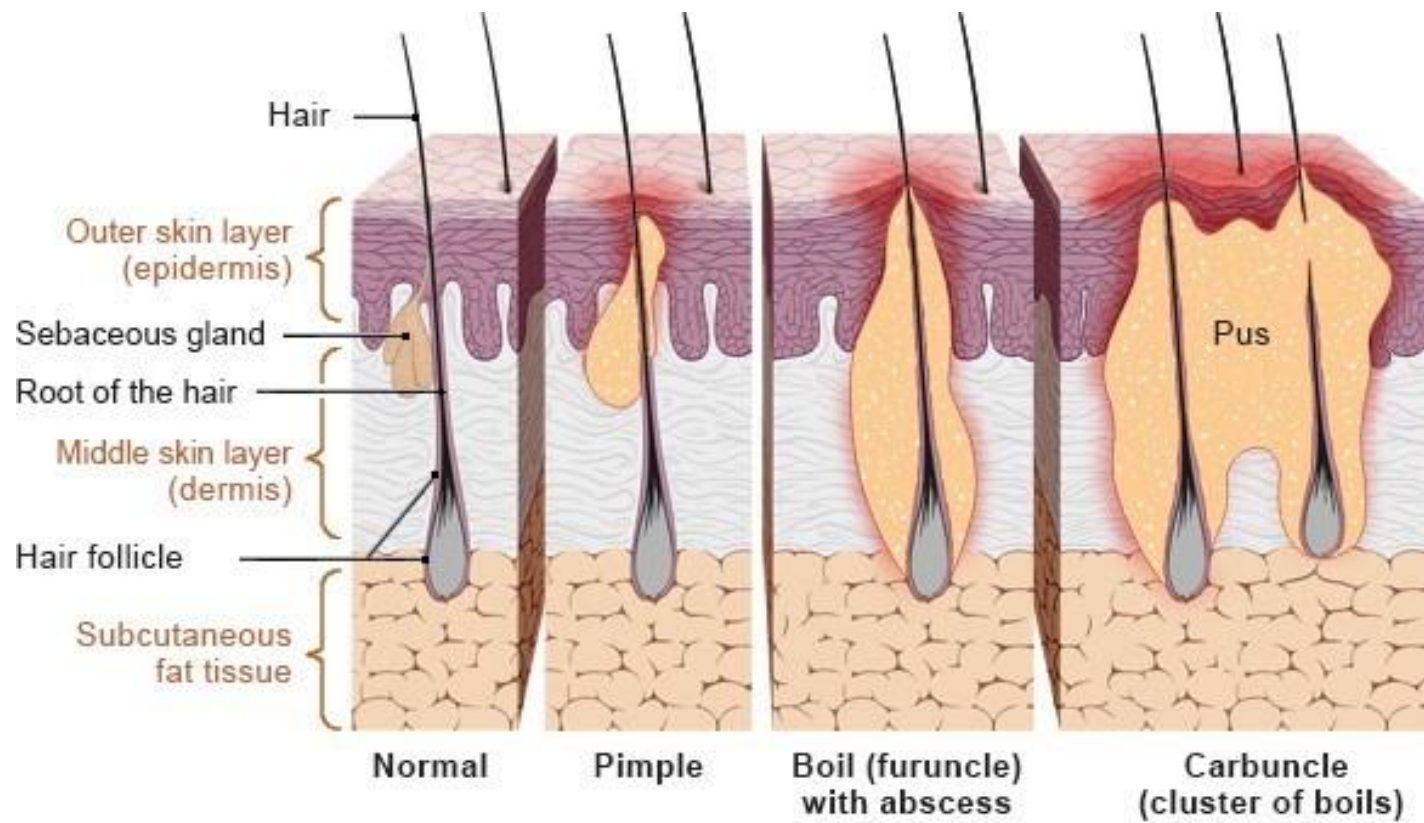






MANAGEMENT

- **Folliculitis, Boil, furuncle.**
- Site.
- Route.
- Causative microorganism.
- Pathology.
- Clinical presentation.
- Investigations.
- Treatment.
- Complications.







MANAGEMENT

- **Carbuncle.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.



MANAGEMENT

- **Hidradenitis supportiva.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.



MANAGEMENT

- **Granuloma, pyogenic.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.



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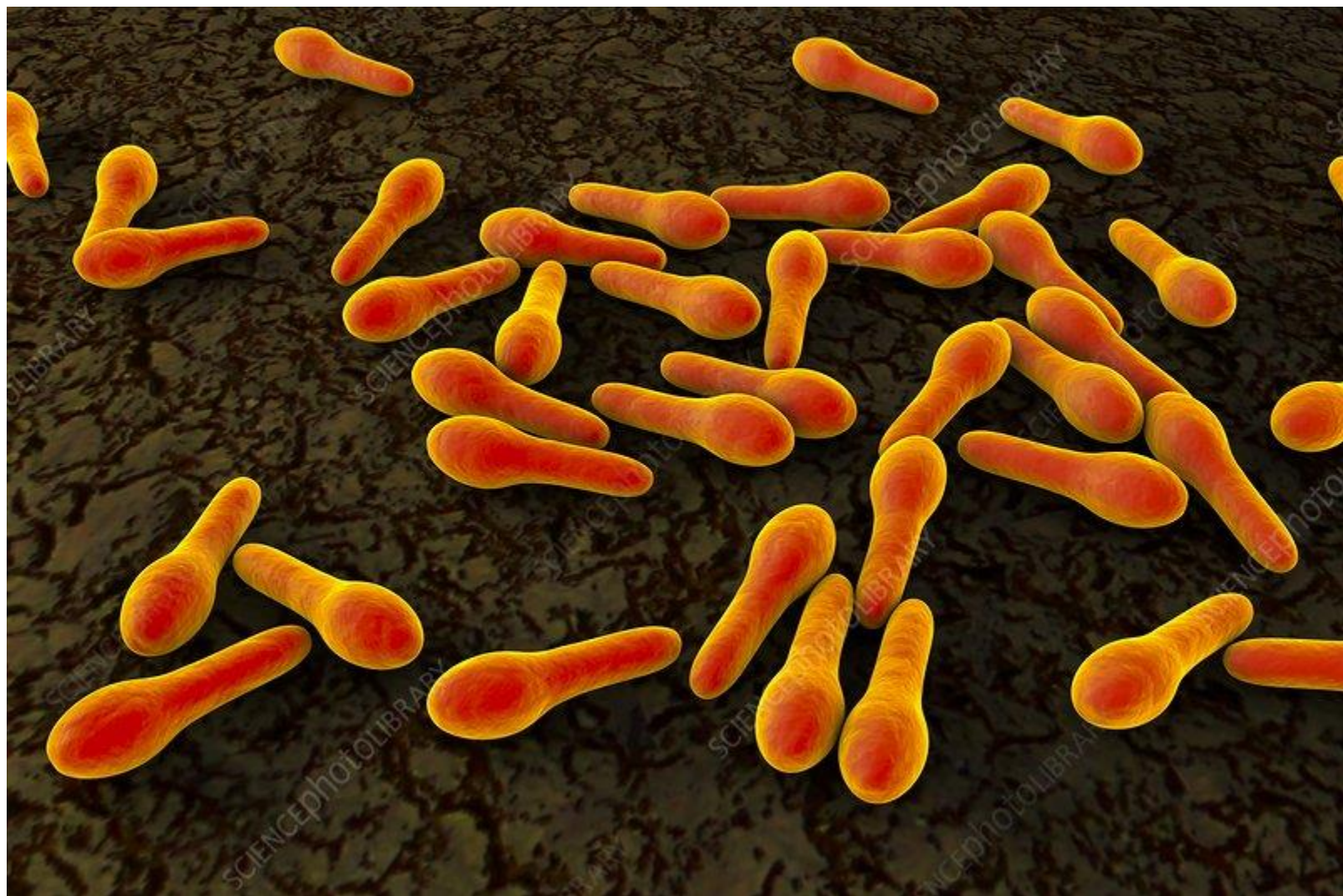
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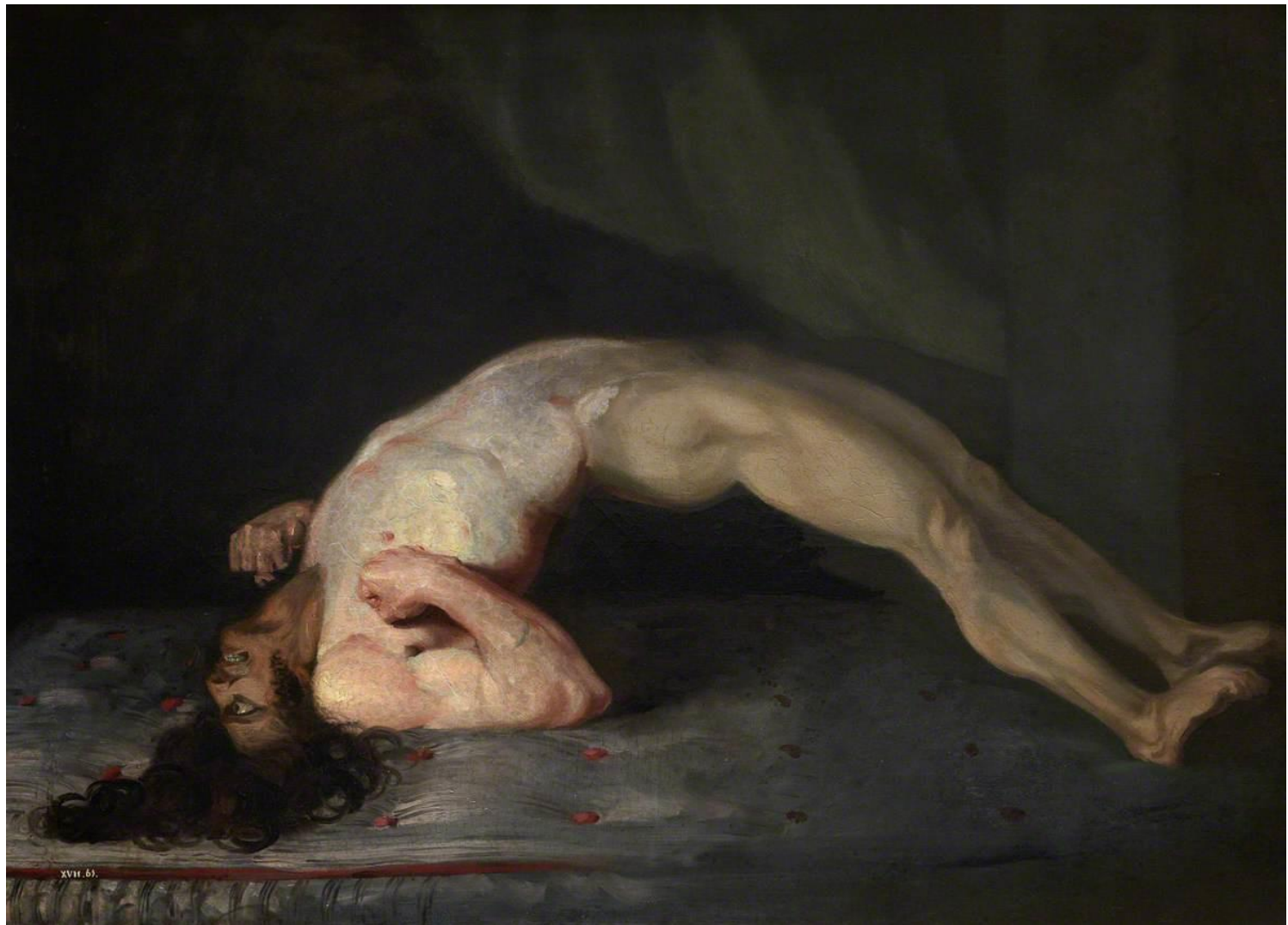
- **Impetigo.**
- Site.
- Route.
- Causative microorganism.
- Pathology.
- Clinical presentation.
- Investigations.
- Treatment.
- Complications.



MANAGEMENT

- **Tetanus.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.





MANAGEMENT

- **Gas gangrene.**
 - Site.
 - Route.
 - Causative microorganism.
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 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.



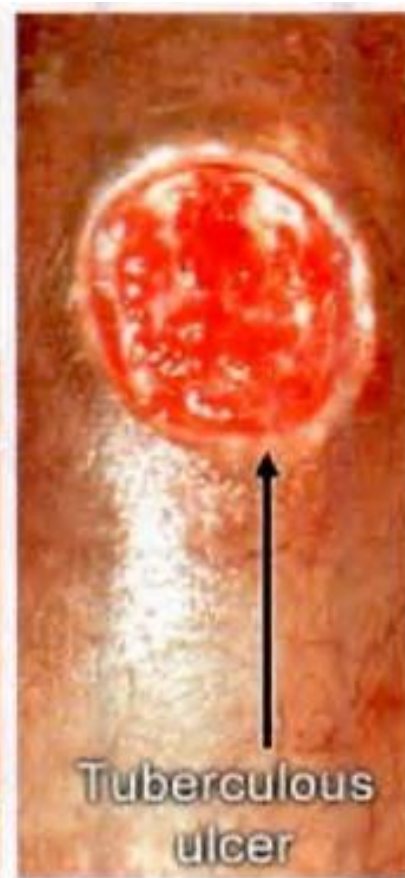
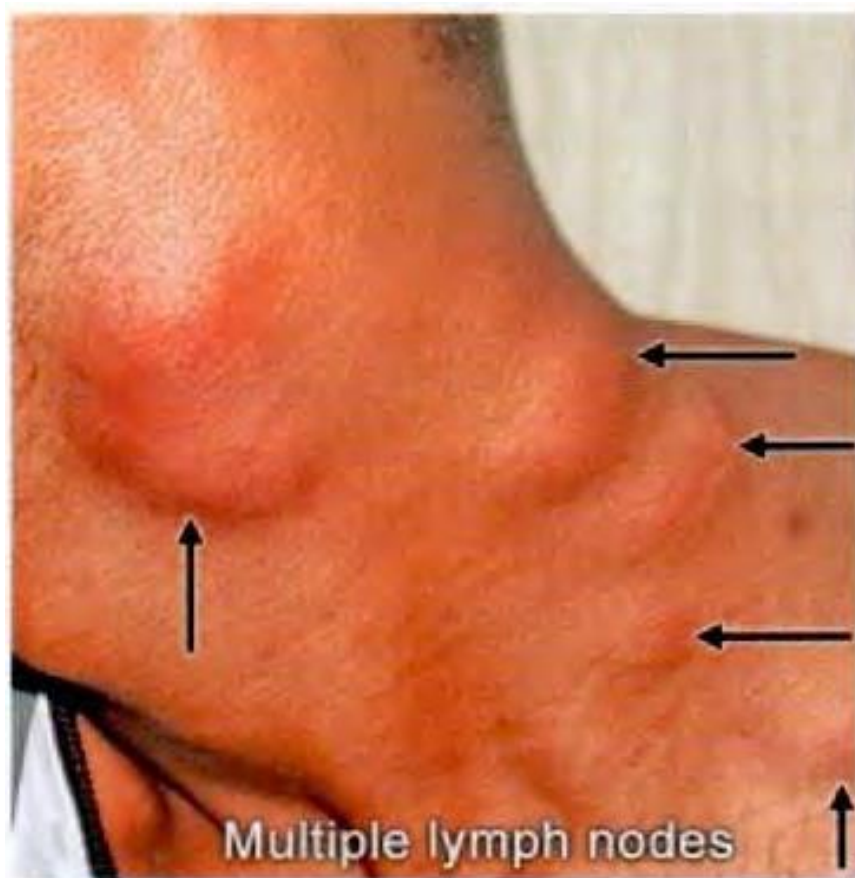
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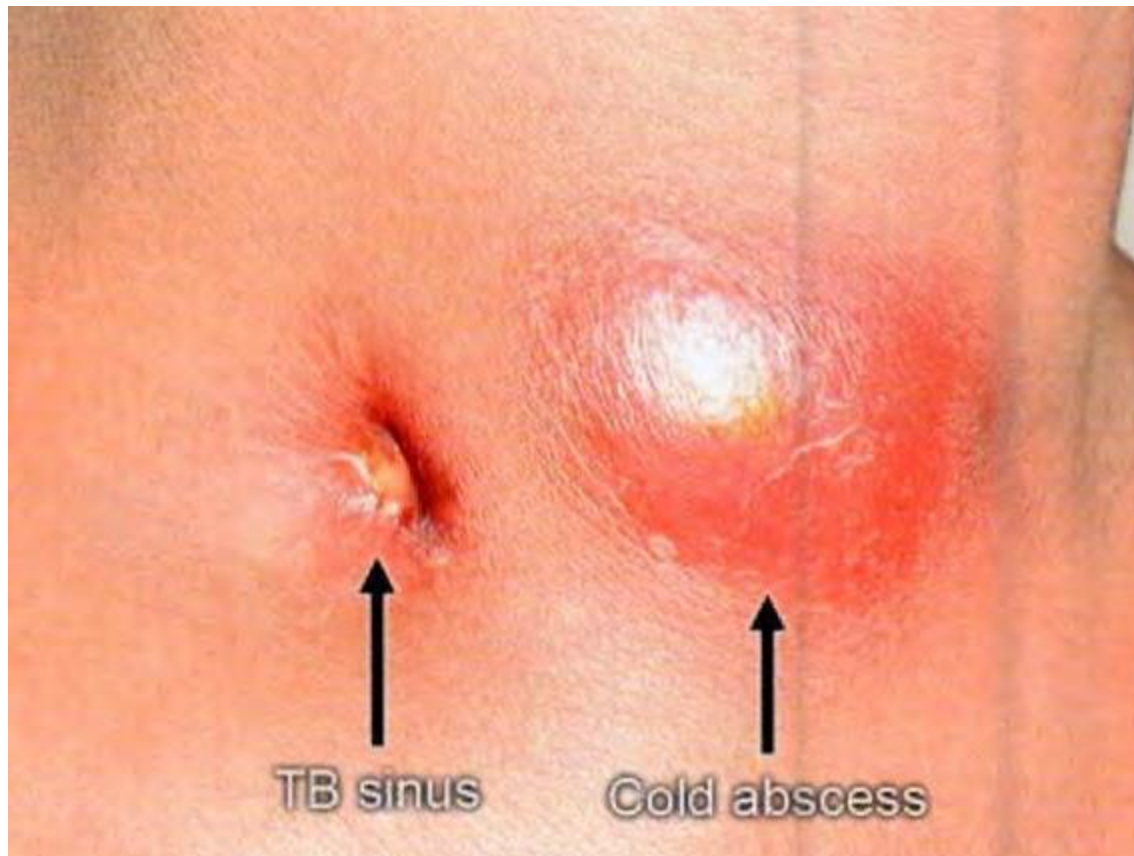
- **Necrotizing fasciitis.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.



MANAGEMENT

- **Tuberculosis.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.





MANAGEMENT

- **Syphilis.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
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 - Investigations.
 - Treatment.
 - Complications.



MANAGEMENT

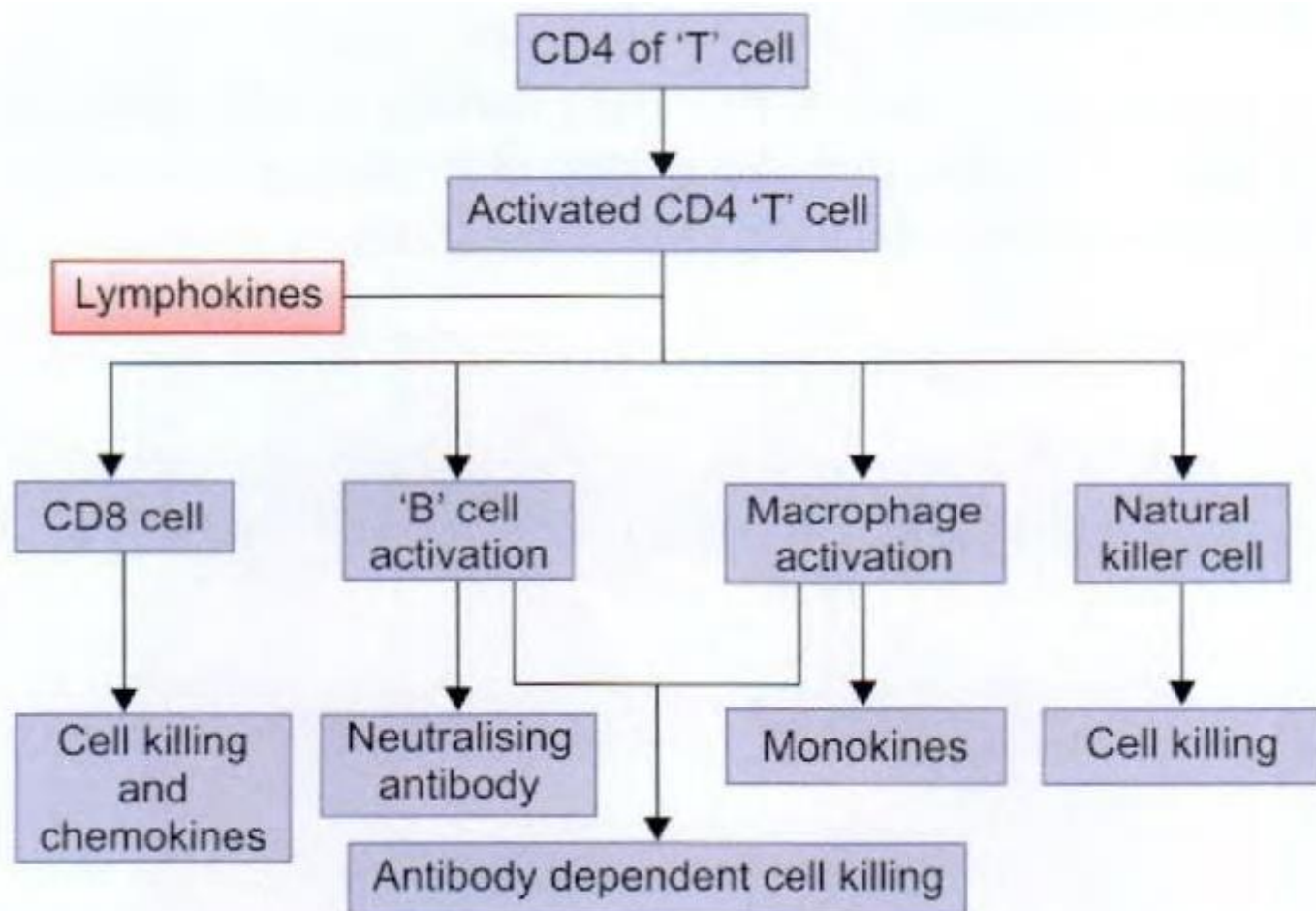
- **Leprosy.**
- Site.
- Route.
- Causative microorganism.
- Pathology.
- Clinical presentation.
- Investigations.
- Treatment.
- Complications.





MANAGEMENT

- **HIV.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.



B

CLINICAL CLASSIFICATION OF HIV INFECTION

- ♦ Acute infection
- ♦ Asymptomatic but positive HIV
- ♦ Persistent generalised lymphadenopathy
- ♦ AIDS (HIV related diseases)
 - Constitutional diseases like weight loss, fever, diarrhoea
 - Neurological diseases, dementia, neuropathy, myelopathy
 - Opportunistic infections
 - Malignancies. Kaposi's sarcoma, non-Hodgkin's lymphomas, primary cerebral lymphomas
 - Other diseases attributable to HIV infection

General Features in HIV

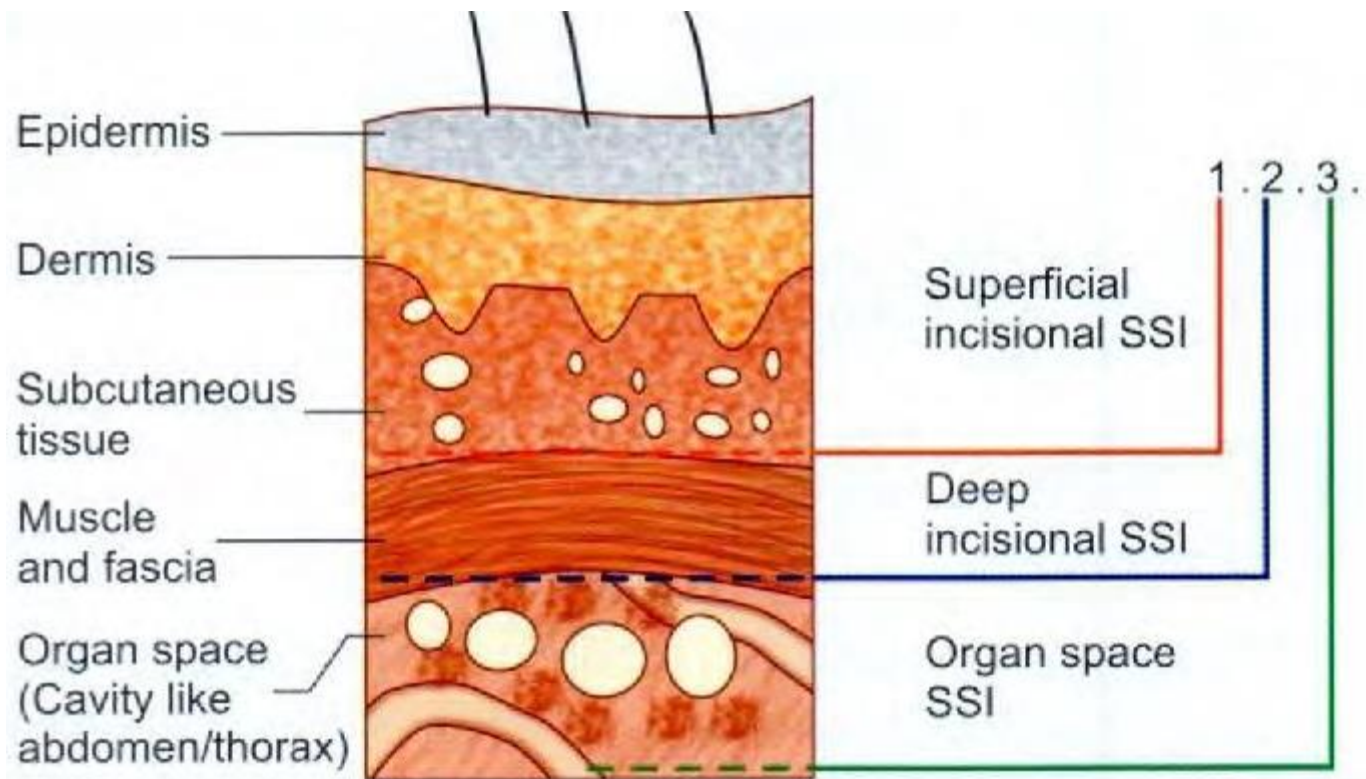
- ❖ Weight loss more than 10%.
- ❖ Fever more than 1 month.
- ❖ Diarrhoea more than 1 month.
- ❖ Neuralgia, arthralgia, headache.
- ❖ Lymphadenopathy.
- ❖ Cutaneous rashes, dermatitis, fungal (*Candida*), bacterial, viral (herpes simplex 1 and 2) infection.
- ❖ Dental infection, gingivitis, candidiasis of oral cavity and oesophagus.
- ❖ Varicella zoster infection.
- ❖ Opportunistic infections.
- ❖ Poor healing after surgery, trauma, infection with more complications.

B TUMOURS IN HIV INFECTION

- ♦ Kaposi's sarcoma—40% common
- ♦ Lymphomas (NHL common) (3–4%)
- ♦ Cervical cancer
- ♦ CNS lymphomas
- ♦ Ano-genital squamous cell carcinoma
- ♦ Testicular tumours (Germ cell types)
- ♦ Lung cancer
- ♦ GIT lymphomas and adenocarcinomas
- ♦ Squamous cell carcinoma of anal canal and cervix

MANAGEMENT

- **Surgical site infections.**
 - Site.
 - Route.
 - Causative microorganism.
 - Pathology.
 - Clinical presentation.
 - Investigations.
 - Treatment.
 - Complications.









MANAGEMENT

- **Nursing care:**
 - Patients with infections require due nursing care.
 - Nurses are the primary effectors of many decisions that directly affect healing.
 - Personal hygiene, baths showers, and dressing all become time- consuming and painful, but are vital parts of the
 - patient's well being.
 - Their success or failure has a powerful psychological impact on the patient and his or her family.

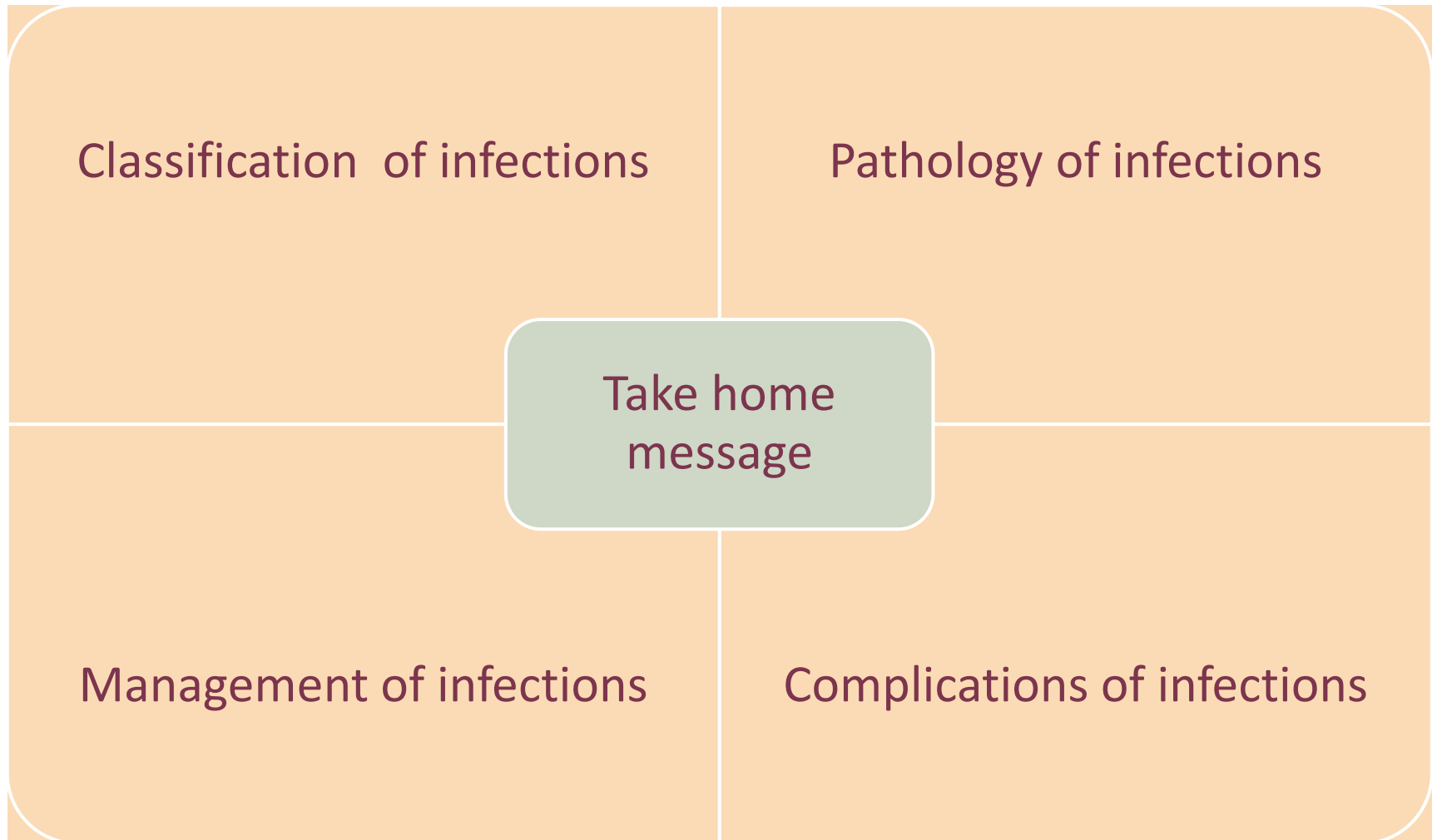


COMPLICATIONS

COMPLICATIONS

- **General complications:**
 - Sepsis.
- **Local complications:**
 - Scars.
 - Delayed and non- healing.
 - Spread or recurrence of infection.

TAKE HOME MESSAGE



DISCUSSION

Questions



Thank you