

# The fundamentals of the clinical assessment of an adult living with HIV

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# Overview

1. Reasons for performing a clinical assessment
2. Approach to a clinical assessment
3. Subjective history taking
4. Objective examination
5. Assessment and plan
6. Summary



# bjectives

1. Discuss why a clinical assessment should be performed on a HIV infected patient.
2. Recognise possible abnormal findings from a subjective history as well as a physical examination.
3. Make an accurate patient assessment and develop an appropriate care plan.

# Reasons for performing an assessment

- Establish baseline data about the patient's health when diagnosed with HIV and before starting ART.
- Identify opportunistic infections that needs treatment.
- Identify any other chronic conditions that may develop while a patient is on ART.

**A study in Pretoria about the quality of services in ART clinics found that a physical assessment was performed in only 41.1% of patients (Kinkel et al. 2012)**

# Approach to a clinical assessment

- Subjective - history taking
- Objective - physical examination
- Assessment of subjective and objective findings and differential diagnosis
- Plan



# Comprehensive assessment

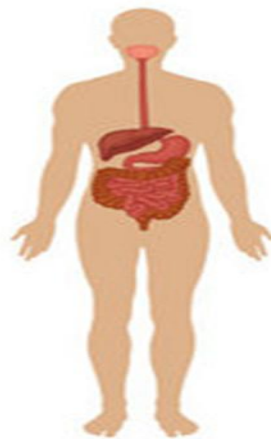
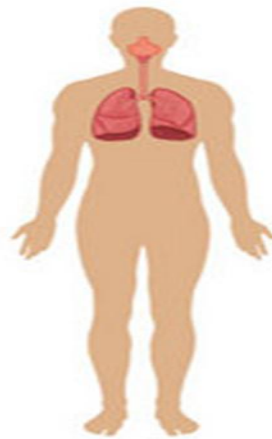
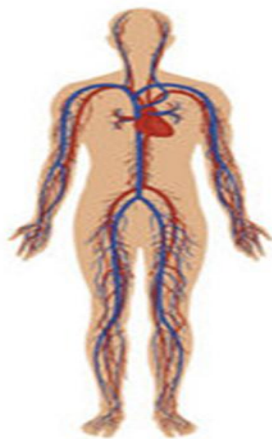
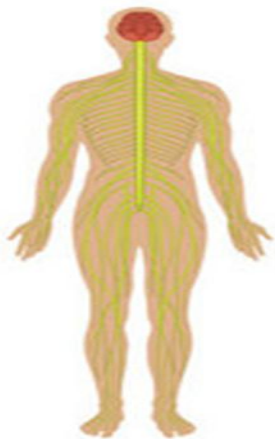
- **Subjective:** History Taking e.g. previous illness, symptoms
- **Objective:** General assessment, JACCOL, basic data, systems examination, diagnostic tests / investigations
- **Assessment:** Diagnosis & WHO stage
- **Plan:** Drug treatment (prophylaxis, ART), health education, referral / support, follow up

# Subjective (history taking)

Question	Rationale
Main complaint / reason for visit / history of complaint	Patient's account; Involve the patient in their care; Take note of the timeline of events
TB screening	Identify TB symptoms; Screen for IPT eligibility
STI symptoms	Identify STI symptoms; Sexual risk behaviour
Family planning	Identify if pregnant; Need for pap smear; need for contraceptive

# Subjective (history taking)

Question	Rationale
General symptoms (pain questions if pain is a symptom)	Identify any problems in other systems especially CNS, MSS, Mental health GIT, Respiratory Cardiovascular Genitourinary





# Subjective (history taking)

Question	Rationale
Adverse effects	Identify and grade any adverse drug effects
Chronic disease screening	Identify co-morbidities that requires comprehensive management
Adherence	Identify any adherence problems
Medication and allergies (CTX, penicillin)	Identify all medication including other OTC or traditional medication; prior exposure to ART or on ART; Identify possible drug interactions

# Subjective (history taking)

Question	Rationale
Habits and risk factors e.g. alcohol, drugs, family violence	Identify any issues that needs further counselling and that could impact on the patient's adherence to treatment
Social e.g. family structure, support, employment, disclosure	
Previous significant medical or surgical conditions	Identify previous hospitalisations or conditions that may influence the assessment or management plan

# Routine primary HIV care

- **Subjective:** History Taking e.g. previous illness, symptoms
- **Objective:** **General assessment, JACCOL, basic data, systems examination,** diagnostic tests / investigations
- **Assessment:** Diagnosis & WHO stage
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# Objective (physical exam and investigations)

- General assessment
- Basic data
- JACCOL
- Systems examination
- Review of laboratory investigations



# General assessment

- Does the patient look ill or well
- Gait and posture
- General condition (skin, complexion, weight, clothing)
- Vision and hearing
- Mental condition – orientation, mood, memory, behaviour
- Abnormal – sounds, movements, odours

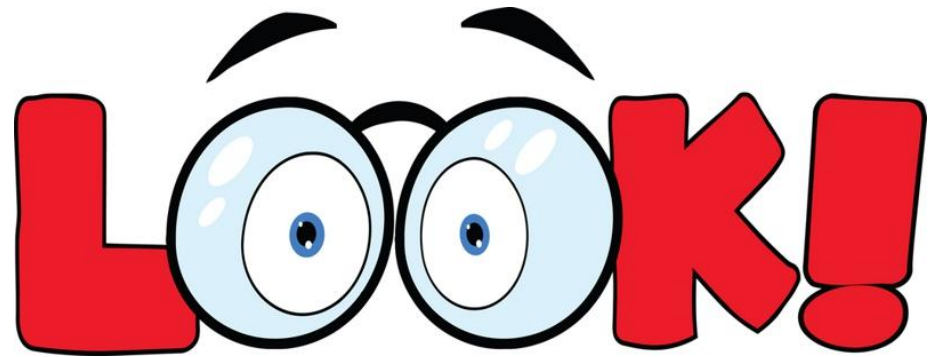
# Basic data

- Height (first visit)
- Weight and BMI and MUAC if pregnant (every visit) – identify weight loss
- Respiratory rate
- Heart rate
- Blood pressure
- Temperature
- Point of care: Hb, glucose, urine dipstick, pregnancy test when indicated, mantoux/TST



# JACCOL

- Jaundice
- Anaemia
- Clubbing
- Cyanosis
- Oedema
- Lymphadenopathy



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# Jaundice

- **Places to examine:**
- Bulbar conjunctiva
- Hard palate
- Skin
  
- **Causes are:**
- Haemolysis of the blood
- Obstruction of bile flow from the liver
- Hepatocellular failure (due to various factors such as drug induced – EFV / LPV/r / TB drugs)



# Anaemia

- **Places to examine:**
- Pallor of mucous membranes of the sclerae
- Buccal mucosa
- Nail bed
- Palm creases
- Spoon shaped nails – chronic (koilonychia)
  
- **Causes are:**
- TB, HIV, drugs (AZT, cotrimoxazole), Vit B12 or iron deficiency

# Cyanosis

- **Places to examine:**
- Blue discolouration of the skin and mucous membranes
- Peripheral – extremities
- Central – tongue
  
- **Causes are:**
- Lung disease: COPD, pulmonary embolism
- Polycythaemia or haemoglobin abnormalities
- Cold weather

# Clubbing

- **Places to examine:**
- Change in shape of nails
- Fingers - diamond test
  
- **Causes are:**
- Lung cancer; Chronic pulmonary suppuration; Infective endocarditis; Cyanotic heart disease; HIV; Chronic inflammatory bowel disease

# Oedema

- **Places to examine:**
- Press for 3 seconds
- Behind medial malleolus of the tibia and distal shaft of the tibia
  
- **Causes of pitting oedema:**
- Cardiac failure
- Liver cirrhosis
- Nephrotic syndrome
- Unilateral oedema may be due to local causes such as venous insufficiency or deep vein thrombosis, Kaposi's sarcoma

# Lymphadenopathy

- Lymphadenopathy is enlarged lymph nodes.
- Compare the one side to the other.
- Check for enlargement, mobility and tenderness with palpation.

# Activity

- Break into groups of 2 and practice the examination of the JACCOL



# Systems examination

- **Skin**
- Rashes / lesions / discolouration
- Mucosal involvement / blisters

# Head and neck

- Thyroid gland



# Systems examination

- **Eye**
- conjunctivitis
- other abnormalities

# Systems examination

- **Ear, Nose, Mouth & Throat**
- Oral candidiasis / ulcers / red throat
- Purulent discharges nose / ear
- Ear canal or middle ear problem

# Systems examination

- **Chest**
- **Cardiovascular**
- Murmurs
- Raised JVP
- **Respiratory**
- Asymmetric chest movement
- Displaced trachea
- Adventitious sounds – wheezing, crepitations, pleural rub
- **Breasts** – males and females - abnormalities

# Systems examination

- **Genitourinary**
- Ulcers / warts / discharge /
- bleeding
- Suprapubic tenderness
- Cervical tenderness / abnormality
- Inguinal lymph nodes
- **Abdomen**
- Tenderness
- Rigidity / guarding
- Masses
- Liver enlargement

# Systems examination

- **Musculoskeletal / Neurological**
- Focal abnormalities / weakness
- Peripheral neuropathy
- Confusion
- Neck stiffness
- Abnormal reflexes / tone
- Joint / tendon / muscle abnormality

# Routine primary HIV Care

- **Subjective:** History Taking e.g. previous illness, symptoms
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- **Assessment:** Diagnosis & WHO stage
- **Plan:** Drug treatment (prophylaxis, ART); Health education, referral / support, follow up

# Interpretation of investigations

- **Immune function:** CD4 count
- **Screening for infections:** CrAg; HepBsAg; RPR or TPHA / FTA / rapid TP (TP specific tests)
- **Baseline and monitoring bloods for ART/DRTB:**  
Creatinine / eGFR
- ALT
- Hb and diff WCC
- Fasting cholesterol and triglycerides
- Viral load
- Lactate
- Potassium, phosphate, TSH

# Interpretation of investigations

- TB
  - Smear
  - GeneXpert (GXP)
  - Culture
  - Drug sensitivity testing (DST)
  - LPA





# Routine primary HIV Care

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# Assessment / diagnosis

- Summary of abnormal findings
- Diagnosis of any OI's, TB, STIs, side-effects etc.
- Problem list
- WHO staging
- Decide if (still) eligible for prophylaxis (co-trimoxazole, IPT) or ART



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# Plan

- Prescribe drug treatment (STI, OI's, TB, ART)
- Prophylaxis
  - Co-trimoxazole (stage 2,3,4 or CD4<200)
  - IPT
- Decide if any further investigations are needed today
- Evaluate for chronic care
- Provide health education / advice (contraception, safe sex, disclosure, adherence, bereavement etc.)
- Support, referral and follow up

# Documentation

- Subjective history – brief summary of main complaint and important history questions e.g. TB and STI symptoms, side-effects, adherence, other illnesses/comorbidities, previous investigations
- Objective – General appearance, basic observations, JACCOL, any system abnormalities noted
- Assessment – differential diagnosis, WHO stage
- Plan – drug treatment prescribed, health education, investigations ordered, referrals made and follow up date.

# Summary

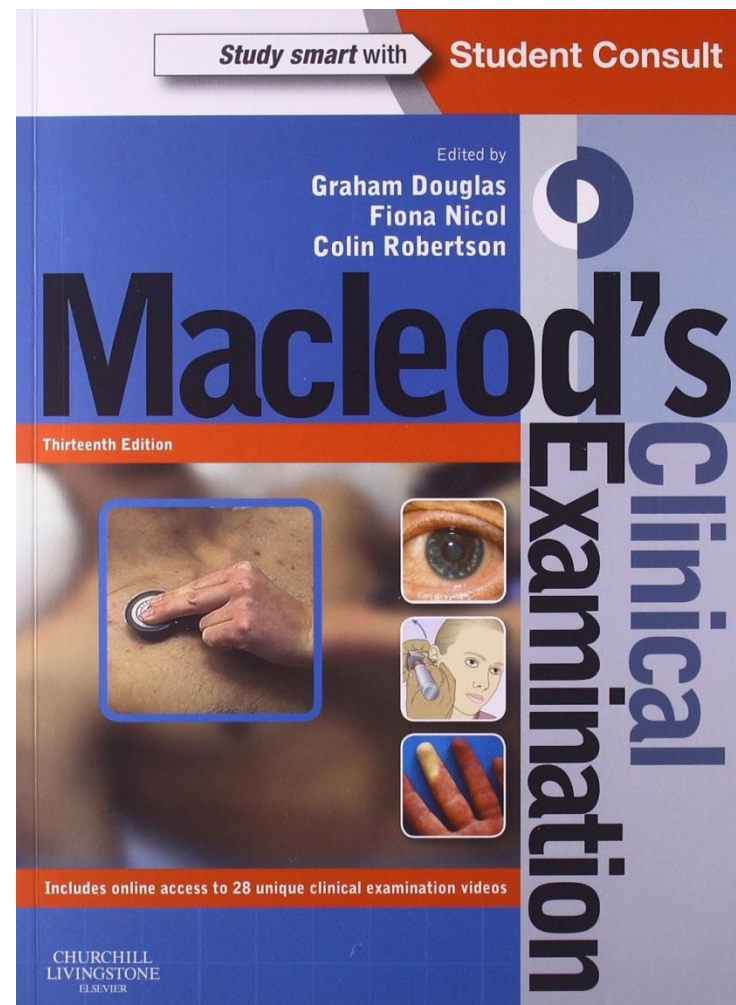
- A good clinical assessment is invaluable, but can take time
- Performing a comprehensive assessment at certain times – diagnosis, ART initiation, annually may be more efficient and improve patient outcomes by detecting problems early

# Useful resources



BOB MASH • JULIA BLITZ • DANINE KITSHOFF • SUSAN NAUDE  
EDITORS

Van Schaik  
eBook



# Thank you.

## Any questions?

- Please complete the questionnaire before you leave

