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

Note: Pictures have been removed from the slides for copyright purposes

Talitha Crowley (Stellenbosch University)
Helen Woolgar (Stellenbosch University)
Stacie Stender (Jhpiego)
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
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)

<table>
<thead>
<tr>
<th>Question</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main complaint / reason for visit / history of complaint</td>
<td>Patient’s account; Involve the patient in their care; Take note of the timeline of events</td>
</tr>
<tr>
<td>TB screening</td>
<td>Identify TB symptoms; Screen for IPT eligibility</td>
</tr>
<tr>
<td>STI symptoms</td>
<td>Identify STI symptoms; Sexual risk behaviour</td>
</tr>
<tr>
<td>Family planning</td>
<td>Identify if pregnant; Need for pap smear; need for contraceptive</td>
</tr>
</tbody>
</table>
Subjective (history taking)

<table>
<thead>
<tr>
<th>Question</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>General symptoms (pain questions if pain is a symptom)</td>
<td>Identify any problems in other systems especially CNS, MSS, Mental health</td>
</tr>
<tr>
<td></td>
<td>GIT, Respiratory</td>
</tr>
<tr>
<td></td>
<td>Cardiovascular</td>
</tr>
<tr>
<td></td>
<td>Genitourinary</td>
</tr>
</tbody>
</table>
## Subjective (history taking)

<table>
<thead>
<tr>
<th>Question</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adverse effects</strong></td>
<td>Identify and grade any adverse drug effects</td>
</tr>
<tr>
<td><strong>Chronic disease screening</strong></td>
<td>Identify co-morbidities that requires comprehensive management</td>
</tr>
<tr>
<td><strong>Adherence</strong></td>
<td>Identify any adherence problems</td>
</tr>
<tr>
<td><strong>Medication and allergies (CTX, penicillin)</strong></td>
<td>Identify all medication including other OTC or traditional medication; prior exposure to ART or on ART; Identify possible drug interactions</td>
</tr>
</tbody>
</table>
Subjective (history taking)

<table>
<thead>
<tr>
<th>Question</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habits and risk factors e.g. alcohol, drugs, family violence</td>
<td>Identify any issues that needs further counselling and that could impact on the patient’s adherence to treatment</td>
</tr>
<tr>
<td>Social e.g. family structure, support, employment, disclosure</td>
<td></td>
</tr>
<tr>
<td>Previous significant medical or surgical conditions</td>
<td>Identify previous hospitalisations or conditions that may influence the assessment or management plan</td>
</tr>
</tbody>
</table>
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
- **Plan:** Drug treatment (prophylaxis, ART); health education, referral / support, follow up
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
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
- **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
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

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

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

Any questions?

• Please complete the questionnaire before you leave