DRAFT

primary care 101

Integrated guideline | On-site training

Symptom-based approach to the adult in primary care

HIV/AIDS
TB
Asthma/COPD
Diabetes
Cardiovascular disease
Mental health conditions
Women's health
Epilepsy
Musculoskeletal disorders

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

2011/12

CONTRIBUTORS

Acknowledgements to those who contributed to previous editions of PALSA PLUS and to this first edition of Primary Care 101:

Sadia Abrahams
Denise Adams
Gadijath Apollis
Carmen Arendse
Maureen Aucamp
Virginia Azevedo
Helen Barrett
Eric Bateman
Linda-Gail Bekker
Angeni Bheeki
Esther Binza
Brenda Blaauws
Marc Blockman
Sam Boleme
Roeleen Booi
Liona Botha
Magda Botha
Andrew Boulle
Jani Brett Driskell
Hanneke Brits
Marlene Bruwer
Alan Bryer
Carol Burgess
James Butler
Judy Caldwell
Deanna Carter
Liezl Channing
Ashley Chin
David Coetzee
Karen Cohen
Graeme Copley
Ruth Cornick
Zareena Darries
Chilta Ranjan Das
Rod Dawson
Carol Dean
Astrid Dearham
Lynne Denny
Angela de Sa
Christine De Villiers
Linda De Villiers
Tania De Villiers
Caroline de Wet
Judy Dick
Hanneke Dippenaar
Elaine Dommisse
Krista Dong
Bev Draper
Daleen Du Plessis
Ado Du Toit
Maresa Du Toit
Riette Du Toit
Roland Eastman
Anthea Emmanual
René English
Lara Fairall
Gill Faris
Naomi Folb
Stefan Gebhart
Daniella Georgeu
Laurel Giddy
Eric Goemare
Beryl Green
Nelis Grobbelaar
Colette Gunst
Beth Harley
Surita Hartog
George Harris
Anne Herling
Simone Honikman
Abdul Isaacs
Thekiso Isaacs
Caroll Jacobs
Bernie Jansen
Anneline Janse van Rensburg
Patrick Jeftha
Karen Jennings
Sue Jessop
Yasmina Johnson
Kate Joyner
Theuns Kellerman
Roy Kennedy
Erika Ketterer
Elmie Laas
Dinky Levitt
Goedele Louwagie
Crick Lund
Gary Maartens
Buyelwa Madjikela-Dlangamandla
Unati Mahlati
Makoali Makotoko
Setlaba Mampho
Rob Martell
Julie Martins
Bob Mash
Refiloe Matji
Pat Mayers
Julie MacKenzie
Velma Makhubela
Margot McCumisky
Graeme Meintjes
Vuyani Mithani
Keitumetse Mlambo
Welhemina Molosi
Nuku Moshe
Gadihele Mosiea
Eula Mothibi
Salla Munro
Katy Murie
Linda Mzilikazi
Pren Naidoo
Mosedi Namane
Michele Nel
Alice Ngcolomba
Gareth Nortje
Morakane Nyokong
Catherine Orrell
Salah-Eddine Ottmani
Whadi-ah Parker
Smruti Patel
Annatjie Peters
David Pienaar
Michelle Pienaar
Maragie Philips
Tsotsa Polinyane
Eleanor Poole
Marlene Poolman
Christopher Prescott
Francois Pretorius
Hans Prozesky
Kgantsho Ranyane
Brian Rayner
Annette Rayners
Marian Reid
Gloria Rembe
Marinda Roelofse
Helen Sammons
Palesa Santho
Peter Saranchuk
Robert Scherpbier
Arina Schlemmer
Nomvula Sibanyoni
Brenda Smuts
Dan Stein
Jo Stein
Hannas Steinberg
Dewald Steyn
Marinda Steyn
Nelia Steyn
Tinkie Stofile
Lynette Theron
Margaret Tom
Yvonne Trinder
Mvula Tshabalala
Yolisa Tsibolane
Ursula Turner
Hilary Twiggs
Kerry Uebel
Gilles van Cutsem
BJ van der Merwe
Dawn van der Merwe
Sonja van der Merwe
Claire Van Deventer
Luzette van Niekerk
Cloete van Vuuren
Unita van Vuuren
Helene Visser
Vickie Waldie
Dave Whitelaw
Doug Wilson
Lindsay Wilson
Merick Zwarenstein
Virginia Zweigenthal

Acknowledgements to the Division of Dermatology, Groote Schuur Hospital, Cape Town for the skin photographs.

CONTENTS: SYMPTOMS

Assess and manage the client using his/her symptoms as a starting point

CONTENTS: CHRONIC CONDITIONS

An approach to the diagnosis and routine care of the client with a chronic condition

Note that all drugs recommended in this guideline are highlighted in either green or purple:
Green-highlighted drugs may be prescribed by a doctor and a nurse according to his/her scope of practice. Purple-highlighted drugs may only be prescribed by a doctor.

THE UNCONSCIOUS CLIENT

Manage the unconscious client urgently

Clear airway
- Clear mouth and throat and insert oropharyngeal airway if available.

Give 40% oxygen via face-mask. Intubate if:
- Client centrally cyanosed (blue tongue/lips) and/or
- Respiratory rate < 10 breaths/minute and/or
- Coma score < 9 (to assess coma score see chart to the right)

If equipment or skills unavailable give mask-bag ventilation.

Establish IV access
- Use as large bore venous access as possible.
- If client bleeding, give Ringer's lactate; if no bleeding, give normal saline solution.

Check BP
- If systolic BP < 90, give 500mℓ IV fluids rapidly. Repeat until systolic BP > 90. Stop if client becomes breathless.

Check glucose
- If glucose < 3.5 or unable to measure, give 50mℓ of 50% glucose IV.
- If glucose ≥ 15, give 0.9% normal saline 1V/ℓ in first hour and then 1ℓ over the next 2 hours *and* 10U short-acting insulin IM.

Assess coma score

Eye opening
- 4 Spontaneous
- 3 To speech
- 2 To pain
- 1 None

Best motor response
- 6 Obeying commands
- 5 Localises purposefully to pain
- 4 Withdraws to pain
- 3 Flexing
- 2 Extending
- 1 None

Best verbal response
- 5 Orientated
- 4 Confused
- 3 Inappropriate words
- 2 Incomprehensible
- 1 None

Add scores to give a single score

Manage according to likely cause:

Temperature ≥ 38°C	Soft tissue swelling of eyes/lips/wheeze	Small pupils and/or history of drug overdose	Signs of trauma	Recent seizure/fit
Pneumonia or **meningitis** likely • Give ceftriaxone 2g IV/IM.	**Anaphylaxis** likely • Give adrenaline 1mℓ (1:1000) IM every 10 minutes until better • Give hydrocortisone 100mg IV • Give promethazine 50 mg IM/slow IV	**Opiate poisoning** likely • Give naloxone 0.4–1.2mg IV	• Stop bleeding • Stabilise cervical spine • Stabilise fractures	→2.

Write a clear referral letter and refer urgently to hospital

Record history from relatives and emergency staff:
- Onset of coma and details of how found.
- Known chronic disease/s and medication. Ask about diabetes, hypertension, asthma, HIV, cancer, epilepsy. Send medication with client to hospital.
- Known substance abuse or depression. Was a suicide note found?
- Any recent trauma.
- Recent travel to a malaria area and any prophylaxis taken.

Document level of consciousness, blood pressure and pulse and any treatment given.

SEIZURES/FITS

Manage urgently the client who is unconscious and fitting:

- Ensure the client is safe. Place in a lateral lying (recovery) position. Do not place anything in the mouth.
- Give 40% facemask oxygen.
- Check glucose. If < 3.5 or unable to measure, give 50mℓ of 50% glucose IV.
- Continue IV dextrose 5% in sodium chloride 0.9% slowly (30 drops per minute).
- If ≥ 20 weeks pregnant up to 1 week postpartum →93 for treatment of fit.
- If < 20 weeks pregnant or not pregnant, give diazepam 10mg IV slow infusion over at least 5 minutes or lorazepam 4mg IM/IV stat.
- Repeat after 10 minutes if fit continues.
- Treat for status epilepticus if:
  - Fits do not respond to 2 doses of diazepam/lorazepam or
  - Fits last longer than 30 minutes *or*
  - Client does not recover consciousness between fits.

Client has status epilepticus:

- Give phenytoin 20mg/kg IV (through different line to diazepam) over 60 minutes.
- If fits continue repeat phenytoin 10mg/kg IV (through different line to diazepam) over 30 minutes.
- Refer urgently to hospital.

Client does not have status epilepticus and fit stops:

Refer client same day if:

- Temperature ≥ 38°C: give ceftriaxone 2g IM/IV (if none available, penicillin G 5MU IV)
- Neck stiffness/meningism
- HIV client
- Reduced level of consciousness more than 1 hour after fit
- Glucose still < 3.5 after one hour or client on glibenclamide or insulin
- New weakness, numbness, visual disturbance, facial asymmetry, unable to name 3 out of 3 objects (like hand, nose, pen) or recent headaches
- BP ≥ 180/110 one hour after fit has stopped
- Substance abuse: overdose or withdrawal
- Head injury within past 6 weeks
- Pregnant or up to 1 week postpartum

Approach to client who is not fitting now and does not need same day referral

Confirm that client indeed had a fit: jerking movements of part of or the whole body, with/without tongue biting, incontinence, post-fit drowsiness and confusion.

Yes
Is client known with epilepsy?

Yes

No
Previous TB meningitis, stroke or head trauma?

Yes
Chance of recurrent fit is 50%, even 2 years after the event.

No
Refer for specialist assessment.

Treat for **epilepsy** →87.

No
Episode/s of weakness or disturbance of speech for < 24 hours?

Yes
Stroke or transient ischaemic attack likely →76.

No
Episodes of acute anxiety?

No
Collapse following hot feeling, nausea, prolonged standing or intense pain with rapid recovery?

Blackout likely →7.

Yes
Panic attack likely →81.

Refer for specialist assessment if diagnosis uncertain.

WEIGHT LOSS

Recognise the client with weight loss needing urgent attention:
- Weight loss in the client on ART associated with one or more of: nausea, vomiting, sore muscles, shortness of breath, abdominal pain or distension

Management:
- Client needs same day lactate measurement →63.

- Check that the client that says s/he has unintentionally lost weight has indeed done so. Compare current weight with previous records and ask if clothes still fit.
- Unintentional weight loss of > 5% of body weight is significant and must be investigated.

First check for TB, HIV *and* diabetes

Exclude TB
- Start workup for TB ↻ 55.
- At the same time test for HIV ↻ 60 and diabetes ↻ 70
- and consider other causes below.

Test for HIV
- If status is unknown, test for HIV ↻ 60.
- The HIV client with weight loss ≥ 10% and diarrhoea or fever > 1 month needs ART →61.

Check for diabetes
- Check random finger-prick blood glucose
- To interpret result ↻ 70.

Ask about symptoms of common cancers:

Abnormal vaginal discharge/ bleeding	Breast lump/s or nipple discharge	Urinary symptoms in man	Change in bowel habit	Cough ≥ 2 weeks, blood-stained sputum, long smoking history
Consider cervical cancer. Do a speculum examination →27.	Consider breast cancer. Examine breasts/axillae for lumps →18.	Consider prostate cancer. Hard and nodular prostate on rectal examination →31.	Consider bowel cancer. Mass on abdominal or rectal examination, occult blood positive.	Consider lung cancer. Do chest X-Ray.

If food intake inadequate, look for a cause:

Nausea and/or vomiting	Loss of appetite	Ask, 'Are you stressed?	No money for food	Sore mouth or difficulty swallowing
→20.	• Eat small frequent meals. • Drink high energy drinks (milk, maas, mageu, soup, sweetened fruit juice). • Increase energy value of food by adding sugar, milk powder, peanut butter or oil.	If yes, →52.	If available, refer to nutrition scheme.	**Oral/oesophageal thrush** likely →14

Check thyroid function (TSH) if none of the above and client has any of pulse > 80, tremor, irritability, dislike of hot weather or thyroid enlargement.

Refer within 1 month for further investigation the client with persistent documented weight loss and no obvious cause.

FEVER

A client with a fever has an axillary temperature ≥ 38°C or had a fever in the past 4 days.

Recognise the client with fever needing urgent attention:

One or more of the following:
- Confusion or agitation
- Respiratory rate ≥ 30 breaths/minute
- Unable to walk unaided
- Unable to drink
- Jaundice
- Renal angle tenderness
- Seizures
- BP < 90/60
- Easy bleeding/bruising/blood in urine

Management:
- Establish IV access and give 5% dextrose in ½ strength Darrows or Ringer's lactate. If unavailable give oral rehydration solution.
- Give ceftriaxone 2g IM/IV stat.
- Refer same day to hospital.

Approach to the client with fever not needing urgent attention

Ask about associated symptoms
If cough →16; sore throat →14; blocked/ runny nose →13; vaginal discharge →23, burning urine →31, painful skin →40, headache →9, diarrhoea →21.

If above symptoms are not present, has client visited in the past 12 weeks a malaria endemic area?

Yes

- Refer for malaria test and treatment.
- Consider other cause especially TB ↻ 55.

No

- **Exclude TB in the client with fever ≥ 2 weeks ↻ 55.**
- If status unknown, test for HIV ↻ 60.
- The HIV client with fever > 1 month and weight loss ≥ 10% has AIDS and needs ART ↻ 61.

Refer the client with persistent fever and no obvious cause.

LYMPHADENOPATHY (enlarged lymph node/s)

Approach to client with enlarged lymph nodes

- Lymphadenopathy is common in HIV. If status unknown, test for HIV ↴60 *and*
- Ask about associated symptoms, especially TB symptoms (weight loss, cough ≥ 2 weeks, chest pain, night sweats) and manage on relevant page.

Are nodes equally enlarged < 2cm *or* 1 or more ≥ 2cm?

All lymph nodes enlarged equally but < 2cm in size

Check for secondary syphilis with RPR or if unavailable, look for signs: rash especially palms and soles, mouth ulcers, genital wart-like lesions.

RPR positive or signs of secondary syphilis	HIV positive	HIV and/or RPR negative
Treat syphilis →28.	Give routine HIV care →61.	• Advise repeat test after 3 month window period. • If asymptomatic, reassure and advise to return if symptoms occur.

Refer for further investigation if after 2 weeks client is unwell with lymphadenopathy and no obvious cause.

How to aspirate lymph node for TB and cytology

- Clean skin over largest node with alcohol or povidone iodine.
- Insert 16 or 18 gauge needle into node, partially withdraw and reinsert at different angles several times.
- Withdraw needle, attach to syringe filled with 2–3mℓ air, and gently spray needle contents over glass slide.
- Thinly spread material across slide with a second slide.
- Fix one slide for cytology with cytology spray.
- Allow second slide to air-dry (TB).
- If the aspirate is unsuccessful, repeat. If again unsuccessful, refer to surgeon.

1 or more lymph node/s ≥ 2cm in size

Is there a nearby infection (skin, throat) or Kaposi's sarcoma lesion?

Yes

- Sore throat →14
- Skin infection →40
- Kaposi's sarcoma lesion →44

No

Inguinal/groin swelling

No

Client needs lymph node aspirate for TB and cytology.

Yes

Confirm that this is a lymph node: discrete, movable and rubbery.

No

Refer to exclude hernia, aneurysm.

Yes

Swelling hot, painful and/or red?

No

Client needs lymph node aspirate for TB and cytology.

Yes

Treat client and partner for bubo

- Doxycycline 100mg 12 hourly for 14 days *and*
- Ciprofloxacin 500mg 12 hourly for 3 days
- Pregnant/breastfeeding: erythromycin 500mg 6 hourly for 14 days instead of doxycycline *and* ciprofloxacin
- Look for genital ulcer. If present →23.
- Aspirate fluctuant lymph node through intact skin.

WEAKNESS and/or TIREDNESS

Recognise the client with weakness and/or tiredness needing urgent attention:

- Possible stroke or TIA: sudden onset of weakness on 1 or both sides perhaps with vision problems, dizziness, difficulty speaking or swallowing →76.
- Difficulty breathing →16.
- Chest pain →15.
- Client on ART with other signs of lactic acidosis: nausea, abdominal pain or swelling, weight loss, fatigue, shortness of breath →63.
- Diarrhoea and/or vomiting with reliable signs of dehydration:
  - Postural hypotension (systolic BP drop > 20mmHg between lying and standing)
  - Poor urine output
  - Confusion

Management:

- If dehydrated give oral or IV rehydration. Reassess after 2 hours and refer if no improvement.

Approach to client with weakness and/or tiredness not needing urgent attention:

- Tiredness is a problem when it persists so that the client is unable to complete routine tasks and it disrupts work, social and family life.
- Look for a cause of the client's weakness/tiredness:

First check client's temperature.

- If ≥ 38°C ↻ 4.

Then exclude TB, HIV, pregnancy and a mental problem.

- Ask about TB symptoms. Exclude TB ↻ 55.
- If status unknown, test for HIV ↻ 60. The HIV client needs routine HIV care ↻ 61.
- Exclude pregnancy. If pregnant →93.
- Ask 'Are you stressed?' If yes ↻ 52.
- If client has difficulty sleeping ↻ 54.

If none of the above, test for anaemia, diabetes, kidney and thyroid disease.

- Check Hb for anaemia: if < 11 (woman) or < 12 (man), refer to doctor same week.
- Exclude diabetes with random finger prick blood glucose. To interpret result ↻ 70.
- Look for kidney disease on urine dipstick: check eGFR if client has proteinuria, diabetes, hypertension, or is > 60 years.
- Check TSH if any of weight gain, dry skin, constipation, cold intolerance. If TSH abnormal refer to doctor.

Refer the client with persistent weakness/tiredness and no obvious cause.

COLLAPSE

Recognise the client who has collapsed needing urgent attention:

- Unconscious →1
- Fit →2
- Sudden onset of weakness which may not have resolved on 1 or both sides →76
- Difficulty breathing →16
- Chest pain →15
- Loss of consciousness for > 2 minutes
- Pulse rate < 40
- BP < 90/60
- Recent trauma
- Family history of collapse or sudden death
- Abnormal ECG
- Known heart problem

Management:

- Check blood glucose: if < 3.5mmol/ℓ, give oral glucose if conscious, or if unconscious, 40–50mℓ glucose 50% IV. If known with diabetes →71.
- Refer same day to hospital.

Approach to the client who has collapsed but not needing urgent attention

- Ensure client has had an ECG. Refer same day if abnormal.
- Check for postural hypotension: Measure BP lying and repeat after standing for 3 minutes.

Systolic BP drops by ≥ 20mmHg.

- This is common if elderly or pregnant ↻ 93.
- Measure pulse on standing: if > 100/minute, client is dehydrated. Give oral rehydration solution.
- Check Hb: if <11 (woman) or <12 (man), refer doctor same week.
- Review medications to identify likely drug or drug interactions.
- Advise client to stand up slowly.

No change in systolic BP or change < 20mmHg
Ask client to breathe rapidly for 2–3 minutes. Are symptoms reproduced?

No

- Before the collapse did client experience flushing, light-headedness, nausea?
- Did client recover rapidly following collapse?

Yes

Simple faint likely

- There may be twitching of limbs, face, eyes that last < 12 seconds (not a fit).
- Advise to avoid overheating and prolonged standing.

No
Was collapse associated with coughing, swallowing, head turning?

No
Is there known epilepsy or diabetes?

Yes

- Epilepsy care →87.
- Diabetes care →71.

No

Yes

Refer for medical specialist assessment.

Yes

Client is **hyperventilating**.

Stress likely →52.

Refer the client > 70 years with possible heart disease, or who collapses repeatedly, or where no cause for collapse is obvious.

DIZZINESS

Recognise the client with dizziness needing urgent attention:

- Dehydration due to vomiting/diarrhoea (systolic BP drop ≥ 20mmHg between lying and standing) with poor response to IV or oral rehydration
- Consider stroke if sudden onset of dizziness is associated with vision problems, weakness on 1 or both sides, difficulty speaking or swallowing →76.
- BP < 90/60
- Pulse < 40 and/or irregular

Management:

- Refer same day to hospital.

Approach to the client with dizziness not needing urgent attention

- Ask about ear symptoms. If present ↩ 12.
- Screen for substance abuse: if > 21 drinks/week (man) or > 14 drinks/week (woman) and/or > 5 drinks/session or misuse of illicit or prescription drugs ↩ 83.
- Review client's medication. Anti-hypertensives, sedatives, efavirenz, oral hypoglycaemics, anti-convulsants can all cause dizziness. Refer to doctor.
- If diabetic, check finger prick blood glucose for hypoglycaemia ↩ 71.
- Check for anaemia with Hb. If < 11 (woman) or < 12 (man), refer doctor same week.
- Check BP. If > 130/80 ↩ 74 to interpret result. Assess for postural hypotension: Measure BP lying and repeat after standing for 3 minutes.

Systolic BP drops ≥ 20mmHg between lying and standing

Postural hypotension likely

- This is common if elderly or pregnant ↩ 93.
- Advise client to stand up slowly.
- Doctor must review if client on any medication.

No drop or drop in systolic BP < 20mmHg

Ask client to breathe rapidly for 2–3 minutes. Are symptoms reproduced?

Yes

Hyperventilation likely

- Advise re-breathing into a brown paper bag.
- Assess and manage client's stress →52.

No
Ask about associated features

Dizziness precipitated by sudden head movements

Positional vertigo likely

- Client needs Epley manoeuvre. Refer to doctor.

Recent flu-like illness

Vestibular neuronitis likely

- Mobilize as soon as possible.
- Refer to ENT if:
  - Symptoms > 2 weeks
  - Tinnitus
  - New deafness

- If none of the above, check TSH. If abnormal, refer to doctor.
- **Refer if no cause is found or dizziness persists.**

HEADACHE

Recognise the client with headache needing urgent attention:

- Sudden onset of severe headache
- New onset, persistent, different to usual headache
- Headache that wakes or is worse in the morning
- Vomiting
- Temperature ≥ 38°C
- Neck stiffness/meningism
- BP ≥ 180/110, or if pregnant, diastolic BP ≥ 90.
- Decreased level of consciousness
- Confusion
- Vision problems (e.g. double vision, photophobia)
- Following a first seizure
- Sudden weakness on one or both sides
- Speech disturbance
- Pupils different in size

Management:

- If temp ≥ 38°C and neck stiffness, treat for meningitis. Give ceftriaxone 2g IM/IV (if none available, give penicillin G 5MU IV stat).
- If BP ≥ 180/110, give amlodipine 10mg orally stat. If unavailable, give enalapril 10mg orally stat[1]. If pregnant give nifedipine 10mg orally instead.
- Refer same day to hospital

Approach to the client with headache not needing urgent attention

Is headache recurrent with nausea and/or vomiting and/or visual disturbance that resolves completely?

Yes

Migraine likely

- Give immediately and then as needed paracetamol 2 tablets 6 hourly or ibuprofen[2] 400mg 8 hourly with food *and* metoclopramide 10mg 8 hourly.
- If ≥ 2 attacks/month, give amitriptyline 25mg at night to prevent migraines.
- Advise client to recognise and treat migraine early, rest in a dark, quiet room, avoid precipitants like loud noise, stress, flashing lights, missing meals, alcohol, chocolate, cheese.
- Avoid oestrogen-containing contraceptives ↻ 91.
- Refer if poor response to treatment.

No: Pain or pressure over forehead or cheek/s worse on bending forwards, recent common cold, runny nose?

Yes

Sinus infection likely

- Give paracetamol 1g 6 hourly.
- If nasal discharge for > 6 days, give amoxycillin 500mg 8 hourly for 5 days. If penicillin allergic, give erythromycin 500mg 6 hourly for 5 days.
- Refer if poor response to treatment, meningism, tooth infection, swelling over sinus or around eye.
- If client has recurrent sinusitis, test for HIV →60.

No

- Check client's medication
  - ART: Look for meningitis. Refer if headache persists for more than 6 weeks after starting ART.
  - Overuse of analgesics can cause headaches. Advise to avoid regular use and to cut down on amount used.
- If client not on above medication consider tension headache, temporal arteritis or neck pain:

Tightness of scalp
Tension headache likely

- Give paracetamol 1g 6 hourly.
- Amitriptyline 10–25mg at night may help.
- Discuss stress →52.

Pain mainly in neck with muscle stiffness.

- Go to neck pain page →35.

> 50 years, pain over temples
Temporal arteritis likely

- Check ESR.
- Give paracetamol 1g 6 hourly.
- Review next day: if ESR raised, refer same day to doctor.

- Warn client to avoid overusing analgesics.
- Refer if the diagnosis is uncertain or headaches are not responding to treatment.

[1]Unless pregnant, avoid short-acting nifedipine as it may drop the blood pressure too quickly, causing a stroke. [2]Avoid ibuprofen if peptic ulcer, asthma, hypertension, heart failure, kidney disease.

EYE/VISION SYMPTOMS

Recognise the client with eye or vision symptoms needing urgent attention:

- Single painful red eye
- Shingles involving the eye (or if eyelid swollen closed, the tip of the nose)
- Sudden loss or change in vision, including blurred or reduced vision
- Consider stroke if sudden onset of vision problems is associated with dizziness, weakness on 1 or both sides, difficulty speaking or swallowing →76.
- Metallic foreign body or foreign body associated with welding or grinding
- Chemical burn to one or both eyes: wash the eye continuously for at least 20 minutes with clean water or saline.
- Whole eyelid swollen, red and painful: possible orbital cellulitis. Give ceftriaxone 2g IV/IM stat

Management:

- Refer same day to hospital.

Approach to client with eye/vision symptoms not needing urgent attention

Both eyes are discharging/watery
Is there prominent itch?

Yes
Associated with hayfever, allergic rhinitis?

No
Localised cause (makeup) likely

- Wash out eye with clean water.
- Remove the cause.
- Treat with oxymetazoline eye drops 6 hourly for 3 days.

Yes
Allergic conjunctivitis likely

- Treat with oxymetazoline eye drops 1–2 drops 6 hourly for 7 days.
- If symptoms persist > 4 weeks, give cetirizine 10mg at night. Avoid steroid eye drops.

No
Is the discharge clear or pus?

Pus
Bacterial conjunctivitis likely

- Give chloramphenicol 1% ointment 6 hourly for 7 days.
- Advise client to avoid rubbing eyes and to wash hands regularly.

Clear
Viral conjunctivitis likely

- Give 0.9% saline eye washes.
- Give oxymetazoline eye drops 1–2 drops 6 hourly for 7 days. Avoid using > 7 days as this may result in rebound conjunctivitis.

Refer to eye OPD if symptoms do not improve within 2 days.

Gradual change in vision

- Exclude diabetes ↻ 70.
- Exclude hypertension ↻ 73.
- If status unknown, test for HIV ↻ 60.

- Refer for next available eye OPD appointment.
- Refer HIV client same week.

Red or swollen eyelids

- Give chloramphenicol 1% ointment 6 hourly for 7 days.
- Wash crusts on lid margin twice a day with warm water.

Refer to eye OPD if symptoms do not improve with treatment.

Foreign body

- Wash the eye with clean water or saline.
- Remove foreign body with cotton-tipped stick or bud.
- If foreign body is not visible, instill fluoresceine eye drops first to visualise the foreign body.

Refer to eye OPD if:

- Damage to eye
- Abnormal vision or movement of eye
- No improvement after 2 days

FACE SYMPTOMS

Recognize the client needing urgent attention:

- Possible stroke/TIA: sudden onset of one sided facial weakness with minimal or no involvement of the forehead usually with weakness of arm/leg →76.
- Facial swelling and difficult breathing: check urine dipstick:
  - Abnormal urine dipstick: kidney disease likely
  - Normal urine dipstick: anaphylaxis likely: give adrenaline 1mℓ (1:1000) IM every 10 minutes until better and hydrocortisone 100mg IV and promethazine 50 mg IM/slow IV

Refer urgently same day.

Approach to client with facial symptoms not needing urgent attention

Face pain

Pain of cheek or jaw with/without swelling and on tapping involved tooth

Gum/tooth infection likely

- Give paracetamol 2 tablets four times a day
- Give amoxycillin 500mg 8 hourly for 5 days. If penicillin allergic, give erythromycin 500mg 6 hourly for 5 days *and* metronidazole 200mg 8 hourly for 5 days
- Refer to dentist same week.

Pain over forehead or cheek/s worse on bending forwards *and/or* pressure over sinuses *and/or* purulent nasal or post nasal discharge

Sinus infection likely

- Give paracetamol 2 tablets four times a day
- If symptoms for > 6 days, give amoxycillin 500mg 8 hourly for 5 days. If penicillin allergic, give erythromycin 500mg 6 hourly for 5 days.
- Salt water washes or steam inhalation may relieve symptoms.
- Refer if:
  - Associated tooth infection
  - Poor response to treatment
  - Swelling over sinus or around eye
  - Meningism
  - If sinusitis is recurrent and status unknown test for HIV ↻ 60.
  - Recurrent sinusitis is a stage 2 HIV diagnosis. Client needs routine HIV care →61.

Sudden weakness of 1 side of face

Unable to wrinkle forehead; cannot close eye fully

Idiopathic (Bell's) palsy likely

- Rarely may be painful.
- Sagging mouth, dribbling, taste impairment, watering or dry eyes
- Client cannot wrinkle forehead, blow forcefully, whistle or pout out cheek.

- Protect eye with aqueous eye drops 5 times a day. Close eyelid with surgical tape if cornea is exposed.
- Reassure client that most people recover completely within 10 days.
- Refer if:
  - No improvement after 10 days
  - Client has otitis media
  - Any change in hearing
  - Recent head trauma
  - Damage to cornea
  - Unsure of diagnosis

Swelling of face

Ensure client has no difficult breathing, RR < 30, otherwise manage urgently as above.

Is client on enalapril?

Yes

Client has angioedema and must stop enalapril *and never start it again*.

- Give chlorpheniramine 4mg 8 hourly for 1–2 days until swelling resolved.
- Refer to doctor for review of medication.
- Advise client to return urgently should difficult breathing occur.

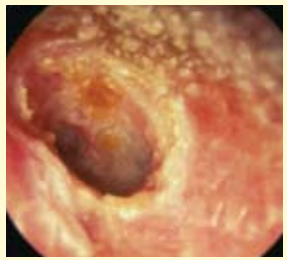
No

Refer to doctor for review.

EAR SYMPTOMS

Itchy ear

Redness *and/or* pus of ear canal



Otitis externa likely

- Give pain relief.
- Clean ear[1].
- Instill 1% acetic acid in alcohol 4 drops in ear 4 times a day for 5 days.
- If severe pain or temperature ≥ 38°C, give flucloxacillin 500mg 6 hourly for 5 days. If penicillin allergic give erythromycin 500mg 6 hourly for 5 days instead.

Refer if infected and no response to treatment within 48 hours

Painful ear

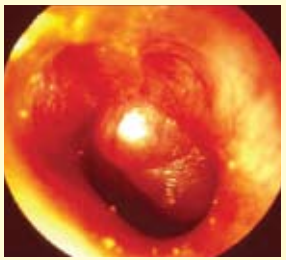
Normal drum and canal

Referred pain likely

Check teeth, temporo-mandibular joint and throat.

Discharge from ear

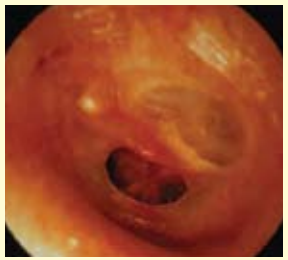
Symptoms < 2 weeks
Red or bulging eardrum



Acute otitis media likely

- Give pain relief
- Clean ear if discharge is present.[1]
- Amoxicillin 500mg 8 hourly for 5 days. If penicillin allergic give erythromycin 500mg 6 hourly for 5 days instead.
- Refer if:
  - No response to antibiotics after 5 days.
  - Recurrent otitis media
  - Painful swelling behind ear
  - Neck stiffness/meningism

Symptoms ≥ 2 weeks
Perforated eardrum



Chronic otitis media likely

- Clean ear[1]. The ear can heal only if dry.
- Refer if:
  - No improvement after 4 weeks
  - Foul-smelling discharge
  - A large hole in eardrum
  - Hearing loss
  - Pain in or behind ear
  - Consider TB and HIV in chronic otitis media that responds poorly to treatment.

Difficulty hearing

- If wax in ear, syringe ear with warm soapy water.
- If client using streptomycin, stop streptomycin.
- Refer unless hearing improves on removal of wax.

[1]Cleaning the ear: Make a wick by twisting a tuft of cotton wool, paper towel or absorbent cloth onto a thin wooden stick. If using cotton wool, it should adhere tightly onto the stick but be fluffy and absorbent on the other end. Insert into ear and remove once wet, continue until wick is dry. Never leave wick or other object inside the ear.

NOSE SYMPTOMS

Runny or blocked nose
Ask about duration and associated symptoms.

Sore throat *and/or* fever	Body aches/muscle pains *and/or* fever *and/or* cold chills	Purulent nasal *and/or* post nasal discharge *and/or* headache worse on bending forward *and/or* pressure over sinuses	Recurrent episodes of sneezing and itchy nose most days for > 4 weeks
Common cold likely	**Influenza (flu)** likely	**Sinusitis** likely	**Allergic rhinitis** likely
• Advise the client with influenza: - bed rest - avoid contact with others to prevent spread - use tissues when sneezing/coughing and dispose of these carefully. • Pain and fever relief (paracetamol 2 tablets 4 times a day) • Regular oral fluids • Reassure client that antibiotics are not necessary. Use antibiotics only if pus on examination. • Colds and flu should improve within 3–7 days.		• Give paracetamol 2 tablets 4 times a day • If pus from nose or symptoms > 6 days: give amoxicillin 500mg 8 hourly for 5 days. If penicillin allergic, erythromycin 500mg 6 hourly for 5 days instead. • Salt water washes or steam inhalation may relieve symptoms. • Refer if: - Associated tooth infection - Poor response to treatment - Swelling over a sinus or around eye - Meningism • If sinusitis is recurrent and status unknown, test for HIV ↴ 60. • Recurrent sinusitis is a stage 2 HIV diagnosis. Client needs routine HIV care ↴ 61.	• Chlorpheniramine 4mg 3 to 4 times a day only when symptoms worsen (side effect is sedation). • Refer if no improvement with above treatment and symptoms debilitating. • If persistant (≥ 4 days per week), give beclomethasone nasal spray long term 2 sprays in each nostril daily and cetirizine 10mg at night.

Bleeding nose

- Pinch nose wings together for 10 minutes.
- Check BP.
  - If < 90/60, elevate legs and give IV Ringer's lactate.
  - If ≥ 130/80 ↴ 73.
- If still bleeding:
  - Syringe nose with saline
  - Pack nose with ribbon gauze impregnated with liquid paraffin or nasal packs soaked in adrenaline.
  - Refer for further management if bleeding persists.
- If client has recurrent episodes:
  - Advise client to avoid nose-picking, contact sport and trauma to nose.
  - Educate client to pinch the soft nose wings when bleeding.

MOUTH AND THROAT SYMPTOMS

Recognise the client needing urgent attention:
- Unable to open mouth
- Unable to swallow at all

Management:
- Refer same day

Red throat

- Give paracetamol 2 tablets 4 times a day
- Salt water mouthwash

Are there pus or white patches on tonsils?

No
Viral pharyngitis likely

Reassure client that antibiotics are not necessary.

Yes
Bacterial tonsillitis likely

Give benzathine penicillin 1.2MU IM single dose or phenoxymethylpenicillin 500mg 12 hourly for 10 days. If penicillin allergic give erythromycin 500mg 6 hourly for 10 days instead.

Refer for ENT assessment if > 4 episodes per year.

White patches on cheeks, gums, tongue, palate, may have angular chelitis (cracks in corners of mouth).

Oral thrush/candida likely

- Amphotericin B lozenges 1 sucked 6 hourly for 5 days

If client uses inhaled corticosteroids, ensure s/he uses spacer and rinses mouth after use ↻65.

If status unknown, test for HIV ↻60.
- Oral thrush is a stage 3 HIV disease. Client needs co-trimoxazole.
- The HIV client with difficulty or painful swallowing (oesophageal thrush likely) needs fluconazole 200mg daily for 14 days and ART.
- For routine HIV care →61.

Painful blisters on lips/mouth

Herpes simplex likely

- 0.5% gentian violet solution painted in mouth 3 times a day

Give aciclovir 400mg 8 hourly for 7 days if:
- Ulcers are extensive or recurrent
- Severe pain
- Ulcers present for > 1 month

If status unknown, test for HIV.
- For routine HIV care →61.
- Herpes > 1 month is a stage 4 HIV disease. Client needs ART →61.

Painful ulcer/s in mouth/ throat

Aphthous ulcer/s likely

- Apply choline/ cetalkonium chloride oral gel 6 hourly until healed.
- Refer if:
  - Not healed within 2 weeks
  - Larger than 1 cm in diameter

- Advise the client with a sore mouth/throat to avoid spicy, hot, sticky, dry or acidic food and to eat soft, moist food or to soften food with margarine or gravy, or dip in tea/coffee or soup.
- Advise to keep mouth and teeth clean by brushing and rinsing regularly.

CHEST PAIN

Recognise the client with chest pain needing urgent attention:

- Respiratory rate ≥ 30 breaths/minute
- BP ≥ 180/110 or < 90/60
- Pulse irregular, > 100 or < 50
- Severe pain
- New onset of central chest pain
- Pain spreads to the neck, arm or back
- Sweating, nausea, vomiting
- Pale
- At risk of heart attack (diabetes, smoker, hypertension, known CVD risk > 20%)
- Known with ischaemic heart disease

Management:

- If unconscious ↻ 1. If conscious, sit client up.
- Give 40% face mask oxygen.
- If BP < 90/60, give 200mℓ normal saline IV.
- Manage according to temperature:

≥ 38°C

Chest infection likely
- Give ceftriaxone 1g IV/IM stat.
- If BP still < 90/60, give 500mℓ normal saline IV over 30 minutes.
- Repeat if BP persists < 90/60. Stop fluids if respiratory rate increases.
- Refer client same day.

< 38°C

Do an ECG

ECG normal or unavailable or uncertain
Is chest pain worse on lying down, palpation or breathing deeply?

- Yes → Heart attack unlikely: refer urgently.
- No → **Heart attack** likely →77

ECG abnormal → **Heart attack** likely →77

Approach to the client with chest pain not needing urgent attention

First exclude pain related to heart and lungs.

Recurrent episodes of central chest pain, brought on by exertion and relieved by rest: **angina** likely →77.

Pain on coughing and breathing deeply: →16.

Once heart and lung conditions excluded, consider heartburn, musculoskeletal problem or shingles.

Retrosternal or epigastric pain with eating, hunger or lying down: **heartburn or indigestion** likely
- Avoid spicy/acidic food, fizzy drinks, eat small frequent meals and prop up head of bed.
- If waist circumference > 88cm (woman), 102cm (man), assess client's CVD risk ↻ 68.
- Give aluminium hydroxide 250mg/magnesium tricilicate 500mg 1–2 tablets as needed (up to 16 in 24 hours) for 7 days.
- If no response give cimetidine 400mg at night for 14 days.
- Refer same week if any of: no response to treatment, new onset and > 45 years, pain on swallowing, vomiting, weight loss, loss of appetite, feeling of early fullness, occult blood positive, abdominal mass.

Tender at costochondral junction, no fever or cough
Musculoskeletal problem likely
- Give ibuprofen 400mg 8 hourly with food.
- Refer if pain persists > 4 weeks.

Burning pain on 1 side with or without rash for 1–2 days
Shingles likely
→41.

Refer same week if uncertain of diagnosis.

COUGH AND/OR DIFFICULT BREATHING

Recognise the client with cough needing urgent attention:

The client with cough and/or difficult breathing and 1 or more of the following signs has respiratory distress:

- Breathlessness at rest or while talking
- Respiratory rate ≥ 30 breaths/minute
- Prominent use of breathing muscles
- Coughing up ≥ 1 tablespoon of fresh blood
- Agitation or confusion
- BP < 90/60

Management:

If available, give oxygen (40% face mask or 4L/min nasal prong; if known with COPD, give 24–28% face mask)

Temperature ≥ 38°C

- Give single dose of ceftriaxone 1g IM/IV.
- Avoid Ringer's lactate for 48 hours after IV administration.
- If unavailable give single dose of amoxicillin 1g orally.
- Refer urgently with continuous oxygen.

Wheeze and difficult breathing, no leg swelling, if 1st episode of wheeze, client < 50 years

- Treat wheeze →17

Difficult breathing worse on lying flat especially with leg swelling or 1st episode of wheeze in client ≥ 50 years

- Heart failure likely →75.

Assess the client with cough and/or difficult breathing not needing urgent attention

Cough and/or difficult breathing < 2 weeks

Sputum, chest pain and fever

Treat for **chest infection**:

- Bed rest and regular fluid intake.
- Give antibiotic if sputum is new, increased or changed in colour:

Is client at risk of severe infection (HIV, > 65 years, known severe lung, heart, liver disease, diabetes or alcohol abuse)?

Yes

- Give amoxicillin/clavulanic acid 250/125mg (375) and amoxicillin 500mg 8 hourly for 5 days[1]. If no better after 2 days, refer same day.

No

- Give benzylpenicillin[1] 2MU IM stat and amoxicillin[1] 1g 8 hourly for 5 days.
- If no better after 2 days add erythromycin 500mg 6 hourly for 5 days if not already on it or refer same day.

Leg swelling or 1st episode of wheeze in client ≥ 50 years

- **Heart failure** likely →75.

Wheezing, no leg swelling, if 1st episode of wheeze, client < 50 years

Treat wheeze →17.

Cough and/or difficult breathing ≥ 2 weeks

Exclude TB ⮌ 55.

While looking for TB, consider other cause for cough and/or difficult breathing.

HIV client

- Consider **PCP** especially if gradually worsening.
- Diagnosis on clinical picture, chest X-Ray, and oxygen saturation.
- Client needs ART →61.
- Refer to doctor same day if PCP suspected.

If PCP and TB excluded

Smoker

Weight loss

Consider **lung cancer.**

Productive cough most days of at least 3 months for ≥ 2 years, no difficult breathing or weight loss

Chronic bronchitis

Advise client to stop smoking.

If TB, lung cancer and chronic bronchitis are excluded

Leg swelling or 1st episode of wheeze in client ≥ 60 years

Heart failure likely →75.

If heart failure and TB excluded

Recent upper respiratory tract infection, no difficulty breathing

Post-infectious cough likely. Advise client that the cough should resolve within 8 weeks.

Cough persists > 8 weeks, TB excluded.

If above conditions excluded, consider asthma or COPD →65.

[1]If penicillin allergic, give erythromycin 500mg 6 hourly for 5 days.

WHEEZE/TIGHT CHEST

Initial Management

- Give salbutamol (beta-agonist) via:
  - Large-volume spacer: 4–8 puffs every 20 minutes for 1 hour then reassess, *or*
  - Nebuliser (oxygen-driven nebuliser is preferable)[1]: 1 or 2mℓ of 0.5% salbutamol solution in 3mℓ of sodium chloride solution every 20 minutes for 1 hour.
- Give first dose of oral prednisone[2] 40mg if no immediate response, or is currently taking oral prednisone. If prednisone unavailable or client unable to take it, give hydrocortisone 100mg IV.

After 1 hour assess if client has respiratory distress ↻ 16.

Worse

Refer immediately. While waiting for transport:

- Add 2mℓ ipratropium bromide to salbutamol nebuliser solution.
- Continue nebulisation every 20 minutes with oxygen in between.[3]

No change

- Add 2mℓ ipratropium bromide to salbutamol solution.
- Continue nebulisation every 20 minutes with oxygen in between.[3]
- Refer immediately if no response within 3 hours of arrival.
- If improved, follow discharge plan below.

Better or no symptoms

- If stable after 1 hour, follow discharge plan below.

Discharge plan for the client who has responded to treatment

- Start, or increase dose and frequency of inhaled salbutamol to a maximum of 2 puffs 4 times a day until condition improves. Check inhaler technique ↻ 65.
- If client received oral prednisone or IV hydrocortisone above, give oral prednisone 40mg daily for 6 more days.
- If client has fever, increased sputum production or a change in sputum colour give benzylpenicillin 2MU IM stat *and* amoxicillin 1g 8 hourly for 5 days. If penicillin allergic, give erythromycin 500mg 6 hourly for 5 days instead.
- Ask about allergic rhinitis/hayfever (sneezing, itchy or runny nose): treating hayfever effectively improves asthma symptoms ↻ 13.
- People are more likely to stop smoking if advised to do so by a health professional. Urge your client to stop smoking. For tips on communicating effectively ↻ 101.
- Book follow-up visits before medicines are expected to run out.

Treat according to known diagnosis (see below). If the cause of wheezing is not known →65.

Known asthma

- Start inhaled corticosteroid ↻ 66 if 2nd emergency visit for asthma in 6 months or previously using inhaled corticosteroid.
- If already on inhaled corticosteroid, adjust dose →66.

Give oral prednisone 40mg daily for 7 days if:

- Recent/frequent emergency visits or previous hospital admission for asthma.
- Worsening of symptoms in the months or weeks leading up to the exacerbation.

- Refer same week to doctor if:
  - No response to 7 days' oral prednisone in past 4 weeks.
  - More than 2 courses of oral prednisone in the last 6 months.
  - Exacerbation occurs in spite of maximum level of chronic treatment.
- Follow up the asthma client →66.

Known COPD

- Give oral prednisone 40mg daily for 7 days if:
  - Breathlessness has improved but remains worse than usual.
  - Client has been on long-term daily oral prednisone.
- Refer same month to doctor if 2 or more exacerbations in 6 months.
- Follow up the COPD client →67.

Tell client to return before follow-up appointment if no improvement after completing a short course of oral prednisone.

[1]If an oxygen-driven nebuliser is not available, use an air-driven nebuliser instead and give facemask oxygen between nebulisation. [2]Oral prednisone is an important component in the management in all but the mildest exacerbations.
[3]Continuous nebulisation is better if there is an inadequate response to initial treatment.

BREAST SYMPTOMS

Approach to the client with a breast symptom *who is not* breast feeding

Breast lump/s
One or both breasts?

Both breasts

This is likely to be cyclical.
- Reassure
- Change hormonal contraception to non-hormonal method →91.

One breast

Client > 35 years or a family history of breast cancer?

No	Yes
Re-examine breast on day 7 of menstrual cycle. Refer same week if lump persists.	Refer same week to breast clinic.

Breast Pain

- Reassure client that breast cancer rarely causes pain.
- Advise a well-fitting bra.
- If pregnant, reassure and give antenatal care →94.
- Give paracetamol 2 four times a day as needed.
- May be a side effect of hormonal contraceptive. If no better after 3 months on contraception, change method →91.

Nipple Discharge

Is the discharge blood stained, on 1 side, in client > 50 years, or in a man?

Yes	No
Refer same week to breast clinic.	• If pregnant, reassure and give antenatal care →94. • If on hormonal contraceptive, reassure. Change to non-hormonal method if distressing →91.

Breast enlargement

One sided

Refer same week to breast clinic.

Both breasts

- Confirm that this is not obesity. If BMI > 25 assess CVD risk →68.
- Look for drugs that cause breast enlargement: efavirenz (reassure client that it often resolves by 2 years), cimetidine, nifedipine, amlodipine, fluoxetine. Discuss with doctor.

Approach to the client with a breast symptom *who is* breast feeding

Painful/cracked nipple/s
Usually in first few days of breastfeeding due to poor latching.

- Avoid soap on washing nipples.
- Help client to latch properly.
- Advise client to apply breastmilk onto nipples and areola after feeding and expose to the air.
- Advise HIV client to stop feeding from the breast, express and heat-treat[1] the milk, and cup-feed baby until cracks have healed.

Painful breast/s
Is temperature ≥ 38°C?

No	Yes
Engorgement likely	**Mastitis** likely
Advise frequent breastfeeding and cold compresses.	• Give flucloxacillin 500mg 6 hourly for 5 days. • Paracetamol 2 four times daily • Advise HIV client to stop feeding from the breast, express and heat-treat[1] the milk, and cup-feed baby until mastitis resolves.

Breast lump
Is temperature ≥ 38°C?

Yes	No
Breast abscess likely	**Blocked duct** likely
• Refer same day for incision and drainage. • Advise HIV client to stop feeding from the breast, express and heat-treat[1] the milk, and cup-feed baby until abscess resolves.	Advise frequent breastfeeding, warm compresses and to massage lump.

[1]Heat-treat milk to rid it of HIV and bacteria: place breastmilk in sterilized peanut butter jar. Close lid and place in pot. Fill pot with water 2cm above level of milk and heat water. Remove jar when water is rapidly boiling.

ABDOMINAL PAIN WITH OR WITHOUT SWELLING (NO DIARRHOEA)

Recognise the client with abdominal pain needing urgent attention:

- Peritonitis (guarding, rebound tenderness or rigidity of abdomen)
- Jaundice
- Temperature ≥ 38°C
- No stool or flatus for last 24 hours and vomiting
- On ART
- Nausea, vomiting, fatigue, sore muscles or difficulty breathing, consider acidosis. Check blood glucose ↻ 70. If on ART, check lactate ↻ 63.
- No urine passed for last 12 hours and swelling of abdomen →31.
- Pregnant woman with lower abdominal pain

Refer same day.

Approach to the client with abdominal pain not needing urgent attention

- If women with lower abdominal pain and/or vaginal discharge, treat for likely pelvic infection →23.
- If the client has urinary symptoms →31.
- If the client is constipated →22.

If client has none of the above, try to identify cause of pain: is the pain in the upper abdomen and related to eating?

Yes - **dyspepsia** likely

Refer same week if any warning signs:

- Weight loss
- Loss of appetite
- Early fullness
- Blood in stool or occult blood positive
- Abdominal mass
- Persistent vomiting or vomiting blood
- New episode in client ≥ 55 years

Approach to the client with no warning signs

- If associated with chest pain on exertion →15.
- Assess client's CVD risk ↻ 68.
- Advise client who smokes and drinks alcohol to stop.
- Avoid spicy, hot or acidic foods, carbonated drinks.
- Stop non-steroidal anti-inflammatory drugs, aspirin.
- If pregnant, give antenatal care →94.
- Give aluminium hydroxide 250mg 2-4 tablets as needed, up to 16 tablets a day for 7 days.
- If no response give cimetidine 400mg at night for 14 days.
- Refer if no response after 7 days of cimetidine.

No
Has client lost weight?

Yes
Is there fever, night sweats, cough and/or HIV?

Yes
Exclude TB →55.

No
Consider **cancer**. Refer same week.

No
Does client have difficulty breathing, abdominal or leg swelling?

Yes
Heart failure likely →75.

No
Does the client report worms?

Yes
- Tapeworm: give albendazole 400mg daily for 3 days.
- Other worm or unsure: give single dose mebendazole 500mg.
- Educate on personal hygiene.

No
If the pain is recurrent with constipation and/or diarrhoea and bloating, **irritable bowel syndrome** likely. Refer to doctor.

- Give paracetamol 1–2 tablets 4 times a day as needed.
- Review regularly until pain resolves or a cause is found.

VOMITING

Recognise the client needing urgent attention:

Vomiting with 1 or more of the following:
- Reliable signs of dehydration:
  - Postural hypotension (systolic BP drop > 20mmHg between lying and standing)
  - Poor urine output
  - Confused or drowsy
- Peritonitis (guarding, distension or rigidity of abdomen)
- Vomiting blood
- Jaundice
- Abdominal pain and no stools or flatus/wind
- Headache →9
- Client on ART with other signs of lactic acidosis: nausea, abdominal pain or swelling, weight loss, fatigue, shortness of breath

Management:
- Oral or IV rehydration
- Check blood glucose ↻ 70.
- If on ART with signs of lactic acidosis, stop ART.
- Refer same day to hospital.

Approach to the client with vomiting not needing urgent attention:

Exclude pregnancy. If pregnant ↻ 93.

What is duration of vomiting?

< 24 hours

- Most vomiting is due to a viral infection and resolves within 24 hours.
- If ≥ 21 drinks/week (man), 14 drinks/week (woman) or binge drinks →83.
- If client is dizzy ↻ 8.
- Give oral rehydration.
- Review in 24 hours if still vomiting.

Vomiting continuously for ≥ 24 hours

Is client on TB medication or ART?

No

- Give oral rehydration solution.
- Review in 2 days if still vomiting.

If still vomiting, refer same day.

Yes

- Assess for dehydration as above.
- Stop all medication and refer same day.

Vomiting continuously for ≥ 24 hours

Advise the client to eat small frequent meals, avoid lying down after meals, avoid hot greasy food and to eat lightly salted dry food before getting out of bed.

DIARRHOEA

Recognise the ill client with diarrhoea needing urgent attetion:

Diarrhoea and 1 or more of the following:
- Blood or mucus in the stool
- Temperature ≥ 38°C
- Reliable signs of dehydration
  - Postural hypotension (systolic BP drop > 20mm Hg between lying and standing)
  - Poor urine output
  - Altered mental state (confused or drowsy)

Management:
- Oral rehydration (IV if unable to keep fluids down)
- If client has had diarrhoea for ≥ 2 weeks send stool sample for 'ova, cysts and parasites'. Indicate on the request form if the client has HIV.
- Refer same day.

Approach to the client with diarrhoea not needing urgent attention:
- Confirm that this is in fact diarrhoea: 3 or more watery stools per day.
- Routine antibiotics are unnecessary and increase the likelihood of antibiotic resistance and side effects.
- Knowing the client's HIV status helps in the management. If status unknown, test for HIV ↴ 60.
- Advise client to increase fluid intake, eat small frequent meals and avoid milk products, caffeinated drinks and high-fat, high-fibre foods.
- Ask about duration of diarrhoea.

Diarrhoea for < 2 weeks

- Give oral rehydration.
- Give loperamide 4mg initially, then 2mg after each loose stool (maximum 12mg per 24 hours).
- Record current weight in client notes.
- Provide routine HIV care ↴ 61.
- Review in 2 weeks if diarrhoea still present.

Diarrhoea for ≥ 2 weeks

- The HIV client with diarrhoea for most days > 1 month has stage 3 HIV ↴ 61.
- Has the client lost weight?

Yes

- Give oral rehydration
- Send stool for 'ova, cysts and parasites'. Indicate on request form if client has HIV.
- The HIV client needs ART if weight loss > 10% body weight and diarrhoea for ≥ 4 weeks ↴ 61.
- Review symptoms and stool result in 1 week.

Stool result negative	Cryptosporidium	*Isospora belli*
Give loperamide 2mg as needed (maximum 12mg per 24 hours).	Give loperamide 2mg as needed (maximum 12mg per 24 hours).	Give co-trimoxazole 1920mg (4 tablets) 12 hourly for 10 days. Then 2 tablets daily.

HIV client needs ART ↴ 61.

No

- Give loperamide 4mg initially, then 2mg after each loose stool (maximum 12mg per 24 hours).
- ddI and lopinavir/ritonavir can cause loose stools which are ongoing.
- Review weight and symptoms regularly.

If diarrhoea persists despite treatment, refer for specialist review.

CONSTIPATION

Recognise the client with constipation needing urgent attention:
- No stools or wind in the last 24 hours plus abdominal pain and vomiting

Refer same day to hospital.

Approach to the client who is constipated and not needing urgent attention:
- Review diet, fluid intake and medication (amitriptylline, codeine/morphine and antacids can cause constipation). Ask about chronic use of enemas or laxatives.
- Exclude pregnancy. If pregnant ↴93.
- Try non drug approaches before prescribing laxatives:
  - Advise a high fibre diet (vegetables, fruit, coarse mielie meal, bran and cooked died prunes) and adequate fluid intake.
  - Advise moderate regular exercise (20 minutes walk daily).
  - Stop chronic use of laxatives or enemas.

No response	Resolved
• Give senna 7.5mg 2 tablets at night for 3 days. • If no improvement increase to 4 tablets. • Refer if no response after 1 week, recent change in bowel habits or uncertain cause for constipation.	Advise to continue with diet and exercise and avoid chronic use of laxatives and enemas.

ANAL SYMPTOMS

Recognise the client with an anal symptom needing urgent attention:
- Unable to sit because of anal symptoms
- Unable to pass stool because of anal symptoms

Refer same day

Anal pain and/or bleeding

Crack/s or lump/pile	Ulcer/s Is there chronic diarrhoea?	
	Yes	No
• Treat constipation as above. • Apply bismuth subgallate compound ointment 2–4 times a day or lignocaine 2% cream after each bowel action. • Refer if pile cannot be reduced or is thrombosed.	• Apply zinc and castor oil ointment. • To manage diarrhoea →21.	• Treat as for genital ulcer →26. • Refer if no improvement.

Anal Itch

Perianal warts	Worms	Dermatitis
Treat as for genital warts →27.	Give mebendazole 500mg stat.	• Advise good hygiene • Wash with aqueous cream. • Apply 1% hydrocortisone cream twice a day for 5 days.

GENITAL SYMPTOMS

Assess the client with genital symptoms and his/her partner/s

Assess	Note
Symptoms	Ask about genital discharge, rash, itch, lumps, ulcers and manage as below. Manage other symptoms as on symptom pages.
Abuse	Ask about rape/sexual assault or if client unhappy in relationship. If yes ↴ 53. Manage and refer the recently raped/sexually assaulted client urgently ↴ 53.
Family planning	Assess client's family planning needs ↴ 91. Exclude pregnancy. If pregnant ↴ 93.
Examination	• In the woman, examine abdomen for masses, look for genital discharge, rash or lumps. Do a bimanual palpation for cervical tenderness or pelvic masses. • In the man look for discharge, inguinal lymph nodes, ulcers, scrotal swelling and/or masses.
HIV	If status unknown test for HIV ↴ 60. The HIV client needs routine HIV care ↴ 61.
RPR	Check RPR/VDRL if client has an STI, is pregnant or was raped or whose partner has an STI or is RPR positive. If positive ↴ 28.
Pap smear	Do a Pap smear if indicated ↴ 27 once an abnormal discharge has been treated ↴ 25. If cervix looks abnormal/suspicious of cancer, refer same week.

Advise the client with genital symptoms and his/her partner/s

- Educate client about the cause of symptoms and if a sexually transmitted infection (STI), that this increases the risk of HIV transmission.
- Urge the client to adhere to treatment and to abstain from penetrative sex for the duration of treatment.
- Stress the importance of partner treatment and issue 1 notification slip with the client's diagnosis in code (as below) for each partner. Advise client to stick to one partner at a time.
- Promote and demonstrate male and female condom use and provide condoms.

Treat the client with genital symptoms and his/her partner/s

- Treat the client according to symptoms:

Discharge		Dysuria		Scrotal swelling	Itch			Ulcer/s	Lump/s	
Man →24	Woman →25	Man →24	Woman →31	→24	Discharge in woman →25	Glans penis →24	Pubic area →27	→26	Groin →5	Skin →27

- Treat the client's partner/s according to the client's diagnosis *as well as* the partners' symptoms (if any):

Client's diagnosis (code)	Partner treatment
Vaginal discharge (VDS)	Cefixime 400mg orally stat and doxycycline 100mg 12 hourly for 7 days and metronidazole 2g stat
Lower abdominal pain in woman (LAP)	Cefixime 400mg orally stat and doxycycline 100mg 12 hourly for 7 days and metronidazole 2g stat
Male urethritis (MUS)	Cefixime 400mg orally stat and doxycycline 100mg 12 hourly for 7 days and metronidazole 2g stat
Scrotal swelling (SSW)	Cefixime 400mg orally stat and doxycycline 100mg 12 hourly for 7 days and metronidazole 2g stat
Genital ulcer (GUS)	Benzathine penicillin 2.4MU IM stat and erythromycin 500mg 6 hourly for 7 days
RPR positive	Benzathine penicillin 2.4MU IM stat
Balanitis (BAL)	Clotrimazole vaginal pessary 500mg inserted stat
Pubic lice (PL)	Benzyl benzoate 25%

GENITAL SYMPTOMS IN A MAN

First assess and advise the man with genital symptoms ↴ 23 and his partner/s.

Urethral discharge or dysuria/burning urine

Treat for male **urethritis syndrome (MUS)**:
- Cefixime[1] 400mg orally stat *and*
- Doxycycline 100mg 12 hourly for 7 days.
- Treat client's partner/s ↴ 23.

Advise client to return in 7 days if symptoms persist.

If ongoing urethral discharge or dysuria, ask if possible reinfection or poor adherence.

Yes
Repeat treatment:
- Cefixime[1] 400mg orally stat *and*
- Doxycycline 100mg 12 hourly for 7 days

No
- Give metronidazole 2g orally stat. (Avoid alcohol for 24 hours)

Refer if not resolved

Scrotal swelling or pain

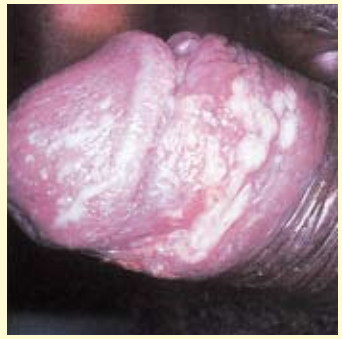
Does client have any of:
- Sudden onset of severe pain
- Affected testicle is higher
- A history of trauma

Yes
Torsion of testicle likely. Refer to doctor same day.

No
Treat for **scrotal swelling (SSW)**:
- Ceftriaxone 250mg IM stat. If penicillin allergic give ciprofloxacin 500mg 12 hourly for 3 days *and*
- Doxycycline 100mg 12 hourly for 14 days.
- Treat client's partner/s ↴ 23.

Refer if no improvement after 7 days.

Pain or itchiness of glans or inability to retract or reduce foreskin



Foreskin can be moved easily on examination.

Yes
Treat for **balanitis (BAL)**
- Wash with weak salt solution, avoid soap.
- Retract foreskin while washing.
- Prescribe clotrimazole cream twice daily.
- If no response after 7 days, test for diabetes ↴ 70 and HIV ↴ 60. Treat female partner with clotrimazole vaginal pessary and repeat treatment. If still no better, refer to doctor.

No
Phimosis or paraphimosis likely.

Refer same week to doctor.

[1]Gonococcal resistance to ciprofloxacin is common. If severe penicillin allergic (angioedema, anaphylactic shock or bronchospasm) replace cefixime with ciprofloxacin 500 mg oral stat. Refer if no improvement within 48 hours.

VAGINAL DISCHARGE

- It is normal for women to have a vaginal discharge. Abnormal discharges are itchy or different in colour or smell. Not all women with a discharge have an STI.
- First assess and advise the client with vaginal discharge and her partner/s ↩ 23.

Is there lower abdominal pain or cervical tenderness?

No

Client sexually active in last 3 months?

No

Treat for **bacterial vaginosis**:
- Metronidazole 2g orally stat. (Avoid alcohol for 24 hours.)

Yes

- Treat for **vaginal discharge syndrome (VDS)**:
  - Cefixime[1] 400mg orally stat *and*
  - Doxycycline 100mg 12 hourly for 7 days (If pregnant or breastfeeding, use amoxicillin[1] 500mg 8 hourly for 7 days instead) *and*
  - Metronidazole 2g orally stat (Avoid alcohol for 24 hours.)
- Treat the client's partner/s ↩ 23.

If the vulva is red, scratched and inflamed, also treat for **thrush**:
- Clotrimazole vaginal tablet 500mg inserted stat *or*
- Clotrimazole vaginal cream applied twice a day for 3 days after symptoms resolve.
- Avoid washing with soap.

Advise client to return in 7 days if symptoms persist.

Persistent thrush:
- Repeat clotrimazole.
- Test for diabetes ↩ 70 and HIV ↩ 60.

Ongoing discharge, no thrush:
Ask if possible re-infection or poor adherence to treatment.

Yes
Repeat treatment. If still no improvement, refer to doctor same week.

No
Refer to doctor same week.

Yes

Recognise the client needing urgent attention

Refer same day if any of the following are present:
- Recent miscarriage/delivery/abortion
- Pregnant or missed or overdue period
- Peritonitis (guarding or rigidity on examination)
- Abnormal vaginal bleeding
- Temperature ≥ 38°C
- Abdominal mass

Management:
- If dehydrated or shocked: give IV fluids
- If temp ≥ 38°C, give ceftriaxone 1g IM stat and metronidazole 400mg orally stat.

Refer same day.

Treat for **lower abdominal pain (LAP)**:
- Ceftriaxone 250mg IM stat. If penicillin allergic give ciprofloxacin 500mg 12 hourly for 3 days *and*
- Doxycycline 100mg 12 hourly for 14 days (If breastfeeding, use amoxicillin 500mg 8 hourly for 14 days instead) *and*
- Metronidazole 400mg 12 hourly for 14 days (Avoid alcohol for 48 hours after stopping treatment).
- Treat the client's partner/s ↩ 23.

Review within 2–3 days.

No improvement

Refer to doctor same week.

Improved

[1]If severe penicillin allergic (angioedema, anaphylactic shock or bronchospasm) replace cefixime with ciprofloxacin 500 mg oral stat. If severe penicillin allergic and pregnant or breastfeeding, replace cefixime and amoxicillin with erythromycin 500 mg 6 hourly for 7 days. Refer if no improvement within 48 hours.

GENITAL ULCER SYNDROME

First assess and advise the client with genital ulcer and his/her partner/s ↴ 23.

The client may have a blister, sore, ulcer, and/or swollen inguinal (groin) lymph nodes that might be tender or fluctuant and/or vaginal/urethral discharge.

First treat for **herpes**
- Give pain relief if necessary.
- Keep lesions clean and dry.
- Give aciclovir 400mg 8 hourly for 7 days.
- Explain that herpes infection is lifelong and that herpes transmission can occur even when asymptomatic. The likelihood of HIV transmission is increased when there are ulcers.
- HIV clients with genital herpes > 1 month have stage 4 HIV and need co-trimoxazole and ART ↴ 61.

If client sexually active in the past 3 months also treat for **genital ulcer syndrome (GUS)**:
- Benzathine penicillin 2.4MU IM stat *and*
- Erythromycin 500mg 6 hourly for 7 days

If penicillin-allergic replace benzathine penicillin with doxycycline 100mg 12 hourly for 14 days and replace erythromycin with ciprofloxacin 500mg 12 hourly for 3 days.
If pregnant and penicillin allergic, give erythromycin 500mg 6 hourly for a total of 14 days.

Check if client also has swollen nodes or a discharge.

Swollen node/s

Treat client and partner/s for **bubo:**
Omit erythromycin above and give:
- Doxycycline 100mg 12 hourly for 14 days *and*
- Ciprofloxacin 500mg 12 hourly for 3 days

If pregnant or breastfeeding, replace both with erythromycin 500mg 6 hourly for 14 days.
If nodes painful and swollen:
- Aspirate through healthy skin any fluctuant lymph node every 3 days as needed.
- Give pain relief if needed.
- Review after 14 days. If no better, refer to doctor same week.

Vaginal or urethral discharge

Treat client and partner/s for **gonorrhoea and chlamydia:**
Omit erythromycin above and give:
- Cefixime[1] 400mg orally stat *and*
- Doxycycline 100mg 12 hourly for 7 days (if pregnant or breastfeeding use amoxicillin[2] 500mg 8 hourly for 7 days instead)
- Also give to woman client metronidazole 2g orally stat (avoid alcohol for 24 hours).
- Review after 7 days. If no better, refer to doctor same week.

[1]Gonoccocal resistance to ciprofloxacin is common. If severe penicillin allergic (angioedema, anaphylactic shock or bronchospasm) replace cefixime with ciprofloxacin 500mg orally stat. Refer if no improvement within 48 hours.
[2]If severe penicillin allergic and pregnant or breastfeeding, replace cefixime and amoxicillin with erythromycin 500mg 6 hourly for 7 days. Refer if no imrpovement within 48 hours.

OTHER GENITAL SYMPTOMS

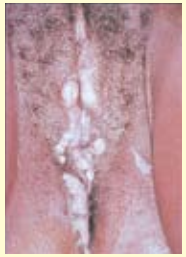
First assess and advise client and partner/s ↴ 23.

Lumps

Genital warts

If warts are soft, involve the skin, and < 10mm:

- Protect surrounding skin with petroleum jelly and apply 20% tincture of podophyllin solution. Do not apply internally.
- Wash solution off after 4 hours.
- Repeat weekly for 4 weeks.
- Do a Pap smear.
- Check RPR →28.



Refer if:

- No response or
- If warts are > 10mm, hard, on mucosal surfaces or
- Pregnant *or*
- Podophyllin not available

Molluscum contagiosum

- Papules with central dent
- Paint with tincture of iodine.
- If HIV, should resolve with ART.

Itchy rash in pubic area

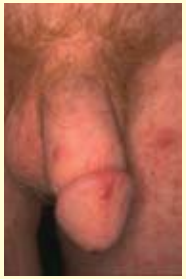
Pubic lice

Treat client and partner/s:

- Apply benzyl benzoate 25% from the neck down for 24 hours. Advise client to avoid mucous membranes, urethral opening and raw areas as it may sting. Repeat after 7 days if lice or nits are seen.
- Wash clothes and linen.

Scabies

Treat client:



- Apply benzyl benzoate 25% from the neck down for 24 hours. Advise client to avoid mucous membranes, urethral opening and raw areas as it may sting.
- Wash clothes and linen.
- Treat partner/s if symptomatic.

CERVICAL SCREENING

- Papanicolaou (Pap)/cervical smears detect cervical abnormalities which occur before cancer develops. Cervical cancer is caused by certain types of human papilloma virus (HPV). HPV is usually transmitted sexually.
- Women who smoke are more likely to have cervical abnormalities. Advise smokers to stop.
- An asymptomatic HIV-negative woman should receive 3 smears in her lifetime from age 30, with a 10-year interval between each smear.
- An HIV-positive woman should receive a Pap smear on diagnosis, regardless of her age. If the result is normal, she needs a Pap smear every 3 years.
- In pregnancy, Pap smears can be performed safely up to 20 weeks' gestation.
- If the client has an abnormal vaginal discharge, treat the discharge first and then take a Pap smear at a follow-up visit.

Manage according to the Pap result

- Unsatisfactory smear: repeat within 3 months.
- ASC-US: repeat within one year.
- 2 consecutive ASC-US *and* HIV positive: refer colposcopy.
- 3 consecutive ASC-US *and* HIV negative: refer colposcopy.
- ASC-H (ASC-US ?HSIL) or AGUS – refer colposcopy.
- Suspicious of cancer: Refer urgent colposcopy.
- LSIL: repeat after one year.
- 2 consecutive LSIL: refer colposcopy.
- HSIL: refer for colposcopy.
- Normal: arrange repeat Pap date according to HIV status.

Inform client of symptoms of cervical cancer (abnormal bleeding, vaginal discharge) and instruct her to return should they occur.

ASC-US: Atypical squamous cells of undetermined significance; LSIL: Low-grade squamous intraepithelial lesions; HSIL: High-grade squamous intraepithelial lesions; ASC-H: Atypical cells - cannot exclude HSIL; AGUS: Atypical glandular cells of undetermined significance

POSITIVE SYPHILIS RESULT

- First assess and advise the client with a positive syphilis result and his/her partner/s ↩ 23.
- Do a RPR/VDRL test in those who are pregnant, sexually assaulted, with a sexually transmitted infection (STI), genital warts, signs of secondary or tertiary syphilis[1] or recently treated for early syphilis, as well as those whose partners have an STI or positive RPR result.
- If RPR checked before 20 weeks' gestation, recheck at 34 weeks. Do a rapid VDRL if client is unbooked in labour or after delivery before discharge.
- RPR and VDRL tests reflect disease activity but do not necessarily indicate syphilis infection. They are useful to measure successful response to treatment.
- TPHA or FTA tests are specific for syphilis and confirm its diagnosis. They usually remain positive for life.

RPR/VDRL positive

Not pregnant
Is RPR titre from last 2 years available?

No

Does client have a genital ulcer or signs of secondary syphilis[1]?

No
- Treat for late syphilis.
- Treat partner/s →23.

Yes
- Treat for early syphilis.
- Treat partner/s →23.

Yes

New titre is either:
- ≤ 1:8 and unchanged *or*
- at least 4 times lower (eg was 1:32, now 1:8)

No
- New syphilis infection likely.
- Treat for early syphilis.
- Treat partner/s →23.

Yes
- No further treatment needed.
- Discharge.
- If not already treated, treat partner/s →23.

Repeat RPR/VDRL after 3 months.

Pregnant

- Treat for late syphilis
- Treat partner/s →23.

- *If penicillin allergic* give erythromycin 500mg 6 hourly for 28 days. Once she has stopped breastfeeding, repeat treatment with doxycycline 100mg 12 hourly for 28 days[3].

Early syphilis:
- Benzathine penicillin 2.4MU IM stat
- *If penicillin allergic* give doxycycline 100mg 12 hourly for 14 days.

Late syphilis:
- Benzathine penicillin 2.4MU IM weekly for 3 weeks
- *If penicillin allergic* and not pregnant give doxycycline 100mg 12 hourly for 28 days.

Treat the newborn of the RPR positive mother:
- Examine the baby.
  - Well baby: benzathine penicillin 50 000u/kg IM stat.
  - Signs of congenital syphilis[2]: procaine penicillin 50 000u/kg IM daily for 10 days.

[1]The signs of secondary syphilis occur 6–8 weeks after the primary ulcer and include a generalized rash (including palms and soles), flu-like symptoms, flat wart-like genital lesions, mouth ulcers and patchy hair loss. Tertiary syphilis occurs many years later and affects skin, bone, heart and nervous system. [2]Signs of congenital syphilis are rash (red/blue spots or bruising especially on soles and palms), jaundice, pallor, distended abdomen due to enlarged liver or spleen, low birthweight, respiratory distress, large, pale placenta, hypoglycaemia. [3]Erythromycin does not reliably cure syphilis in either the mother or the baby.

ABNORMAL VAGINAL BLEEDING

Recognise the client with vaginal bleeding needing urgent attention:

- BP < 90/60
- Exclude pregnancy. If pregnant →93.
- Following abortion or miscarriage

Management:

- Give IV normal saline.
- Refer same day.

Approach to the client with abnormal vaginal bleeding not needing urgent attention

- Refer within 2 weeks the client with vaginal bleeding who is menopausal (no periods for at least one year).
- In client who is not menopausal determine the type of bleeding problem.

Heavy regular bleeding with/without pain (bleeding > 7 days, passing clots)

Has the client been bleeding elsewhere (gums, easy bruising, rash)?

Yes

- Check full blood count.
- Refer to doctor same week.

No

- Check Hb: if < 11 give ferrous sulphate compound BPC 170mg 3 times a day after food for at least 3 months until Hb > 11.
- During period, give ibuprofen 400mg 8 hourly with food for 2-3 days to decrease pain and blood loss.
- If newly started on injectable contraceptive, give combined oral contraceptive for 2–3 cycles ↴ 91.
- Refer the client:
  - Same week if mass in abdomen
  - If no improvement after 3 months
  - Excessive bleeding following IUCD insertion

Periods have irregular pattern (< 24 days or > 35 days between periods)

Does client have hot flushes, mood swings and/or difficulty sleeping?

Yes

Client is perimenopausal.

→98

No

- If there is weight gain, tiredness, feeling cold all the time, check TSH. Refer to doctor if abnormal.
- Give combined oral contraceptive levonorgestrel and ethinyl oestradiol for 6 months ↴ 91.
- Refer to gynaecologist if client wanting to be pregnant.

Bleeding after sex / Spotting between periods

- Look for STI: if vaginal discharge or lower abdominal pain ↴ 23.
- Do pap smear once bleeding has stopped ↴ 27.
- Ask about assault or abuse ↴ 53.
- If client on oral or injectable contraception ↴ 91.
- Refer the client within 2 weeks:
  - Unsure of diagnosis
  - Menopausal (no periods for at least 1 year)
  - Bleeding persists after treatment of STI
  - Abnormal cervix on speculum examination (suspicious of cancer)

SEXUAL PROBLEMS

Problem with erections

Was the onset of the problem gradual or sudden?

Gradual onset
Partial or poorly sustained erections

- Assess cardiovascular disease risk ↻ 68.
- Screen for substance abuse: if > 21 drinks/week or > 5 drinks per session or misusing prescription or illicit drugs ↻ 83.
- Atenolol, furosemide, HCTZ, fluoxetine, amitriptyline, phenytoin, carabmazepine, cimetidine may cause erection problems. Doctor can consider changing medication but needs to balance disease control with possible improvement in erections.
- Advise the client who smokes to stop.
- Ask: 'Are you stressed?' If yes ↻ 52.
- Refer to urologist if no improvement once treatment optimised and chronic condition stable.

Sudden onset
Has erections in morning, but not during sex

- Ask: 'Are you stressed?' If yes ↻ 52.
- Ask about sexual assault or abuse ↻ 53 and anxiety/fear about sex and fertility. Refer to available counselor.
- Assess client's family planning needs ↻ 91.
- Discuss condom use. Ensure client knows how to use condoms correctly.

Woman who has pain with sex

Is the pain superficial or deep?

Superficial pain

- Look for STI: if vaginal discharge or ulcers ↻ 23.
- Ask about vaginal dryness. If there is vaginal atrophy or has other menopausal symptoms like flushes, problems sleeping, mood changes, headaches ↻ 98.
- Advise use of lubricant with sex, but to avoid using vaseline with condoms.

Deep pain

- Look for STI: if vaginal discharge or lower abdominal pain ↻ 23.
- Ask about irritable bowel syndrome: recurrent abdominal pain with constipation and/or diarrhoea and bloating ↻ 19.
- Severe spasm of vagina during sex: ask about sexual assault or abuse ↻ 53.
- Refer to gynaecologist if mass in abdomen or periods have become heavy and painful.

Loss of libido

- Ask: 'Are you stressed?' If yes ↻ 52.
- Ask about sexual assault or abuse ↻ 53.
- If low mood or sadness, loss of interest or pleasure, feeling tense or worrying a lot or not coping as well as before, consider depression/anxiety ↻ 81.
- Screen for substance abuse: if > 21 drinks/week (man) or > 14 drinks/week (woman) or > 5 drinks/session or misusing prescription or illicit drugs ↻ 83.
- Ask the woman client about pain with sex.
- Ask about anxiety/fear about sex and fertility. Refer to available counselor.
- Assess client's family planning needs ↻ 91.

Refer if sexual problems do not resolve.

URINARY SYMPTOMS

Recognise client with urinary symptoms needing urgent attention:

- Unable to pass urine with lower abdominal discomfort

Management:

- Insert urethral catheter.
- Refer same day.

Approach to client with urinary symptoms not needing urgent attention

Blood in urine

Has client been in bilharzia area?

Yes

- Give single dose praziquantel 40mg/kg.
- To prevent re-infection advise client to boil water before use and avoid swimming in contaminated water.

No

Does client have burning urine?

No

Leucocytes and nitrites on urine dipstick?

No

Refer for investigation of cause of blood in urine.

Yes

Refer for investigation of cause of blood in urine.

Burning urine

Woman

Is client pregnant, catheterised, known with diabetes or urinary tract problem?

No

Client has a simple urinary tract infection.

- Give single dose ciprofloxacin 500mg.
- Encourage client to drink plenty of fluids and to empty bladder after sex.

Yes

Client has a complicated urinary tract infection.

- Give ciprofloxacin 500mg 12 hourly for 7 days or if pregnant, amoxicillin/clavulanic acid 250/125mg 8 hourly for 7 days.
- Encourage client to drink plenty of fluids.
- Educate female client to empty bladder after sex.

Man

Look for discharge

No discharge

Are there leucocytes and nitrites on *midstream* urine?

Yes

Client has a complicated urinary tract infection.

- Give ciprofloxacin 500mg 12 hourly for 7 days or if pregnant, amoxicillin/clavulanic acid 250/125mg 8 hourly for 7 days.
- Encourage client to drink plenty of fluids.
- Educate female client to empty bladder after sex.

No

Client has an STI →23.

Client has discharge

Client has an STI →23.

Do a urine microscopy, culture and sensitivity if symptoms do not resolve or client has recurrent urinary tract infections.

Flow Problem

Leakage of urine

- Check dipstick to exclude urinary tract infection.
- Doctor to review use of furosemide.
- Look for vaginal atrophy ↴ 98.
- Ask about constipation ↴ 22.
- Advise client to cut down alcohol and caffeine and to do Kegal exercises.
- Refer to physiotherapist if available.
- Refer if client has vaginal prolapse or no response to above measures.

Poor stream or difficulty passing urine

- Doctor to review use of amitriptyline.
- Refer for assessment.

BODY/GENERAL PAIN

Approach to the client who aches all over
- Check client's temperature and weight.
- Ask about a sore throat or runny/blocked nose.

Normal
Do a musculoskeletal screen to check if problem is in the joint. Ask the client to:
- Place hands behind head; then behind back.
- Make a fist and open hand.
- Press palms together with elbows lifted.
- Walk. Sit and stand up with arms folded.

- If temperature ≥ 38°C →4 *and/or*
- If weight loss ≥ 5% of body weight in past 4 weeks →3.
- If sore throat →14.
- If runny/blocked nose →13.

Unable to do all actions comfortably.

Examine the joints.

Joints are warm, tender, swollen or have limited movement.

→33

Joints are normal.

Able to do all actions comfortably

- If status is unknown, test for HIV ↻ 60.
- Ask client: 'Are you stressed?' If yes ↻ 52.
- If client has experienced recent trauma or abuse ↻ 53.
- Ask about duration of generalised pain.

< 4 weeks

- Give paracetamol 1g 6 hourly.
- Client to return if no better in 2 weeks.

≥ 4 weeks

- Give paracetamol 1g 6 hourly.
- Take blood for ESR, creatinine, random blood glucose and finger-prick Hb.
- If client has weight gain, low mood, dry skin or constipation, check TSH.
- If sleep is poor, give amitriptyline 25mg at night.
- Review in 2 weeks.

Blood results all normal

Consider fibromyalgia →90.

Blood results abnormal

Refer to doctor for further assessment.

JOINT SYMPTOMS

Recognise the client with a joint symptom needing urgent attention:

Short history of single, warm swollen, extremely painful joint and:
- Temperature ≥ 38°C. If known with gout →89, otherwise refer same day.
- Known haemophiliac – possible bleed into the joint
- Trauma in the past 48 hours

Refer same day.

Approach to the client with a joint symptom not needing urgent attention

Do a musculoskeletal screen to check if problem is in the joint. Ask the client to:
- Place hands behind head; then behind back. Make a fist and open hand. Press palms together with elbows lifted.
- Walk. Sit and stand up with arms folded.

Able to do all actions comfortably.

Joint problem unlikely

- If general body pain ↴ 32.
- If localised pain see relevant page.

Unable to do all actions comfortably.
Recent trauma?

Yes

- Rest and elevate joint.
- Apply ice.
- Apply pressure bandage.
- Give ibuprofen 200mg 3 a day with food for 5 days. Avoid if peptic ulcer, asthma, hypertension, heart failure, kidney disease.
- X-Ray to exclude fracture if no better after 5 days.

No
Ask about duration of joint pain.

≥ 8 weeks

Chronic arthritis
→88

< 8 weeks
Does client have a genital discharge?

Yes

→23

No
Painful big toe, knee or ankle with warm red overlying skin?

No

- Give ibuprofen 400mg 3 times a day for 1 month. Avoid if peptic ulcer, asthma, hypertension, heart failure, kidney disease.
- If status unknown test for HIV ↴ 60.
- Review after 1month, sooner if joint pain worsens.

If no better, refer to specialist.

Yes

Acute gout likely
- Client may also be overweight and have diabetes.
- Might have had similar episode previously.
- For treatment of acute gout attack and routine gout care →89.

BACK PAIN

Recognise the client with back pain needing urgent attention

- Bladder or bowel disturbance
- Sudden onset of leg weakness
- Recent trauma with severe pain and X-Ray unavailable or abnormal
- Temperature ≥ 38°C *and* vomiting, pulse rate > 80, respiratory rate > 17, BP < 90/60, diabetes, pregnancy, menopause or male client: **pyelonephritis** likely.
- Severe stabbing flank pain (one sided) with cramp-like radiation to groin and blood in urine: **kidney stone** likely.

Management:

- Pyelonephritis: give IV normal saline and ceftriaxone 1g IM.
- Kidney stone: give IV normal saline and morphine 10–15mg IM single dose.
- Refer urgently to hospital.

Approach to client with back pain not needing urgent attention

- If client is a non-pregnant woman of reproductive age with temperature ≥ 38°C *and*:
  - Vaginal discharge with/without lower abdominal pain: **pelvic inflammatory disease** is likely →23.
  - Flank pain: **uncomplicated pyelonephritis** is likely. Give ciprofloxacin oral 500mg 12 hourly for 7 days and paracetamol 1g 6 hourly as needed.
- Next, ask about TB symptoms: cough, weight loss, night sweats, feeling unwell.

Yes

Exclude TB ↻ 55 *and*

- Do back X-Ray.
- Refer to doctor.

No TB symptoms

Is there any of: < 20 years, > 55 years, pain progressive or for > 6 weeks, previous cancer or oral steroid use, HIV or deformity?

Yes

No

What is the nature of the back pain?

- Sleep not usually disturbed by pain *and*
- No stiffness or stiffness on waking lasts < 30 minutes *and*
- Pain is worse with activity and improves with rest.

Yes

Mechanical back pain likely

- Give paracetamol 2 tablets 6 hourly.
- Advise client to be as active as possible, continue to work and avoid resting in bed.
- Measure waist circumference: if > 88cm (woman) or 102cm (man) assess CVD risk ↻ 68.
- Ask are you stressed? If yes ↻ 52.
- Review after 1 week. If poor response add ibuprofen 400mg 8 hourly for up to 5 days. Avoid if peptic ulcer, asthma, hypertension, heart failure, kidney disease.
- If still a poor response add amitriptyline 25mg–75mg at night.
- Refer to physiotherapy if pain persists > 2 weeks, or unable to cope with daily activities/work.
- Refer to specialist if pain persists > 6 weeks, urgently if bladder disturbance or leg weakness.

No / Unsure

Inflammatory back pain likely

- Check ESR.
- Do back X-Ray.
- Refer to specialist.

NECK PAIN

Recognise the client with neck pain needing urgent attention:

- Neck stiffness with temperature ≥ 38°C: give ceftriaxone 2g IV/IM stat.
- New onset of hand or arm symptoms (weakness or numbness) or gait disturbance (leg weakness, stiffness or loss of balance)
- Trauma with neurological symptoms or abnormal X-Ray: immobilise neck with hard collar or sandbags on either side of the neck.

Refer same day.

Approach to the client with neck pain not needing urgent attention

Is there any of < 20 years, > 55 years, pain progressive or for > 6 weeks, previous TB, cancer or oral steroid use, feeling unwell or weight loss?

Yes	No	
Do X-Ray and refer.	Neck pain with arm pain • Give paracetamol 1g 6 hourly. Avoid NSAIDs like ibuprofen. • Do not refer for physiotherapy.	Neck pain without arm pain • Give paracetamol 1g 6 hourly. Avoid NSAIDs like ibuprofen. • Refer for physiotherapy.
	Refer if no response after 1 month or hand weakness develops.	Refer if no response after 3 months.

ARM SYMPTOMS

Recognise the client with arm symptoms needing urgent attention:

- Pain and limitation of movement following injury: refer
- Arm, elbow or hand pain with swelling and temperature ≥ 38°C: refer
- Left arm pain with chest pain: exclude ischaemic heart disease →15.

Approach to the client with arm symptoms not needing urgent attention

Screen if problem is in the joint: Place hands behind head; then behind back. Make a fist and open hand. Press palms together with elbows lifted. Walk. Sit and stand up with arms folded.

Cannot do screen comfortably.	Can do screen comfortably. Check for associated symptoms.			
Joint problem likely	Painful shoulder **Referred pain** likely	Wrist pain worse at night and if arm hangs down. May be pins and needles in 1st, 2nd and 3rd fingers.	Elbow pain worse on gripping **Tennis or golfer's elbow** likely	Pain at base of thumb relieved by rest **De Quervains tenosinovitis** likely
→33.	Ask about chest pain, difficult breathing, cough, abdominal pain, pregnancy. See relevant page.	**Carpal tunnel syndrome** likely Refer	• Advise rest. • Give ibuprofen 400mg 3 times a day with food for 2 weeks. • Refer if no better.	• Rest and splint joint. • Give paracetamol 1g 6 hourly. • Refer if no better.

LEG SYMPTOMS

- If the problem is in the joint →33.

Recognise the client with leg symptoms needing urgent attention:

- Unable to bear weight following injury
- Swelling and localised pain in calf : DVT likely especially if > 35 years, BMI > 25, smoker, immobile, pregnant, on oestrogen, recent surgery, TB or cancer
- Muscle pain in legs or buttocks on exercise associated with pain at rest, gangrene or ulceration: critical limb ischemia

Refer same day.

Approach to the client with leg symptoms not needing urgent attention

Is there leg swelling?

No

Pain in buttock radiating down back of leg

Irritation of sciatic nerve likely

Refer same week.

Muscle pain in legs or buttocks on exercise

Claudication likely

- Leg pulses are weak or absent.
- Skin is cool, shiny and hairless.

Manage for peripheral vascular disease →79.

Yes

Both legs swollen

Is there cough/wheeze/difficult breathing?

Yes

→16.

No

- Exclude pregnancy. If pregnant →93.
- Check for kidney disease on urine dipstick: if blood or protein, check BP ↻ 73 and refer to doctor.

If none of the above or unsure of diagnosis, refer same week.

One leg swollen

Has there been a recent injury?

Yes

Soft tissue injury likely

- Ensure client can bear weight on leg, otherwise refer same day.
- Apply firm supportive bandage.
- Advise client to use leg within limits of pain.
- Give ibuprofen 400mg 3 times a day with food, or if peptic ulcer, hypertension or asthma, paracetamol 1g 4 times a day.
- Review if no better after 2 weeks or if symptoms worsen.

No

Examine skin for discolouration, ulcers or lumps.

Discolouration, ulcers or breaks in skin

Venous stasis likely

- Advise client to exercise daily and raise the leg periodically.
- If ulcer →46.

Purple lumps on legs or elsewhere on body

Kaposi's sarcoma likely

- If status unknown test for HIV ↻ 60.
- Client needs ART within 2 weeks →61.
- Refer to KS clinic.

FOOT SYMPTOMS

Recognise the client with foot symptoms needing urgent attention

- Unable to bear weight following injury
- On ART with signs of lactic acidosis: nausea, abdominal pain or swelling, weight loss, fatigue, shortness of breath. Check lactate →63.
- On ART and symptoms rapidly worsening over a few weeks, sensation decreased, and/or arms involved: stop ART.
- Muscle pain in legs or buttocks on exercise associated with foot pain at rest, gangrene or ulceration: critical limb ischemia

Refer same day.

Approach to the client with foot symptoms not needing urgent attention

Generalised foot pain

Constant burning pain, pins/needles and/or numbness of feet worse at night
Peripheral neuropathy likely

- If status unknown, test for HIV ↻ 60. HIV client needs routine care ↻ 61.
- Exclude diabetes ↻ 70.
- Give amitriptyline 25–75mg at night and paracetamol 1g 6 hourly.
- If no response, add ibuprofen 400mg 3 times a day with food.
- Refer same week if one-sided, other neurological signs, or loss of function.

On IPT or TB treatment: give pyridoxine 200mg daily for 3 weeks, then 25mg daily for duration of treatment.

- If on d4T switch to TDF 300mg daily. Check eGFR: if < 50 refer ↻ 63.
- If on AZT or ddI refer.

If no response to treatment, refer.

Foot pain on exercise with muscle pain in legs and buttocks
Peripheral vascular disease likely

→79.

Localised pain

Ensure that shoes fit properly.

Heel pain
Plantar fasciitis likely if pain is worse on waking

- Advise client to avoid standing and to apply ice.
- Give ibuprofen 400mg 3 times a day with food, or if peptic ulcer, hypertension or asthma, paracetamol 1g 6 hourly.
- Refer to physiotherapist.

Foot deformity

Bony lump at base of big toe with/without callus, inflammation, ulcer
Bunion likely

- Encourage client to go barefoot when possible.
- If severe pain or ulceration, refer for surgery.
- Refer other foot deformity.

Care for the client with at-risk feet to prevent ulcers and amputation

- In the client with diabetes and/or PVD identify the foot at risk:
  - Skin: callus, corns, cracks, wet soft skin between toes, ulcers. Refer the client with ulcers for specialist care.
  - Foot deformity: most commonly bunions (see above). Refer the client with foot deformity for specialist care.
  - Sensation: light prick sensation abnormal after 2 attempts
  - Circulation: claudication (muscle pain in legs or buttocks on exercise with/without rest pain), absent foot pulses. Refer the client with claudication for specialist care.

Advise client with diabetes and/or PVD to care for feet daily to prevent ulcers and amputation

- Inspect and wash feet daily and carefully dry between the toes. Do not soak your feet. Avoid testing water temperature with the feet.
- Moisten dry cracked feet daily with aqueous cream. Do not moisturise between toes.
- Avoid walking barefoot or wearing shoes without socks. Change socks/stockings daily. Look and feel inside shoes daily.
- Clip nails straight across. Do not cut corns or calluses yourself and avoid chemicals or plasters to remove them.
- Tell your health worker at once if you have any cuts, blisters or sores on the feet.
- Do not use hot water bottles or heaters near your feet.

INJURED CLIENT

Recognise the injured client needing urgent attention:

- Unconscious →1
- BP < 90/60: give IV Ringer's lactate. Check Hb.
- Difficulty breathing – may need a chest drain. Doctor to assess.
- Blood in urine
- Enlarging or pulsating swelling
- Fracture: see below
- Head injury: see below

Refer client urgently.

Bruising

- Elevate and apply ice.
- Apply supportive bandage if severe.
- If bruising extensive check for blood in urine.
- Give paracetamol 1g 6 hourly.
- If blood in urine give IV 0.9% normal saline and refer same day.

Fracture/s

- Immobilise the limb.
- Client should be assessed same day by a doctor.
- Refer urgently if:
  - Poor perfusion below a limb fracture: poor capillary refill, limb colder or pale below injury
  - Loss of function or weakness
  - Loss of sensation
  - Overlying open wound
  - Fractures of femur or pelvis
  - Suspected spinal fracture
  - Deformity

Laceration/s

- Clean with saline and suture if needed.
- Avoid suturing stab wounds > 12 hours on body, > 24 hours on face/head; bullet wounds, crush injuries, chest stabs
- Give paracetamol 1g 6 hourly as needed.
- Remove sutures after 7 days except:
  - Face and neck: 4–5 days
  - Leg: 10 days
  - Below knee: 2 weeks
  - Wound under tension like amputation: 2 weeks

Head injury

Recognise the client with a head injury needing urgent referral:

- Skull fracture
- Amnesia
- Loss of consciousness or fit after injury
- Increasing restlessness, confusion, aggression
- Nausea and/or vomiting
- Double vision
- Blood or serous fluid from nose or ear
- Haematoma around eye or behind eardrum
- Limb weakness
- Drunk client
- Pupils respond slowly to light or are different size.

Approach to client with head injury not needing urgent referral

- Clean any wound and suture if needed.
- Give paracetamol 1g 6 hourly for pain relief. Advise client to avoid sleeping tablets and tranquilizers.
- On discharge home ensure a responsible person is available to keep an eye on the client for 24 hours.
- Advise client to avoid drinking alcohol for 24 hours.
- Client to go to hospital if any of the following occur: vomiting, visual disturbances, headache not relieved by paracetamol, balance problem, difficult to wake.

- If client has been assaulted ↴ 53.
- Ask about substance abuse ↴ 83.
- Give the client with a wound tetanus toxoid 0.5mℓ IM if not had in last 5 years.
- Advise client to return if no improvement.

BURNS

Attend urgently to the client with a burn

- Remove smouldering, hot and/or constrictive clothing and rings and immerse burnt area in cold water for 30 minutes.
- Clean burn gently with clean water or 0.9% normal saline.
- Assess the percentage of body surface burnt (see adjacent guide) and depth of the burn:
  - Full thickness burns: complete skin loss, dry, charred, whitish/brown/black, painless
  - Partial thickness burns: moist white/yellow slough, red, mottled, only slightly painful
- Cover full thickness and extensive burns with an occlusive dressing, other burns with paraffin gauze and dry gauze on top. If infected apply povidone iodine 5% cream daily.
- If inhalation burn with black sputum, difficulty breathing, hoarse voice or stridor apply face mask oxygen.
- Ensure hydration: if < 10% burns give oral fluids; if ≥ 10% burns, give 0.9% normal saline IV [burn x weight (kg) x 4mℓ]: give half volume in first 8 hours.
- Give tetanus toxoid 0.5mℓ IM if not had in last 5 years.
- Give paracetamol 1g 6 hourly as needed.
- Ask about abuse ↻ 53 and substance abuse ↻ 83.

Calculate % of body surface burnt:

- Head 9%
- Neck 1%
- Arm 9%
- Leg 18%
- Front torso 18%
- Back 18%

Refer same day the client with:

- Full thickness burns
- Partial thickness burns > 10% of total body surface
- Burns of hands/face/feet/genitalia/perineum/major joints
- Circumferential burns of limbs/chest
- Electrical or chemical burns
- Inhalation injury

BITES

Recognise the client with a bite needing urgent attention:

- Snake bite even if bite marks not seen
- Insect bite/s and weakness, drooping eyelids, difficulty swallowing & speaking, double vision
- Suspected rabid animal (animal with strange behaviour)
- Deep and large wound needing surgery

Management:

- Snake bite: do not apply a tourniquet or attempt to squeeze or suck out the venom. Discuss with poison help line ↻ back page.
- If rabies suspected give rabies immunoglobulin 10IU/kg injected in and around wound *and* 10IU/kg IM.
- Refer same day.

Approach to the client with a bite not needing urgent attention

Human or animal bite/s

- Remove any foreign bodies and encourage bleeding.
- Irrigate with warm water and chlorhexidine 0.05% solution or povidone iodine 10% solution.
- Do not close the wound.
- Give tetanus toxoid 0.5mℓ IM if not had in last 5 years.
- Give paracetamol 1g 6 hourly as needed.
- Give antibiotic if human bite/s *or* animal bite/s to hand *or* extensive bite: amoxycillin/clavulanic acid 500/125mg 8 hourly or erythromycin 500mg 6 hourly *and* metronidazole 400mg 8 hourly all for 5 days, or for 10 days if infected.

Insect bites

- If very painful scorpion sting, inject lignocaine 2% 2mℓ around site.
- Give chlorpheniramine 4mg 8 hourly.
- Apply calamine lotion.
- Give paracetamol 1g 6 hourly as needed.

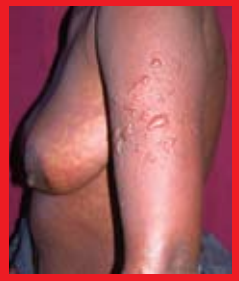
SKIN SYMPTOMS

This is the starting page for the client with skin symptom/s.

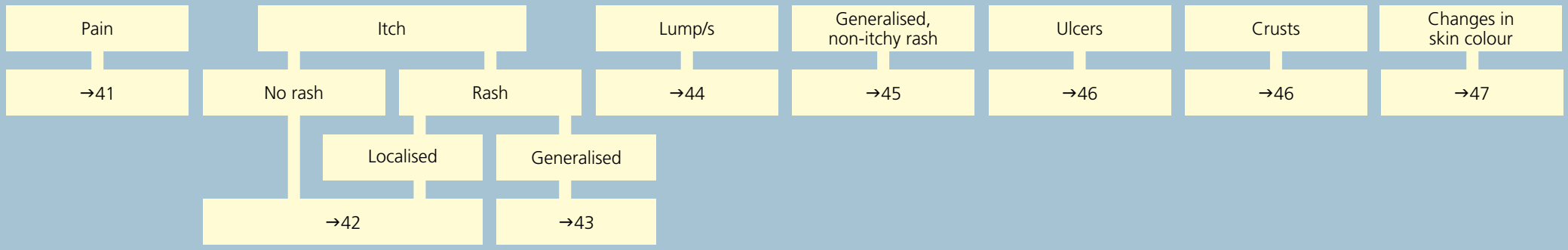
Recognise the client with skin symptom/s needing urgent attention:

Refer urgently:
- Purple rash with headache, vomiting: give ceftriaxone 2g IM/IV (if none available give penicillin G 5MU IV).
- Rash with BP < 90/60: give Ringer's lactate IV.
- Diffuse itchy rash with respiratory rate ≥ 30 breaths/minute: treat for anaphylaxis.

Refer same day:
- Extensive blistering
- Shingles involving the eye
- If on any medication like ART, TB drugs, co-trimoxazole or anticonvulsants, with 1 or more of the following, **stop all drugs**:
  - Temperature ≥ 38°C
  - Systemically unwell (vomiting/headache)
  - Any mucosal involvement (look in the mouth)
  - Blistering or raw areas
  - Diffuse purple discolouration of the skin
  - Jaundice



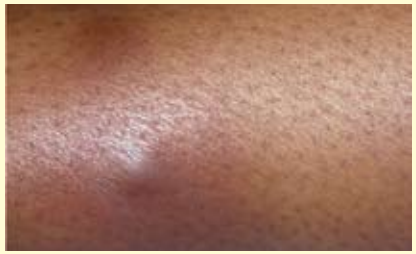
Approach to the client with skin symptom/s not needing urgent attention



If status unknown, test for HIV, especially if rash is extensive, recurrent and/or difficult to treat.

PAINFUL SKIN

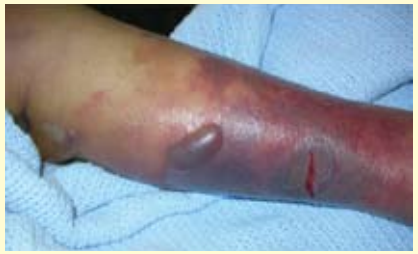
Firm, red lump which softens in the centre to discharge pus.



Boil/abscess likely
Skin is swollen, red, hot and tender to the touch.

- Advise client to wash with soap and water, keep nails short, and avoid sharing clothing or towels.
- Give paracetamol 2 tablets 4 times a day for pain relief as needed.
- Incise and drain if larger or fluctuant. Refer if on face or perianal region.
- If enlarged lymph nodes or temperature ≥ 38°C, give flucloxacillin 500mg 6 hourly for 5 days. If penicillin allergic, give erythromycin 500mg 6 hourly for 5 days.
- If recurrent boils: test for HIV ↴ 60 and diabetes ↴ 70. Wash body daily for 1 week with antiseptic wash.

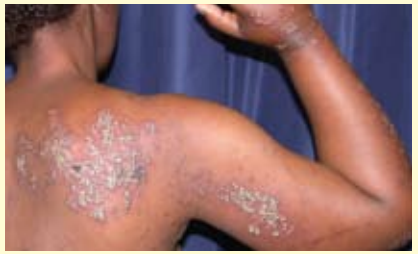
Sudden onset sharply demarcated redness of skin.



Cellulitis likely
There may be blistering.

- Give paracetamol 2 tablets 4 times a day for pain relief.
- Give erythromycin 500mg 6 hourly for 5 days.
- Refer if symptoms worsen or no better after 4 days.

Blisters with crusting in a band along one side of the body or face for 3 days or less.



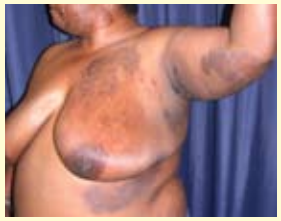
Shingles likely
If status is unknown test for HIV →60

- Treat rash topically with povidone iodine cream.
- If blisters are fresh, give aciclovir 800mg 4 hourly (miss the middle of the night dose) for 7 days.
- Shingles is very painful. Give regular analgesia:
  - Paracetamol 1g 4 times a day
  - If no response, add tramadol 50mg 4 times a day.
  - If poor response or pain persists after rash has healed, give amitriptyline 25mg at night, increase by 25mg every 2 weeks if needed to 75mg.
- A stage 2 HIV diagnosis. HIV client needs routine HIV care →61.

- Refer same day if:
- Eye involvement
- Features of meningitis
- Blisters elsewhere on the body

ITCH WITH LOCALISED RASH

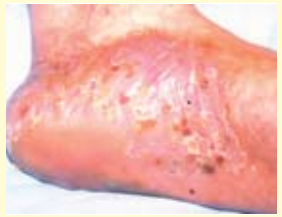
Slow growing ring-like patch/patches



Ringworm likely
A clearly-demarcated active, scaly or blistering edge is characteristic. If multiple or large lesions, test for HIV ↴60.

- Give clotrimazole cream twice a day for 2 weeks after lesion has cleared.
- Advise client to avoid sharing towels/clothes.
- Give routine HIV care to the HIV client →61.
- Refer if rash is extensive, recurrent or responds poorly to clotrimazole cream.

Scaling moist lesions between toes and on soles of feet



Athlete's foot likely

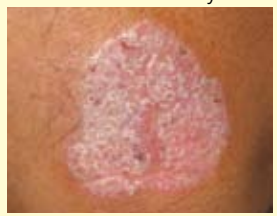
- Give clotrimazole cream twice a day for 2 weeks after lesion has cleared.
- Advise client to wash and dry feet well.
- Encourage open shoes/sandals.

Itchy rash on back of neck

Lice likely
Look for nits/eggs on hair.

- Dip comb in vinegar and fine comb the hair.
- Give permethrin 1% cream rinse: apply after washing and rinse after 10 minutes or benzyl benzoate: apply to scalp overnight and wash off in morning.
- Repeat after 1 week if necessary.

Well demarcated pink raised plaques covered with a silvery scale.



Psoriasis likely

- Apply emulsifying ointment.
- Expose skin to sunlight.
- Apply LPC cream daily.
- Refer if extensive or not responding.

ITCH WITH NO RASH

- Confirm there is no rash, especially scabies or insect bites.
- Is the skin very dry?

No
Review client's medication.

All TB drugs can cause itch with no rash.

- Continue TB treatment.
- Chlorpheniramine 4mg at night or up to 3 times a day if needed for itch (may cause sedation).
- Advise client to return if rash develops.

- If not on any medication, refer for assessment of underlying cause.

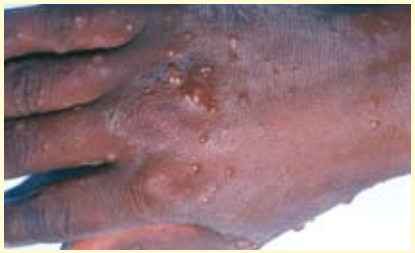
Yes
Dry skin/ichthyosis likely

- Use emulsifying ointment, vaseline or aqueous cream as moisturiser.
- Use aqueous cream instead of soap to wash.

GENERALISED ITCHY RASH

If status unknown, test for HIV, especially if rash is extensive, recurrent and difficult to treat ↴60.

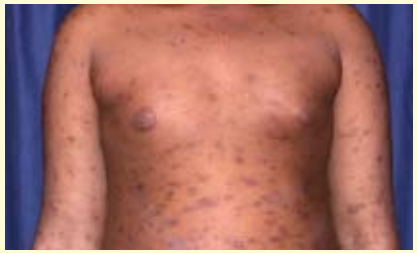
A widespread very itchy rash with burrows



Scabies likely
Commonly involves web-spaces of hands and feet, axillae and genitalia.

- Prescribe 25% benzyl benzoate lotion.
- Apply, leave to dry, wash off after 24 hrs, repeat after 1 week (repeat once only).
- Treat affected household members and clean linen/clothes.
- Chlorpheniramine 4mg at night for itch.

Very itchy bumps.
Skin often hyper-pigmented

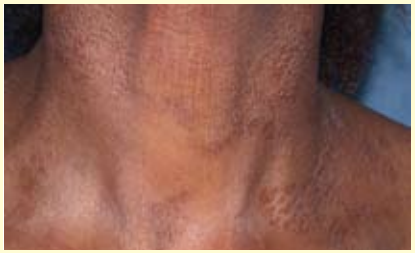


Papular-pruritic eruption likely

- Often co-exists with scabies.
- Usually seen in HIV clients.
- May temporarily worsen on starting ART.
- A stage 2 HIV condition. HIV client needs routine HIV care →61.

- First treat as for scabies.
- If no response, give emulsifying ointment and 1% hydrocortisone cream.
- Cetirizine 10mg at night for itch.
- If poor response doctor to give betamethasone ointment twice a day for 7 days (do not apply to face).

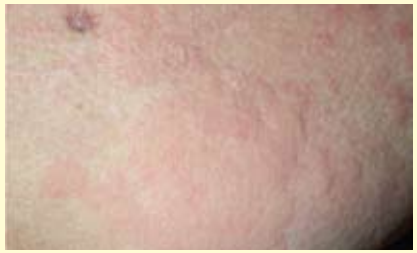
Patches of dry, scaly skin
with/without itch
that may be localised



Eczema likely

- Use emulsifying ointment instead of soap.
- Prescribe 1% hydrocortisone cream.
- Use aqueous cream as a moisturiser.
- Cetirizine 10mg at night for itch.
- If infected, treat with flucloxacillin 500mg 6 hourly for 5 days. If penicillin allergic give erythromycin 500mg 6 hourly for 5 days.
- If poor response doctor to give betamethasone ointment twice a day for 7 days (do not apply to face).

Very itchy red raised wheals that appear suddenly, disappear and then reappear elsewhere



Urticaria likely
Commonly due to allergy

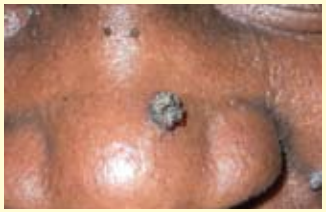
- Try to identify and remove allergen.
- Stop offending drug and prescribe alternative if necessary.
- Calamine lotion directly on rash as needed.
- Chlorpheniramine 4mg or promethazine 25mg 3 times a day until 72 hours after resolution of wheals.

If no response to treatment, refer for specialist review.

LUMPS

Refer same week the client with a lump that:
- Bleeds easily
- Is a new or changed mole
- If the diagnosis is uncertain to exclude skin cancer

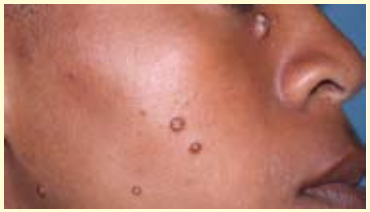
Raised nodules or papules



Warts likely
- Common on hands in young adults.
- Plantar warts on the soles of the feet are thick and hard with a black central point.

- Reassure client that warts often disappear spontaneously.
- Apply podophyllin resin 20% and salicylic acid 25% ointment under a plaster at night.
- Protect surrounding skin with petroleum jelly.
- Refer if warts are extensive.

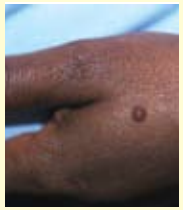
Small, skin-coloured bumps with pearly central dimples



Molluscum contagiosum likely
- May be extensive in HIV.
- If status is unknown test for HIV →60.

- Reassurance (may disappear quickly with ART).
- If distressing to client, try local destructive treatment (open molluscum with sterile blade/ needle and paint with tincture of iodine).
- Refer if no response to ART or local destructive treatment.

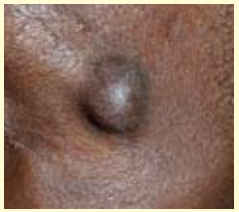
Purple lumps on skin or in mouth



Kaposi's sarcoma likely
- These can vary from isolated lumps to florid tumours.
- If status is unknown test for HIV →60.

- This is an AIDS-defining illness.
- Client needs routine HIV care and ART →61.

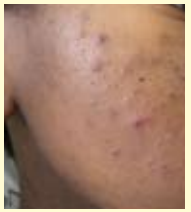
Small, firm lump beneath the skin, may discharge white material



Epidermal cyst likely

- If not infected no treatment needed.
- If warm, tender and red, the cyst is infected:
  - Incise and drain if large or fluctuant. Refer if on face or perianal region.
  - If enlarged lymph nodes or temperature ≥ 38°C give flucloxacillin 500mg 6 hourly for 5 days. If penicillin allergic give erythromycin 500mg 6 hourly for 5 days.
- Refer if large, symptomatic, recurrent infection or diagnosis uncertain.

Red papules, pustules and blackheads on face and perhaps on upper back, arms, buttocks and chest



Acne likely

- Steroids, anticonvulsants, isoniazid can all worsen acne.
- Advise to avoid squeezing lesions and greasy cosmetics. Diet will not affect acne.
- Apply benzoyl peroxide 5% gel at night to inflamed pustules and give doxycycline 100mg daily for at least 3 months. Doxycycline interferes with oral contraceptive. Advise to use condoms as well.
- If woman needs contraception, advise oestrogen-containing oral contraceptive ↻ 91.
- Response to treatment is usually slow.
- Refer if severe or not responding to treatment.

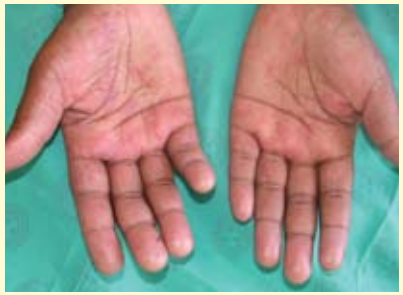
GENERALISED NON ITCHY RED RASH

Is client taking any medication?

Yes

Drug reaction likely

- Presentation is variable, from mild, patchy spots on the trunk to widespread skin damage (like burns).
- Hand involvement is characteristic.
- May occur 4–6 weeks after starting or restarting anti–retrovirals especially nevirapine, TB drugs, anticonvulsants, penicillin or co-trimoxazole.



Does the client have any of the following markers of severity:

- Temperature ≥ 38°C
- Vomiting
- Headache
- Jaundice
- Painful mouth, eyes or genitals
- Blistering or 'raw' areas
- Diffuse purple discolouration of skin

Yes
Client is severely ill.

- Stop *all* drugs.
- Refer to hospital same day.

No
Client is not severely ill.

- Check ALT. If ≥ 50, refer to doctor.
- Apply emulsifying ointment.
- Chlorpheniramine 4mg at night if itchy.
- Review daily until rash resolves.
- Advise client to return urgently if markers of severity develop.

No

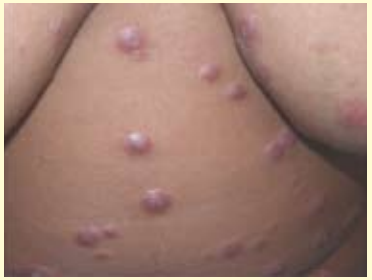
- Most likely due to infection.
- Client may have fever, headache, lymphadenopathy, muscle pain.
- Ensure client is not severely ill ↪ 40.

Treatment of client who is not severely ill

- Give pain relief if needed. Paracetamol 2 tablets 4 times a day.
- Check for syphilis.
- If status unknown, test for HIV ↪ 60.

Syphilis test positive or unavailable
About one third of clients with untreated primary syphilis develop secondary syphilis.

Rash is often on soles and palms. There may also be condylomata lata and patchy hairloss.



Treat client for early syphilis →28.

HIV negative
Rash may be an HIV seroconversion illness.

Advise client to repeat HIV test after 3 months.

HIV positive

Client needs routine HIV care →61.

ULCERS AND CRUSTS

Ulcer/s
Is ulcer/s on the leg?

No

- If genital ulcer →23.
- If elsewhere on body and no obvious cause like trauma, refer to exclude skin cancer.

Yes

Check if foot pulses are present and if client has muscle pain in legs or buttocks on exercise.

Foot pulses are present and *no* muscle pain in legs or buttocks on exercise.

Is there darkening of skin around the ulcer, varicose veins and/or chronic swelling of the leg?

No

- If client has weight loss, cough or sweats, exclude TB →55.
- Refer for further assessment.

Yes

Venous stasis ulcer likely

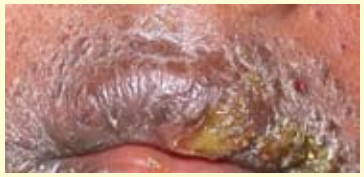
- Apply dressing under compression (ideally hydrocolloid dressing or silver sulfadiazine cream).
- Assess CVD risk ↻68.
- Refer if client has diabetes or ulcer no better after 1 month of treatment.

Foot pulses not present and/or muscle pain in legs or buttocks on exercise

Peripheral vascular disease likely

- Client needs specialist assessment.
- Do not apply compression bandage to ulcer/s.
- →79.

Blisters which dry to form honey coloured crusts.



Impetigo likely

- Usually starts on face, spreads to neck, hands, arms and legs. May complicate bites or grazes.
- May be extensive in HIV. If status is unknown test for HIV ↻60.

- Use aqueous cream to remove crusts.
- Apply povidone iodine 5% cream 3 times a day.
- Give amoxycillin 500mg 8 hourly for 5 days if extensive infection. If no response give flucloxacillin 500mg 6 hourly for 5 days. If penicillin allergic give erythromycin 500mg 6 hourly for 5 days. If rash does not resolve completely, give antibiotics for 5 days more.

CHANGES IN SKIN COLOUR

Yellow skin

Jaundice likely

Recognise and refer same day the jaundiced client if:
- Pregnant
- Temperature ≥ 38°C
- Confusion
- Easy bruising or bleeding
- Persistent vomiting
- Severe abdominal pain
- Fingerprick Hb < 10
- On any medication

- Approach to jaundiced client who does not need same-day referral:
- If client takes ≥ 21 drinks/week (man), 14 drinks/week (woman) or binge drinks, assess for alcohol abuse ↴ 83.
- Check ALT and ALP/GGT.
- Review with blood results.

ALT ≥ 120

Do hepatitis B screen.

ALP/GGT ≥ 3 times upper limit

Refer for ultrasound liver and further management.

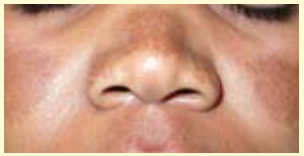
- Review weekly.
- Repeat fingerprick Hb.
- Refer if Hb falls < 10, client develops markers of severity above or jaundice persists > 6 weeks.

Darkening of skin

Is skin smooth or scaly?

Smooth

Dark brown patches on cheeks and upper lip

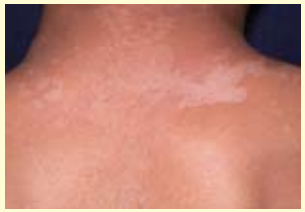


Melasma likely

- Avoid use of skin-lightening agents.
- Encourage sun avoidance and use of sunscreen.
- Change oral contraceptive to alternative contraception ↴ 91.
- Ask about symptoms of menopause ↴ 98.
- Stop all topical preparations like cosmetics, perfumes, perfumed soap and moisturisers.
- This is often difficult to treat.

Scaly

Scaly dark or light patches usually occur on the trunk – they may coalesce.



Tinea versicolor likely

- Apply selenium sulphide shampoo to affected areas overnight once a week.
- Advise that colour may take months to return to normal, but that absence of scale indicates adequate treatment.
- Recurrence is common.

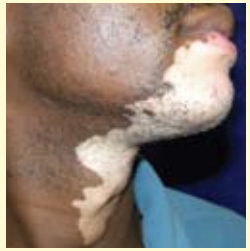
Absence of colour

Is skin smooth or scaly?

Smooth

Is absence of colour generalised or patchy?

Patchy



Vitiligo likely

- Advise use of camouflage cosmetics.
- Skin colour may return but seldom does on hands, feet, lips and genitalia.
- Refer to dermatologist if extensive.

Generalised

Present from birth, hair and eyes are involved.

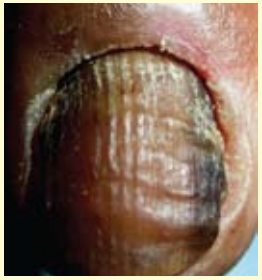
Albinism likely

- Encourage sun avoidance and use of sunscreen.
- Monitor for the development of skin cancers.

Refer if diagnosis is uncertain.

NAIL SYMPTOMS

Disfigured nail with swollen nail bed



Chronic Paronychia likely

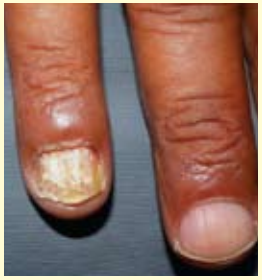
- Often associated with working with water. Advise client to wear gloves.
- Dip finger in antiseptic drying agent like methylated spirits and keep hands dry.
- Apply betamethasone valerate to nailfold at night.

Painful, red, swollen area around the nail.

Acute Paronychia likely

- Often associated with trauma like nail biting or pushing the cuticle. Advise client to stop.
- Give flucloxacillin 500mg 6 hourly for 10 days.
- Refer for incision and drainage if no response after 5 days.

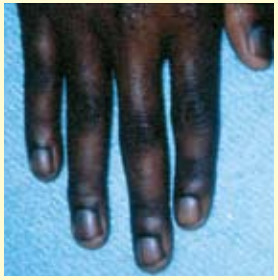
White/yellow disfigured nails



Fungal infection

Refer if very troublesome as culture is needed to confirm fungal infection.

Diffuse blue/black discolouration of nails.



HIV or drug side effect

If status is unknown test for HIV →60.

SUICIDAL CLIENT

Recognise the client who has attempted or had thoughts of suicide/self harm needing urgent attention:

- Unconscious →1.
- If aggressive or violent ↴ 50.
- Intent to attempt suicide: suicidal thoughts; ongoing wish to commit suicide; plans have been made for suicide
- Suicide attempt was serious: planned, took care against discovery; violent or potentially lethal; perhaps preceded by 'final acts' like leaving a note or new will.
- Overdose of medication or other potentially harmful substance
- Exposure to carbon monoxide

Management:

- If client took an oral overdose of medication and is fully conscious give 500mℓ water added to 100g activated charcoal via nasogastric tube.
- Avoid activated charcoal if client ingested paraffin, petrol, corrosive poisons, iron, lithium or alcohol.
- If client took opiod: give naloxone 0.4–2mg IV. If no immediate effect, repeat every 5 minutes until pupils dilate (maximum 10mg).
- If exposed to carbon monoxide: give 100% face mask oxygen.
- Contact local poison centre for advice ↴ backpage.
- Consider detaining under the Mental Health Care Act ↴ 80 if the client has signs of mental illness (see below) and refuses treatment or admission.
- Refer same day.

Assess the client who has no suicidal intent *and* has not had a serious suicide attempt not needing urgent attention

Screen for mental illness

- If low mood or sadness, loss of interest or pleasure, feeling anxious or worrying a lot or not coping as well as before, consider depression/anxiety ↴ 81.
- If hallucinations, delusions and abnormal behaviour, consider psychosiss ↴ 84.
- If memory problems, screen for dementias ↴ 86.
- If client takes > 21 drinks/week (man) or > 14 drinks/week (woman) and/or ≥ 5 drinks per session or misuses illicit or prescription drugs ↴ 83.

Explore possible stressors

- Ask 'Are you stressed?' If yes ↴ 52.
- Ask 'Are you unhappy in your relationship? Has anything happened to you which changed your life?' If yes to either ↴ 53.

Make discharge and follow-up plans according to the following factors:

If *any* 1 of the following are present:

- Male *and/or*
- ≥ 40 years *and/or*
- Socially isolated *and/or*
- Previous attempts at suicide *and/or*
- Known mental illness *and/or*
- Substance abuse *and/or*
- Functioning impaired *and/or*
- Chronic medical illness like HIV

Refer same week to community psychiatric nurse or social worker.

If *all* of the following are present:

- Female *and*
- < 40 years *and*
- Adequate social support *and*
- First suicide attempt *and*
- Suicide attempt was an impulsive act in context of a crisis now resolved *and*
- No evidence of mental illness or substance abuse *and*
- Functioning not impaired *and*
- Otherwise well

- Discharge to family/carers.
- Review within 1 week:
  - Reassess for suicidal intent, mental illness, stressors.
  - Consider referral to community psychiatric nurse.

AGGRESSIVE/VIOLENT CLIENT

Approach to the aggressive or violent client

Ensure the safety of yourself, the client and those around you:
- Ensure enough security personnel are present, call the police if necessary. They should disarm client if s/he has a weapon.
- Assess client in a safe room in the presence of other staff. Handle the client in a calm authoritative manner. Try to talk the client down.
- Restrain only if absolutely necessary.

Check for confusion: try to avoid sedation before assessing confusion ↴ 51.
- Varying levels of drowsiness and alertness
- Unaware of surroundings/disorientated
- Talking incoherently
- Unsure of the day in the week, the time of day, own name
- Poor attention span
- Change in sleep pattern

Look for mental illness and substance abuse:
- Take a history from the escort for known mental illness or substance abuse.
- Consider psychosis if hallucinations, delusions, incoherent speech ↴ 84.
- Consider substance withdrawal or intoxication if alcohol on breath or history of alcohol or illicit drug use ↴ 83.

Consider detaining under the Mental Health Care Act ↴ 80 before sedation if the client fulfils *all 3* of the following:
- Has signs of mental illness *and*
- Refuses treatment or admission *and*
- Is a danger of harm to self, others, own reputation or financial interest/property

Is sedation needed?

No

Yes
Is client known to have schizophrenia?

Yes
- Give zuclopenthixol acetate 150mg IM.
- For further care ↴ 85.

No
Give lorazepam 2mg and haloperidol 2–5mg IM or orally if client accepts oral medication.

- Monitor and record BP, pulse and level of consciousness every 15 minutes.
- Reassess for mental illness.
- Is client's behaviour still aggressive after 60 minutes?

No

Yes
Repeat haloperidol 2–5mg IM or orally if client accepts oral medication

- Monitor and record BP, pulse and level of consciousness every 15 minutes.
- If necessary, repeat haloperidol to a maximum of 10mg in 24 hours.

- **Refer the mentally ill aggressive client same day to hospital.**
- **Document history, details of Mental Health Care Act, and time and dose of medication given.**

CONFUSED CLIENT

- The confused client may be disorientated for place and time, unsure of his/her own name, and may have a poor attention span and altered sleep pattern.
- If the confused client is also aggressive, try to assess and manage confusion before sedating the client ↻ 50.

Recognise the confused client needing urgent attention:

- *Sudden onset* of confusion or disturbed speech or behaviour, perhaps with weakness, visual disturbance that may have resolved: **stroke** likely →76
- Had a fit →2
- Sudden onset over hours or days of confusion with impaired awareness, varying levels of alertness and drowsiness and change in sleep pattern: **delirium** likely
- Temperature ≥ 38°C
- Head injury within past 6 weeks
- Finger prick blood glucose ≤ 3.5

Management:

- Give face mask oxygen.
- If glucose ≤ 3.5, give oral glucose or 40–50mℓ glucose 50% IV. If confusion resolves, refer only if on glibenclamide or insulin. If diabetic →71.
- If temperature ≥ 38°C: give ceftriaxone 2g IM/IV immediately.
- Alcohol withdrawal (known alcohol user who has taken less alcohol for 12 hours): give thiamine 100mg IM and diazepam 10mg orally and oral rehydration.
- Drunk (smells of alcohol, recent drinking): give 1ℓ normal saline with thiamine 100mg IV over 4 hours. Refer only if still confused when drip complete.
- Refer same day to hospital unless confusion resolves when sober or with glucose not on glibenclamide or insulin.

Approach to the confused client not needing urgent attention

Is the client psychotic?
Lack of insight with 1 or more of hallucinations (hearing voices), delusions (fixed false beliefs) and disorganized speech and behaviour.

- Yes → **Psychosis or mania** →84
- No → Has client had memory problems and been disoriented for at least 6 months?
  - Yes → **Dementia** likely →86
  - No → Refer same day for assessment.

STRESSED OR MISERABLE CLIENT

Recognise the stressed/miserable client needing urgent attention

- Assess the client with suicidal thoughts ↴ 49.

Assess the stressed/miserable client

- The client may have headache, dizziness, fatigue, abdominal pain. S/he may have poor eye contact, cry easily, be agitated or communicate poorly.

Screen for mental problem

- If low mood or sadness, loss of interest or pleasure, feeling tense, worrying a lot or not coping as well as before, consider depression/anxiety ↴ 81.
- If > 21 drinks/week (man) or > 14 drinks/week (woman) and/or > 5 drinks/session or misuses illicit or prescription drugs consider substance abuse ↴ 83.
- If hallucinations, delusions and abnormal behaviour, consider psychosis →84.
- If memory problems, screen for dementia →86.

Identify the traumatised/abused client

- Ask 'Are you unhappy in your relationship? Has anything happened to you which changed your life?' If yes to either ↴ 53.

Try to identify a cause to focus on a solution

- Ask about financial difficulty, bereavement, post-natal ↴ 97, menopause ↴ 98 or chronic ill-health (is HIV status known? ↴ 60).
- Review medication: oral corticosteroids, oestrogen-containing oral contraceptives (↴ 91), theophylline, efavirenz can cause mental side effects. Reassure client on efavirenz that low mood is usually self-limiting and resolves within 6 weeks on ART. If > 6 weeks change to NVP 200mg 12 hourly.

Advise the stressed/miserable client

- Encourage client to take time to relax:
  - Do a relaxing breathing exercise each day.
  - Find a creative or fun activity to do.
  - Spend time with supportive friends or family.
- Regular exercise might help.
- Advise client to get adequate sleep. If client has difficulty sleeping ↴ 54.
- Link client to available psychosocial services: counsellor, psychologist, support group, social worker, helpline ↴ back page.
- Deal with negative thinking
  - The client may often predict the worst, generalise, exaggerate the problem, inappropriately take the blame, or take things personally.
  - Encourage the client to question his/her way of thinking (like changing 'I am a failure' to 'I am not a failure, I have achieved many good things in the past'), examine the facts realistically and look for strategies to get help and cope.
- See communicating effectively ↴ 101.

Offer to review the client in 1 month.

TRAUMATISED/ABUSED CLIENT

Recognize the traumatised/abused client needing urgent attention

- Injuries need attention ↴ 38
- Immediate risk of being harmed and in need of shelter
- At risk of harm to self ↴ 49
- Recent rape/sexual assault:
  - Arrange doctor assessment ideally at a designated facility for management of rape and sexual assault (same day if client wishes to lay a charge).
  - All documentation and client's notes must be correctly completed and labelled. Record in a register and keep locked away all forensic specimens.
  - Aim to prevent HIV, STIs and pregnancy as soon as possible after the abuse:

Prevent HIV
- If status unknown, test for HIV ↴ 60.
- If HIV negative or unknown, start post-exposure prophylaxis *for 1 month* within 72 hours of rape: AZT 300mg 12 hourly *and* 3TC 150mg 12 hourly. Add lopinavir/ritonavir 400/100mg 12 hourly if high risk rape: anal penetration, multiple perpetrators, perpetrator known with HIV, or obvious genital trauma.

Prevent chlamydia and gonorrhoea
- If asymptomatic give cefixime 400mg orally single dose and doxycycline 100mg 12 hourly for 7 days.
- If symptomatic, treat symptoms ↴ 23.
- Advise client to use condoms with regular partner for 3 months.

Prevent syphilis
- Offer RPR:
  - If RPR negative, repeat after 1 month.
  - If RPR positive ↴ 28.
- Advise client to use condoms with regular partner for 3 months.

Prevent pregnancy (if not on contraceptive and of child-bearing age):
- Within 72 hours: give norgestrel/oestradiol 0.5/0.05mg 2 tablets as soon as possible and again after 12 hours ↴ 91.
- Within 5 days: intrauterine device can be inserted ↴ 91.
- After 5 days: check pregnancy test 6–8 weeks after last period. If pregnant ↴ 93.

Also assess and support the client needing urgent attention as below.

Approach to the traumatized/abused client

Listen and support ↴ 101
- Interview the client in a private room, supported by a trusted friend/relative if the client wishes.
- Clearly record the client's story in his/her own words. Include the nature of the assault and the identity of the perpetrator.
- Help the client to identify strengths and support structures. Do not give up if the client fails to follow your advice.
- Offer to see the client again. A supportive relationship with the same health practitioner helps to contain frequent visits for multiple problems.

Screen for mental problem
- If low mood or sadness, loss of interest or pleasure, feeling tense, worrying a lot or not coping as well as before, consider depression/anxiety ↴ 81.
- Ask 'Are you stressed?' If yes ↴ 52.
- If > 21 drinks/week (man) or > 14 drinks/week (woman) and/or > 5 drinks/session or misuses illicit or prescription drugs consider substance abuse ↴ 83.

Exclude pregnancy and STIs
- Check for pregnancy. If pregnant ↴ 93.
- If status unknown, test for HIV ↴ 60. The HIV client needs routine HIV care ↴ 61.
- Ask about symptoms of sexually transmitted infections. If present ↴ 23.

Refer to available supportive resource
- Refer to available trauma counselor, psychiatric nurse, psychologist, social worker, helpline ↴ back page.
- Encourage client to file a J88 form and to report case to the police. Respect the client's wishes if s/he declines to do so.
- Encourage client to apply for protection order at local magistrate's court. Refer to police Victim Empowerment office, family violence NGOs for assistance.

DIFFICULTY SLEEPING

Assess the client with difficulty sleeping

- Check that the client really is getting insufficient sleep. Adults need on average 6–8 hours sleep per night. This decreases with age.
- Determine the type of sleep difficulty: waking too early or frequently, difficulty falling asleep, insufficient sleep.

Exclude medical problems

- Ask about pain, difficulty breathing, urinary problems. See relevant symptom pages.

Check medication

- Over-the-counter decongestants, oral steroids, theophylline, fluoxetine, efavirenz may cause sleep problems. Discuss with doctor.
- Reassure client that sleep disturbance from efavirenz is usually self-limiting and resolves within 6 weeks on ART. If > 6 weeks change to NVP 200mg 12 hourly.

Screen for substance abuse

- If client takes > 21 drinks/week (man) or > 14 drinks/week (woman) and/or > 5 drinks/session or misuses illicit or prescription drugs ↴ 83.

Screen for mental problem

- If low mood or sadness, loss of interest or pleasure, feeling tense, worrying a lot or not coping as well as before, consider depression/anxiety ↴ 81.
- Consider psychosis if hallucinations, delusions, incoherent speech ↴ 84.
- Consider dementia if memory problems ↴ 86.
- Ask 'Are you stressed?' If yes ↴ 52.

Ask about associated loud snoring

- Refer the client with difficulty sleeping who snores for further assessment.

Advise the client with difficulty sleeping

- Encourage client to adopt sensible sleep habits. These often help to resolve a sleep problem without the use of sedatives.
  - Get regular exercise (but not before bedtime).
  - Avoid caffeine (coffee, tea) and smoking before bedtime.
  - Avoid day-time napping.
  - Encourage routine: try to get up at the same time each day (even if tired) and go to bed the same time every evening.
  - Wind down/relax before bed.
  - Use bed only for sleeping and sex. Spend only 6–8 hours a night in bed.
  - Once in bed do not clock-watch. If not asleep after 20 minutes, do a low energy activity out of bed, like a short walk around the house.
  - Keep a sleep diary. Review this at each visit.
- Review the client regularly. A good relationship between practitioner and client can help.

Treat the client with difficulty sleeping

- If problems with daytime functioning, daytime sleepiness, irritability, anxiety or headaches that do not improve with 1 month of sensible sleep habits:
  - Give amitriptyline 10–25 mg at night.
  - If still no improvement after 1 month on amitriptyline refer client for further assessment.

TB: DIAGNOSIS

Exclude TB in the client with any of the following:

- Cough ≥ 2 weeks
- Recent unintentional weight loss (≥ 5% of body weight within 4 weeks)
- Drenching night sweats
- Fever ≥ 2 weeks
- Loss of appetite
- Chest pain
- Blood-stained sputum
- Feeling unwell
- Known TB contact
- HIV

Recognise the client needing urgent attention:
TB suspect with one or more of the following signs:

- Respiratory rate of ≥ 30 breaths/minute
- Breathlessness at rest or while talking
- Prominent use of breathing muscles
- Confusion or agitation

Treatment:

- Give 1 dose of ceftriaxone 1g IM/IV (if unavailable, amoxicillin 1g orally. If penicillin allergic give erythromycin 500 mg orally).
- Give oxygen (40% face-mask oxygen or at 4ℓ/min via nasal prongs).
- Take first sputum for AFBs and arrange follow-up.
- Refer same day to hospital.

INITIAL VISIT

Start the workup to diagnose TB

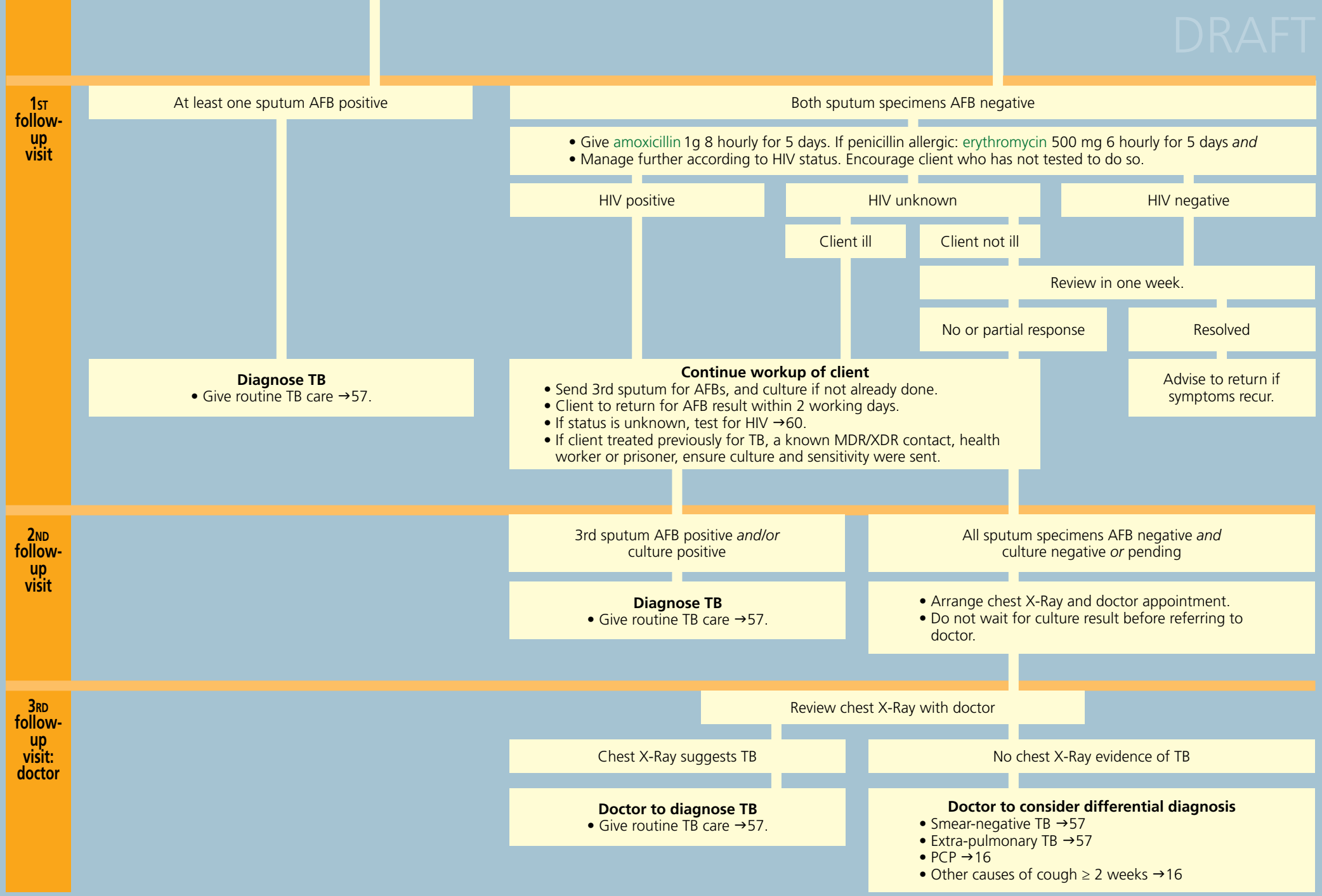
- Send spot sputum specimen for AFBs same day.
- Knowing the HIV status helps diagnose and treat TB faster. If status is unknown, test for HIV →60.
- The client with chest pain on breathing and other TB symptoms may have a pleural effusion. Refer same week for chest X-Ray and doctor review.

Has client been treated previously for TB for ≥ 4 weeks, a known MDR/XDR contact, a health worker or prisoner?

No
- Next day, send an early morning sputum specimen for AFBs.

Yes
- Next day, send an early morning sputum specimen for AFBs *and* culture and sensitivity.

- Only if client is unable to return the next day, take day 1 and day 2 specimens at least 1 hour apart on day 1. The second spot specimen may have a lower yield of AFBs.
- Get results and ask client to return for them 2 working days after day 2.


1ST follow-up visit
At least one sputum AFB positive
Both sputum specimens AFB negative
• Give amoxicillin 1g 8 hourly for 5 days. If penicillin allergic: erythromycin 500 mg 6 hourly for 5 days and
• Manage further according to HIV status. Encourage client who has not tested to do so.
HIV positive
HIV unknown
HIV negative
Client ill
Client not ill
Review in one week.
No or partial response
Resolved
Diagnose TB
• Give routine TB care →57.
Continue workup of client
• Send 3rd sputum for AFBs, and culture if not already done.
• Client to return for AFB result within 2 working days.
• If status is unknown, test for HIV →60.
• If client treated previously for TB, a known MDR/XDR contact, health worker or prisoner, ensure culture and sensitivity were sent.
Advise to return if symptoms recur.
2ND follow-up visit
3rd sputum AFB positive and/or culture positive
All sputum specimens AFB negative and culture negative or pending
Diagnose TB
• Give routine TB care →57.
• Arrange chest X-Ray and doctor appointment.
• Do not wait for culture result before referring to doctor.
3RD follow-up visit: doctor
Review chest X-Ray with doctor
Chest X-Ray suggests TB
No chest X-Ray evidence of TB
Doctor to diagnose TB
• Give routine TB care →57.
Doctor to consider differential diagnosis
• Smear-negative TB →57
• Extra-pulmonary TB →57
• PCP →16
• Other causes of cough ≥ 2 weeks →16

TB: ROUTINE CARE

Assess the client with TB

Assess	When to assess	Note
Symptoms	Each visit	Expect gradual improvement on TB treatment. Refer if symptoms worsen or do not improve.
Contacts	At diagnosis and if symptomatic	Screen household contacts who are symptomatic, < 5 years or have HIV .
Family planning	At diagnosis and each visit	Assess contraceptive needs ↴ 91. Reduce interval between norethisterone enanthate injections to 6 weekly.
Adherence	At diagnosis and each visit	At each visit check adherence on the TB card.
Side effects	At diagnosis and each visit	On starting TB treatment, advise client about possible side effects (see below) and to report these promptly.
Substance abuse	At diagnosis and if adherence poor	If ≥ 21 drinks/week (man) , 14 drinks/week (woman), binge drinks or misuses illicit or prescription drugs ↴ 83.
Severely ill client	Each visit	Check for signs of the client needing urgent attention ↴ 55.
Weight	At diagnosis and each visit	•Expect gradual weight gain on treatment. Refer for doctor review if losing weight on treatment. •If BMI < 18.5 refer for nutritional support.
Sputa	According to schedule ↴ 59. Review results at each visit. No need to check sputa if smear negative, culture negative TB.	•Make every effort to obtain sputum, even if early morning or by nebulisation. •If client treated previously for TB, a known MDR/XDR contact, a health worker or offender, ensure culture and sensitivity were requested at diagnosis. •If sensitivities show resistance refer to MDR unit.
Chest X-Ray	After 1 month if pleural effusion	Routine repeat chest X-Ray is unnecessary.
HIV	If status unknown	Test for HIV ↴ 60. Give the HIV client routine HIV care ↴ 61.
CD4	HIV client not on ART: at diagnosis if not already done and on discharge.	Start ART if CD4 ≤ 350 in the client with TB.
Eligibility for ART	At diagnosis and each visit if HIV	Eligible for ART if CD4 ≤ 350 and/or stage 4 and/or pregnant and/or MDR/XDR TB ↴ 61–64.

Advise the client with TB

- Smoking worsens TB treatment outcomes. Urge the client who smokes to quit.
- Discuss adherence: poor adherence leads to drug resistant TB. For treatment to be effective it is crucial to take all treatment for the correct period.
- Refer for adherence support and TB/HIV education.
- Advise the client abusing alcohol and/or illicit or prescription drugs to stop. Substance abuse can interfere with recovery and with adherence to treatment ↴ 83.
- Educate client about TB treatment side effects (as below) and to report these promptly should they occur.

Discuss TB treatment side effects

Jaundice and vomiting	Most TB drugs	Check ALT. Stop all drugs and refer to doctor.
Severe skin rash	Streptomycin	If severe ↴ 40, stop all drugs. Refer to doctor.
Loss of colour vision	Ethambutol	Stop all drugs and refer for doctor review.
Ringing in ears/deafness	Streptomycin	Stop streptomycin immediately.

Nausea/poor appetite	Rifampicin	Take treatment at night.
Joint pain	Pyrazinamide	Aspirin 150mg 3 times a day as needed
Orange urine	Rifampicin	Reassure.
Burning feet	Isoniazid	Give pyridoxine ↴ 37.

Treat the client with TB

Choose TB treatment regimen

- If client has never been treated previously for TB or received TB treatment for less than 4 weeks s/he is a new TB case: give regimen 1 for 6 months.
- If client has ever been treated for TB for more than 4 weeks s/he is a retreatment TB case: give regimen 2 for 8 months.

Start TB treatment

- Treat the client with TB 7 days a week.
- New TB case: give regimen 1 for 6 months: Intensive phase: RHZE for 2 months and then change to continuation phase: RH for 4 months.
- Retreatment TB case: give regimen 2 for 8 months: Intensive phase: RHZE for 3 months and streptomycin for 2 months and then change to continuation phase: RHE for 5 months.
- Determine dose according to pretreatment weight in table below.
- Give streptomycin for 2 months in regimen 2:
  - Ideally for 7 days a week, same time every day.
  - Omit if client is pregnant, > 65 years, has kidney disease or on TDF. Discuss with doctor.

	Intensive phase		Continuation phase	
Pretreatment weight	RHZE (150/75/400/275)	streptomycin	RH	E
30–37kg	2 tablets	0.5g IM	2 (150,75)	2 tablets
38–54kg	3 tablets	0.75g IM	3 (150,75)	2 tablets
55–70kg	4 tablets	1.0g IM	2 (300,150)	3 tablets
≥ 71kg	5 tablets	1.0g IM	2 (300,150)	3 tablets

R – rifampicin; H – isoniazid; Z – pyrazinamide; E – ethambutol

Manage the TB/HIV client's HIV

- Give co-trimoxazole 960mg and pyridoxine 25mg daily and routine HIV care throughout TB treatment ↻ 61.
- Start ART if CD4 ≤ 350 and/or stage 4 and/or pregnant and/or MDR/XDR TB ↻ 61.
- Avoid nevirapine in ART regimen 1. Start or change to EFV, except if client is pregnant or depressed.
- If client on lopinavir/ritonavir, increase LPV/r dose to 3 tablets 12 hourly and check ALT. After 1 week increase to 4 tablets 12 hourly if ALT < 50. Recheck ALT and then monthly thereafter. If ≥ 50 discuss with doctor. On completion of TB treatment stop ALT checks and reduce dose to 2 tablets 12 hourly.

Plan client's visits according to TB treatment regimen and sputa results

• Review monthly the client with smear-negative culture-negative TB and register as 'treatment completed' at the end of treatment (6 months if new case, 8 months if retreatment case).

	Smear positive regimen 1	Smear positive regimen 2	Smear negative culture positive regimen 1	Smear negative culture positive regimen 2
Week 7	Send 2 sputa for AFB to assess smear conversion.		Send 1 sputum for culture to assess smear conversion.	
Week 8	Check sputa results: • If both AFB negative change to continuation phase. • If any AFB positive: - continue intensive phase for 1 month *and* - send sputum for culture and sensitivity if client no better or no fewer AFBs in sputa (e.g. still 3+ AFBs, not 1+).	• Stop streptomycin. • Continue RHZE for 1 month more. • Check initial culture and sensitivity results. If resistant or not mycobacterium TB, refer.	Change to continuation phase.	• Stop streptomycin. • Continue RHZE for 1 month more. • Check initial culture and sensitivity results. If resistant or not mycobacterium TB, refer.
Week 11		Send 2 sputa for AFB to assess smear conversion.		Send 1 sputum for culture to assess smear conversion.
End of month 3	If week 7 sputa were positive, change to continuation phase and send 2 sputa for AFB, and if not already sent, culture and sensitivity.	Check sputa results: • If both AFB negative change to continuation phase. • If any AFB positive: send sputum for culture and sensitivity and continue RHZE for 1 month more.	Check sputum results. If culture positive, send sputum for culture and sensitivity.	Change to continuation phase.
End of month 4	Check culture result if sent: • If resistant, refer. • If sensitive, continue treatment. • If month 3 sputa were positive, repeat 2 sputa for AFB.	If week 11 sputa were positive, change to continuation phase and review month 3 culture and sensitivity result: • If resistant, refer to MDR unit. • If sensitive, send 2 more sputa for AFB.	Check results if sputum taken at month 3: • If culture negative: continue treatment. • If culture positive and sensitive: register as **treatment failure**, re-register as a retreatment case and start regimen 2. • If culture positive and resistant: register as **treatment failure** and refer to MDR unit.	Check sputum results. If culture positive, send another sputum for culture.
End of month 5	Send 2 sputa for AFB to assess treatment outcome.	If month 4 sputa were positive, repeat 2 sputa for AFB.		Check results if sputum taken at month 4: • If culture negative: continue treatment. • If culture positive: register as **treatment failure**, stop TB treatment and refer to MDR unit.
End of month 6	Stop TB treatment. Register treatment outcome: • If last 2 sets of AFB sputa were all negative register as **cured**. • If any of last 2 sets of AFB sputa were positive, register as **treatment failure**, re-register as a retreatment client and start regimen 2. • If unable to produce sputum register as **treatment completed**.		• Stop TB treatment. • Register client as **cured** if month 3 culture was negative and client has completed 6 months treatment.	
End of month 7		Send sputum for 2 AFB to assess treatment outcome.		
End of month 8		Stop TB treatment. Register treatment outcome: • If last 2 sets of AFB sputa were all negative register as **cured**. • If any of last 2 sets of AFB sputa were positive, register as **treatment failure** and refer to specialist and/or MDR unit. • If unable to produce sputum register as **treatment completed**.		• Stop TB treatment. • Register client as **cured** if month 4 culture was negative and client has completed 8 months treatment.

HIV: DIAGNOSIS

Encourage your client and partner and children to test for HIV.

Obtain informed consent

- Educate client about HIV/AIDS, methods of HIV transmission, risk factors and benefits of knowing one's HIV status.
- Explain test procedure and that it is completely voluntary.
- Children < 12 years need parental/guardian consent. If consent is granted, proceed to testing immediately.

Test

Do first rapid HIV test on finger-prick blood.

- Positive
  - Do a second rapid HIV test on finger-prick blood.
    - Positive
      - Client has HIV.
      - • Give routine HIV care at this visit →61.
    - Negative
      - Discordant results: do an ELISA test.
        - Positive
          - Client has HIV.
          - • Give routine HIV care at this visit →61.
        - Negative
          - HIV test result negative
          - • A rapid test detects HIV antibodies which may take up to 3 months to be formed.
          - • Was client at risk of HIV infection in the past 3 months?
            - Yes
              - Repeat HIV test after the 3 month window period.
            - No
              - • Client does not have HIV.
              - • Encourage client to remain negative.
- Negative
  - HIV test result negative
  - • A rapid test detects HIV antibodies which may take up to 3 months to be formed.
  - • Was client at risk of HIV infection in the past 3 months?
    - Yes
      - Repeat HIV test after the 3 month window period.
    - No
      - • Client does not have HIV.
      - • Encourage client to remain negative.

Support

Ensure client understands test result and knows where and when to access further care.

HIV: ROUTINE CARE

Assess the client with HIV

Assess	When to assess	Note
Symptoms	Every visit	• Manage client's symptoms according to symptom pages. • Ask especially about TB symptoms ↻ 55 and genital symptoms ↻ 23.
TB	Look for TB at every visit	• Exclude TB if cough ≥ 2 weeks, weight loss, night sweats, chest pain or blood-stained sputum →55. Do not start ART until TB excluded. • Start ART in the TB client if CD4 ≤ 350 or stage 4 or MDR/XDR TB. If starting LPV/r, check ALT first. Discuss with doctor if ≥ 100. • If TB diagnosed on ART switch NVP to EFV and d4T to TDF (if needing streptomycin with TDF, discuss with specialist).
Adherence	Every visit	• Check client's adherence with pill counts and record of attendance. Remember to give the client a follow-up date. • Do not start ART if adherence or attendance is poor. • More than 95% of ART doses must be taken to avoid resistance to ART. If adherence poor ↻ 64.
ART side effects	Every visit after starting ART	• Ask about ART side effects ↻ 64 . Manage side effects as on symptom page. Refer if "self-limiting" side-effects persist after 6 weeks. • If on NVP, review 2 weeks after starting. If well, increase dose to 200mg 12 hourly. If hepatitis or severe skin rash ↻ 40 refer same day. • Consider lactic acidosis in adherent woman who gains > 10kg 6–24 months after starting d4T, AZT, 3TC or TDF ↻ 63. • Switch d4T to TDF if woman with weight gain > 10kg or BMI > 28, peripheral neuropathy ↻ 32, or change in body shape.
Mental health	At diagnosis and if adherence poor	• Screen for depression if client has low mood or not coping as well as in the past ↻ 81. • If client takes ≥ 21 drinks/week (man), 14 drinks/week (woman), binge drinks or misuses drugs, assess for substance abuse ↻ 83.
Safe sex	Every visit	• Demonstrate and provide male and female condoms. Encourage client to have only 1 partner at a time.
Pregnancy status	Every visit	• If needed, advise reliable contraception (injectable *plus* condoms) ↻ 91. • If pregnant, give antenatal care ↻ 94 and if not on ART, from 14 weeks, PMTCT ↻ 96. Discuss plans for contraception post-delivery. • If wanting to fall pregnant and on EFV, switch to NVP. If falls pregnant on EFV refer urgently if still in first trimester.
Weight	Every visit	• Record weight. Investigate weight loss ≥ 5% of body weight in 4 weeks ↻ 3. • BMI is weight (kg)/[height (m) x height (m)]. If < 18.5, refer for nutritional support. • If weight gain on ART > 10kg or to BMI > 28, switch woman on d4T to TDF to avoid lactic acidosis.
Stage	Every visit	• Stage to treat HIV. Check the following to stage the client: weight, mouth, skin, previous and current problems. • Apply the most advanced stage even after recovery from the illness that determined the stage. • Stage 2, 3 and 4: give co-trimoxazole. • Stage 4: client needs ART. • Stage 3 *and* pregnant: client needs ART.

Stage 1	Stage 2	Stage 3	Stage 4: AIDS
• No symptoms • Painless swollen glands	• Recurrent sinusitis • Recurrent otitis media • Recurrent tonsillitis • Pruritic papular eruption • Fungal nail infections • Shingles • Recurrent mouth ulcers • Angular chelitis • Unexplained weight loss < 10% body weight	• Current pulmonary TB or within past year • Oral thrush • Oral hairy leukoplakia • Unexplained weight loss ≥ 10% body weight and/or BMI < 18.5 • Diarrhoea > 1 month • Fever > 1 month • Pneumonia • Meningitis • Unexplained anaemia < 8, neutropaenia <0.5, or chronic thrombocytopaenia < 50	• Current extrapulmonary TB • Oesophageal thrush (pain on swallowing) • Weight loss ≥ 10% and diarrhoea or fever > 1 month • Pneumocystis pneumonia • Herpes simplex of mouth or genital area > 1 month • Kaposi's sarcoma • HIV associated dementia • Recurrent severe pneumonia • Invasive cervical cancer • Cryptosporidium or *isospora belli* diarrhoea

IPT screen	If no TB symptoms and never had IPT	• Do not screen for IPT if the client has TB symptoms, TB in the past year, previous IPT, stage 4 about to start ART, has liver disease or abuses alcohol. • Do mantoux test: clean arm with alcohol swab, pull skin taut and inject 2 units PPD-RT23 or 5 units PPD-S into skin to see weal develop. • Measure swelling after 48-72 hours: if any visible swelling (positive mantoux) give client IPT ↴ 64. If no swelling do not give IPT.
Pap smear	At diagnosis and if normal 3 yearly	↴ 27
CD4	Pre-ART at diagnosis, then 6 monthly	• If CD4 ≤ 200 give co-trimoxazole and ART ↴ 64. • If CD4 ≤ 350 and pregnant or TB give ART ↴ 64.
Syphilis	At diagnosis	• If RPR positive, treat client and partner for syphilis ↴ 28.

Assess the client needing ART
- CD4 ≤ 200 and/or stage 4 *or*
- Pregnant and CD4 ≤ 350 and/or stage 3 or 4 *or*
- TB and CD4 ≤ 350 *or*
- MDR/XDR TB

Assess which ART regimen the client needs
Has client had 2 or 3 drugs of ART for longer than 1 month in the past?

No

Choose regimen 1 ART
3TC *and* **TDF** *and* **EFV** unless:
- Pregnant or woman of childbearing age not on reliable contraception: use NVP instead of EFV.
- Depressed client: use NVP instead of EFV. Give routine depression care ↴ 82.
- Pregnant with TB: use EFV only after first trimester. If in 1st trimester, use NVP instead.
- If client on streptomycin, do not start TDF. Discuss with doctor before starting ART.

Yes
Doctor review: Client previously adherent on standard regimen 1 ART and currently well?

Yes

Viral load < 400 or unavailable

Choose regimen 2 ART
LPV/r *and* **3TC** *and*:
- AZT if currently using TDF or
- TDF if currently using AZT or d4T

Do not stop TDF if client is hepBsAg positive.

Viral load > 1000 on 2 occasions

No

Discuss with an experienced ART clinician if unwell, not adherent, had an ART side effect or previous ART was not 3TC, TDF/d4T, EFV/NVP.

Check blood according to ART regimen and review result

Baseline	1 month on ART	2 months on ART	3 months on ART	4 months on ART	6 months on ART	1 year on ART and yearly thereafter
TDF: eGFR; HepsAg if changing from TDF NVP: ALT AZT: Hb + diff (fingerprick Hb if pregnant) LPV/r and TB treatment: ALT	AZT: Hb+diff LPV/r and TB treatment: ALT	AZT: Hb+diff LPV/r and TB treatment: ALT	AZT: Hb+diff TDF: eGFR LPV/r: fasting cholesterol & triglycerides LPV/r and TB treatment: ALT	Viral load CD4 LPV/r and TB treatment: ALT	AZT: Hb +diff TDF: eGFR	TDF: eGFR Viral load CD4

ALT	• If baseline ALT ≥ 100, refer to doctor and do not start ART. • Client on NVP: - Check ALT if non-severe rash develops on NVP. (Refer same day the client with a severe rash →40). - If ALT 50–200 and client well: continue NVP once a day, repeat ALT in 1 week. If > 200 or unwell: stop ART. Refer same day. • Client on LPV/r and TB treatment: - If diagnosed TB on LPV/r do not wait for baseline ALT result before starting TB treatment. - At weekly intervals, check ALT and increase LPV/r to 3 and then 4 tablets 12 hourly if ALT < 50. Discuss with doctor if ALT ≥ 50. - If ALT < 50 on 4 tablets 12 hourly check ALT monthly for duration of TB treatment. Discuss with doctor if ALT ≥ 50.
eGFR (creatinine clearance)	• Estimated glomerular filtration rate reflects kidney function. Request eGFR on request form and give age, weight and sex. • If baseline eGFR < 50, refer to doctor and do not start ART. Once on ART, refer urgently if eGFR < 50.
Hb and diff	• If client pregnant, do a finger prick Hb for an immediate result. • If baseline Hb < 8, refer to doctor. Do not start ART or PMTCT. • Once on ART, if Hb < 7 or neutrophils < 0.75, switch to TDF or d4T.
HepBsAg	• If hepBsAg positive, do not stop TDF or start regimen 2, and refer to doctor.
Fasting cholesterol, triglycerides	• Refer urgently same day if triglycerides >15 (risk of pancreatitis). Refer to specialist if cholesterol > 8 or triglycerides > 8.5. • Assess client's CVD risk ↩ 68.
Viral load	• Viral load on ART should be < 400. • Viral load 400–1000: Give increased adherence support ↩ 64 and repeat viral load in 6 months. • Viral load > 1000 for the 1st time: Give increased adherence support ↩ 64 and repeat viral load after 3 months. • Viral load > 1000 for the 2nd time: If getting increased adherence support ↩ 64 and adherence > 80%, doctor to switch to regimen 2 ART →62.
CD4	• Stop co-trimoxazole prophylaxis if client on ART has CD4 > 200 and is well.
Lactate	• Hyperlactataemia/lactic acidosis presents with vague symptoms like weight loss, nausea, vomiting, abdominal pain, shortness of breath and fatigue. • Consider lactic acidosis in the adherent woman who gains > 10kg 6–24 months after starting d4T, AZT, 3TC or TDF. • Check rapid/on-site venous blood lactate (uncuffed): - < 2.5: if > 1 symptom above, refer for laboratory lactate. Look for other cause. Repeat after 1 week. - ≥ 5: refer same day for further management. - 2.5–4.9: Check respiratory rate: • RR ≥ 20 breaths/minute: Refer same day for further management. • RR < 20 breaths/minute: Switch d4T to TDF and recheck lactate after 3 days. If lactate falls and symptoms improve, recheck weekly until normal. If symptoms worse and/or lactate is increasing, stop ART and discuss with specialist.

Advise the client with HIV

- Support by encouraging disclosure and referring to counselor/support group.
- Encourage client to have 1 partner at a time. Advise safer sex even if partner is HIV positive or client is on ART. Demonstrate and give male/female condoms.
- Educate client that treatment for HIV requires lifelong adherence.
- Ensure the client about to start ART attends drug-readiness training.
- Give **increased adherence support** to the client with < 80% adherence, poor attendance or viral load > 400:
  - Educate on the importance of adherence and dangers of resistance.
  - Re-explain treatment schedule (including weekends).
  - Consider adherence aids (pillboxes, diaries).
  - Ask about drug-related side-effects below.
  - Refer client to adherence counselor and support group.
  - Arrange a home visit by counselor or treatment buddy.
  - Consider depression ↴ 81 and/or substance abuse ↴ 83.
  - See the client more frequently (weekly instead of monthly).

Treat the client with HIV

- Give co-trimoxazole 960mg daily (2 single-strength tablets) if stage 2, 3 or 4 or CD4 ≤ 200.
- Give isoniazid 10mg/kg (up to 300mg) daily for 6 months if mantoux positive. Avoid if TB symptoms, on TB treatment, previous IPT, liver disease or alcohol abuse.
- Give pyridoxine 25mg daily while on TB treatment or isoniazid preventive therapy.
- If ≥14 weeks pregnant, prevent transmission of HIV to baby:
  - If CD4 > 350 *and* stage 1 or 2 and finger prick Hb ≥ 8, give AZT 300mg 12 hourly.
  - if CD4 ≤ 350 and/or stage 3 or 4 start ART workup. If finger prick Hb ≥ 8, give AZT 300mg 12 hourly until switch to ART.
- Give ART if client needs ART ↴ 62:
  - Take less than 1 month for ART work-up, but less than 2 weeks if pregnant or CD4 < 100 or stage 4 with unknown CD4, or MDR/XDR TB.
  - If the client has TB, start ART after the first 2 weeks of TB treatment is completed.
  - Give chosen ART regimen: 3 ARVs from table below. Delay ART and refer to doctor if blood results abnormal ↴ 63, poor adherence or TB symptoms.
  - If client is pregnant on PMTCT AZT and needing ART, switch to 3 ARVs.

Antiretroviral	Dose	Frequency	Side effects (refer if "self-limiting" side-effects persist after 6 weeks)
Lamivudine (3TC)	150mg	12 hourly	Uncommon
	300mg	Once daily	
Emtricitabine (FTC)	200mg	Once daily	Uncommon
Tenofovir (TDF)	300mg	Once daily	Nausea, vomiting, diarrhoea, kidney failure
Stavudine (d4T)	30mg	12 hourly	Lactic acidosis ↴ 63, burning toes, body shape change (switch to TDF)
Zidovudine (AZT)	300mg	12 hourly	Lactic acidosis, vomiting, nausea (self limiting, take with food), headache, fatigue (self limiting, if Hb < 8 refer), body shape change (switch to TDF)
Efavirenz (EFV)	600mg	24 hourly - the same time every night	Dizziness, sleep problems, depression (all self limiting), gynaecomastia
Nevirapine (NVP)	200mg	Once daily for 2 weeks, then 12 hourly to reduce risk of skin rash and hepatitis.	Skin rash, nausea (self limiting, take with food), abdominal pain, jaundice or vomiting may be hepatitis – advise client to return urgently and refer same day.
Lopinavir/ritonavir (LPV/r)	400/100mg 2 tablets	12 hourly. On TB treatment, increase dose once a week to 3 then 4 tablets 12 hourly if ALT < 50.	Diarrhoea, change in body shape (switch to TDF)

Schedule clinic follow-up for 4 weeks, 2 weeks if on NVP to increase NVP dose, 1 week if on LPV/r and TB treatment to check ALT and increase dose.

ASTHMA AND COPD: DIAGNOSIS

- The client with chronic cough may have more than one disease.
- In the client with chronic cough, first exclude TB, PCP, lung cancer, chronic bronchitis, heart failure and post infectious cough ↩ 16.
- Then consider asthma or chronic obstructive pulmonary disease (COPD) which both present with cough, difficult breathing, tight chest or wheezing.
- If the cause of wheezing is not known, distinguish COPD and asthma as follows:

• Onset before 20 years of age • Associated hayfever, eczema, allergies • Intermittent symptoms with normal breathing in between • Symptoms worse at night, early morning, with cold or stress • Personal or family history of asthma	• Onset after 40 years of age • Symptoms are persistent and worsen slowly over time • Cough with sputum starts long before difficult breathing • Client is or was a heavy smoker and/or had TB • Previous doctor diagnosis of COPD
Asthma likely. • Confirm diagnosis with doctor. • Give routine asthma care →66.	**COPD** likely. • Confirm diagnosis with doctor. • Give routine COPD care →67.

If unsure of diagnosis, treat as asthma →66 and refer to doctor within 1 month.

USING INHALERS AND SPACERS

- Incorrectly using an inhaler leads to poor delivery of medication into the lungs and poor control of symptoms.
- Add a spacer if the client is unable to use a spacer correctly to increase drug delivery to the lungs and/or if using inhaled corticosteroids to prevent oral thrush.

Check that client can use inhaler and spacer correctly

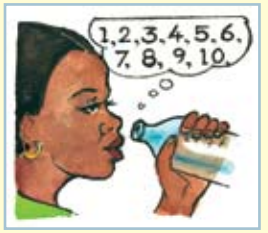
Shake inhaler.

Remove inhaler cap.

Fit inhaler into spacer. Check the seal is tight.

Exhale first and then form a seal with lips around mouthpiece.

Press pump once and take a deep breath from spacer. Do not pump inhaler more than once for each breath.



Hold that breath and count up to 10.

Breathe out.

- Rinse mouth after using inhaled corticosteroid.
- Wash the spacer with soapy water once a week. Allow it to drip dry. Do not rinse with water after each use.
- Prime the spacer with two puffs after washing before use.

ASTHMA: ROUTINE CARE

- Ensure that a doctor confirms the diagnosis of asthma within 1 month of diagnosis.

Assess the client with asthma

Assess	When to assess	Note
Asthma symptoms to determine if asthma is controlled	Every visit	• Any of the following in the past month indicate uncontrolled asthma: - Daytime cough, difficulty breathing, tight chest or wheezing > twice a week - Nighttime or early morning waking due to asthma symptoms - Limitation of daily activities due to asthma symptoms • Peak flow measurement can be unreliable and need not be used routinely to assess asthma control. Asthma symptoms are more useful.
Other symptoms	Every visit	• Manage symptoms as on symptom pages. • Ask about hayfever: sneezing, itchy or runny nose. Treating hayfever may improve asthma control ↩ 13. • Ask the client using inhaled corticosteroids about a sore mouth ↩ 14. See advice below.
Medication use	Every visit	• Ensure client is adherent to treatment before adjusting or adding treatment. • Check that client can use inhaler and spacer correctly ↩ 65.

Advise the client with asthma

- Ask about smoking. If yes, urge client to stop.
- Ensure the client understands the need for medication received:
  - Beta-agonist (eg salbutamol) inhaler only relieves symptoms and does not control asthma.
  - Inhaled corticosteroid (eg budesonide) prevents symptoms and controls asthma, but does not give instant relief. It is the mainstay of treatment.
- Check that client can use inhaler and spacer correctly ↩ 65.
- Inhaled corticosteroids can cause oral thrush: advise client to rinse and gargle after each dose of inhaled corticosteroid.

Treat the client with asthma

- Give inhaled beta agonist 2 puffs as needed up to 4 times a day.
- Before adjusting treatment ensure client is adherent and can use inhaler and spacer correctly ↩ 65.
- If asthma is uncontrolled:
  - Start inhaled corticosteroid budesonide 200µg 1 puff 12 hourly if client not already on it.
  - If client already on inhaled corticosteroid, doctor to double the dose of inhaled corticosteroid budesonide to maximum 400µg 2 puffs 12 hourly.
  - If still uncontrolled, add slow release theophylline 200mg 12 hourly. Increase to 300mg if still uncontrolled. Stop theophylline if no better after 1 month.
- If asthma is controlled:
  - Continue inhaled corticosteroid at the same dose.
  - If controlled for at least 6 months, decrease inhaled corticosteroid dose by 200µg.
  - Stop inhaled corticosteroid if controlled for at least 6 months on 200µg daily.
  - Inhaled corticosteroids are not needed for the client with controlled exercise-induced asthma who has had no emergency visits for asthma in the past 6 months.
- Oral prednisone is only used for emergency visits for asthma. Refer to doctor if needing more than 2 courses of prednisone in 6 months

Review the controlled client 3 monthly, the client whose asthma is uncontrolled after 1 month.
Advise client to return before next appointment if no improvement or worsening of symptoms.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD): ROUTINE CARE

- Ensure that a doctor confirms the diagnosis of COPD within 1 month of diagnosis.

Assess the client with COPD

Assess	When to assess	Note
COPD symptoms: cough and difficult breathing	Every visit	• Assess disease severity: difficulty breathing occurs with strenuous activity like climbing stairs (mild COPD), at normal pace like walking (moderate COPD) or with activities of daily living like dressing (severe COPD). • In client with cough: - Treat for chest infection as below if sputum increases or changes in colour to yellow/green. - Investigate for TB only if client has other TB symptoms like weight loss, sweats ↴ 55.
Other symptoms	Every visit	• Manage symptoms as on symptom pages. • Ask the client using inhaled corticosteroids about a sore mouth ↴ 14. See advice below. • If client has leg swelling, refer to doctor for assessment.
Medication use	Every visit	• Ensure client is adherent to treatment before adjusting or adding treatment. • Check that client can use inhaler and spacer correctly ↴ 65.
CVD risk assessment	At diagnosis	• The client with COPD is at increased risk of cardiovascular disease. • Assess the client's CVD risk ↴ 68.

Advise the client with COPD

- Ask about smoking. If yes, urge client to stop. This is the mainstay of COPD care.
- Exercise: encourage the client to take a walk daily and to increase activities of daily living like gardening, housework and using stairs instead of lifts.
- Help the client to manage his/her CVD risk ↴ 69.
- Check that client can use inhaler and spacer correctly ↴ 65.
- Inhaled corticosteroids can cause oral thrush: advise client to rinse and gargle after each dose of inhaled corticosteroid.

Treat the client with COPD

- Ensure client can use inhaler and spacer correctly before adjusting treatment ↴ 65.
- Give bronchodilator inhaled salbutamol 2 puffs when needed (up to 4 times a day).
- Give influenza vaccination yearly and pneumococcal vaccination every 5 years.
- Add bronchodilator inhaled ipratropium bromide 2 puffs when needed (up to 4 times a day) if moderate or severe COPD.
- Add slow release theophylline 200–300mg twice a day long-term if severe COPD.
- Treat for chest infection if sputum increases or changes in colour to yellow/green:
  - Give amoxicillin 500mg 8 hourly for 10 days or doxycycline 100mg 12 hourly for 10 days.
  - Give oral prednisone 40mg daily for 7 days if severe COPD.
  - Doctor to give inhaled corticosteroid budesonide 400µg 12 hourly if severe COPD and > 2 chest infections per year.

Review every 3 – 6 months if stable

CARDIOVASCULAR DISEASE (CVD) RISK ASSESSMENT

Cardiovascular disease (ischaemic heart disease, peripheral vascular disease, stroke) is preventable and treatable.

Identify the client with established cardiovascular disease:

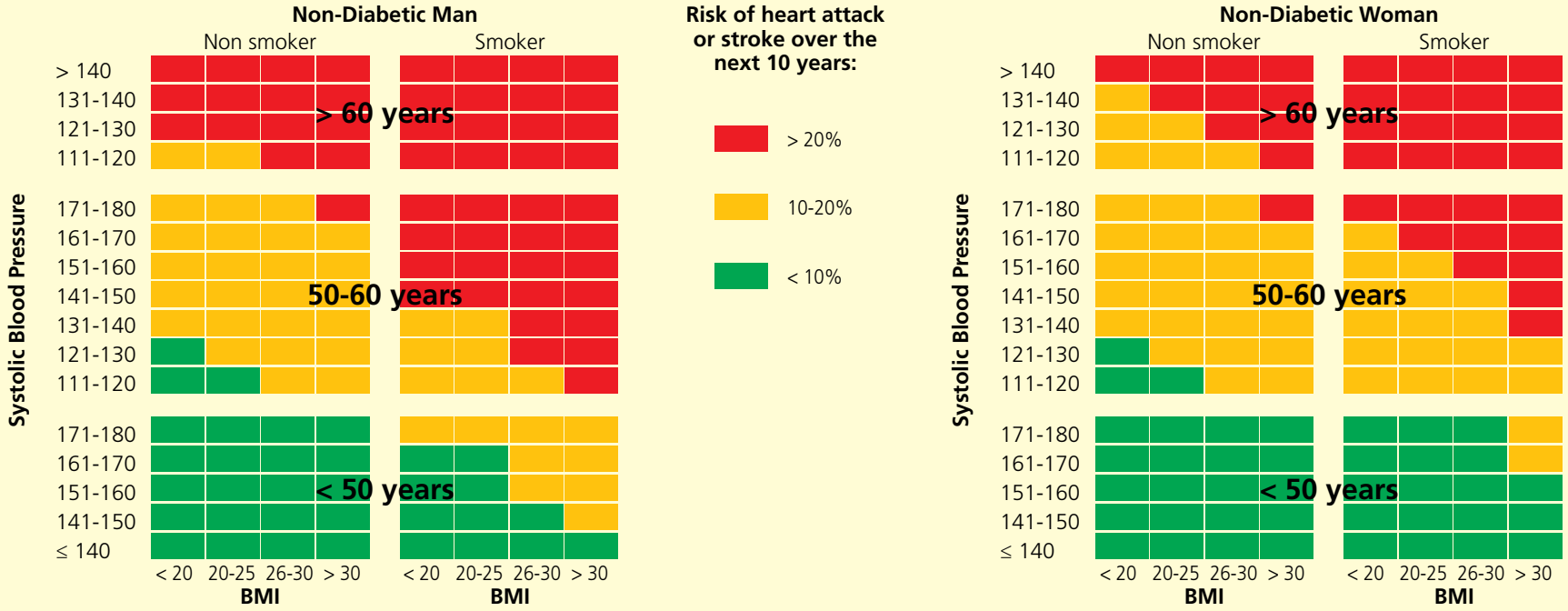
- If client has or has had chest pain, screen for ischaemic heart disease →77.
- If client has or has had leg pain, screen for peripheral vascular disease →79.
- If client has had sudden weakness, visual disturbance, difficulty speaking or understanding, dizziness, or severe new headache, screen for stroke →76.

Look for risk factors for cardiovascular disease:

- Ask about smoking.
- Look for hypertension. Hypertension is diagnosed at different BP levels depending on risk factors. Check BP ↻ 73.
- Check random finger prick glucose for diabetes and interpret result ↻ 70.
- Calculate BMI (weight (kg)/[height (m) x height (m)]). More than 25 is a risk factor.
- Measure waist circumference. More than 88cm (woman) or 102cm (man) is a risk factor.

Calculate the client's risk of a heart attack or stroke over the next 10 years:

- Plot the client's risk on the charts below using age, BMI and systolic BP in the columns for sex and smoking status.
- Do not use these charts if the client is known to have diabetes and/or CVD as s/he is already at high risk.



Manage the CVD risk in the client with CVD or a CVD risk ≥ 10% or CVD risk factors →69.

CARDIOVASCULAR DISEASE (CVD) RISK MANAGEMENT

Manage CVD risk in the client with CVD or a CVD risk > 10% or CVD risk factors.

- Control BP in the client with hypertension ↩ 74.
- Control blood glucose in the client with diabetes ↩ 71.
- Current CVD risk 10-20%: show the client what his/her CVD risk might be in 10 years using current BP, BMI and smoking status. Recheck CVD risk in 5 years.
- Current CVD risk > 20%: Start simvastatin 10mg daily for life. Check random total cholesterol. If ≥ 7.5 refer to specialist.
- Address the client's lifestyle risk factors as below.

First discuss CVD risk

- Explore the client's understanding of CVD risk and the need for a change in lifestyle.

Then invite client to address one lifestyle CVD risk factor at a time

Diet

- Eat a variety of foods in moderation. Reduce portion sizes.
- Increase fruit, vegetables and low fat dairy products.
- Reduce fatty foods: eat low fat food, cut off visible animal fat, and replace brick margarine/butter with soft tub margarine.
- Reduce salty and processed foods like gravies, stock cubes, packet soups and avoid adding salt/aromat to food.
- Reduce sugar in food.

Physical activity

- Aim for at least 30 minutes exercise like brisk walking on at least 5 days per week.
- Increase activities of daily living like walking instead of riding, gardening, housework, using stairs instead of lifts.
- Suggest exercise with arms if unable to use legs.

Weight

- Aim for BMI < 25, and waist circumference[1] < 88cm (woman) and < 102cm (man). However, any weight reduction is beneficial, even if targets not met.

Smoking

- Urge client who smokes to stop.

Screen for alcohol/substance misuse

- Limit alcohol intake to maximum of 2 drinks/day for man and 1 drink/day for woman. 1 drink is 1 tot of spirits or a small glass of wine or 1 can of beer.
- If client exceeds these limits or abuses illicit or prescription drugs ↩ 83.

Manage stress

- Take time to perform a relaxing breathing exercise each day.
- Find a creative or fun activity to do.
- Spend time with supportive friends or family.
- If client is stressed ↩ 52.

- Help the client to plan how to fit the new lifestyle change into the routine of his/her day. Explore the factors that might hinder or support a change in lifestyle.
- Together set reasonable target/s for the next visit. Record the target/s in the notes.

Support client to maintain lifestyle change

- See client regularly to follow-up progress, review targets and provide support.
- Identify a friend, partner, or relative to support the client and if possible attend the clinic visits.
- Refer to health promotion officer or dietician/nutritionist if available.
- Suggest client joins or starts a healthy lifestyle group.
- Be encouraging and congratulate any achievement. Avoid judging, criticising or blaming. It is the client's right to make decisions about his/her own health.
- For tips on communicating effectively ↩ 101.

[1]Measure waist circumference on breathing out at level of iliac crest. It measures intra-abdominal fat, a better predictor of CVD and diabetes than BMI.

DIABETES: DIAGNOSIS

Recognise the client with glucose ≥ 15 needing urgent attention:

- Nausea and/or vomiting
- Abdominal pain
- Deep sighing breathing
- Temperature ≥ 38°C
- Drowsiness
- Confusion
- Unconsciousness →1
- Dehydration: systolic BP drop > 20mmHg between lying and standing *and* poor urine output

Management:

- Rehydrate urgently: give 0.9% normal saline IV 1ℓ in first hour then 1ℓ over next 2 hours.
- Give 10IU short-acting insulin IM (not IV).
- Refer urgently to hospital.

In the client not needing urgent attention

Random glucose normal: 4–7.7

Look for risk factors:
- family history of diabetes
- history of diabetes in pregnancy
- BMI > 25
- hypertension
- waist circumference > 88cm (woman), > 102cm (man)

No risk factors → Recheck glucose in 5 years.

Risk factors are present → • May be at risk for diabetes. • Do cardiovascular disease risk assessment →68. • Repeat finger-prick blood glucose in 1 year.

Random glucose: 7.8–11

Is client pregnant?

No → • May be at risk for diabetes. • Do cardiovascular disease risk assessment →68. • Repeat finger-prick blood glucose in 1 year.

Yes → Client needs antenatal care and fasting glucose →94.

Random glucose 11.1–25

Is client pregnant?

No

Does client have urinary frequency, thirst, or hunger?

No

Repeat finger prick blood glucose after 8-hour fast.

< 7 → • May be at risk for diabetes. • Do cardiovascular disease risk assessment →68. • Repeat finger-prick blood glucose in 1 year.

≥ 7 → Diagnose diabetes

< 15 → Start routine diabetes care →71.

≥ 15:
- Ensure client does not need urgent attention above.
- Check urine ketones.

No/trace ketones → Start routine diabetes care →71.

1+ or more ketones:
- Give 0.9% normal saline IV 1ℓ 4 hourly *and*
- Give 10IU short-acting insulin IM (not IV).
- Refer same day.

Yes → Diagnose diabetes

Yes

- Ensure client does not need urgent attention above.
- Check urine for ketones.
- Refer client same day.

Random glucose > 25

- Ensure client does not need urgent attention above.
- Check urine for ketones.
- Refer client same day.

DIABETES: ROUTINE CARE

Assess the client with diabetes

Assess	When to assess	Note
Symptoms	Every visit	Ask about chest and leg pain. Manage symptom as on symptom page.
BP	Every visit	Diagnose hypertension if ≥ 130/80 ↴ 73. Treat to target <130/80 ↴ 74.
BMI	At diagnosis and yearly	BMI is weight (kg)/[height (m) x height (m)]. Aim for BMI < 25.
Waist circumference	Every visit	Aim for < 88cm in woman and < 102cm in man.
Pregnancy status	Every visit	Discuss family planning needs ↴ 91. Refer for specialist care if pregnant.
Eyes for retinopathy	At diagnosis, yearly and if visual problems develop	Refer if new diabetes diagnosis, visual problems, cataracts or retinopathy.
Feet for neuropathy	At diagnosis, yearly if no neuropathy, more often if present	For foot screen and foot care education ↴ 37.
Random glucose	Every visit	Finger prick sample is adequate. See below: aim for < 8.
Protein on urine dipstick	At diagnosis and yearly	If no protein, check for microalbuminuria annually. If albuniuria/proteinuria: start enalapril 10mg daily regardless of BP. Increase to 20mg.
Ketones on urine dipstick	If glucose ≥ 15	If glucose ≥ 15 and ≥ 1+ ketones, see below.
HbA_{1c}	At least yearly if stable; 3 months after treatment change	Aim for HbA_{1c} < 7%. HbA_{1c} reflects glucose control over past 3 months. See below.
eGFR	At diagnosis and yearly	Give client's age and sex on form. If eGFR < 60, refer to doctor.
Fasting total cholesterol and triglycerides	At diagnosis if not already done. No need to recheck cholesterol whether client on simvastatin or not.	Refer to specialist if total cholesterol ≥ 7.5 or triglycerides ≥ 15.

Check random finger prick glucose at every visit and HbA_{1c} at least yearly if stable but 3 months after change in glucose-lowering treatment.

Glucose ≤ 3.5
With/without hunger, palpitations, sweating, tremors, fatigue, headache, mood changes, fits, confusion, drowsiness, coma.

- Give sugar water orally or if unconscious give 50mℓ 50% dextrose water IV.
- Identify cause and educate about meals and doses →72.
- Refer same day if incomplete recovery or on glibenclamide or long-acting insulin. Continue 5% dextrose water 1ℓ 6 hourly IV.

Glucose 3.6–14.9
Review HbA_{1c} result from within past 3 months.

HbA_{1c} ≤ 7% or not done in past 3 months

Glucose < 8

- Review in 6 months.
- Check HbA_{1c} yearly.

Glucose 8–14.9

No HbA_{1c} < 3 months	HbA_{1c} ≤ 7%
Check HbA_{1c}. Review in 1 month.	Review in 3 months.

HbA_{1c} > 7%

- Not adherent: educate and review in 1 month.
- Adherent: step up treatment and review in 1 month →72.

Glucose ≥ 15
Is there any of nausea, vomiting, abdominal pain, hyperventilation, difficult breathing, dehydration, fever, drowsiness, confusion, coma?

No - check urine for ketones

No/trace ketones

- Not adherent: educate and review in 1 month.
- Adherent: step up treatment and review in 1 month →72.

≥ 1+ ketones:

- Give 0.9% normal saline 1ℓ 4 hourly IV and 10IU short-acting insulin IM (not IV).
- Refer same day.

Yes

- Rehydrate urgently: 0.9% normal saline IV (1ℓ in first hour, 1ℓ over next 2 hours).
- Give 10IU short-acting insulin IM (not IV).
- Refer urgently to hospital.

Advise the client with diabetes

- Help the client to manage his/her CVD risk ↴ 69.
- Encourage the client to adhere to medication and to eat regular meals.
- Ensure client can recognise and manage hypoglycaemia:
  - If palpitations, sweats, headache or tremors, drink milk with sugar or eat a sweet or sandwich. If fits, confusion or coma, rub sugar inside mouth.
  - Identify and manage the cause: missed meals, inappropriate dosing of glucose-lowering drugs, alcohol, intercurrent illness like diarrhoea.
- Educate the client to care for his/her feet to prevent ulcers and amputation ↴ 37.

Treat the client with diabetes

- Give aspirin 150mg daily if CVD or a family history thereof, hypertension, smoking, dyslipidaemia, albuminuria or > 40 years. Avoid if < 30 years, previous peptic ulcer or dyspepsia or BP ≥ 180/110.
- Give simvastatin 10mg regardless of cholesterol if client has CVD, hypertension, smoking, obesity, and/or > 40 years.
- Give enalapril 10mg up to 20mg daily if albuminuria/proteinuria, and first line for hypertension. Avoid in pregnancy, angioedema or renal artery stenosis.
- Give glucose-lowering drugs in a stepwise fashion:

Step	Drug/s	Breakfast	Lunch	Supper	Bed	Note
1	Start metformin	500mg				• Avoid in pregnancy, kidney or liver disease, recent heart attack, heart failure, alcoholism.
		500mg	500mg			• Take with meals.
		850mg	850mg			• Increase every 2 weeks if random glucose > 8.
		850mg	850mg	850mg		• Monitor on step 1 treatment for at least 3 months before moving to step 2.
2	Add sulphonyurea:	2.5mg				• Continue metformin.
	• glibenclamide if < 65 years *or*	5mg				• Take with meals.
		5mg		2.5mg		• Avoid in pregnancy, severe kidney and liver disease.
		5mg		5mg		• Increase every 2 weeks if random glucose > 8.
		7.5mg		5mg		
		7.5mg		7.5mg		
	• gliclazide if ≥ 65 years	40mg				
		80mg				
		80mg		40mg		
		80mg		80mg		
		120mg		80mg		
		120mg		120mg		
		160mg		120mg		
		160mg		160mg		
3	Add basal insulin (intermediate or long acting)				10IU	• Continue metformin and sulphonylurea.
					12IU	• Client to check fasting glucose on waking once a week. If ≥ 7, increase dose by 2 units.
					14IU	• Educate about insulin: injection technique and sites, store insulin in fridge or a cool dark place, meal frequency, recognition of hypoglycaemia and hyperglycaemia.
					16IU	
					18IU	
					20IU	
4	Substitute with biphasic insulin	10IU		5IU		• Continue with metformin.
		14IU		5IU		• Stop sulphonylurea and bedtime basal insulin.
		14IU		9IU		• Client to check fasting glucose on waking once a week. If ≥ 7, increase dose by 4 units.
		18IU		9IU		• Educate about insulin as in step 3 above.
		18IU		13IU		• Refer if > 30 units per day are needed.

HYPERTENSION: DIAGNOSIS

Check blood pressure (BP)

- Seat client with arm supported at heart level for 5 minutes.
- Use a standard cuff or larger cuff if mid-upper arm circumference is > 33cm.
- Record systolic BP (SBP) and diastolic BP (DBP): SBP is the first appearance of sound. DBP is the disappearance of sound.
- If raised, recheck until a reading is repeated. Use this reading to determine the client's BP.

< 180/110
Is there diabetes, ischaemic heart disease, peripheral vascular disease, stroke, heart failure or kidney disease?

No

< 140/90

- Review in 5 years if all readings normal.
- Review in 1 year if any raised readings.

140/90–179/109

Check BP on 2 further occasions at least 2 days apart.

140/90–159/99

Assess CVD risk ↴68.
Is CVD risk > 20%?

No

Client is at risk for hypertension.
- Manage client's CVD risk →69.
- Recheck BP in 3 months.

< 140/90

- Continue CVD risk management →69.
- Check BP in 1 year.

≥ 140/90

- Diagnose hypertension.
- Start routine hypertension care →74.
- Refer if client is < 30 years or pregnant.

Yes

160/100–179/109

- Diagnose hypertension.
- Start routine hypertension care →74.
- Refer if client is < 30 years or pregnant.

Yes

130/80–179/109

Check BP on 2 further occasions at least 2 days apart.

BP confirmed 130/80–179/109

- Diagnose hypertension.
- Start routine hypertension care →74.
- Refer if client is < 30 years or pregnant.

< 130/80

Repeat BP yearly.

≥ 180/110
Does client have any of the following: headache, difficult breathing, visual disturbances, chest pain, confusion, leg swelling?

No

- Assess client's CVD risk ↴68.
- Start drug treatment at step 2 anti–hypertensive treatment →74.
- Review in 2 weeks.

Yes

Client needs urgent care

- Only treat BP if no sign of stroke: sudden onset of weakness on 1 or both sides, vision problems, dizziness, difficulty speaking or swallowing.
- Give amlodipine 10mg orally stat. If unavailable, give enalapril 5mg orally stat.
- Avoid short-acting nifedipine as it may drop the BP too quickly, causing a stroke.
- If dizzy or faint after treatment, check BP: if more than 25% drop or < 160/100, lie client down with legs raised.
- Refer same day to hospital.

HYPERTENSION: ROUTINE CARE

Assess the client with hypertension

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms on symptom page. Ask about symptoms of stroke or transient ischaemic attack (TIA).
BP	Every visit	BP is controlled if < 140/90 (or < 130/80 if diabetes, CVD, heart failure or kidney disease). See below.
BMI	BMI at diagnosis, weight at every visit	BMI is weight (kg)/[height (m) x height (m)]. If BMI > 25, calculate target weight: 25 x height (m) x height (m).
Waist circumference	Every visit	Aim for < 88cm (woman), < 102cm (man).
CVD risk	At diagnosis and every 5 years	If CVD or diabetes no need to check. It reflects the risk of a heart attack or stroke over the next 10 years ↴ 68.
Glucose	Yearly and if glucose on urine dipstick	Check random finger-prick glucose ↴ 70 to interpret result. Check every visit if client diabetic.
eGFR	Yearly	Estimated glomerular filtration rate reflects kidney function. Give age and sex on form. If < 60 refer to doctor.
Urine dipstick	Yearly	Refer to doctor if blood or protein on repeat dipstick. If glucose on dipstick, screen for diabetes ↴ 70.
Cholesterol	At diagnosis	Refer to specialist if total cholesterol ≥ 7.5.

If client on treatment, check if BP is controlled: < 140/90 (or < 130/80 if diabetes, CVD, heart failure or kidney disease).

BP controlled on treatment

- Continue current treatment.
- Review 6 monthly.

BP not controlled on treatment

- If ≥ 180/110: check for symptoms needing urgent attention →73.
- Adherent: Step up treatment (to at least step 3 if ≥ 180/110) and review in 1 month.
- Not adherent: Advise client to take current treatment reliably. Review in 1 month.

Advise the client with hypertension

- Help the client to manage his/her CVD risk ↴ 69.
- Advise client to avoid non-steroidal anti-inflammatory drugs (like ibuprofen), oestrogen-containing oral contraceptives ↴ 91.
- Educate the client on enalapril to stop it immediately should angioedema (swelling of tongue, lips, face, difficulty breathing) develop.

Treat the client with hypertension

- Give simvastatin 10mg daily if client has CVD *or* a CVD risk > 20%. Avoid in pregnancy, liver disease.
- Give aspirin 150mg daily if client has CVD and/or diabetes. Avoid if < 30 years, previous peptic ulcers or dyspepsia or if BP ≥ 180/110.
- Give anti-hypertensive drugs as in table below. If BP is not controlled after 1 month on treatment and client is adherent, proceed to the following step:

Step	Drugs all once a day	Note
1	Start hydrochlorothiazide (HCTZ) 12.5mg	Avoid in pregnancy, liver or kidney disease, gout. Use enalapril instead in diabetes, kidney disease, heart failure.
2	Add enalapril 10mg	Avoid/stop in pregnancy, angioedema or renal artery stenosis: use amlodipine 5mg daily instead. If eGFR < 60 and/or peripheral vascular disease, check eGFR and potassium within 4 weeks of starting/changing dose.
3	Add amlodipine 5mg; increase enalapril to 20mg.	Avoid amlodipine in heart failure if possible.
4	Add atenolol 50mg; increase HCTZ to 25mg and amlodipine to 10mg.	Avoid atenolol in pregnancy, asthma, COPD, heart failure. Refer for specialist assessment if BP not controlled on step 4 treatment.

HEART FAILURE

• The client with heart failure has difficulty breathing especially on lying down/with effort as well as leg swelling. A doctor must confirm the diagnosis.

Recognise the client with heart failure needing urgent attention:

- Respiratory rate > 30 breaths/minute
- Fainting/blackouts
- Irregular pulse
- Temperature ≥ 38°C

- Sit client up.
- Give 100% oxygen via face mask to deliver 40% oxygen.
- Give furosemide 40mg IV: if poor response after 30 minutes, give furosemide 80mg IV; if poor response after 20 minutes give furosemide 40mg IV.
- Give morphine IV: dilute 15mg with 14mℓ of water for injection or normal saline. Give 1mℓ/min to a maximum of 5mg even if there is no pain.
- Give sublingual isosorbide dinitrite 5mg. Repeat 4 hourly even if there is no pain.
- Refer urgently

HEART FAILURE: ROUTINE CARE

Assess the client with heart failure

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as per symptom page. Ask about cough and difficulty breathing ↴ 14.
Pregnancy status	Every visit	Discuss family planning needs ↴ 91. If pregnant, refer for specialist care.
Substance abuse	At diagnosis	> 21 drinks/week (man) or >14 drinks/week (woman) and/or > 5 drinks per session or misuse of illicit or prescription drugs →83.
Weight	Every visit	Assess changes in fluid balance by comparing with weight when client as asymptomatic as possible.
BP	Every visit	If BP ≥ 130/80 ↴ 73. Aim to treat hypertension to < 130/80. Avoid atenolol.
Blood tests	At diagnosis	Check Hb, glucose, eGFR, TSH, HIV if status unknown ↴ 60.

Advise the client with heart failure

- Advise client to adhere to treatment even if asymptomatic.
- Help the client to manage his/her CVD risk ↴ 69. Advise regular exercise within limits of symptoms.
- Restrict fluid intake to less than 1 litre/day if marked leg or abdominal swelling.

Treat the client with heart failure

• Give drugs as in table below. If symptoms not resolved after 1 month on treatment and client is adherent, proceed to the following step:

Step	Drug	Dose	Note
1	Enalapril *and either* HCTZ *or* furosemide	Up to 10mg twice a day 25–50mg daily 40–80mg daily	• Avoid enalapril in pregnancy, previous angioedema or renal artery stenosis. • Use HCTZ if mild heart failure symptoms and eGFR ≥ 60. Avoid in gout, liver, kidney disease. • Use furosemide if significant heart failure symptoms or eGFR < 60. Monitor eGFR and electrolytes.
2	Add spironolactone	25mg daily	Monitor serum potassium. Avoid with potassium supplements and in kidney failure.
3	Add carvedilol	3.125mg twice daily. Increase 2 weekly by doubling daily dose up to 50mg daily.	Avoid in cardiogenic shock, severe fluid overload, BP < 90/60, asthma.
4	Add digoxin	0.125mg daily	Also refer client for further assessment.

STROKE

Sudden onset of any of the following suggests a stroke (or a transient ischaemic attack (TIA) if symptoms lasted < 24 hours and resolved completely):
- Weakness, numbness or paralysis of the face, arm or leg on one or both sides of the body
- Blurred or decreased vision in one or both eyes or double vision
- Difficulty speaking or understanding
- Dizziness, loss of balance, any unexplained fall or unsteady gait
- Severe new headache

Recognise the client with stroke needing urgent attention:

Stroke/TIA is a brain attack. Quick treatment within 48 hours of onset of symptoms of a minor stroke or TIA reduces the risk of a major stroke.
- Give face mask oxygen.
- Nil by mouth until swallowing is formally assessed.
- Check blood glucose: if ≤ 3.5 give up to 50mℓ 50% dextrose water IV.
- Do not treat raised BP as this may worsen stroke and can be managed at referral hospital.
- Give aspirin 150mg stat if client unable to reach hospital within 24 hours of onset of symptoms.
- Refer urgently to a specialist stroke unit if the client can reach the unit within 4 hours of onset of symptoms.
- Otherwise refer same day to nearest hospital if symptoms of stroke/TIA > 4 hours but < 48 hours.

STROKE/TIA: ROUTINE CARE

Assess the client with stroke/TIA

Assess	When to assess	Note
Symptoms	Every visit	Ask about symptoms of another stroke/TIA. Also ask about chest pain ↴ 77 or leg pain ↴ 79.
Depression	Every visit	Screen for depression if client has low mood or not coping as well as in the past ↴ 81.
Rehabilitation needs	Every visit	Refer to appropriate therapist: physiotherapy for mobility, physiotherapy/occupational therapy for self care, speech therapist for swallowing, coughing after eating, speaking and drooling.
BP	Every visit	Aim for BP < 130/80. Start treatment only 48 hours after a stroke ↴ 73.
Glucose	At diagnosis and yearly	Check random finger-prick glucose ↴ 70 to interpret result.
Fasting cholesterol and triglycerides	At diagnosis if not already done	Refer to specialist if total cholesterol ≥ 7.5 or triglycerides ≥ 5.
HIV	At diagnosis if status unknown especially if client < 50 years	Test for HIV ↴ 60. The HIV client needs routine HIV care ↴ 61.

Advise the client with stroke/TIA

- Help client to manage cardiovascular disease risk ↴ 69.
- Avoid oral contraceptives containing oestrogen. Advise other method such as IUCD, injectable, progesterone-only pill ↴ 91.

Treat the client with stroke/TIA

- Give aspirin 150mg daily for life. Avoid if < 30 years, haemorrhagic stroke, previous peptic ulcers or dyspepsia.
- Consider warfarin instead of aspirin if client has prosthetic heart valve, valvular heart disease or atrial fibrillation.
- Give simvastatin 10mg daily for life if client had an ischaemic stroke.

ISCHAEMIC HEART DISEASE (IHD): DIAGNOSIS

- Angina due to IHD is typically central burning or crushing chest pain that may spread to jaw, left shoulder, down left arm and is suggested by:
  - Pain lasting for 5 minutes or less, usually brought on by exercise, effort or anxiety and relieved by rest *and*
  - Pain occurring consistently at same distance or level of effort *and*
  - 9 out of 10 times occurring with effort and 1 out of 10 times at rest.
- A doctor must make or confirm the diagnosis of ischaemic heart disease.

Recognise the client with possible unstable angina or heart attack needing urgent attention:

- Chest pain at rest or minimal effort.
- Chest pain lasting more than 10 minutes.
- If known IHD: pain worsening, lasting longer than usual, not relieved by sublingual nitrates.
- Client may be sweating, nauseous, vomiting, breathless.
- ECG may show ST segment depression or elevation, but a normal ECG does not exclude diagnosis of angina or heart attack.

Management:

- Give 40% face mask oxygen.
- If BP < 90/60 give 200mℓ normal saline IV.
- Give aspirin 150mg single dose.
- Isosorbide dinitrate sublingual 5mg every 5-10 minutes until pain relieved to a maximum of 5 tablets.
- Morphine 15mg diluted with 14mℓ of water for injection or normal saline. Give 1mℓ/min IV until pain relieved.
- Assess client for streptokinase:
  - Give if within 6 hours of onset of pain and ST segment elevation above baseline or new LBBB on ECG.
  - Avoid if active bleeding or known bleeding disorder, stroke within the last 6 months or any previous haemorrhagic stroke, gastrointestinal bleeding within the last 3 months or peptic ulcer, streptokinase given within the past year or known allergy to it, or recent major trauma, surgery or head injury.
  - Give 1.5 million IU diluted in 100mℓ dextrose 5% or normal saline 0.9% IV over 30–60 minutes.
- Refer urgently to hospital.

ISCHAEMIC HEART DISEASE: ROUTINE CARE

Assess the client with ischaemic heart disease

Assess	When to assess	Note
Symptoms	At diagnosis and every visit	• Ask about angina and treat as below. Refer if angina persists on full treatment or interferes with daily activities. • Screen for depression if client has low mood or not coping as well as in the past ↴ 81.
BP	At diagnosis and every visit	If BP ≥ 130/80 ↴ 73. Aim to treat hypertension to < 130/80 ↴ 74.
Glucose	At diagnosis and yearly	Check random finger-prick glucose ↴ 70 to interpret result.
Fasting cholesterol and triglycerides	At diagnosis if not already done	Refer to specialist if total cholesterol ≥ 7.5 or triglycerides ≥ 5.

Advise the client with ischaemic heart disease

- Help the client to manage his/her CVD risk ↴ 69.
- Client can resume sexual activity 1 month after a heart attack.
- Emphasize the importance of lifelong adherence to medication. Ensure client knows how to use isosorbide dinitrate as below.
- Client should avoid non steroidal anti-inflammatory drugs like ibuprofen and diclofenac, as they may precipitate angina.

Treat the client with ischaemic heart disease

Give the following drugs to prevent a heart attack:

- Aspirin 150mg daily for life. Avoid if < 30 years, a history of peptic ulcers or dyspepsia.
- Atenolol 50mg daily, even if no angina. Avoid in pregnancy, asthma, COPD, heart failure, peripheral vascular disease.
- Simvastatin 10mg daily for life. No need to monitor cholesterol.
- If client has had a heart attack, give enalapril 2.5mg twice a day and increase slowly to 10mg twice a day.

Give drugs to treat and prevent angina in a step-wise fashion:

- If angina persists, increase dose to maximum, then add next step.

Step	Drug	Start dose	Maximum dose	Note
1	Isosorbide dinitrate with angina and before exertion *and* Atenolol	5mg sublingual with angina 50mg daily	3 doses of 5mg with 1 episode of angina 50mg twice a day	If angina starts, do not walk through the pain, stop and take 1st dose. If angina persists, take a further 2 doses 5 minutes apart. If no improvement 5 minutes after 3rd dose, contact emergency services. Avoid atenolol in pregnancy, asthma, COPD, heart failure, peripheral vascular disease and use amlodipine instead or if side effects (impotence, fatigue, depression) occur.
2	Amlodipine	5mg in the morning	10mg daily	Avoid in heart failure.
3	Isosorbide mononitrate or Isosorbide dinitrate	10mg at 8am and 2pm 20mg at 8am and 2pm	20mg at 8am and 2pm 40mg at 8am and 2pm	

Refer if angina persists on full treatment or interferes with daily activities.

PERIPHERAL VASCULAR DISEASE (PVD)

- Peripheral vascular disease is characterised by claudication: muscle pain in legs or buttocks on exercise.
- Refer the client newly diagnosed with peripheral vascular disease for specialist assessment.

Recognise the client with peripheral vascular disease needing urgent attention:

Claudication with any one of:
- Pain at rest
- Gangrene
- Ulceration
- Suspected abdominal aortic aneurysm: pulsatile mass in abdomen

Refer same day to hospital.

PERIPHERAL VASCULAR DISEASE: ROUTINE CARE

Assess the client with peripheral vascular disease

Assess	When to assess	Note
Symptoms	At diagnosis and every visit	•Document the walking distance before onset of claudication. •Ask about chest pain ↴ 77 and symptoms of stroke/TIA ↴ 76. •Manage symptoms as per symptom pages.
BP	At diagnosis and every visit	If BP ≥ 130/80 ↴ 73. Aim to treat hypertension to < 130/80 ↴ 74.
Femoral pulses	At diagnosis and every visit	Refer if weak or absent.
Abdomen	At diagnosis and every visit	If a pulsatile mass felt, refer for assessment for possible aortic aneurysm.
Random glucose	At diagnosis and yearly	Check random finger-prick glucose ↴ 70 to interpret result. Check every visit if client diabetic.
Fasting cholesterol and triglycerides	At diagnosis if not already done	Refer to specialist if total cholesterol ≥ 7.5mmol/ℓ or triglycerides ≥ 5mmol/ℓ.

Advise the client with peripheral vascular disease

- Help the client to manage his/her CVD risk ↴ 69.
- Walking an hour a day for at least 6 months can increase by 50% the walking distance. Advise client to pause and rest whenever claudication develops.

Treat the client with peripheral vascular disease

- Give simvastatin 10mg daily for life regardless of cholesterol level.
- Give aspirin 150mg daily for life if no history of peptic ulcers or dyspepsia. Avoid if under 30 years.

Refer if unacceptable symptoms occur despite adherence to advice and drug treatment.

MENTAL HEALTH CARE ACT (MHCA)

Approach to the mentally ill client in need of hospital admission

- Before sedating the client (if needed) fully inform client *in his/her own language* about reasons for admission and treatment.
- Can client give informed consent: the client understands that s/he is ill, is needing treatment and can communicate his/her choice to receive treatment?

Yes: Does client agree to admission?

Yes

Admit the client voluntarily

- Record everything clearly in client notes and referral letter.
- A staff member must accompany the client to hospital.
- Request police assistance *only* if the client is too dangerous to be transferred in a staff vehicle or is likely to abscond.
- All police transport of mentally ill clients must be accompanied by **form 22**.

No

Does client meet *all* of the following?

- Severe mental illness *and*
- Refusing treatment *and*
- Danger of harm to self, others, own reputation, financial interest or property

No

Manage as an outpatient.

Yes

- Escort must complete **MHCA 04** form.
- Mental health practitioner must complete **MHCA 05** form *and* doctor must complete another **MHCA 05** form (at same or other facility).
- Completion of the 2 **MHCA 05** forms should be done independently of one another.

The 2 **MHCA 05** forms agree to admit the client under the Mental Health Care Act.

- Head of facility must complete **MHCA 07** form.
- Admit client under Mental Health Care Act.

The 2 **MHCA 05** forms disagree.

Third mental health practitioner must complete a third **MHCA 05** form independently.

Third MHCA 05 form agrees to admit the client under the Mental Health Care Act.

- Head of facility must complete **MHCA 07** form.
- Admit client under Mental Health Care Act.

Third MHCA 05 form does not agree to admit the client under the Mental Health Care Act.

Manage as outpatient.

No: Does client oppose admission?

Yes

Does client meet *all* of the following?

- Severe mental illness *and*
- Refusing treatment *and*
- Danger of harm to self, others, own reputation, financial interest or property

No

Manage as an outpatient.

Yes

- Escort must complete **MHCA 04** form.
- Mental health practitioner must complete **MHCA 05** form *and* doctor must complete another **MHCA 05** form (at same or other facility).
- Completion of the 2 **MHCA 05** forms should be done independently of one another.

The 2 **MHCA 05** forms agree to admit the client under the Mental Health Care Act.

- Head of facility must complete **MHCA 07** form.
- Admit client under Mental Health Care Act.

The 2 **MHCA 05** forms disagree.

Third mental health practitioner must complete a third **MHCA 05** form independently.

Third MHCA 05 form agrees to admit the client under the Mental Health Care Act.

- Head of facility must complete **MHCA 07** form.
- Admit client under Mental Health Care Act.

Third MHCA 05 form does not agree to admit the client under the Mental Health Care Act.

Manage as outpatient.

No

Admit as an assisted client under the Mental Health Care Act.

DEPRESSION AND ANXIETY: DIAGNOSIS

Ask the following 3 questions to assess for depression:

1. For at least 2 weeks, has the client had at least 2 of the core features of depression?
   - Depressed mood most of the day, almost every day
   - Loss of interest or pleasure in activities that are normally pleasurable
   - Decreased energy or increased fatigue
2. For at least 2 weeks, has the client had any other features of depression?
   - Reduced concentration and attention
   - Reduced self-esteem and self confidence
   - Ideas of guilt and unworthiness
   - Bleak and negative view of future
   - Ideas or acts of self-harm or suicide
   - Disturbed sleep
   - Decreased appetite
3. Does the client have difficulties carrying out ordinary work, domestic or social activities?

Yes to all 3 questions

Diagnose **moderate-severe depression**.

Yes to 1 or 2 questions

Diagnose **mild depression**.

Is the client feeling tense/nervous and/or worrying a lot?

No

Give routine depression and/or anxiety care →82.

Yes

The client has **anxiety**.
Does the anxiety have one or more of the following features?
- Induced by a situation
- Sudden fear, no obvious cause
- Follows a traumatic event

No

- If the client has depression *and* anxiety, treat for depression as treating the depression usually improves the anxiety.
- If there is no depression, treat anxiety as for mild depression.

Yes

The client may have phobia, panic or post-traumatic stress disorder.

Refer same week for specialist assessment.

No to all 3 questions

- The client is not depressed.
- Is the client feeling tense/nervous and/or worrying a lot?

Yes

No

Assess the client on stressed client page →52.

DEPRESSION AND/OR ANXIETY: ROUTINE CARE

Assess the client with depression and/or anxiety

Assess	When to assess	Note
Symptoms	Every visit	• Assess for symptoms of depression and/or anxiety ↴ 81. Refer if no improvement after 8 weeks of treatment or if client deteriorates. • If client has hallucinations, delusions and abnormal behaviour, consider psychosis →84. If memory problems, screen for dementia →86. • Assess and treat other symptoms on symptom pages. • Ask about side effects of antidepressant medication (see below).
Suicide	Every visit	If client has suicidal thoughts or plans, refer same day ↴ 49.
Mania	Every visit	Refer if mania (being abnormally happy, energetic, talkative, irritable or reckless) at diagnosis or develops on antidepressant medication.
Stressors	Every visit	Help identify the domestic, social and work factors contributing to depression and/or anxiety. If client is being abused ↴ 53.
Substance abuse	Every visit	> 21 drinks/week (man) or > 14 drinks/week (woman) and/or ≥ 5 drinks per session or misuse of illicit or prescription drugs ↴ 83.
Family planning	Every visit	Discuss client's contraceptive needs ↴ 91. If client is pregnant refer for specialist care.
Chronic disease	Every visit	• Ensure other chronic diseases are adequately treated. • Discuss with specialist if client is on medication that might cause depression like oral steroids, efavirenz and atenolol.
Thyroid function	At diagnosis	Check TSH if weight change, dry skin, constipation, intolerance to cold or heat, pulse > 80, tremor, or thyroid enlargement. Refer to doctor if result abnormal.

Advise the client with depression and/or anxiety

- Devise with client a strategy to cope when thoughts of self harm, suicide or substance misuse occur.
- Deal with negative thinking: encourage client to question his/her way of thinking, examine the facts realistically and look for strategies to get help and cope.
- Encourage client to do activities that used to give pleasure, to engage in regular social activity and to exercise for at least 30 minutes 5 days a week.
- Discuss sleep hygiene ↴ 54 and relaxation techniques.
- Refer client to available helpline and/or support group ↴ back page.
- The best treatment for mild depression and/or anxiety is cognitive behavioural therapy. Antidepressants work best for those with moderate-severe depression.

Treat the client with depression and/or anxiety

- Refer client for counselling, ideally cognitive behavioural therapy, with counsellor, social worker or psychologist.
- Treat the client with moderate-severe depression with an antidepressant. Refer the client who is pregnant, breastfeeding or bipolar for specialist care.
- Emphasise the importance of adherence even if feeling well and to stop antidepressants only with the guidance of a clinician.
- Antidepressants can take 4–6 weeks to start working. Review 2 weekly until stable, then monthly. Refer if no response after 8 weeks.

Drug	Dose	Note
Fluoxetine	Start 20mg daily (or 10mg if > 65 years). If partial or no response after 4 weeks increase to 40mg daily.	Use if thoughts of self harm/suicide and if CVD. Avoid in kidney or liver disease. Monitor glucose in diabetes and for fits in epilepsy. Side effects: headache, nausea, diarrhoea, sexual dysfunction.
Amitriptyline	Start 50mg at night (or 25mg if > 65 years). Increase by 25mg/day every 3-5 days (or 7–10 days if > 65 years). Maximum dose: 150mg/day (or 75mg if > 65 years).	Avoid if suicidal thoughts (can be fatal in overdose), heart disease, urinary retention, glaucoma, epilepsy. Side effects: dry mouth, sedation.

- Consider stopping antidepressant when client has had no or minimal depressive symptoms and has been able to carry out routine activities for 9–12 months: reduce dose gradually over at least 4 weeks (more gradually if withdrawal symptoms develop: irritability, dizziness, sleep problems, headache, nausea, fatigue).

SUBSTANCE ABUSE

Diagnose the client with substance abuse

- The misuse of drugs or alcohol causes serious problems for client, the family and perhaps even the community *and/or*
- > 21 drinks/week (man); > 14 drinks/week (woman); or > 5 drinks/session. 1 drink is 1 tot of spirits, or 1 small glass of wine or 1 can of beer and/or
- Yes to 2 or more: Ever felt you should Cut down on drinking? Annoyed if criticized about drinking? Ever felt Guilty about drinking? Ever drink to wake up? *and/or*
- Any use of illicit drugs or misuse of prescription drugs.

SUBSTANCE ABUSE: ROUTINE CARE

Assess the client with substance abuse

Assess	Note
Symptoms	Restlessness, confusion, sweating, sleeplessness, hallucinations, agitation, weakness, tremor, headache, nausea - may be withdrawal: refer same day.
Harmful use	Alcohol: > 35 drinks/week (man); > 20 drinks/week (woman); > 5 drinks/session and/or any use of illicit or prescription drugs can become harmful.
Dependence	Much time and energy spent on getting and using substance *and* withdrawal symptoms above occur on stopping or cutting down.
Trauma/abuse	If client reports recent trauma or emotional or sexual abuse ↴ 53.
Chronic disease	Chronic use of alcohol and/or drugs can have a long term impact on physical health. Assess and manage according to symptoms and chronic disease.
Mental illness	If low mood or sadness, loss of interest or pleasure, feeling tense or anxious or worrying a lot about things, consider depression/anxiety ↴ 81.

Advise the client with substance abuse

- Educate client about effects of substance abuse. Explore client's willingness to cut down or stop. Encourage client to use helpline ↴ back page. For communicating effectively ↴ 101.
- Alcohol: Advise abstinence or moderate use (≤ 21 drinks/week (man); ≤ 14 drinks/week (woman) and avoid binges). Advise the pregnant woman to abstain.
- Advise client to stop using illicit or prescription drugs.

Treat the *dependant* client with substance abuse

- Enrol the dependant client in a rehabilitation programme starting with detoxification. Ensure client is motivated to adhere and has the support of a relative/friend.
- Detain the client who refuses help under the Mental Health Care Act only if there is an accompanying mental disorder ↴ 80.
- A relative/friend can get a court application from a magistrate's office to legally commit for detoxification the client causing harm to self or others (takes months).
- For inpatient detoxification if previous withdrawal delirium, fits, psychosis, suicidal, liver disease, failed prior detoxification, no home support, opioid abuse, or if legally committed or detained.
- Doctor to provide outpatient detoxification if none of the above inpatient criteria and client is abusing alcohol, cannabis, mandrax, cocaine, tik or benzodiazepines:

Substance	Detoxification programme
Alcohol	• Thiamine 100mg twice a day for 10 days *and* • Diazepam orally (if > 60 years or < 60kg start at day 3). Each day drop a dose. The detox should take 6–7 days. If extra diazepam is needed, maximum daily dose 60mg. Day 1: 10mg with withdrawal symptoms then 5mg at 12h00, 17h00 and 10mg at 21h00. Day 2: 5mg, 5mg, 5mg, 10mg. Review and adjust doses as needed. Day 3: 5mg 6 hourly
Cannabis/Mandrax/Cocaine/Tik	• Treatment not always needed. Review after 1 day of abstinence. • Treat anxiety or sleep problems with diazepam 5mg 1–3 times a day tapering over 3–7 days or promethazine 25–50mg orally 8 hourly.
Benzodiazepines	• Avoid suddenly stopping benzodiazepines after long-term use. • Substitute client's benzodiazepine for diazepam eg. lorazepam 0.5mg–1mg = diazepam 5mg (for other benzodiazepines, refer to SAMF or MIC hotline ↴ back page). • Adjust diazepam according to symptoms, then decrease diazepam by 2.5mg every 2 weeks. On reaching 20% of initial dose taper by 0.5–2mg/week.

PSYCHOSIS AND/OR MANIA: DIAGNOSIS

PSYCHOSIS AND/OR MANIA: DIAGNOSIS

- Psychosis is likely in the client who has difficulty carrying out ordinary work, domestic or social activities and any of:
  - Hallucinations: hearing voices or seeing things that are not there
  - Delusions: unusual/bizarre beliefs, not shared by society; beliefs that thoughts are being inserted or broadcast
  - Abnormal behaviour: incoherent or irrelevant speech, unusual appearance, self neglect, withdrawal, disturbance of emotions
  - Manic symptoms: several days of being abnormally happy, energetic, talkative, irritable or reckless.
- Consider bipolar disorder if client has manic symptoms on some occasions, and depressed mood and energy on others.
- The client with psychosis and/or mania must be assessed initially by a psychiatrist.

Recognise the client with psychosis and/or mania needing same-day referral:

- Suicidal thoughts or attempt →49
- If aggressive or violent →50
- First episode psychosis or mania
- Pregnant or breastfeeding
- Muscle spasms (may be painful) within 48 hours of initiating antipsychotic medication

Management:

- Consider admitting under the Mental Health Care Act if refusing treatment or admission and a danger of harm to self, others, own reputation or financial interest/property →80.
- For muscle spasms, give biperiden 2mg IM. Repeat every 30 minutes to a maximum of 4 doses in 24 hours.
- Refer client same day.

PSYCHOSIS AND/OR MANIA: ROUTINE CARE

Assess the client with psychosis and/or mania

Assess	When to assess	Note
Symptoms	Every visit	• Ask about symptoms of psychosis and mania above. If symptomatic despite treatment refer. • Assess for symptoms of depression and/or anxiety ↩ 81. If memory problems, screen for dementia ↩ 86. If present refer. • Assess and treat other symptoms on symptom pages.
Suicide	Every visit	If client has suicidal thoughts or plans, refer same day ↩ 49.
Stressors	Every visit	Help identify the psychosocial stressors that may exacerbate symptoms. If client is being abused ↩ 53.
Substance abuse	Every visit	> 21 drinks/week (man) or > 14 drinks/week (woman) and/or > 5 drinks per session or misuse of illicit or prescription drugs ↩ 83.
Family planning	Every visit	Discuss client's contraceptive needs ↩ 91. If client is pregnant or breastfeeding refer for specialist care.
Chronic disease	Every visit	• Refer the client with other chronic diseases. Give routine chronic disease care as per chronic diseases pages. • Discuss with specialist if client is on medication that might cause psychosis like oral steroids, efavirenz and antidepressants.
Medication	Every visit	• Ask about side effects of antipsychotic medication ↩ 85. Refer if these are present. • If non adherent re-commence medication. Consider changing from oral to depot medication.
HIV, RPR	First visit	• If status unknown, test for HIV ↩ 60. Give routine HIV care to HIV client ↩ 61. • If RPR positive, refer.

Advise the client with psychosis

- Educate the client and carer/family about the condition: the client with psychosis often lacks insight into the illness and may be hostile towards carers and health care workers. S/he may have difficulty functioning, especially in high stress environments.
- Emphasize the importance of adherence with medication.
- Encourage client to resume social, educational and work activities as appropriate. Work with local agencies to find educational or employment opportunities.
- Explore housing/assisted living support if needed and available.
- Refer for support group and cognitive behavioural therapy if available.
- Liaise with available health and social resources to provide support for the family and refer for family therapy if available.
- People with psychosis are often discriminated against. Always consider protection of the client's human rights and the need to avoid institutional care.

Treat the client with psychosis

- Refer the client with bipolar disorder to a psychiatrist for care.
- Initiation, titration and withdrawal is best done by a psychiatrist.
- Use intramuscular antipsychotic medication if client is not adherent to oral medication and needs long term treatment.

Drug	Starting dose	Maintenance dose	Note
Haloperidol	1.5–10mg oral as a single dose or in 2 divided doses. If > 60 years start at lower dose and increase more gradually.	Usually 2–10mg per day.	Minimal anticholinergic side effects.
Chlorpromazine	25mg oral twice daily.	Usually 75–300mg daily but 1000mg may be needed. Once symptoms are controlled, give as a single bedtime dose.	One of the most sedating antipsychotics.
Fluphenazine decanoate	12.5mg deep intramuscular injection	Usually 25–50mg every 4 weeks but can be halved and given 2 weekly.	Full response can take 2 months Fewer anticholinergic side effects than chlorpromazine.
Flupenthixol decanoate	20mg deep intramuscular injection	Usually 60mg every 4 weeks but can be halved and given 2 weekly.	Full response can take 2 months. Fewer anticholinergic side effects than chlorpromazine.
Zuclopenthixol decanoate	100mg deep intramuscular injection	Usually 200–400mg every 4 weeks but can be halved and given 2 weekly.	Full response can take 2 months. Fewer anticholinergic side effects than chlorpromazine.

Refer if any side effects develop on antipsychotic medication

- Anticholinergic side effects: dry mouth, blurred vision, constipation, urinary retention, worsening of closed angle glaucoma
- Extrapyramidal side effects:
  - Acute dystonic reactions (often painful muscle spasms) may appear within 24-48 hours of starting medication. Give biperiden 2mg IM, repeat every 30 minutes to maximum 4 doses in 24 hours. Refer client same day for further management.
  - Parkinsonian signs (bradykinesia, tremor, rigidity) may occur after weeks or months on treatment, more commonly in elderly clients. Give orphenadrine 50mg up to 3 times a day.
  - Akathisia (motor restlessness) may occur after days or weeks of treatment.
  - Tardive dyskinesia (persistent involuntary movements) may occur after months (usually more than 6 months) of treatment.

DEMENTIA

DEMENTIA: DIAGNOSIS

- Ensure a doctor confirms the diagnosis of dementia. Consider dementia in the client who for at least 6 months:
  - Has problems with memory. Test by asking client to repeat 3 common words immediately and then again after 5 minutes.
  - Is disoriented for time (unsure what day/season it is) and place (unsure of shop closest to home or where the consultation is taking place).
  - Experiences difficulty with speech and language – unable to name parts of the body.
  - Struggles with simple tasks, decision making and carrying out daily activities.
  - Is less able to cope with social and work function.
  - If client has HIV, has difficulty with coordination.

DEMENTIA: ROUTINE CARE

Assess the client with dementia

Assess	When to assess	Note
Symptoms	At diagnosis, every visit	• Check for new symptoms and manage as per symptom pages. • If recent change in mood, energy/interest levels, sleep or appetite, consider depression and refer. Assess risk for self-harm ↴ 49. • If client has hallucinations, delusions, agitation, aggression or wandering refer to psychiatrist.
Vision/hearing problems	At diagnosis, every visit	Manage poor vision or hearing with proper devices.
Nutritional status	At diagnosis, every visit	Ask about food and fluid intake. Arrange nutritional support if BMI < 18.5.
Cardiovascular disease	At diagnosis	Assess CVD risk ↴ 68. Ask about previous stroke/TIA, chest or leg pain.
HIV	At diagnosis	• HIV-associated dementia may improve on ART. If status unknown, test for HIV ↴ 60. • If HIV give routine care ↴ 61 and test for coordination problems: with non-dominant hand as quickly as possible (allow client to practice twice): - Open and close the first 2 fingers widely. - On a flat surface, clench a fist, then place palm down, then on the side of the 5th digit.
Syphilis	At diagnosis	Refer the RPR positive client with dementia.
Thyroid	At diagnosis	Refer if result is abnormal.

Advise the client with dementia and his/her carer

- Discuss what can be done to support the client, carer/s and family. Identify local resources, social worker, counsellor, NGO, helpline ↴ back page.
- Discuss with carer if respite or institutional care is needed. Advise the carer/s to:
  - Give regular orientation information (day, date, weather, time, names)
  - Try to stimulate memories with newspaper, radio, TV, photos.
  - Use simple short sentences.
  - Avoid changes in routine.
  - Plan daily activities that assist the person to be independent.
  - Remove clutter in the environment.
  - Regulate fluid intake to deal with incontinence.
  - Maintain physical activity.

Treat the client with dementia

- HIV-associated dementia often responds well to ART ↴ 61.
- Treat aggressive or violent behaviour towards self or others ↴ 50.
- Treat agitation, distressing behaviour, psychotic symptoms with haloperidol 0.5–1mg up to twice daily.

EPILEPSY

- If the client is fitting →2 to control the fit. If the client is not known with epilepsy and has had a fit →2 to assess and manage further.
- Epilepsy is a doctor diagnosis in the client who has had at least 2 definite fits with no identifiable cause or 1 fit following TB meningitis, stroke or head trauma.

EPILEPSY: ROUTINE CARE

Assess the client with epilepsy

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as on symptom page.
Fit frequency	Every visit	Review fit diary. Assess if fits prevent client from leading a normal lifestyle.
Adherence	Every visit, if fits occur	Assess attendance, pill counts and if still fitting on treatment, drug level (doctor decision).
Side effects	Discuss at diagnosis, every visit	Side effects often explain poor adherence. Client may need to weigh side effects with fit control.
Other medication	If fits occur	Check if client has started other medication like TB treatment, lopinavir/ritonavir or oral contraceptive. See below.
Substance abuse	At diagnosis, if fits occurs or adherence poor	> 21 standard drinks/week (man) or > 14 drinks/week (woman) and/or > 5 drinks per session or misuse of illicit or prescription drugs ↴ 83.
Family planning	Every visit	• Refer if client is pregnant or planning to be for epilepsy and antenatal care. • Assess family planning needs: avoid oral contraceptives on carbamazepine or phenytoin ↴ 91.
Drug level	Only if needed	Doctor to check drug level if unsure about adherence or on higher than maximum dose of phenytoin.

Advise the client with epilepsy

- Educate about epilepsy and need for adherence to treatment. Advise client to keep a fits diary to record frequency of fits.
- Refer for social support if necessary (Epilepsy South Africa) and help client to get a Medic Alert bracelet ↴ back page.
- Advise avoiding sleep deprivation, alcohol and drug use, dehydration, flashing lights and video games. These may trigger a fit.
- Avoid dangers like heights, fires, swimming alone, cycling on busy roads, operating machinery. Avoid driving until fit free for 1 year.
- Advise client there are many drugs that interfere with anti-convulsant treatment (see below) and to discuss with doctor when starting any new medication.

Treat the client with epilepsy

- A single drug is best. Giving 2 anti-convulsant drugs together is a specialist decision.
- If still fitting on treatment increase dose as in table every 2 weeks only if client is adherent and there is no substance abuse.
- If still fitting after 4 weeks on maximum dose or side effects intolerable, add new drug and increase 2 weekly until fit free. Then taper off old drug over 1 month.

Drug	Start dose	Maximum dose	Note
Phenytoin	150mg daily	300mg daily or in 2 divided doses	• Avoid in women as it can cause facial hair/coarse facial features. Side effects: skin rash, drowsiness, slurred speech. Drug interactions: isoniazid, warfarin, cimetidine, furosemide, oral contraceptives.
Carbamazepine	100mg twice a day	1200mg daily in 2 or 3 divided doses	• Side effects: skin rash, blurred or double vision, ataxia, nausea. Drug interactions: isoniazid, warfarin, fluoxetine, cimetidine, theophylline, amitriptyline, oral contraceptives.
Lamotrigine	50mg daily	400mg daily or in 2 divided doses	• Use in HIV. Increase dose if fits on TB treatment or lopinavir/ritonavir. Side effects: skin rash, blurred or double vision. Drug interactions: paracetamol, rifampicin.

- If fit free review 6 monthly. Doctor should review monthly the client who is fitting until fit frequency improves. Refer if still fitting after maximum doses of 2 drugs for 4 weeks each.
- Doctor can consider with client stopping treatment if no fits for 2 years: gradually withdraw 1 drug at a time over 2–3 months.

CHRONIC ARTHRITIS

CHRONIC ARTHRITIS: DIAGNOSIS

- If client has discrete episodes of joint pain and swelling that completely resolve in between, consider gout →89.
- The most common chronic arthritis (lasting > 8 weeks) is osteoarthritis. Rheumatoid arthritis is the most common form of chronic inflammatory arthritis:

Osteoarthritis
- Affects joints only.
- Weight-bearing joints and maybe hands and feet
- Joints may be swollen but not warm.
- Stiffness on waking lasts less than 30 minutes.
- Pain is worse with activity and improves with rest.

Inflammatory arthritis
- Can be systemic: weight loss, fatigue, poor appetite, muscle wasting.
- Hands and feet are mainly involved.
- Joints are swollen and warm.
- Stiffness on waking lasts more than 30 minutes.
- Pain and stiffness improve with activity.

Refer the client with probable inflammatory arthritis or an unclear diagnosis for specialist assessment.

CHRONIC ARTHRITIS: ROUTINE CARE

Assess the client with chronic arthritis

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as on symptom pages.
Activities of daily living	Every visit	Ask if client can walk as well as before, can cope with buttons and use knife and fork properly.
Sleep	Every visit	If client has problems sleeping ↴ 54.
Depression	Every visit	If low mood or sadness, loss of interest or pleasure, feeling tense, worrying a lot or not coping as well as before, consider depression/anxiety ↴ 81.
Joints	Every visit	Look for warmth and tenderness of joints.
BMI	At diagnosis	Calculate BMI: weight (kg)/[height (m) x height (m)]. > 25 is overweight and puts stress on weight-bearing joints. Assess client's CVD risk ↴ 68.
Blood monitoring	If on disease modifying anti-rheumatic drugs	Ensure the client using disease modifying drugs knows to have regular blood monitoring depending on the prescribed drugs from the specialist clinic.

Advise the client with chronic arthritis
- If BMI > 25 advise to reduce weight to decrease stress on weight-bearing joints like knees and feet. Help client to manage CVD risk ↴ 69.
- Encourage the client to be as active as possible, but to rest with acute flare-ups.
- Refer client and carer for education about chronic arthritis, to available support group and helpline ↴ back page.

Treat the client with chronic arthritis
- Refer to physiotherapist or occupational therapist if rheumatoid arthritis and/or difficulty with activities of daily living.
- Give paracetamol 1g 6 hourly. If no response and inflammation is present in the client with osteoarthritis, give ibuprofen 200–400mg 8 hourly after meals only as needed.
- Give amitriptyline 25mg night, 10mg if client > 65 years.
- Rheumatoid arthritis must be treated early with disease modifying anti-rheumatic drugs to control symptoms, preserve function, and minimise further damage.
- If rheumatologist unavailable within 1 month and inflammatory arthritis likely, start chloroquine 250mg daily Monday to Friday and prednisone 7.5mg daily.

Refer client to a specialist if poor response to treatment.

GOUT

- Gout is a metabolic disease where uric acid crystals are deposited in the joints. It occurs most commonly in men over 40 years and post-menopausal women.
- Acute gout tends to affect 1 joint (often big toe, knee or ankle) and to recover completely.
- In chronic gout, many joints may be affected and they may not be very painful, but there is incomplete recovery in between.

GOUT: ROUTINE CARE

Assess the client with gout

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as per symptom pages.
Substance abuse	At diagnosis	> 21 drinks/week (man) or >14 drinks/week (woman) and/or > 5 drinks per session or misuse of illicit or prescription drugs →83.
Medication	Acute attacks	Hydrochlorothiazide, ethambutol, pyrazinamide and aspirin can all induce acute gout attacks. Discuss with doctor.
Joints	Every visit	• Recognise the acute gout attack: Sudden onset of 1–3 hot, extremely painful, swollen joints with red, shiny overlying skin (often big toe, knee or ankle). • Tophaceous gout appears as painless yellow hard irregular lumps around the joints (picture).
CVD risk	At diagnosis	Assess cardiovascular disease risk ↴ 68. If BMI < 25 or < 40 years, refer within 1 month to exclude possible cancer cause for gout.
eGFR	At diagnosis	If eGFR < 50, refer.
Urate	At diagnosis and with allopurinol	Normal is ≤ 0.3. The client needs allopurinol if urate > 0.5. Adjust allopurinol dose until urate < 0.3.

Advise the client with gout

- Help the client to manage his/her cardiovascular disease risk ↴ 69.
- Give dietary advice:
  - Avoid fizzy drinks, alcohol, red meat, liver, kidneys, turkey, crayfish, sardines and anchovy.
  - Avoid fasting.
  - Drink at least 2ℓ of fluids a day.
- Advise bed rest until the pain subsides.
- Advise client there are drugs that may induce a gout attack, like aspirin and to discuss with doctor when starting any new medication.

Treat the client with gout

Treat the client with an acute gout attack

- Give ibuprofen 800mg after food 8 hourly for 1–2 days. Then ibuprofen 400mg 8 hourly until pain and swelling are improved.
- If client has peptic ulcer, asthma, hypertension, heart failure or kidney disease, give prednisone 40mg daily for 3–5 days instead of ibuprofen.
- If client is already using allopurinol, do not stop it during the acute attack.

Treat the client with chronic gout

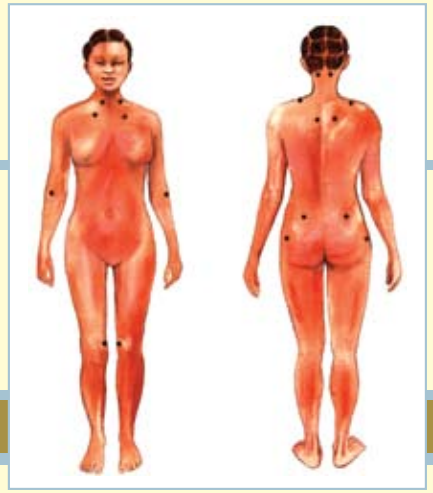
- Client needs allopurinol if: > 2 attacks per year, chronic tophaceous gout (picture), kidney stones, kidney disease, serum urate > 0.5.
- Give allopurinol 100mg once daily. Do not start allopurinol during or for 3 weeks after an acute attack.
- Increase by 100mg monthly until serum urate < 0.3 or the maximum dose of 400mg.
- If there is a history of kidney stones, give potassium citrate 10mℓ 8 hourly for life to prevent further stones.

Refer client to specialist if no response to treatment or unsure about diagnosis.

FIBROMYALGIA

FIBROMYALGIA: DIAGNOSIS

Consider fibromyalgia if the client has had general body pain that waxes and wanes for more than 3 months associated with the following:
- Multiple tender points (see picture)
- The pain is often worsened by lack of sleep, stress, cold, fatigue, physical exertion.
- There may be stiffness, fatigue, poor sleep (sleeping lightly and waking frequently), depression, tender skin, irritable bowel, poor memory, headaches, Raynaud's phenomenon, dizziness, restless legs, easy bruising, urinary frequency, numbness, tingling or swelling of hands.
- The client may be sensitive to food and medication.



A doctor must confirm the diagnosis of fibromyalgia
- Press the tender points in the picture with the pressure that would blanch a fingernail. Compare with a control site on forehead.
- Check temperature and weight. If temperature ≥ 38ºC →4 or weight loss →3 and consider another diagnosis.
- Screen for a joint problem: client to place hands behind head; then behind back. Bury nails in palm and open hand. Press palms together with elbows lifted. Walk. Sit and stand up with arms folded. If unable to do screen comfortably →33.
- Check ESR, glucose ↴ 70, TSH, Hb, eGFR, and HIV if status unknown ↴ 60.
- Refer to consider another diagnosis if joint problem, HIV positive, blood results abnormal or unsure of diagnosis.

FIBROMYALGIA: ROUTINE CARE

Assess the client with fibromyalgia

Assess	When to assess	Note
Symptoms	Every visit	• Manage symptoms as on symptom pages. Ask client to identify the 3 symptoms that bother her/him most and focus on these. • Do not dismiss all symptoms as fibromyalgia: exclude treatable and serious illness. If unsure, refer.
Sleep	Every visit	If client has problems sleeping ↴ 54.
Depression	Every visit	If low mood or sadness, loss of interest or pleasure, feeling tense or anxious or worrying a lot about things, consider depression/anxiety ↴ 81.
Stressors	Every visit	Help identify the psychosocial stressors that may exacerbate symptoms. If client is being abused ↴ 53.

Advise the client with fibromyalgia
- Educate client about fibromyalgia as above. Fibromyalgia tends to wax and wane over years.
- Advise client to keep as active as possible.
- Encourage client to involve the family and refer to available support group and helpline ↴ back page.
- Encourage the client to adopt sensible sleep habits ↴ 54.

Treat the client with fibromyalgia
- Give paracetamol 1g 4 times a day as needed.
- Give amitriptyline 25mg taken at 6pm every night for 3 months. If still symptomatic, increase dose to 50mg.
- If still symptomatic after 3 months, add fluoxetine 20mg in the morning. If still symptomatic after 3 months, add ibuprofen 200mg 3 times a day with food.

A supportive relationship with the same health practitioner can contain frequent visits for multiple problems. Review client 6 monthly once stable.

CONTRACEPTION

Give emergency contraception if client had unprotected sex *in past 5 days* and does not want pregnancy:
- First exclude pregnancy. If pregnant do not give emergency contraception →93.
- Give ideally within 72 hours of unprotected sex: levonorgestrel 0.75mg 2 tablets once or norgestrel/oestradiol 0.5/0.05mg 2 tablets and repeat after 12 hours.
- If client chooses, insert emergency IUCD instead.

Starting contraception
- Help client to choose contraception based on preference, plan for future pregnancies and contraindications: injection, pills, intrauterine device or sterilisation.
- Advise the client that condoms alone are not entirely reliable contraception but combined with another method will protect from STIs and HIV.
- In the menopausal client: if < 50 years, give contraception for 2 years after last period; if ≥ 50 years, for 1 year after last period ↩ 98.

Hormonal injection
- 2 or 3 monthly injection
- Fertility returns 6–9 months after last injection.

Hormonal pills
- Client motivated to take pill daily at the same time.
- Fertility returns once pill is stopped.
- Avoid if unlikely to take pill reliably, on rifampicin or phenytoin, previous breast cancer, heart or liver disease.
- Choose progesterone-only pill if client is breast feeding, smoker > 35 years, BP ≥ 140/90, has migraine with focal symptoms or DVT or pulmonary embolus.

Intrauterine device
- Effective for 10 years
- Fertility returns on removal.
- Avoid if client has multiple partners, had an STI in past 3 months or heavy periods.

Sterilisation
- Permanent contraception
- Surgical procedure
- For men or women
- Refer for assessment.

Method	Instructions for use	Side effects
Injectable • Medroxyprogesterone acetate IM 150mg 12 weekly or • Norethisterone enanthate IM 200mg 8 weekly	• Can start any time in menstrual cycle, if after day 5 of cycle, need to use condoms for 7 days • Reduce interval between norethisterone enanthate injections to 6 weekly if on rifampicin (TB treatment) or phenytoin.	• Amenorrhoea: reassure that this is common. • Spotting: common in first 3 months, check Pap and for STI. Refer if it continues. • Heavy or prolonged bleeding: if newly started, give combined oral contraceptive for 2–3 cycles. If no better refer. • Severe headaches and blurred vision: switch to non-hormonal method. • Weight gain • Acne: switch to non-hormonal method.
Combined oral oestrogen and progesterone pill • Monophasic: levonorgestrel/ethinyl oestradiol 0.15/0.03mg *or* norgestrel/ethinyl oestradiol 0.5/0.05mg • Triphasic: levonorgestrel/ethinyl oestradiol at varying doses through the cycle	• Must be taken every day at the same time. • Use condoms for 7 days if started after day 5 of cycle. • Advise client with diarrhoea/vomiting or on antibiotics to use condoms during illness and for 7 days thereafter.	• Nausea, dizziness: reassure that this will resolve. • Tender breasts: exclude pregnancy, then reassure. • Moodiness: reassure that this should resolve. If client has low mood or not coping as well as before screen for depression/anxiety ↩ 83 and change method. • Amenorrhoea: exclude pregnancy then reassure. • Slight weight gain • Abnormal bleeding: common in first 3 months: ensure correct use, no diarrhoea, vomiting or antibiotics, check Pap, pregnancy and STI. If > 3 months, refer. • Severe headaches: switch to non-hormonal method and ↩ 9.
Oral progesterone pill • Levonorgestrel 0.03mg	• Must be taken at the same time every day. • Start any time in cycle, use condoms for next 7 days. • If breastfeeding, start 6 weeks postpartum	• Abnormal bleeding: common in first 3 months: ensure correct use, no diarrhoea, vomiting or antibiotics, check Pap, pregnancy and STI. If > 3 months, refer. • Mild headaches, nausea, breast tenderness: reassure that these should resolve.
Intrauterine device • CuT 380A	• Is effective for 10 years. • Insert between day 4 and 12 of cycle. If later, exclude pregnancy first.	• Periods may be heavier, longer or more painful. Refer if excessive bleeding occurs after insertion. If client tired check Hb, if < 10 refer to doctor. • If uterus enlarged, exclude pregnancy, do not insert device and refer.

CONTRACEPTION: ROUTINE CARE

Assess the client using contraception

- Follow up the client on pill after 3 months, thereafter 6 monthly. Follow up client with IUCD, 6 weeks after insertion to check strings, thereafter yearly.

Assess	When to assess	Note
Symptoms	Every visit	• Ask about side effects of contraceptive method ↴ 91. • Check for symptoms of STIs: vaginal discharge, ulcers, lower abdominal pain. If present ↴ 23. If sexual problems ↴ 30. • If > 45 years ask about menopausal symptoms: flushing, irregular periods, irritability, tiredness, mood changes ↴ 98. • Manage other symptoms as on symptom pages.
Adherence	Every visit	• Ask about concerns and satisfaction with method. • If client has missed injections or pills, see below to manage.
Medication changes	Every visit	If started TB treatment or anticonvulsants switch to injectable contraceptive or IUCD.
Vaginal bleeding	Every visit	• Exclude pregnancy if missed period in client using IUCD or combined pill. • IUCD and hormonal methods may cause abnormal bleeding. See method to manage ↴ 91.
Breast check	Yearly on pill	If any lumps found in breasts or axillae, refer same week to breast clinic.
Weight	Every visit	If BMI > 25 assess CVD risk ↴ 68.
BP	Every visit on pill	If BP ≥ 130/80 ↴ 73 to interpret result. If BP ≥ 140/90 avoid/change from combined pill.
HIV	Every visit	If status unknown test for HIV ↴ 60. The HIV client needs routine HIV care ↴ 61.
Pap smear	When needed	If HIV negative, 3 smears 10 years apart from age 30. The HIV client needs smear at diagnosis then 3 yearly if normal ↴ 27.

Advise the client using contraception

- Advise client to discuss concerns, problems with contraceptive method and find an alternative, rather than just stopping it and risking an unwanted pregnancy.
- Educate about the availability of emergency contraception ↴ 91 and termination of pregnancy ↴ 94 to prevent unwanted pregnancy.
- Encourage client to have 1 partner at a time and to test for HIV between partners.
- Condoms alone are not entirely reliable contraception but with another method will protect from STIs and HIV. Demonstrate and give male/female condoms.
- Advise client on pill to inform clinician if starting TB treatment or anti-convulsants as these may interfere with pill effectiveness.
- Advise client on pill with diarrhoea/vomiting or on antibiotics to use condoms during illness and for 7 days thereafter.
- Educate client to use contraception reliably. If client has missed pills or injections:

Late injection

- < 2 weeks late: give injection, there is no loss of protection.
- ≥ 2 weeks late: exclude pregnancy. If pregnant →93. If not pregnant, give injection and use condoms for 7 days.
- If unable to exclude pregnancy offer emergency contraception ↴ 91, use condoms for 4 weeks, then give injection if pregnancy test negative.

Missed/late progesterone only pill

- Pill missed or > than 3 hours late: take pill as soon as possible and continue pack and use condoms for 48 hours.
- If ≤ 5 days since unprotected sex, give emergency contraception ↴ 91.

Missed combined oral contraceptive pill

- 1 active pill missed: take pill as soon as remembered and take next 1 at usual time.
- 2 active pills missed: take last missed pill as soon as remembered and next 1 at usual time. Use condoms or abstain for next 7 days.
- 2 or more pills missed in last 7 active pills of pack: omit the inactive tablets and immediately start first active pill of next pack.
- 2 or more pills missed in first 7 active pills of pack and client has had sex: give emergency contraception ↴ 91, restart active pills 12 hours later and use condoms for next 7 days.

THE PREGNANT CLIENT

Recognise the pregnant client needing urgent attention:

- Fitting
- Diastolic BP ≥ 110 and proteinuria: pre-eclampsia
- Diastolic BP ≥ 90 and headache, blurred vision or abdominal pain: pre-eclampsia
- Temperature ≥ 38°C and headache, weakness or back pain
- Difficulty breathing
- Swollen red calf
- Vaginal bleeding
- Decreased/no fetal movements
- Preterm labour: painful contractions, 3 per 10 minutes < 37 weeks
- Preterm prelabour rupture of membranes < 34 weeks

Management:

- If fitting or having difficulty breathing give 40% face mask oxygen. See below.
- If BP < 90/60 give IV normal saline 0.9% rapidly until BP > 90/60.
- If temperature ≥ 38°C give ceftriaxone 1g IM/IV, if unavailable amoxicillin 1g orally. If also a vaginal discharge, give metronidazole 400mg orally as well.
- Manage further according to problem and **refer same day:**

Preterm labour
Determine duration of pregnancy.

< 26 weeks	26–33+ weeks	≥ 34 weeks
Refer into MOU.	• Give betamethasone 12mg IM, record time given in referral letter. • Give 0.9% normal saline 300mℓ IV. • Then give nifedipine 20mg oral, then 10mg after 30 minutes, then 10mg 4 hourly until transferred. • Refer same day.	Allow labour to continue.

Preterm prelabour rupture of membranes

- Confirm amniotic fluid leak with sterile speculum, liquor is alkaline.
- Avoid digital vaginal examination.
- Give betamethasone 12mg IM, record time given in referral letter.
- Refer same day.

Pre-eclampsia

- Give 0.9% normal saline 1ℓ slowly IV.
- Give magnesium sulphate 4g in 200mℓ saline IV over 20 minutes *and* 5g IM in each buttock.
- Insert a urethral catheter and record urine output hourly.
- Stop magnesium sulphate if urine output < 100mℓ in 4 hours or respiratory rate < 16 breaths/minute.
- Check BP after 15 minutes. If diastolic BP still ≥ 110, give nifedipine 10mg to swallow (not chew).
- Repeat BP after 30 minutes. If diastolic BP still ≥ 110, repeat nifedipine 10mg.
- Refer urgently.

Fitting

- Place client in a lateral lying position.
- Avoid placing anything in the mouth.
- Give 40% facemask oxygen.
- Check glucose. If < 3.5 or unable to measure, give 50mℓ of 50% glucose IV.
- Give dextrose 5% in saline 0.9% IV slowly (30 drops per minute).
- Manage further according to gestation:

≥ 20 weeks - up to 1 week post partum: Client has **eclampsia.**	< 20 weeks
• Give magnesium sulphate 4g in 200mℓ normal saline 0.9% IV over 20 minutes *and* 5mg IM in each buttock. Repeat 5g IM 4 hourly in alternate buttocks till transferred to hospital. • Once fit is stopped insert urethral catheter. • Stop magnesium sulphate if urine output < 100mℓ in 4 hours or respiratory rate < 16 breaths/minute. • Refer urgently.	→2

Provide routine antenatal care to the pregnant client not needing urgent attention →94.

THE PREGNANT CLIENT

Does the client want the pregnancy?

No or unsure
- Discuss the options around continuing with pregnancy, choosing adoption or termination of pregnancy (TOP). Refer to social worker.
- Discuss future contraception ↴ 91.
- Determine gestational age by dates and on examination.

Yes
Give routine antenatal care.

Client requests a TOP.

< 20 weeks
- < 12 weeks: book for an on-demand TOP < 12 weeks.
- ≥ 12 weeks: book for assessment for TOP as soon as possible < 20 weeks.

≥ 20 weeks
- TOP not an option.
- Discuss possibility of adoption.
- Give routine antenatal care.

- Client decides to continue with pregnancy.
- Give routine antenatal care.

Identify the pregnant client who needs secondary level antenatal care:
- Current medical problems: diabetes, heart/kidney disease, asthma, epilepsy, on TB treatment, substance abuse, diastolic BP > 90
- Current pregnancy problems: rhesus negative, multiple pregnancy, currently < 16 or > 36 years, vaginal bleeding or pelvic mass
- Previous pregnancy problems: stillbirth or neonatal loss, > 3 consecutive spontaneous abortions, birth weight < 2500g or > 4500g, admission for pre-eclampsia
- Previous admission for hypertension or reproductive tract surgery

If not needing secondary level antenatal care, plan client's routine antenatal care in primary care facility →95.

ROUTINE ANTENATAL CARE

Assess the pregnant client at booking visit and 4 follow-up visits at 20, 26–28, 32–34, 38 weeks.

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as per symptom page.
Estimated date of delivery	Booking visit	• Plot on antenatal card. • If client ≥ 42 weeks, confirm EDD and symphysis-fundal measurement. Refer for fetal evaluation and possible induction of labour.
TB	Every visit	• If cough ≥ 2 weeks, weight loss, poor weight gain or anaemia, check for TB ↴ 55. • If client has TB refer for secondary hospital antenatal care.
Mental health	Every visit	• If 2 or more of: a difficult major life event in last year, unhappy about pregnancy, absent or unsupportive partner, previous depression or anxiety, or experiencing violence at home, screen for depression/anxiety ↴ 81. See also traumatised/abused client ↴ 53. • If taking ≥ 14 units of alcohol/week or misusing illicit or prescription drugs, screen for substance abuse ↴ 83 and refer for secondary hospital antenatal care.
Mid upper arm circumference	Booking visit	• MUAC < 23cm: exclude TB and HIV, check weight at every visit, refer for nutritional support. • MUAC > 33cm: continue routine antenatal care but deliver at secondary hospital. Assess and manage CVD risk ↴ 68.
Abdominal examination	Every visit	• If mass other than uterus in abdomen or pelvis, refer for assessment. • Measure symphysis-fundal distance and plot on antenatal card. Refer for assessment if discrepancy with EDD, <10th or > 90th centiles, or multiple pregnancy likely. • Look for breech presentation. If present at 32/34 and 38 weeks, refer to high risk clinic.
Vaginal discharge	Every visit	• If abnormal discharge, treat for STI ↴ 23. • If discharge is runny, suspect premature rupture of membranes ↴ 93.
BP	Every visit	BP is normal if < 140/90. If raised, repeat after 1 hour rest: • 2nd BP normal: repeat BP after 2 days. • 2nd BP still raised: check urine dipstick for protein: - No proteinuria: start methyldopa 250mg 8 hourly and refer same week to high risk clinic. - ≥ 1+ proteinuria: refer client same day. If abdominal pain, blurred vision, headache, treat for pre-eclampsia →93.
Urine dipstick: test clean, midstream urine	Every visit	• If leucocytes and nitrites in urine treat for complicated urinary tract infection ↴ 31. • If protein in urine and BP < 140/90: if dysuria, frequency, treat for complicated urinary tract infection ↴ 31. Repeat urine dipstick for protein after 2 days - if still 1+ proteinuria and BP < 140/90, refer to the nearest doctor's clinic same week. If BP raised see above. • If glucose in urine, check random blood glucose.
Random blood glucose	If glucose in urine	• If random blood glucose ≥ 11: refer to high risk clinic same day. If glucose > 15 and ketones in urine, give 0.9% normal saline IV 1ℓ 4 hourly and short-acting insulin 10IU IM. • If random blood glucose 8–11, repeat blood glucose after an 8 hour fast. - Fasting blood glucose 6–8: assess and manage CVD risk ↴ 68. Refer to high risk clinic for next antenatal visit. - Fasting blood glucose ≥ 8: refer to high risk clinic same day.
Haemoglobin	Booking visit and if client pale	• Refer to high risk clinic if < 34 weeks and Hb < 8, or ≥ 34 weeks and Hb < 10. • Treat if Hb < 10 ↴ 96. Repeat Hb monthly.
HIV	Booking visit and at 32 weeks if negative	• If status unknown test for HIV ↴ 60. If client refuses, offer at each visit, even in early labour. • If positive give routine HIV care ↴ 61 and prevent mother-to-child transmission of HIV ↴ 96.
CD4, stage	At booking visit if HIV	Prevent transmission of HIV with PMTCT AZT ↴ 96 or ART: if ≥ 14 weeks start AZT and switch to ART if CD4 ≤ 350 or stage 3 or 4.
Rapid rhesus	Booking visit	If rhesus negative refer to high risk clinic.
Rapid syphilis	Booking visit	If positive do RPR and give benzathine penicillin 2.4MU IM single dose and see in 1 week for result ↴ 28.

Advise the pregnant client

- Advise to stop smoking and to stop drinking alcohol.
- Discuss safe sex. Advise client to use condoms throughout pregnancy and have only 1 partner at a time.
- Complete antenatal card and give to client, remind client to bring it to every visit and when in labour.
- Ensure client knows the signs of a pregnancy emergency ↴ 93 and of early labour.
- Ensure HIV client on PMTCT AZT knows symptoms of early labour and that she must get nevirapine in early labour.
- Discuss contraception following delivery ↴ 91.
- Advise HIV negative client to exclusively breastfeed for 6 months.
- Help HIV client decide on feeding choice depending on preference, social or family support, availability and affordability of formula, and access to safe, clean water.

Treat the pregnant client

- Give folic acid 5mg daily.
- Give iron according to Hb. Avoid tea within 2 hours of taking iron tablets.
  - If Hb ≥ 10 give ferrous sulphate compound BPC 170mg daily with food.
  - If Hb < 10 give ferrous sulphate compound BPC 170mg 8 hourly with food, continue for 3 months after Hb > 11, then continue once daily for duration of pregnancy.
- Give the HIV client:
  - Influenza vaccine.
  - Co-trimoxazole 960mg daily if stage 2,3 or 4 or CD4 ≤ 200. Protection from serious opportunistic infection outweighs the small risk to the foetus.
  - If on ART do not stop it. If on efavirenz and in 1st trimester, switch to nevirapine 200mg 12 hourly. After 1st trimester, no need to switch ↴ 61.
  - If not on ART start AZT 300mg 12 hourly straight away if ≥ 14 weeks pregnant. Use throughout pregnancy. If Hb < 8 avoid AZT and refer to doctor.
  - If CD4 ≤ 350 *and/or* stage 3 or 4 HIV start workup for ART ↴ 61. Aim to start within 2 weeks and then switch from PMTCT AZT to 3 ARVs.

Treat the HIV client in labour

HIV positive on ART	HIV client on PMTCT AZT	HIV positive on no treatment
Continue ART throughout delivery.	• Give together during early labour: one tablet of nevirapine 200mg *and* one tablet of combined TDF/FTC 300mg/200mg. • Continue AZT 300mg 3 hourly until delivery.	

- Give **baby born to HIV positive mother** nevirapine syrup (10mg/mℓ) as soon as possible after birth according to weight: < 2.5kg: 1mℓ, ≥ 2.5mℓ: 1.5mℓ.
- If baby vomits within 1 hour, repeat once only at least 1 hour before discharge.

POSTNATAL CARE

Assess the mother 6 hours, 6 days and 6 weeks following delivery

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as on symptom page.
Mental health	Every visit	• If client not interacting with baby and/or 2 or more of: a difficult major life event in last year, unhappy about pregnancy, absent or unsupportive partner, previous depression or anxiety, or experiencing violence at home, screen for depression/anxiety ↴ 81. See also traumatised/abused client ↴ 53. • If taking ≥ 14 units of alcohol/week or misusing illicit or prescription drugs, screen for substance abuse ↴ 83.
Family planning	Every visit	Assess client's family planning needs ↴ 91.
Infant feeding	Every visit	• HIV negative mother: encourage exclusive breastfeeding for 6 months. This means baby gets only breast milk (no formula, water, cereal). • HIV client: suggest exclusive formula feeding if it is affordable, feasible, accessible, safe and sustainable. Check correct mixing. If not, encourage exclusive breast feeding for 6 months. Discourage mixed feeding. • If breastfeeding problems occur ↴ 18.
Baby	Every visit	• Provide care for baby according to IMCI guideline. • If baby born to HIV positive mother, also prevent transmission of HIV, give co-trimoxazole and vitamin A and test for HIV as below.
Uterus	Every visit	If painful abdomen, offensive vaginal discharge, temperature ≥ 38°C or excessive bleeding, give ceftriaxone 1g IV and refer same day.
BP	Every visit	If diastolic ≥ 90, recheck after 1 hour rest, if still raised or any of headache, abdominal pain, blurred vision, refer urgently.
BMI	Every visit	Assess mother's nutritional status. BMI is weight (kg)/[height (m) x height (m)]. If < 18.5, refer for nutritional support.
HIV	If not done	Give ongoing HIV care. Client must not interrupt ART and co-trimoxazole prophylaxis ↴ 61.
CD4	First visit if HIV	If CD4 ≤ 200, client needs ART ↴ 61.

Review baby born of HIV positive mother 3 days post delivery, 2 weekly until 6 months, then monthly until 1year:

- Do weight checks and immunisations as per standard schedule.
- Give co-trimoxazole prophylaxis from 6 weeks, daily according to weight. See adjacent table.
- Give multivitamins containing vitamin A until HIV infection is excluded. If unavailable, give vitamin A.
- Give nevirapine syrup (10mg/mℓ) according to weight and age. See table. Stop nevirapine:
  - 6 weeks after birth if not breastfeeding or mother on ART for > 3 months (even if breastfeeding) *or*
  - 6 weeks after birth and at least 1 week after *last* breastfeed if mother not on ART or on ART < 3 months *or*
  - If diagnosed HIV positive.

Check baby's HIV PCR at 6 weeks.

Positive
- Baby is HIV infected.
- Baby needs confirmatory viral load.
- Continue co-trimoxazole daily.
- Arrange ongoing HIV care and ART workup.

Negative
Has baby been breast fed at all?

Yes
Recheck PCR 6 weeks after last breastfeed.

No
Stop co-trimoxazole and multivitamins.

Do rapid HIV test once over 18 months, at least 6 weeks after last breast feed.

HIV exposed infant until 6 weeks	Nevirapine syrup (10mg/mℓ)
< 2.5kg	1mℓ
≥ 2.5kg	1.5mℓ
PCR negative infant still breastfeeding	
6 weeks–6 months	2mℓ
6–9 months	3mℓ
After 9 months until breastfeeding stops	4mℓ

Weight	Co-trimoxazole dose
< 5kg	2.5mℓ
5 – 9.9kg	5mℓ
10 – 14.9kg	7.5mℓ
15 – 21.9kg	10mℓ or 1 single strength (480mg) tablet
> 22kg	15mℓ or 1.5 – 2 single strength (480mg) tablets

MENOPAUSE

Menopause is the cessation of menstruation for at least 1 year. Most women have menopausal symptoms and irregular periods during the perimenopause.

MENOPAUSE: ROUTINE CARE

Assess the menopausal client

Assess	When to assess	Note
Symptoms	Every visit	• Ask about menopausal symptoms: flushes, sexual problems ↴ 30, sleeping problems ↴ 54, headache ↴ 9, mood changes. • If other TB symptoms like weight loss and cough ≥ 2 weeks, exclude TB ↴ 55. • If low mood or sadness, loss of interest or pleasure, feeling tense, worrying a lot or not coping as well as before, consider depression/anxiety ↴ 81. • Manage other symptoms as on symptom pages.
Vaginal bleeding	Every visit	Refer within 2 weeks if bleeding between periods, after sex or after being period-free for 1 year.
CVD risk	First visit BP 3 monthly on HRT	• Assess CVD risk ↴ 68. • Interpret BP result ↴ 73.
Osteoporosis risk	First visit	If < 60 years with loss of > 3cm in height and fractures of hip, wrist or spine; previous non-traumatic fractures; oral steroid treatment for > 6 months; onset of menopause < 45 years; BMI < 19; Heavy alcohol user; heavy smoker
Family planning	First visit	If < 50 years, give contraception for 2 years after last period; if ≥ 50 years, for 1 year after last period ↴ 91.
Breast check	First visit, yearly on HRT	If any lumps found in breasts or axillae, refer same week to breast clinic.
Pap smear	When needed	If HIV negative, 3 smears 10 years apart from age 30. The HIV client needs smear at diagnosis then 3 yearly if normal ↴ 27.

Advise the menopausal client

- To cope with the flushes, advise client to dress in layers and to decrease alcohol and caffeine intake.
- Help client to manage CVD risk if present ↴ 69.
- If client is having mood changes and/or not coping as well as in the past, refer to counselor, support group or helpline ↴ back page.
- Educate the client about the risks, contraindications and benefits of HRT and that it can be used to treat menopausal symptoms for up to 5 years. Risk of breast cancer, DVT and cardiovascular disease increase with increasing age. 6–12 months after discontinuation risk is equivalent to rest of population.

Treat the menopausal client

- Treat with hormone replacement therapy (HRT) to relieve menopausal symptoms and to prevent osteoporosis in the client at risk. Avoid if abnormal vaginal bleeding, cancer of uterus or breast, previous deep vein thrombosis or pulmonary embolism, recent myocardial infarction, uncontrolled hypertension, liver disease or porphyria: give oestradiol 0.5–1mg daily or conjugated oestrogens 0.3mg–0.625mg. If client has a uterus also give medroxyprogesterone oral 5mg daily. Adjust dose to control menopausal symptoms with minimal side effects.
- Treat vaginal dryness and pain with sex with lubricants (avoid vaseline with condoms). Refer if no better with HRT or HRT contraindicated.
- Review the menopausal client 3 monthly once settled on HRT. Decrease and stop HRT for menopausal women within 5 years, or before 60 years of age.

PREP ROOM ASSESSMENT OF THE CLIENT

Recognise the client needing urgent attention:

- Decreased level of consciousness
- Fitting
- Aggressive, confused or agitated
- Recent sudden weakness
- Chest pain
- Difficulty breathing, breathless while talking
- Unable to walk unaided
- BP ≥ 180/110 or < 90/60 or if pregnant diastolic ≥ 90
- Headache with vomiting
- Overdose of drugs/medication

Assess the client not needing urgent attention in the prep room

Has the client been coughing ≥ 2 weeks?

- Assign the client with cough to the fast track/coughing queue.
- Collect first sputum for TB →55.

Does the client know his/her HIV status?

- If no, urge client to test for HIV.
- If yes and client negative, encourage client to test once a year. Record year last tested in client notes.

If the client is a woman:

- Exclude pregnancy. If late menstrual period do a pregnancy test.
- Check if client needs a Pap smear: if HIV negative, 3 Pap smears in a lifetime, 1 every 10 years from age 30; if HIV positive Pap smear at diagnosis and then if normal 3 yearly. If abnormal smear →27 for next date.

Do prep room tests according to condition:

Is client pregnant or known to have diabetes, hypertension, stroke, ischaemic heart disease or peripheral vascular disease?

Client has hypertension, stroke, ischaemic heart disease and/or peripheral vascular disease.

Check at every visit:
- BP
- Weight
- Waist circumference

- At first visit also check height to calculate BMI.

Check once a year:
- Fingerprick glucose
- Urine dipstick

Client has diabetes.

Check at every visit:
- BP
- Finger prick glucose
- Weight
- Waist circumference
- Urine dipstick *only if* glucose ≥ 15

Check once a year:
- Urine dipstick

Client is pregnant.

Check at every visit:
- Weight
- BP
- Urine dipstick

Also check at booking visit:
- MUAC
- Hb if pale
- Rapid rhesus
- Rapid syphilis

None of the above

The client needs a cardiovascular disease risk calculated every 5 years →68:
- Weight
- Height
- BP
- Finger prick glucose

PROTECT YOURSELF FROM OCCUPATIONAL INFECTION

Adopt measures to diminish your risk of occupational infection

Protect yourself

Adopt hygienic practices
- Wash hands regularly with soap and water. Use alcohol-based hand-cleaner regularly.
- Adopt universal precautions in your approach to all clients.
- Wear gloves when handling specimens.
- Dispose of sharps in the correct manner.

Get vaccinated
- Get vaccinated against hepatitis B.
- All frontline health workers must be vaccinated against influenza.

Know your HIV status
- If status unknown, test for HIV ↴ 60. ART and INH prophylaxis can decrease the risk of TB.
- If HIV positive, you are entitled to work in an area of the facility where exposure to TB is limited.

Wear a face mask
- Wear a N95 respirator when in contact with TB suspects.
- Wear a surgical facemask when in contact with influenza suspects.

Protect your facility

Clean the facility
- Wash all surfaces (including door handles, telephones, keyboards) daily with chlorine disinfectant.

Ensure adequate ventilation
- Regularly clean extractor fans.
- Open windows and use fans to increase air exchange.

Organise waiting areas
- Prevent overcrowding in waiting areas.
- Fast track influenza and TB suspects.

Manage sharps safely
- Ensure sharps containers are easily accessible and regularly replaced.

Manage infection control in the facility
- Appoint an infection control officer for the facility to coordinate and monitor infection control policies.

Approach to possible occupational exposure

TB

Identify TB suspects promptly
- The client with cough ≥ 2 weeks is a TB suspect.
- Separate TB suspects from others in the facility.
- Educate TB suspect about cough hygiene.
- Provide a surgical face mask or tissues to cover mouth and nose to protect others from infection.

Diagnose TB rapidly
- Aim to complete TB workup within 3 to 4 visits.

Protect yourself from TB
- Wear an N95 respirator (not a surgical mask) when in contact with an infectious TB client.

HIV
- If status unknown, test for HIV ↴ 60.
- If HIV negative or unknown, start PEP for 1 month as soon as possible (ideally within 1–2 hours):
  - Give AZT 300mg and 3TC 150mg 12 hourly. Check Hb prior to starting AZT and after 4 weeks. Refer to doctor if Hb < 8.
  - Add LPV/r 400/100mg 12 hourly if high risk: deep injury, large bore or biopsy needle, obvious blood on device, source with AIDS or VL > 100 0000.
- Repeat HIV test at 6 weeks, 3 and then 6 months.
- Advise condom use for 6 months with regular partner.

H1N1 influenza
- Wash hands with soap and water.
- Wearing a surgical face mask over the mouth and nose may be protective when performing procedures on client suspected of influenza.
- Encourage client who coughs and sneezes to cover mouth/nose with a tissue, to ensure used tissues are disposed of correctly and to wash hands regularly with soap and water.
- Advise client with symptoms of influenza to stay indoors and avoid close contact with others.

COMMUNICATING EFFECTIVELY

Communicating effectively with your client during a consultation need not take much time or specialised skills.
Try to use straightforward language and take into account your client's culture and belief system.

Integrate these four communication principles into every consultation:

LISTEN

Listening effectively helps to build an open and trusting relationship with the client.

DO	The client might feel:	DON'T	The client might feel:
- give all your attention - recognise non-verbal behaviour - be honest, open and warm - avoid distractions e.g. phones	- 'I can trust this person' - 'I feel respected and valued' - 'I feel hopeful' - 'I feel heard'	- talk too much - rush the consultation - give advice - interrupt	- 'I am not being listened to' - 'I feel disempowered' - 'I am not valued' - 'I cannot trust this person'

DISCUSS

Discussing a problem and its solution can help the overwhelmed client to develop a manageable plan.

DO	The client might feel:	DON'T	The client might feel:
- use open ended questions - offer information - encourage client to find solutions - respect the client's right to choose	- 'I choose what I want to deal with' - 'I can help myself" - 'I feel supported in my choice' - 'I can cope with my problems'	- force your ideas onto the client - be a 'fix-it' specialist - let the client take on too many problems at once	- 'I am not respected' - 'I am unable to make my own decisions' - 'I am expected to change too fast'

EMPATHISE

Empathy is the ability to imagine and share the client's situation and feelings.

DO	The client might feel:	DON'T	The client might feel:
- listen for, and identify his/her feelings e.g. 'you sound very upset' - allow the client to express emotion - be supportive	- 'I can get through this' - 'I can deal with my situation' - 'My health worker understands me' - 'I feel supported'	- judge, criticise or blame the client - disagree or argue - be uncomfortable with high levels of emotions and burden of the problems	- 'I am being judged' - 'I am too much to deal with' - 'I can't cope' - 'My health worker is unfeeling'

SUMMARISE

Summarising what has been discussed helps to check the client's understanding and to agree on a plan for a solution.

DO	The client might feel:	DON'T	The client might feel:
- get the client to summarise - agree on a plan - offer to write a list of his/her options - offer a follow-up appointment	- 'I can make changes in my life' - 'I have something to work on' - 'I feel supported' - 'I can come back when I need to'	- direct the decisions - be abrupt - force a decision	- 'My health worker disapproves of my decisions' - 'I feel resentful' - 'I feel misunderstood'

HELPLINE NUMBERS

Helpline	Services provided	Contact number/s
General counselling		
Lifeline National Counselling Line	Counselling for any life crisis and referral to relevant services	0861 322 322 (National helpline)
Child line SA (ages 0 – 16 years)	For children and young adolescents who are in crises, abuse or at risk of abuse and violence	0800 055 555 (24 hour toll free)
Abuse		
Stop Gender Violence	Support for children, women and men experiencing domestic violence	0800 150 150 (24 hour toll free)
Safeline	Abuse counselling, court preparation, anti-abuse awareness campaigns and group therapy	0800 035 553 (24 hour toll free)
Rape Crisis	Counselling and court support for rape survivors > 13 years	021 447 97 62 (24 hour service)
Chronic condition		
Arthritis Foundation	Education and monthly support groups for client with arthritis and/or fibromyalgia	0861 30 30 30 (National helpline)
Epilepsy South Africa	Education, counselling and support groups for client with epilepsy and his/her family	0860 37 45 37 (National helpline)
Diabetes South Africa	Education, dietary plans, support groups and workshops for client with diabetes	086 111 3913 (National helpline)
Heart & Stroke Foundation	Education and support groups for client with stroke or any heart condition	0860 223 222 (National helpline) · www.heartfoundation.co.za
National AIDS helpline	Counselling and information for client who has HIV or thinking of testing	0800 012 322 (24 hour national helpline)
Mental health		
S A Depression and Anxiety group	Counselling and support for client with mental illness and/or family with suicide crisis line	0800 567 567 (Toll free service 8am–8pm)
Substance abuse	Counseling for client and family with substance abuse, referral to rehabilitation centre	0800 12 13 14 (24 hour toll free)
Alzheimer's South Africa	Information, training and support groups for carers	0860 102 681 (National helpline) · www.alzheimers.org.za
Alcoholics Anonymous	Counseling, education and support groups for client with alcohol abuse	0861 435 722 (24 hours/day, 7 days a week)
Health worker		
Drug and Poisoning	Advice on the management of exposure to or ingestion of poisonous substances	021 689 5227 and 021 931 6129 both 24 hours a day, 7 days a week
National HIV & TB Health Care Worker Hotline	For HIV and TB related clinical queries	0800 212 506 (24 hour toll free)
Medicines Information Centre	Advice on medicine related query like drug interactions, side effects, dosage, treatment failure	021 4066829
Administration		
Legal Aid Advice line	Information and guidance on any legal matter	0861 053 423 (National helpline)
The Consumer Protector	Guidance on any unfair consumer related practice	0800 007 081 (Toll free 8am–6pm Monday to Friday)
Medic Alert	Assistance with application for Medic Alert disc or bracelet	086 111 2979
Your helplines		

primary care 101

Integrated guideline | On-site training

Primary Care 101 is an expansion of the PALSA PLUS (Practical Approach to Lung Health and HIV/AIDS) guidelines. It covers the management of common symptoms and chronic conditions in adults 15 years or older attending public-sector primary care facilities in South Africa.

PALSA PLUS covered the diagnosis and management of respiratory conditions, including TB, HIV/AIDS and STIs. Primary Care 101 now extends that approach to chronic diseases of lifestyle, mental health, epilepsy, musculoskeletal conditions and women's health, including antenatal care.

It aims to bring together all national guidelines and policies into a single easy-to-use format that can be readily applied to adults presenting to primary care with symptoms, or attending for review of their chronic condition or conditions. It is compliant with the National Essential Drug List and Standard Treatment Guidelines for Primary Care (2008) and provincial policies where relevant.

During piloting of the guideline in selected facilities in the Eden and Overberg Districts, prescribing provisions for nurses managing clients with chronic diseases will be expanded. These changes have been approved by the Western Cape Provincial and Pharmaceutical Committee and District Managers.

The guideline was expanded over a period of 5 years with substantial input from managers, clinicians and academics, many from the Western Cape (see Contributors list inside front cover). A more thorough explanation of the development process and role of contributors can be found at *www.knowledgetranslation.co.za*. It will be revised before any decision is made to expand its implementation within or outside of the Western Cape province.

This 2011/12 Primary Care 101 guideline was compiled by the Knowledge Translation Unit, University of Cape Town Lung Institute. The Knowledge Translation Unit declares it has no competing interests in pharmaceutical companies or other corporations whose products or services are related to the guideline topics. This work was in part funded by the National and Western Cape Departments of Health, and reflects their policies and guidelines for primary care.

www.lunginstitute.co.za (link Knowledge Translation)