

Doctrines (principles & strategies) for prevention of communicable diseases

Below are the core, evidence-based **doctrines** (public-health principles and programmatic strategies) used to prevent and control communicable diseases in sub-Saharan Africa and underserved communities — with a short explanation of each and why it matters.

1. **Surveillance & early warning** — continuous, community-linked disease surveillance (case detection, lab confirmation, reporting) so outbreaks are detected fast and responses are targeted. Timely surveillance drives all other actions (vaccination, WASH, case management). [World Health Organization+1](#)
2. **Vaccination & immunization programs** — routine immunization, mass campaigns and targeted vaccine rollouts (including new vaccines such as malaria vaccines) to reduce incidence and mortality. Vaccination remains one of the most cost-effective prevention doctrines. [World Health Organization+1](#)
3. **Infection prevention & control (IPC) in health facilities** — standard precautions, triage, personal protective equipment (PPE), waste management and safe injection practices to prevent nosocomial transmission. (Critical in outbreaks and routine care.)
4. **Water, sanitation & hygiene (WASH)** — safe water supply, basic sanitation, hand hygiene and food safety to prevent water- and fecal-oral diseases (diarrhoeas, cholera, typhoid). WASH is foundational for preventing many deadly outbreaks. [World Health Organization](#)
5. **Vector control** — insecticide-treated nets (ITNs), indoor residual spraying (IRS), larval source management and environmental modification to reduce mosquito-borne disease (malaria, dengue). [World Health Organization](#)
6. **Community engagement & health education** — culturally appropriate communication, local leadership involvement, behaviour change strategies (hand-washing, bed-net use, care-seeking). Successful interventions are community-owned.
7. **Case finding, testing & timely treatment** — broadened testing (diagnostics), prompt effective treatment (e.g., ACTs for malaria, antibiotics for severe bacterial infections, ART for HIV). Early treatment reduces transmission and deaths. [World Health Organization+1](#)
8. **Antimicrobial stewardship & diagnostics** — rational use of antibiotics/antimalarials and improved diagnostics to limit resistance and preserve effective drugs.

9. **One Health approach** — integrate human, animal and environmental health surveillance/interventions where zoonoses (e.g., Rift Valley fever, some viral haemorrhagic fevers) are a threat.
 10. **Outbreak preparedness & rapid response (surge capacity)** — stockpiles (ORS, IV fluids, antibiotics, vaccines), trained rapid-response teams, logistics, and risk communication plans.
 11. **Preventive chemotherapy & mass drug administration (MDA)** — regular, large-scale distribution of safe, single-dose medicines to control/eliminate some neglected tropical diseases (NTDs). [World Health Organization](#)
 12. **Social determinants & health systems strengthening** — improve access to primary care, maternal/child services, nutrition, and reduce poverty and displacement — because underlying determinants drive vulnerability.
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Most common communicable diseases in sub-Saharan Africa & underserved communities — quick reference (with typical treatments and most-affected regions)

Note: the lists below focus on diseases that consistently account for large burdens in sub-Saharan Africa and in underserved (rural, urban informal, conflict-affected) settings.

1) Malaria

- **Why important:** Leading cause of child illness and death in sub-Saharan Africa; most deaths in young children. [World Health Organization+1](#)
- **Usual treatment / control:** Artemisinin-based combination therapies (ACTs) for uncomplicated malaria; intravenous artesunate for severe malaria; prevention: insecticide-treated nets (ITNs), indoor residual spraying (IRS), seasonal chemoprevention in seasonal settings, and now WHO-recommended malaria vaccines (RTS,S & R21) as complementary tools. [World Health Organization+1](#)
- **Most affected regions / hotspots:** High burden across much of West and Central Africa (Nigeria, Democratic Republic of the Congo, Uganda), parts of East and Southern Africa. Recent WHO reports show the African Region carries the vast majority of cases and deaths. [World Health Organization+1](#)

2) HIV / AIDS

- **Why important:** High prevalence in many countries; concentrated epidemics among key populations; large effect on mortality and TB interaction. [UNAIDS](#)

- **Usual treatment / control:** Lifelong antiretroviral therapy (ART) to suppress viral load and prevent transmission; prevention: condom programs, voluntary medical male circumcision, PrEP for high-risk groups, PMTCT (prevention of mother-to-child transmission). [UNAIDS](#)
- **Most affected regions / hotspots:** Southern Africa has several of the highest national prevalences (e.g., Eswatini, Lesotho, South Africa); sub-Saharan Africa overall accounts for the majority of global new infections, especially affecting adolescent girls and young women in many countries. [UNAIDS](#)

3) Tuberculosis (TB)

- **Why important:** Large burden with high mortality; TB/HIV coinfection increases risk. [WHO | Regional Office for Africa](#)
- **Usual treatment / control:** Standard multi-drug therapy (6 months for drug-susceptible TB: isoniazid, rifampicin, pyrazinamide, ethambutol); directly observed therapy (where used); treatment regimens for drug-resistant TB; active case finding, contact tracing, BCG vaccination for children. [WHO | Regional Office for Africa](#)
- **Most affected regions / hotspots:** Several high-burden countries in West, Central and Southern Africa (Nigeria, South Africa, DRC); African Region carries a disproportionate share of TB deaths. [WHO | Regional Office for Africa](#)

4) Diarrhoeal diseases (including cholera, rotavirus, typhoid)

- **Why important:** Major cause of child mortality (dehydration, malnutrition); cholera causes explosive outbreaks in settings with poor WASH and displacement. [World Health Organization+1](#)
- **Usual treatment / control:** Oral rehydration solution (ORS) for most cases; IV fluids for severe dehydration; zinc for children; antibiotics for some bacterial causes (e.g., severe cholera, severe typhoid); vaccines where available (oral cholera vaccine, rotavirus vaccine, typhoid conjugate vaccine); improved WASH. [World Health Organization+1](#)
- **Most affected regions / hotspots:** Outbreaks occur across West and Central Africa (recent large cholera outbreaks in DRC, South Sudan, parts of the Sahel), and any area with compromised water/sanitation (refugee camps, informal settlements). [Reuters+1](#)

5) Acute respiratory infections / pneumonia (including measles complications)

- **Why important:** Leading cause of under-5 morbidity and mortality; outbreaks of measles are particularly dangerous in under-immunized communities.
- **Usual treatment / control:** Supportive care, antibiotics for bacterial pneumonia (e.g., amoxicillin for uncomplicated cases), oxygen therapy where needed; vaccination (pneumococcal conjugate vaccine, Hib, measles vaccine) and improved nutrition.
- **Most affected regions / hotspots:** Widespread across sub-Saharan Africa; under-immunized and displaced populations are at higher risk.

6) Measles

- **Why important:** Highly contagious; severe in malnourished and unvaccinated children; periodic large outbreaks where vaccination coverage drops.
- **Usual treatment / control:** Supportive care (vitamin A, hydration, treat complications), outbreak response immunization (mass vaccination).
- **Most affected regions / hotspots:** Wherever routine immunization coverage is low — frequently in parts of Central and East Africa and in conflict/displaced settings.

7) Viral haemorrhagic fevers (Ebola, Lassa and others)

- **Why important:** Sporadic but severe outbreaks with high case-fatality; require rapid detection and strict IPC.
- **Usual treatment / control:** Supportive care, experimental/approved therapeutics where available (e.g., monoclonal antibodies for Ebola), vaccines for some (Ebola vaccine); strict isolation, contact tracing, safe burials, ring vaccination.
- **Most affected regions / hotspots:** Ebola: parts of Central & West Africa (DRC, Guinea, Liberia, Sierra Leone historically); Lassa: West Africa (Nigeria, Sierra Leone, Liberia).

8) Neglected tropical diseases (NTDs) — e.g., schistosomiasis, onchocerciasis, lymphatic filariasis, soil-transmitted helminths, trachoma

- **Why important:** Chronic morbidity, disability, lost productivity; widespread in rural and poor urban areas. [World Health Organization](#)
- **Usual treatment / control:** Preventive chemotherapy / MDA (e.g., praziquantel for schisto, ivermectin for onchocerciasis), vector control, improved WASH, surgical interventions for advanced disease (e.g., hydrocele surgery), community-based delivery. [World Health Organization](#)

- **Most affected regions / hotspots:** Widespread across sub-Saharan Africa; focal hotspots vary by disease (riverine zones for schisto/oncho, arid zones for trachoma).

9) Hepatitis B & other vaccine-preventable bloodborne infections

- **Why important:** Chronic liver disease and cancer risk; vertical transmission major route in Africa.
- **Usual treatment / control:** Hepatitis B vaccine at birth and in routine schedules; antiviral therapy for chronic hepatitis where available; safe blood/transfusion practices.
- **Most affected regions / hotspots:** Across sub-Saharan Africa, especially where birth-dose coverage is low.

10) Typhoid fever

- **Why important:** Endemic in areas with poor sanitation; outbreaks possible.
- **Usual treatment / control:** Effective antibiotics (guided by local resistance patterns); typhoid conjugate vaccines for prevention; WASH improvements.
- **Most affected regions / hotspots:** Urban slums and areas with contaminated water supplies across many African countries.

Short disease → treatment cheat-sheet (concise)

- **Malaria:** ACTs (e.g., artemether-lumefantrine); IV artesunate for severe; ITNs/IRS; vaccines RTS,S & R21 as preventive tools. [World Health Organization+1](#)
- **HIV:** Lifelong ART (e.g., dolutegravir-based regimens), PMTCT, PrEP for prevention. [UNAIDS](#)
- **TB:** 6-month first-line regimen (HRZE), longer/second-line for MDR/RR-TB; active case finding and TB/HIV integrated care. [WHO | Regional Office for Africa](#)
- **Cholera / severe diarrhoea:** ORS first; IV fluids for severe dehydration; antibiotics in severe cholera; oral cholera vaccine for outbreak control. [World Health Organization+1](#)
- **Pneumonia:** Oral amoxicillin for uncomplicated bacterial pneumonia; oxygen therapy & hospital care for severe cases; PCV and Hib vaccines prevent many cases.
- **Measles:** Supportive care + vitamin A; mass immunization to stop outbreaks.

- **Ebola / VHF:** Isolation; supportive care; targeted therapeutics & vaccines where available; strict IPC and safe burial practices.
 - **NTDs (schisto, oncho, STH, LF):** Preventive chemotherapy (praziquantel, ivermectin, albendazole/mebendazole), MDA campaigns, WASH. [World Health Organization](#)
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Regions most affected — quick map (broad strokes)

- **West & Central Africa:** High burdens of malaria, cholera outbreaks, NTDs, pockets of high TB and ongoing HIV epidemics; frequent cholera and meningitis outbreaks in Sahel + DRC cholera crises. [Reuters+1](#)
 - **Southern Africa:** Very high HIV prevalence (several countries), significant TB burden (often TB/HIV co-epidemic). [UNAIDS+1](#)
 - **East Africa & Horn:** High malaria in many areas, cholera outbreaks, NTDs; displacement amplifies risk.
 - **Sahel / meningitis belt:** Periodic meningitis epidemics, cholera and measles outbreaks, limited WASH.
 - **Urban informal settlements & refugee/displacement camps across regions:** Elevated risk for diarrhoeal disease, respiratory outbreaks, measles, cholera, TB and NTD transmission due to crowding and poor services.
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Practical program priorities for underserved settings (what to implement first)

1. **Protect children under 5:** vaccine coverage (EPI), bed nets, nutrition, ORS/Zinc access.
2. **Ensure WASH + safe water access** to cut diarrhoeal disease and cholera. [World Health Organization](#)
3. **Strengthen community surveillance & rapid response** (train community health workers). [World Health Organization](#)
4. **Scale access to essential medicines & diagnostics** (ACTs, ORS, antibiotics, ART, TB drugs).
5. **Roll out targeted vaccination when feasible** (measles campaigns, cholera OCV in hotspots, malaria vaccines in high transmission areas). [Gavi+1](#)

for Africa.

✓ 1. MALARIA (*Plasmodium falciparum* – most common in Africa)

First-line treatment (uncomplicated malaria):

- **ACTs (Artemisinin-Based Combination Therapies):**
 - **Artemether–Lumefantrine (AL / Coartem)** – MOST WIDELY USED IN AFRICA
 - **Artesunate–Amodiaquine (ASAQ)**
 - **Dihydroartemisinin–Piperaquine (DHA-PPQ)**
 - **Artesunate–Mefloquine**

Severe malaria:

- **Intravenous (IV) Artesunate** – gold standard
- Followed by a full course of an ACT

Preventive medicines:

- **Intermittent Preventive Treatment in Pregnancy (IPTp):**
 - Sulfadoxine–Pyrimethamine (SP)
- **Seasonal Malaria Chemoprevention (SMC):**
 - Amodiaquine + Sulfadoxine–Pyrimethamine
- **Vaccines:** RTS,S and R21 (not treatment but essential prevention)

✓ 2. HIV/AIDS

First-line ART regimens (Africa standard):

- **Dolutegravir-based regimens (preferred)**
 - **TLD:** Tenofovir + Lamivudine + Dolutegravir
 - **TDF + 3TC + DTG** (most countries use this)

Second-line ART:

- **Atazanavir/ritonavir (ATV/r)**
- **Lopinavir/ritonavir (LPV/r)**
- **Darunavir/ritonavir (DRV/r)**
- Paired with **AZT + 3TC** or **TDF + 3TC**

Prevention (medications):

- **PrEP:** Tenofovir + Emtricitabine (TDF/FTC)
- **PEP:** 28-day ART (usually DTG + TDF/3TC)

✓ 3. TUBERCULOSIS (TB)

Drug-susceptible TB – Standard 6-month regimen:

- **2 months:** HRZE
 - **H** = Isoniazid
 - **R** = Rifampicin
 - **Z** = Pyrazinamide
 - **E** = Ethambutol
- **4 months:** HR (Isoniazid + Rifampicin)

Drug-resistant TB (MDR-TB):

- **Bedaquiline** (key WHO drug)
- **Linezolid**
- **Levofloxacin / Moxifloxacin**
- **Clofazimine**
- **Cycloserine**
- **Delamanid** (in some regions)

✓ 4. Cholera

Main treatment:

- **Oral Rehydration Salts (ORS)**
- **IV Ringer's Lactate** for severe dehydration

Antibiotics (only for severe cases):

- **Doxycycline** (single dose)
- **Azithromycin**
- **Ciprofloxacin** (resistance varies; used selectively)

Prevention (vaccine):

- **Oral Cholera Vaccines:** Shanchol, Euvichol-Plus
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✓ 5. Acute Diarrhoeal Diseases (non-cholera)

General treatment:

- **ORS**
- **Zinc (10–20 mg/day for 10–14 days)**
- **IV fluids for severe cases**

If bacterial cause (physician-guided):

- **Azithromycin**
- **Ciprofloxacin**
- **Ceftriaxone** (severe dysentery)

Rotavirus:

- No antiviral → supportive care
 - Prevention: Rotavirus vaccine
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✓ 6. Typhoid Fever

First-line treatment in Africa:

(depends on resistance patterns)

- **Azithromycin**

- **Ceftriaxone** (IV)
- **Cefotaxime**
- **Ciprofloxacin** (limited because of resistance)

Prevention:

- **Typhoid conjugate vaccine (TCV)**
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✓ 7. Pneumonia (Child & Adult)

First-line for community-acquired pneumonia:

- **Amoxicillin** (most common in Africa)
- **Ampicillin** (hospital)
- **Benzylpenicillin**

Severe cases:

- **Ceftriaxone**
- **Cefotaxime**
- **Azithromycin** (atypical pathogens)
- **Oxygen therapy**

Preventive vaccines:

- **PCV (Pneumococcal Conjugate Vaccine)**
 - **Hib vaccine**
 - **Measles vaccine**
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✓ 8. Measles

(No antiviral medicine exists.)

Treatment is supportive:

- **Vitamin A**
- **Fluids**

- **Antibiotics if secondary pneumonia develops**

Prevention (critical):

- **Measles vaccine** (MCV-1 and MCV-2)
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✓ 9. Viral Hemorrhagic Fevers (Ebola, Lassa, Marburg)

Ebola:

- **Monoclonal antibody therapies:**
 - **Inmazeb (REGN-EB3)**
 - **Ebanga (mAb114)**
- **Supportive care:** IV fluids, electrolytes, oxygen

Lassa Fever:

- **Ribavirin** (effective when given early)

Marburg:

- No approved antiviral → supportive care only
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✓ 10. Schistosomiasis

Treatment:

- **Praziquantel** (single dose)
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✓ 11. Onchocerciasis (“River Blindness”)

Treatment:

- **Ivermectin** (annual or biannual MDA)
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✓ 12. Lymphatic Filariasis

Treatment:

- **Ivermectin + Albendazole** (in most of Africa)

- **Diethylcarbamazine (DEC)** is used **outside** Africa (contraindicated where onchocerciasis co-exists)
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✓ **13. Soil-Transmitted Helminths (Roundworm, Hookworm, Whipworm)**

Treatment:

- **Albendazole**
 - **Mebendazole**
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✓ **14. Trachoma**

Treatment (SAFE Strategy):

- **S – Surgery** for trichiasis
 - **A – Antibiotics: Azithromycin** (mass drug administration)
 - **F – Facial cleanliness**
 - **E – Environmental sanitation**
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✓ **15. Hepatitis B**

Chronic Hepatitis B antiviral therapy:

- **Tenofovir (TDF)**
- **Entecavir**

Prevention:

- **Hepatitis B birth-dose vaccine**
 - **3-dose routine vaccination**
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COMMUNICABLE DISEASE TREATMENT TABLE (Africa – Sub-Saharan Focus)

Disease	First-Line Drug(s)	Typical Dose (Adults/Children)	Most Affected Regions in Africa
Malaria (Plasmodium falciparum)	Artemether–Lumefantrine (AL), Artesunate–Amodiaquine, DHA-Piperaquine	AL: 20/120 mg × 6 doses over 3 days (weight-based for children)	West, Central, East Africa; highest: Nigeria, DRC, Uganda, Mozambique
Severe Malaria	IV Artesunate	2.4 mg/kg at 0h, 12h, 24h , then daily until oral ACT	Same as above; high in rural + conflict zones
HIV/AIDS	TLD (Tenofovir + Lamivudine + Dolutegravir)	1 tablet daily	Southern Africa (South Africa, Lesotho, Eswatini), East Africa
TB (Drug-Susceptible)	HRZE → HR	2 months H 5 mg/kg + R 10 mg/kg + Z 25 mg/kg + E 15 mg/kg , then 4 months H+R	South Africa, Nigeria, DRC, Ethiopia
MDR-TB	Bedaquiline, Linezolid, Levofloxacin, Clofazimine	WHO short regimen 6–9 months (dose varies)	Southern Africa, West Africa
Cholera	ORS; Azithromycin/Doxycycline for severe cases	ORS ad lib; Azithromycin 1g single dose OR Doxycycline 300 mg single dose	DRC, Mozambique, Malawi, South Sudan, Nigeria
Acute Diarrhoea (non-cholera)	ORS + Zinc; Azithromycin if bacterial	Zinc: 20 mg/day × 10–14 days	All SSA; highest child mortality in West & Central Africa

Disease	First-Line Drug(s)	Typical Dose (Adults/Children)	Most Affected Regions in Africa
Typhoid Fever	Azithromycin; Ceftriaxone	Azithromycin 1g day 1 then 500 mg daily × 6 days OR Ceftriaxone 1–2 g daily × 10–14 days	Urban slums in East & West Africa (Kenya, Nigeria, DRC)
Pneumonia (community)	Amoxicillin	500 mg TID × 5–7 days (child dose: 40–50 mg/kg/day divided)	All SSA; severe in Sahel, Horn, and under-immunized pockets
Severe Pneumonia	Ceftriaxone	1–2 g IV daily	Same as above
Measles	Vitamin A; supportive care	Vitamin A 200,000 IU day 1 & 2	DRC, Ethiopia, Somalia, South Sudan
Ebola	mAb114 (Ebanga), REGN-EB3 (Inmazeb)	Given IV in specialized centers	DRC, Guinea, Uganda
Lassa Fever	Ribavirin	Weight-based; IV loading then maintenance	Nigeria, Sierra Leone, Liberia
Schistosomiasis	Praziquantel	40 mg/kg single dose	Lake/river regions: Tanzania, Uganda, DRC, Côte d'Ivoire
Onchocerciasis	Ivermectin	150 µg/kg annually or biannually	West & Central Africa (Nigeria, Cameroon, DRC)

Disease	First-Line Drug(s)	Typical Dose (Adults/Children)	Most Affected Regions in Africa
Lymphatic Filariasis	Ivermectin + Albendazole	Ivermectin 150 µg/kg + Albendazole 400 mg yearly	West Africa, Tanzania, Mozambique
Soil-Transmitted Helminths	Albendazole, Mebendazole	Albendazole 400 mg single dose	Everywhere; high in East & Central Africa
Trachoma	Azithromycin (MDA)	20 mg/kg single dose annually	Ethiopia, South Sudan, Kenya
Hepatitis B (Chronic)	Tenofovir or Entecavir	Tenofovir 300 mg daily	West Africa, Central Africa

EXPANDED COMMUNICABLE DISEASE TABLE (Sub-Saharan Africa)

1. MALARIA (*Plasmodium falciparum*)

Symptoms

- Fever, chills, sweating
- Headache, muscle aches
- Anemia, jaundice
- Severe: seizures, coma, respiratory distress

Diagnostics

- **Rapid Diagnostic Test (RDT)**
- **Microscopy (thick & thin blood smears)**
- **Severe malaria:** blood lactate, renal tests

First-line Treatment

- **Artemether–Lumefantrine (AL)**
- Artesunate–Amodiaquine
- Dihydroartemisinin–Piperaquine

Second-line Treatment

- **Quinine + Doxycycline / Clindamycin**
- **Atovaquone–Proguanil** (where available)

Contraindications

- Doxycycline: **not for pregnancy or <8 years**
- Quinine: caution in arrhythmias

Affected Regions

Nigeria, DRC, Mozambique, Uganda, Tanzania, Burkina Faso, Malawi

2. SEVERE MALARIA

Symptoms

- Altered consciousness
- Severe anemia
- Hypoglycemia
- Respiratory distress, seizures

Diagnostics

- Same as above + severe markers (lactate, transfusion need)

First-line Treatment

- **IV Artesunate**

Second-line Treatment

- IV Quinine (if artesunate unavailable)

Contraindications

- Quinine: cardiac monitoring required

- Avoid IM quinine when possible (risk of nerve damage)

Regions

Same as above; especially rural areas.

3. HIV/AIDS

Symptoms

- Chronic fever, weight loss
- Chronic diarrhea
- Opportunistic infections

Diagnostics

- **HIV rapid tests (dual algorithm)**
- **PCR** for infants
- CD4 count, viral load

First-line Treatment

- **TLD** (Tenofovir + Lamivudine + Dolutegravir)

Second-line Treatment

- Atazanavir/r + TDF/3TC
- Lopinavir/r + AZT/3TC
- Darunavir/r (3rd line)

Contraindications

- Tenofovir: caution in renal failure
- Dolutegravir: safe in pregnancy

Regions

Southern Africa (highest), East Africa, parts of West Africa

4. TUBERCULOSIS (Drug-Susceptible)

Symptoms

- Chronic cough (>2 weeks)
- Night sweats
- Weight loss
- Hemoptysis

Diagnostics

- **GeneXpert MTB/RIF** (preferred)
- Sputum smear microscopy
- Chest X-ray

First-line Treatment

- 2HRZE / 4HR (6-month regimen)

Second-line Treatment

- Extended therapy if complications
- Add streptomycin if indicated (rare)

Contraindications

- Isoniazid: liver disease
- Rifampicin: interacts with ART
- Pyrazinamide: avoid in severe liver disease

Regions

South Africa, Nigeria, Ethiopia, DRC

5. MDR-TB

Symptoms

Same as TB but resistant to treatment.

Diagnostics

- Xpert MTB/RIF (rifampicin resistance)

- Culture + DST
- Line probe assay

First-line Treatment (WHO Short Regimen)

- Bedaquiline
- Levofloxacin
- Clofazimine
- Linezolid
- Pyrazinamide
- Cycloserine

Second-line Treatment

- Delamanid
- High-dose Moxifloxacin

Contraindications

- Bedaquiline: QT prolongation
- Linezolid: bone marrow suppression

Regions

Southern Africa, West Africa

6. CHOLERA

Symptoms

- Profuse watery diarrhea (“rice-water stools”)
- Severe dehydration
- Vomiting

Diagnostics

- Clinical
- Stool culture (confirmation)

- Rapid tests in outbreaks

First-line Treatment

- **ORS**
- IV Ringer's Lactate for severe dehydration
- Azithromycin (severe cases)

Second-line Treatment

- Doxycycline
- Ciprofloxacin (resistance common)

Contraindications

- Doxycycline: avoid in pregnancy/children
- Ciprofloxacin: rising resistance

Regions

Mozambique, Malawi, DRC, Nigeria

7. ACUTE DIARRHOEAL DISEASES (non-cholera)

Symptoms

- Diarrhea
- Fever
- Vomiting

Diagnostics

- Clinical
- Stool microscopy (if dysentery)

First-line Treatment

- ORS
- Zinc (children)
- Azithromycin if bacterial

Second-line

- Ciprofloxacin
- Ceftriaxone for severe dysentery

Contraindications

- Loperamide not used in bloody diarrhea

Regions

All SSA

8. TYPHOID FEVER

Symptoms

- Prolonged fever
- Abdominal pain
- Rose spots
- Relative bradycardia

Diagnostics

- Blood culture (gold standard)
- Widal test (not reliable)

First-line Treatment

- Azithromycin
- Ceftriaxone

Second-line Treatment

- Ciprofloxacin (resistance common)

Contraindications

- Fluoroquinolones: avoid in pregnancy

Regions

Nigeria, Kenya, DRC, Ghana

9. PNEUMONIA (CHILD & ADULT)

Symptoms

- Cough, fever
- Chest indrawing (children)
- Fast breathing
- Hypoxia

Diagnostics

- Clinical (IMCI)
- Chest X-ray
- Pulse oximetry

First-line Treatment

- Amoxicillin

Second-line Treatment

- Ceftriaxone
- Azithromycin (atypical)

Contraindications

- Amoxicillin: penicillin allergy

Regions

All SSA; high in Sahel & Horn

10. MEASLES

Symptoms

- Fever
- Rash
- Cough, coryza, conjunctivitis

- Koplik spots

Diagnostics

- Clinical
- IgM serology

First-line Treatment

- Vitamin A
- Fluids
- Antibiotics if pneumonia develops

Second-line Treatment

- None (no antiviral)

Contraindications

- Vitamin A: avoid overdose

Regions

DRC, Ethiopia, Somalia

11. EBOLA

Symptoms

- Fever
- Diarrhea/vomiting
- Bleeding
- Shock

Diagnostics

- PCR (gold standard)
- Antigen RDTs (triage)

First-line Treatment

- Inmazeb (REGN-EB3)

- Ebanga (mAb114)

Second-line

- Supportive: fluids, electrolytes, oxygen

Contraindications

- None in emergency treatment

Regions

DRC, Uganda, Guinea

12. LASSA FEVER**Symptoms**

- Fever
- Chest pain
- Bleeding
- Deafness (late)

Diagnostics

- PCR
- Serology (IgM/IgG)

First-line Treatment

- Ribavirin (if early)

Second-line

- Supportive care

Contraindications

- Ribavirin: teratogenic (avoid in pregnancy unless lifesaving)

Regions

Nigeria, Sierra Leone, Liberia

13. SCHISTOSOMIASIS

Symptoms

- Blood in urine (S. haematobium)
- Abdominal pain
- Hepatosplenomegaly
- Diarrhea

Diagnostics

- Urine microscopy
- Stool microscopy
- Serology

First-line Treatment

- Praziquantel

Second-line

- Higher repeated doses for heavy infections

Contraindications

- None major; caution in severe liver disease

Regions

Great Lakes region, Lake Victoria Basin, West Africa

14. ONCHOCERCIASIS

Symptoms

- Skin itching
- Skin depigmentation
- Eye lesions → blindness

Diagnostics

- Skin snip microscopy

- Eye exam

First-line Treatment

- Ivermectin (annual or biannual)

Second-line

- Doxycycline (kills Wolbachia bacteria)

Contraindications

- Ivermectin: avoid in children <5 years & pregnant women

Regions

West & Central Africa

15. LYMPHATIC FILARIASIS

Symptoms

- Lymphedema
- Elephantiasis
- Hydrocele

Diagnostics

- Night blood smear
- Filarial antigen tests

First-line Treatment

- Ivermectin + Albendazole

Second-line

- DEC (not used in Africa due to onchocerciasis overlap)

Contraindications

- DEC: dangerous in onchocerciasis regions

Regions

West Africa, East Africa pockets

16. SOIL-TRANSMITTED HELMINTHS

Symptoms

- Abdominal pain
- Anemia
- Growth delay (children)

Diagnostics

- Stool microscopy (Kato-Katz)

First-line Treatment

- Albendazole
- Mebendazole

Second-line

- Pyrantel (less common)

Contraindications

- Avoid during 1st trimester pregnancy

Regions

All SSA

17. TRACHOMA

Symptoms

- Eye redness
- Eyelid scarring
- In-turned eyelids (trichiasis)

Diagnostics

- Clinical exam
- Photography grading (WHO)

First-line Treatment

- Azithromycin (MDA)

Second-line

- Tetracycline eye ointment

Contraindications

- Azithromycin safe except in severe liver disease

Regions

FIELD MANUAL FOR COMMUNITY HEALTH WORKERS

Communicable Diseases – Sub-Saharan Africa

A rapid-reference guide with symptoms, diagnosis, first-line treatment, danger signs, and community actions.

1. MALARIA

Key Symptoms

- Fever, chills, sweating
- Headache, vomiting
- Weakness
- In children: refusal to eat, convulsions

Diagnosis

- **RDT** (Rapid Diagnostic Test)
- **Blood smear** (if available)

Treatment

- **Uncomplicated:**
 - **Artemether–Lumefantrine (AL)**
 - Adult: 6 doses over 3 days

- Child: weight-based
- **Severe:**
 - **IV Artesunate** (refer to facility immediately)

Danger Signs – Refer Immediately

- Convulsions
 - Severe vomiting
 - Inability to drink
 - Yellow eyes
 - Difficulty breathing
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2. HIV/AIDS

Symptoms

- Chronic weight loss
- Persistent fever
- Recurrent infections
- Oral thrush

Diagnosis

- HIV rapid test (two-test algorithm)
- PCR for infants

Treatment

- **TLD regimen:** 1 tablet daily
(Tenofovir + Lamivudine + Dolutegravir)

Danger Signs

- Severe weakness
- Shortness of breath
- Severe diarrhea

- Signs of TB

Community Actions

- Ensure drug adherence
 - Encourage partner testing
 - Encourage nutrition counseling
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3. TUBERCULOSIS (TB)

Symptoms

- Cough >2 weeks
- Night sweats
- Weight loss
- Chest pain

Diagnosis

- **GeneXpert** (preferred)
- Sputum smear microscopy

Treatment

- **HRZE regimen (2 months)**
- **HR regimen (4 months)**

Danger Signs

- Coughing blood
- Severe breathlessness
- Extreme weakness

Community Actions

- Trace contacts
- Encourage completion of 6-month course
- Reduce stigma

4. CHOLERA

Symptoms

- Sudden watery diarrhea
- Dehydration
- Leg cramps

Diagnosis

- Clinical diagnosis in outbreaks
- Stool test (if available)

Treatment

- **ORS immediately**
- **IV Ringer's Lactate** if severely dehydrated
- **Antibiotics (severe cases)**
 - Azithromycin 1 g single dose
 - Doxycycline 300 mg single dose

Danger Signs

- Sunken eyes
- Cold hands/feet
- Very weak pulse

Community Actions

- Promote safe water
- Handwashing with soap
- Prepare ORS at home

5. ACUTE DIARRHEA (Non-Cholera)

Symptoms

- Loose stools
- Fever sometimes
- Dehydration

Diagnosis

- Clinical

Treatment

- **ORS**
- **Zinc:**
 - Adults: 20 mg/day × 10–14 days
 - Children: 10 mg/day × 10–14 days

Danger Signs

- Blood in stool
- Persistent vomiting
- Lethargy

Community Actions

- Teach ORS preparation
 - Promote sanitation
-

6. TYPHOID FEVER

Symptoms

- Prolonged fever
- Abdominal pain
- Headache
- Sometimes diarrhea or constipation

Diagnosis

- Clinical + Widal (limited use)

- Blood culture (best)

Treatment

- **Azithromycin:**
 - 1 g on day 1, then 500 mg daily × 6 days
- **Ceftriaxone:**
 - 1–2 g daily × 10–14 days

Danger Signs

- Abdominal swelling
 - Persistent vomiting
 - Confusion
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7. PNEUMONIA

Symptoms

- Cough
- Fast breathing
- Fever
- Chest indrawing (children)

Diagnosis

- Clinical
- Pulse oximetry if available

Treatment

- **Amoxicillin:**
 - Adults: 500 mg TID × 5–7 days
 - Children: 40–50 mg/kg/day

Severe Pneumonia

- **Ceftriaxone** 1–2 g IV daily

- **Immediate referral**

Danger Signs

- Blue lips
 - Unable to drink
 - Convulsions
-

8. MEASLES

Symptoms

- Fever
- Rash
- Red eyes
- Cough + runny nose

Diagnosis

- Clinical

Treatment

- **Vitamin A:**
 - 200,000 IU day 1 & day 2
- Supportive: ORS, fever control

Danger Signs

- Severe dehydration
- Breathing difficulty
- Eye infection

Community Actions

- Promote vaccination campaigns
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9. SCHISTOSOMIASIS

Symptoms

- Blood in urine
- Abdominal pain
- Diarrhea
- Fatigue

Diagnosis

- Urine dipstick
- Kato-Katz stool exam

Treatment

- **Praziquantel 40 mg/kg single dose**

Community Actions

- Avoid swimming in contaminated water
 - Mass drug administration
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10. ONCHOCERCIASIS (River Blindness)

Symptoms

- Itching
- Skin nodules
- Vision problems

Diagnosis

- Skin snip
- Clinical + history

Treatment

- **Ivermectin 150 µg/kg** annually or twice yearly
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11. LASSA FEVER

Symptoms

- Fever
- Chest pain
- Sore throat
- Facial swelling

Diagnosis

- PCR (only in specialized centers)

Treatment

- **Ribavirin IV** (facility-based)

Danger Signs

- Bleeding
 - Shock
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12. HEPATITIS B

Symptoms

- Jaundice
- Abdominal pain
- Nausea
- Dark urine

Diagnosis

- Rapid HBsAg test

Treatment

- **Tenofovir 300 mg daily**
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