Buruli ulcer control

Guide for national programmes
Purpose of this guide

- Buruli ulcer control strategy is rapidly evolving and there is the need for regular update to feed need information into control activities

- The purpose of this guide is to provide information on the current strategies and policies on Buruli ulcer control to help national programmes and organizations supporting control activities at country level
Evolving BU strategy

Before antibiotics era

Hospitals
Surgery for all cases

Health center
- Detection
- Referral

Community
- Detection
- Referral

Antibiotics era

Hospitals
Surgery for referral cases

Health center
- Detection
- Antibiotics
- Wound dressing
- Referral

Community
- Detection
- Referral
Objective and strategy for BU control

- **Objective**: to minimize the morbidity and disability associated with Buruli ulcer
- **Strategy**: Early detection and treatment (antibiotics alone or antibiotics + surgery)
Key components of BU control strategy

I. Community-level activities
   - Early case detection at the community level
   - Information, education and communication (IEC) campaigns in communities and schools
   - Training of village health workers and strengthening of community-based surveillance system

II. Strengthening of the health system
   - Infrastructure, equipment and logistics
   - Training of health workers
   - Standardized recording and reporting using forms BU 01 and BU 02 and the HealthMapper software

III. Standardized case management
   - Laboratory confirmation of cases
   - Specific antibiotics – rifampicin and streptomycin
   - Surgery
   - Prevention of disability (POD) /rehabilitation

IV. Supervision, monitoring and evaluation of control activities

V. Advocacy, social mobilization and partnerships

VI. Operational research
Priority groups of people to train

- Village health workers
- Health workers
  - Doctors, Medical assistants, OPD nurses
  - Wound care nurses
  - Theatre staff
  - *Lab technicians*
  - Physiotherapy assistants
  - District health teams (e.g. medical officer, surveillance officers)
Who do we need to train, how, where and how long?

**Who:** Train health workers whose daily activities will have a direct impact on case finding, treatment, documentation and follow up. Careful selection of motivated staff is essential.

**How:** More focus on practical workshops (5 days) with a small group of health workers/teams from endemic areas;

**Where:** Should be in a facility or a place where access to sufficient patients is possible;

**Others:** Theoretical workshops (2 days) be organize to generate initial interest but further training should focus more on practical on-the-job training to develop skills.
Basic course content for training health workers

Disease and epidemiology
- Brief introduction of the disease
- Epidemiological situation in country and the district

Diagnosis and patient classification
- Clinical diagnosis and important differential diagnoses
- Classification of cases – new and recurrent
- Lab confirmation of cases - correct collection and storage of specimens (swabs, fine needle aspiration and biopsies in case of surgery)
- Correct filling of the laboratory request form

Management
- Antibiotic treatment – counselling, monitoring of side effects
- Treatment of recurrent and difficult cases (e.g. pregnancy, defaulters, HIV)
- Wound dressing, infection control, sterility
- Basic and practical issues relating to POD
- Indications for referral of patients for surgery.

Case finding and recording and reporting
- BU 01 and BU 02 forms
- Importance of mapping of cases

Social aspects of the disease
- Impact on patients and households
- Problems of treatment (accessibility, costs and feeding during hospitalization)
- Schooling for children affected
- Referral for rehabilitation
National reference centres

**Aim:** To provide standard care, training of health workers and participate in research.

**Selection criteria:**
- 1 or 2 centres per country
- Located in an endemic area
- Active in BU management and suitably equipped
- Highly motivated and knowledgeable team who are able to follow internationally agreed protocols
- Good record of case detection and reporting
New definitions

- **New case**: is person presenting with a BU lesion and has not been treated in the past with antibiotics.
  - **Note**: a person with previous treatment by surgery alone or by traditional treatment will still be considered a new case.

- **Recurrence**: New diagnosis of BU after being declared cured with antibiotic treatment (± surgery).
  - **Note**: if no antibiotics have been given in the past, case should be considered a new case.
Laboratory confirmation

Why is important to confirm cases

- In endemic areas
  - to confirm clinical diagnosis of new and recurrent cases (often retrospectively)
  - to monitor treatment with antibiotics - rifampicin and streptomycin
  - to help study *M. ulcerans* isolates cultured from lesions

- In non-endemic endemic or newly identified endemic areas
  - to confirm the presence of BU cases
  - If confirmed, then follow the recommendations of endemic areas above
Laboratory confirmation

Collection of specimens

- Non-ulcerative lesions
  1. Fine needle aspiration (technique needs to be learnt)
  2. Biopsy in case of surgery

- Ulcerative lesions
  1. Swabs
  2. Fine needle aspiration (FNA) in cases where taking specimens by swab is difficult
  3. Biopsy in case of surgery
Treatment

- All patients (except otherwise indicated) should receive 8 weeks of rifampicin and streptomycin.
- Antibiotics should be used in a place where the disease has been confirmed by PCR and where clinical diagnosis is excellent.
- For patients with contraindications to rifampicin and streptomycin (e.g. pregnancy), health workers should consult the programme manager or national referral centres.
- Treatment of recurrent cases: health workers should consult the programme manager or national referral centres.
Operational issues for further studies

- Decentralization of antibiotic treatment and POD to the health centre level
- Ambulatory treatment with antibiotics+/- wound dressing
- Risk factors, treatment and treatment outcomes for category III cases
- Integrated health education and case-finding with other programmes (e.g. leprosy, guinea worm and yaws)
- Feasibility of involving village health workers and family care-givers in POD activities
Revised recording and reporting forms

- The aim is to align the forms and register to the evolving BU strategy.
  - BU 01 will ensure high-quality patient care. Easy to complete by checking most of the options.
  - BU 02 register will ensure rapid notification of cases.
  - Laboratory request form will support the importance of laboratory confirmation of cases.
  - Indicators will help to monitor programme performance in a standardized and internationally comparable way.
  - These forms will provide the basis for new programmatic and policy development.
Surveillance

- At the global level, BU is one of the neglected tropical diseases (NTDs)
- Endemic countries should ensure that BU is included in the list of NTDs drawn up at the country level
- Endemic countries should also verify if BU in the list of reportable diseases at country level and if not advocate for its inclusion. **Note:** In the countries in the African region, there is a list of diseases under the integrated diseases surveillance.
- AFRO to discuss with IDS, the possibility to include BU in the list of diseases
- At the country level, BU programmes should collaborate with other programme to improve BU surveillance and identify other foci
- Surveys to assess the disease burden (best by integrated surveys with other programmes to reduce costs)
Global indicators (core indicators)

All endemic countries should use the following indicators in reporting to the annual meetings:

- number of new and recurrent cases (analysed by age, sex and place);
- proportion of cases confirmed by at least one method;
- analyses of clinical forms and treatment categories of the total number of cases detected;
- proportion of cases healed with antibiotic treatment only;
- proportion of cases healed with limitation of movement at any joint.
National and local-level indicators

- Number of IEC campaigns carried out in communities and schools out of the total endemic communities;
- Proportion of patients completing the 8-week antibiotic treatment (compliance);
- Proportion of positive results out of total number of samples examined;
- Number of health workers and village health workers trained;
- Coverage – number of health facilities able to implement antibiotic treatment;
- Coverage – number of referral health facilities able to provide surgical treatment for complicated cases;
- Number of districts and health facilities using forms BU 01 and 02;
- Number of monitoring visits carried out by the national programme and local health authorities.
Category I: A single lesion $\leq 5$ cm
Category II: A single lesion 5 - 15 cm
Category III: A single lesion > 15 cm, multiple lesions, lesions at critical sites, osteomyelitis
Category III: lesions, lesions at critical sites (results of antibiotic treatment at Kimpese, DRC)
Illustration of new POD terminology

Limitation of movement of a joint at diagnosis

Healed with limitation of movement at a joint (outcome)
IEC in schools instead of training schoolteachers (example from Togo)
Community video show in Amansie West district, Ghana
Training of village volunteers in Benin
Laboratory confirmation of cases (Example from Benin)
Supervise and check records at health facilities
Transport essential for field work

Integrated use of available transport (example in Togo)
Generator for community video show