



From Global Strategy to National Action:
Workshop for Health Service Managers in Charge of
Leprosy Control Programmes

Session 2

Diagnosis



Leprosy case definition

A case of leprosy:

a person with clinical signs of leprosy who requires chemotherapy.

To suspect leprosy:

Leprosy should be suspected in people with any of the following symptoms:

Suspecting 1

a. Pale skin patch





Suspecting 2

Reddish skin patch





Suspecting 2

- b. Loss or decrease of feeling in the patch
- c. Abnormal sensations e.g. numbness, tingling in the hands and feet.
- d. Weakness of hands, feet or eye-lids
- e. Pain and /or tenderness at sites where nerves are commonly damaged in leprosy cases e.g. around elbow, wrist, knee and ankle joints.

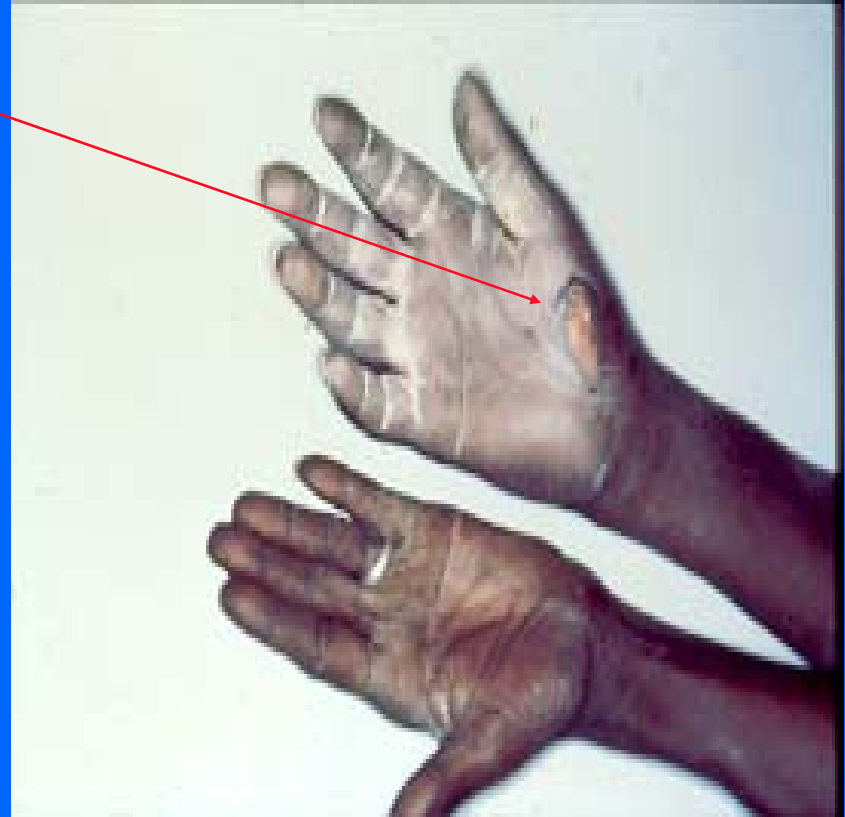
Suspecting 3

f. Swellings or lumps in the face or ear-lobes



Suspecting 4

g. Painless wounds or burns in the hands and feet.





Diagnosing leprosy

- Diagnosis **MUST** be based on concrete evidence.

(just suspected or doubtful cases should not be registered)

- Leprosy may be diagnosed through CLINICAL examinations alone **BUT** in a number of cases **LABORATORY** confirmation is necessary.



Aim of clinical examination:

The target of the clinical examination for diagnosis:

TO IDENTIFY THE CARDINAL SIGNS OF LEPROSY



Conditions for clinical examination:

Clinical examination should be carried out:

- **With good light (preferably day light)**
- **Respecting the patient's privacy**
- **Seeing ALL the skin to identify skin patches.**



The Cardinal signs

Diagnosis is established by finding at least ONE of the following CARDINAL SIGNS:

- a. Definite loss of sensation in a pale (hypo pigmented) or reddish skin patch
- b. A thickened or enlarged peripheral nerve with loss of sensation and/or weakness of muscles supplied by that nerve
- c. The presence of acid fast bacilli (AFB) in a slit skin smear.



Eliciting (detecting) the cardinal signs 1

- a. **Loss of sensation** : detected by touching the skin lightly with cotton wool (or suitable alternative material)

In patients with suspect pale patches, with normal sensation, look for one or more of the other cardinal signs (enlarged nerves and AFB in skin smear)



After ample explanation to the patient.

The lesion to be tested is touched
Cotton wool

The patient indicates the site by pointing
With one finger.





Eliciting the cardinal signs 2

b. Thickened nerves : very important part of the examination. Requires **SKILLS TRAINING**

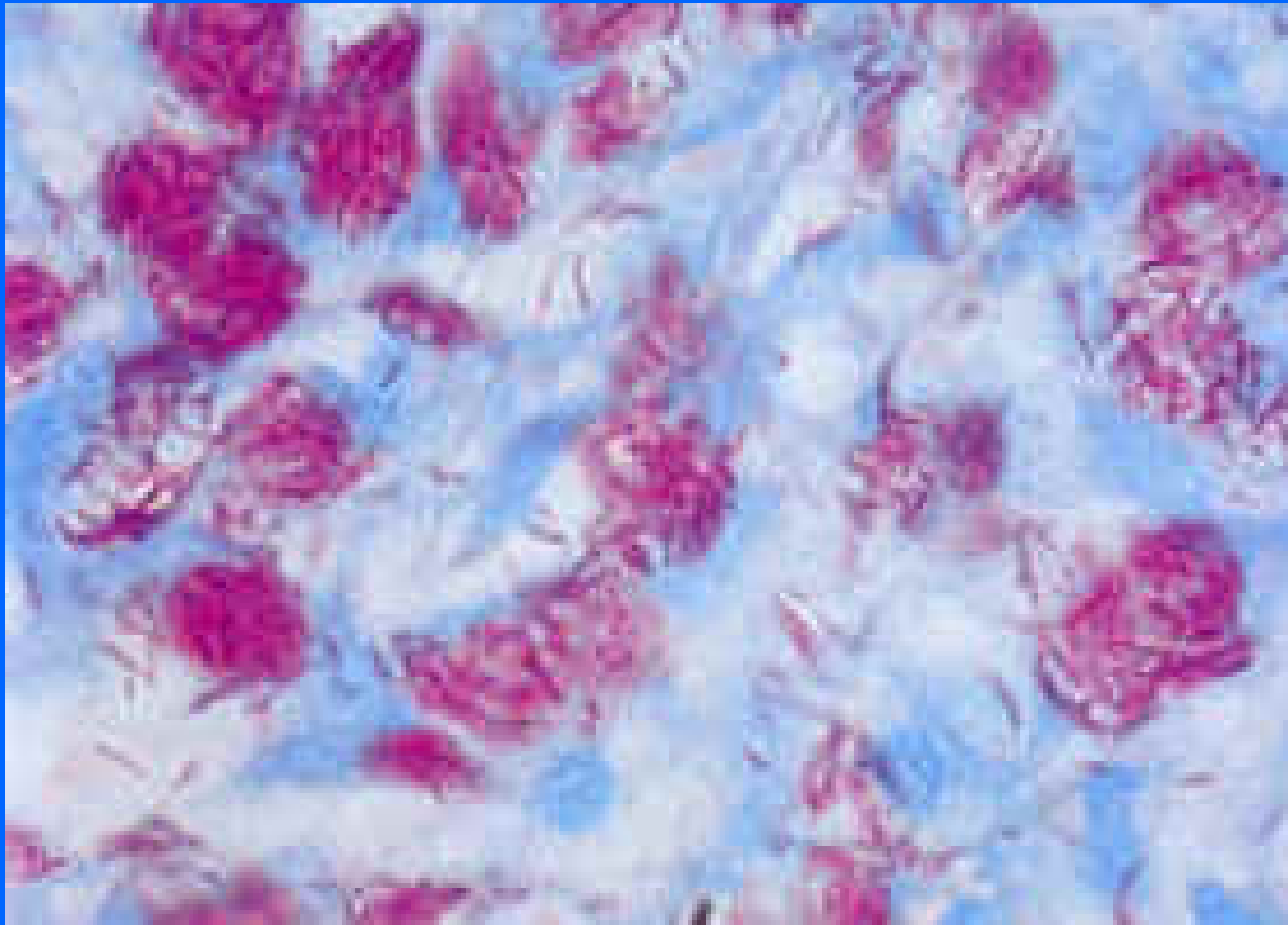
Signs of nerve involvement may occur without any obvious skin lesions.

Neural leprosy is a possibility but requires additional skills to decide



Eliciting cardinal signs 3

c. Positive skin smear





Handling suspects with no cardinal signs:

(i) Patients with few pale patches but no loss of sensation:

- Refer to the next level in the referral system or move to a more experienced colleague at the same level.
- Consider the possibility of another skin disease and treat (see differential diagnosis)
- Wait 3 – 6 months and review the skin lesions again.



Handling suspects with no cardinal signs 2

(ii) Patients with pale patches, no loss of sensation but other signs like nodules present.

Skin smear examination should be done.

Positive smear confirms the Diagnosis.

Negative smear in the absence of other cardinal signs rules out leprosy.





Measures to ensure accuracy of diagnosis

1. Adhere to criteria for case definition.
2. Good training of Health Workers about diagnosis of leprosy.
3. Regular and effective supervision with on-the-job training
4. Clear lines of referral of suspect cases, when the diagnosis is uncertain
5. Availability of appropriate teaching and reference materials.



So far,

So good!!!



From Global Strategy to National Action: Workshop for Health Service Managers in Charge of Leprosy Control Programmes

Session 2

Classification



CLASSIFICATION

Why?

For grouping together patients :

- Needing similar treatment
- Having similar risk of developing nerve damage



How to classify

Two treatment groups:

PB : Paucibacillary

MB: Multibacillary

The division into 2 groups is based on the **NUMBER** of individual skin lesions. The **WHOLE** body must be examined.

At referral level, other criteria e.g. nerve involvement can be considered for classification.



PB leprosy

PB cases have ONE to FIVE skin lesions in total.

Skin smear is usually not required.

In cases with few lesions, most smears will be negative.



2 lesions with a papular borders in a child with PB leprosy.

A single well defined and raised lesion = PB leprosy



Biopsy scars !!!



MB leprosy

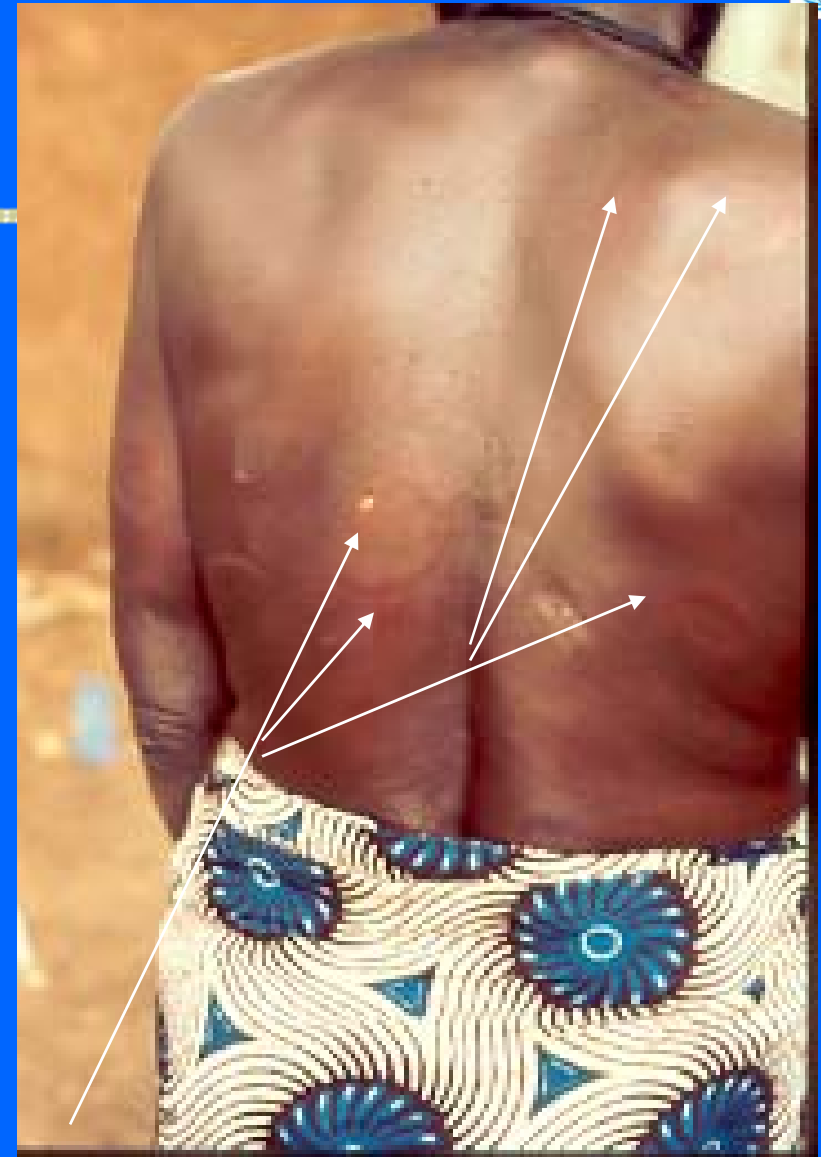
MB cases have six or more skin lesions in total.

If skin smear is done and it is positive , the patient must be classified as MB whatever the number of lesions.

If skin smear is negative, classification is determine by the number of lesions.



Multiple small hypopigmented lesions and a few nodules = MB leprosy



Multiple annular lesions some not so well defined = MB leprosy

MB leprosy 3

Patients with other signs like nodules or skin infiltration should have a skin smear done.

A positive smear confirms the diagnosis of leprosy and the classification as MB





Thank you.