

Leprosy - IP: 5-7 years (2-40 years)

*Mycobacterium leprae* generation time - 12-18 days

NLEP → PB leprosy: 1-5 skin lesions, no nerve involvement, slit skin smear = -ve for *Mycobacterium leprae*

MUS leprosy: > 5 skin lesions, more than one nerve involvement, slit-skin smear = +ve

### Lab Diagnosis:

Specimen collection: total 6 sample - 4 (skin - forehead, cheek, buttock, chin) one from ear lobe and nasal mucosa

⇒ Collect: - Edge of lesion - preferred site. Lesion is cleaned with spirit, then pinched up tight to minimize bleeding. A 5mm long incision - scalped. note scalpel blade transversely.

① Acid fast: 5% sulphuric acid - Red AFB arranged singly or in groups (cigar like bundles) - ~~not~~ present inside foamy macrophages ⇒ Virchow's foamy cells.

② Mouse pool culture - Inoculating specimen into foot pad of mice - 20°C (6-9 months)

③ Antibody detection - FLA-ABS  
ELISA

### Lepromin test:

Demonstrates delayed hypersensitivity rxn against the lepra antigen.

Procedure: Lepromin Ag → ID injected - forearm.

At 48 hours: - Early Rmn: Induram (>10mm) - indicates past exposure.

At 21 days: Late (Mitsuda Rn) Nodule (>5mm) → ulcerates

Positive: Patient CMI - good

Negative: Patient CMI absent