



# London as a European Centre for Leprosy Lessons from a 20 year cohort

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No conflict of interest to declare

# Leprosy

- Chronic granulomatous disease (*M. leprae*)
- Skin lesions, sensory and motor neuropathy
- WHO criteria: skin lesions, peripheral nerve thickening, acid fast bacilli on biopsy
- 210,758 cases reported worldwide (2015)
- 130 new cases in 10 years in UK
- No autochthonous cases since 1946



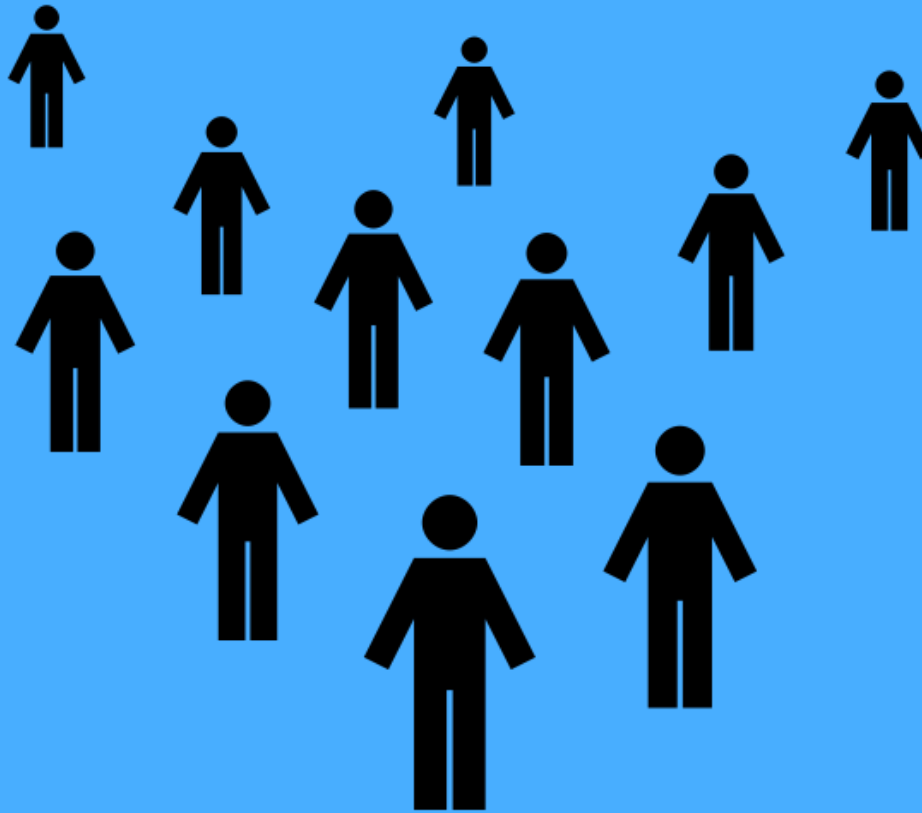
# Hospital for Tropical Diseases, London



# Study design

- Retrospective
- First diagnosis of Leprosy 1995-2013
- Data collected:
  - Demographics
  - Presenting symptoms/signs
  - Referral pathway
  - Bacillary index
  - Type and duration of treatment
  - Leprosy reactions
  - 2 year follow-up

# Demographics



**n=140** patients

**66%** male

**33 yrs** mean age

**36**

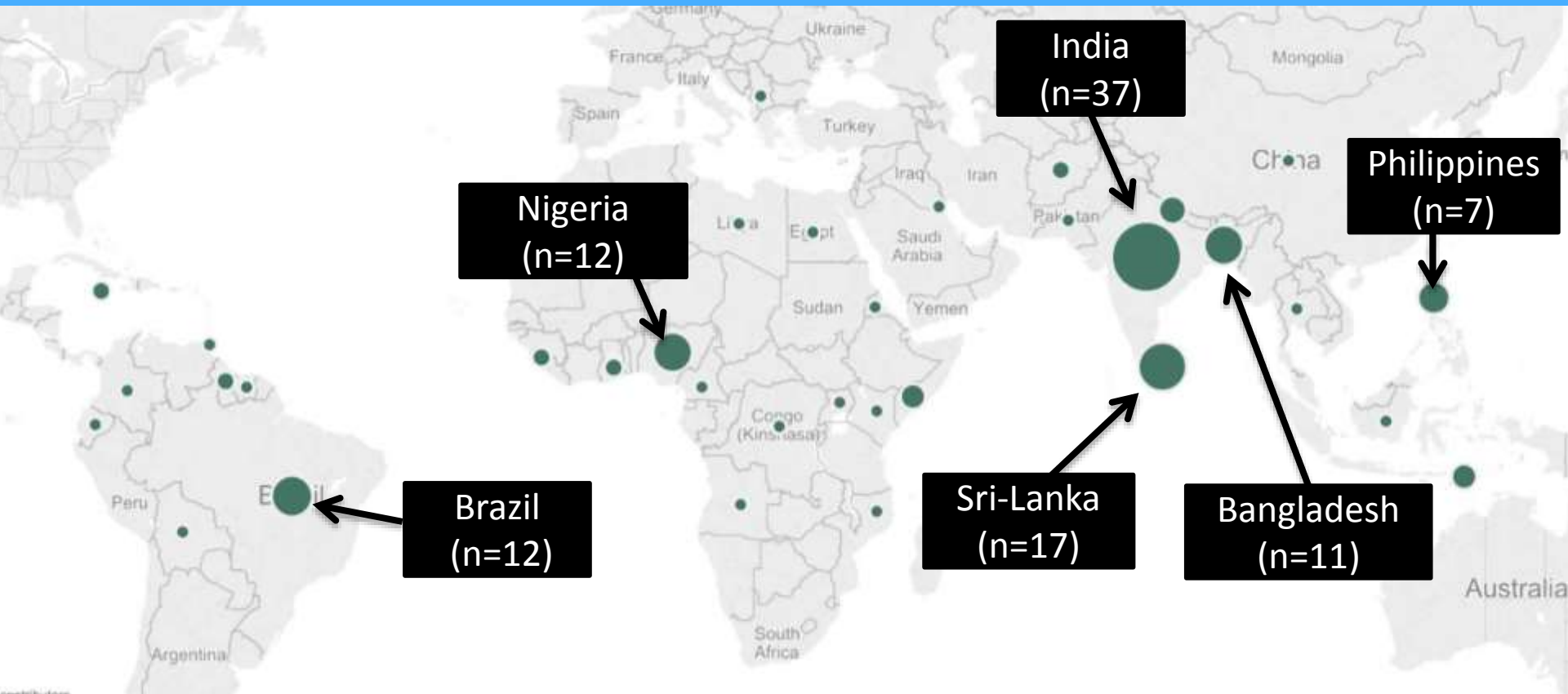
countries

**55%**

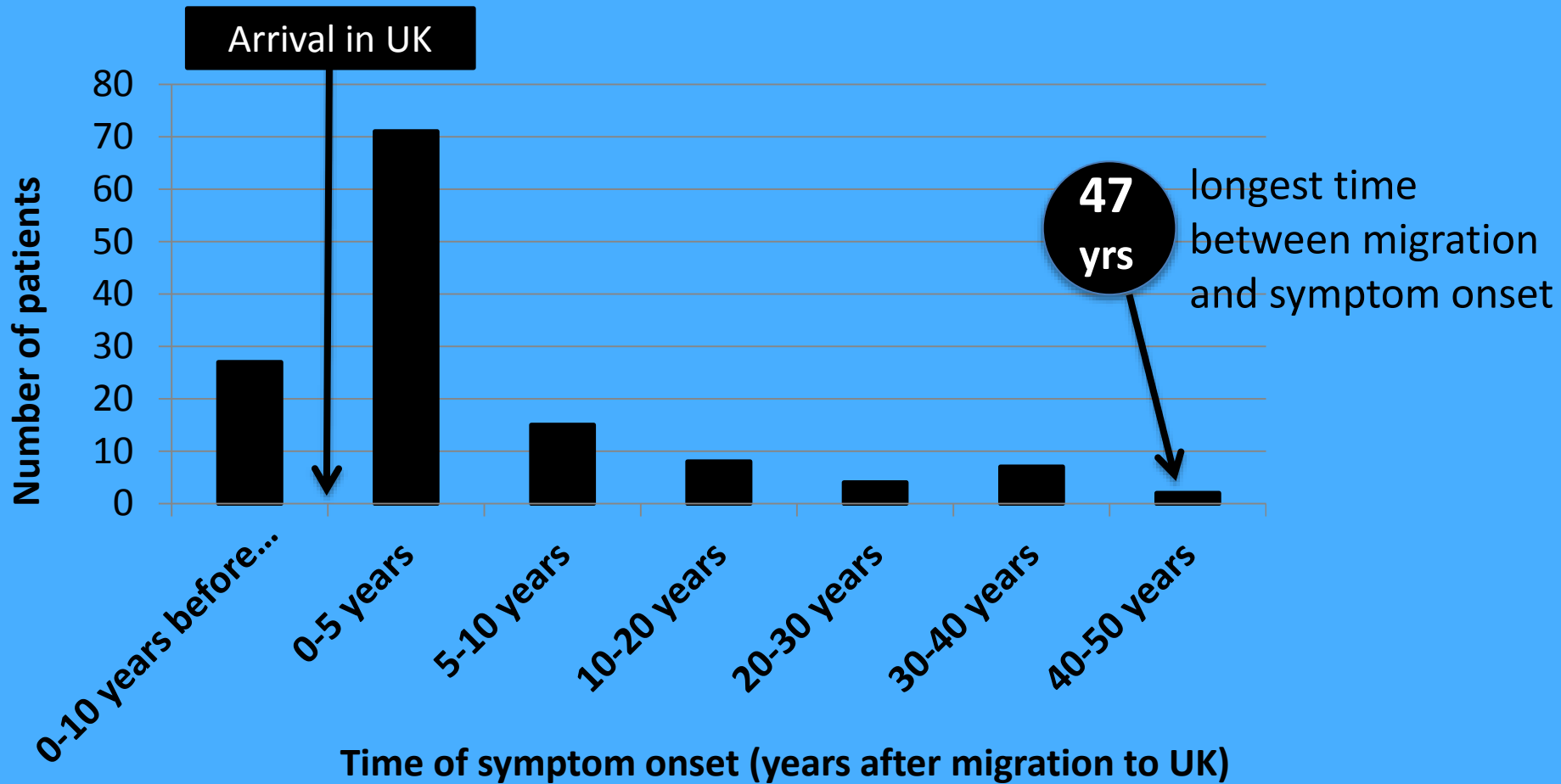
South Asia

**6**

UK born



# Symptom onset



**20%**

had symptoms prior to arrival in the UK

**53%**

developed symptoms <5yrs after migration

**27%**

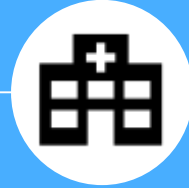
developed symptoms >5yrs after migration

# Referral pathway

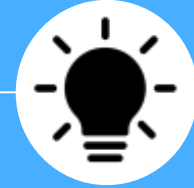
First Presentation



Specialist Referral



Diagnosis

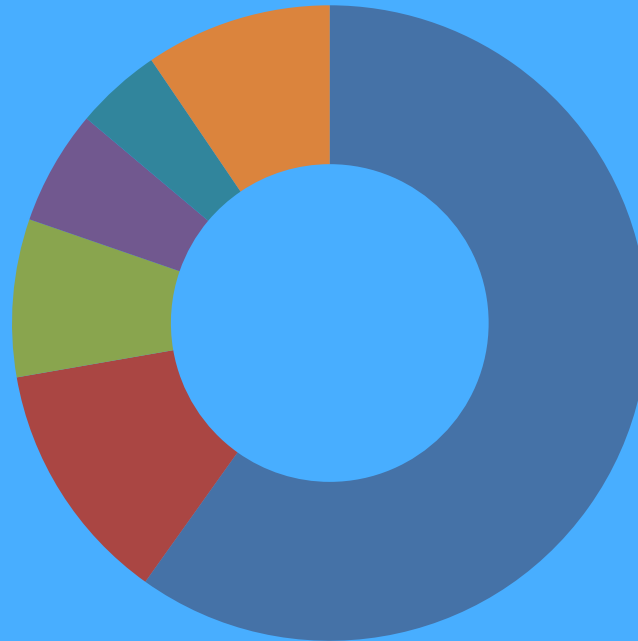


## Symptoms

91% Leprosy skin lesions  
44% Altered sensation  
39% Motor weakness

## Healthcare provider

86% General practitioner  
14% Emergency dept



- Dermatology**
- Neurology**
- Infectious diseases**
- Orthopaedics**
- Rheumatology**
- other**

## Method of diagnosis

45% Biopsy (Dermatology)  
55% clinical suspicion with confirmation at Leprosy clinic

## Time from symptom onset to diagnosis

40% <1 year  
46% 1-5 years  
14% 5-15 years



<b>Ridley-Jopling classification</b>	<b>n (140)</b>	<b>Median duration of WHO multi-drug Therapy (months)</b>	<b>Mean Bacillary Index at diagnosis</b>	<b>Mean Bacillary Index at end of treatment</b>
<b>Lepromatous Leprosy</b>	<b>45</b>	<b>24</b>	<b>4.03 (SD 1.39)</b>	<b>1.35 (SD 1.42)</b>
<b>Borderline Lepromatous Leprosy</b>	<b>18</b>	<b>24.7</b>	<b>3.02 (SD 1.88)</b>	<b>0.24 (SD 0.37)</b>
<b>Borderline Tuberculoid Leprosy</b>	<b>66</b>	<b>6.89</b>	<b>0.48 (SD 1.12)</b>	<b>0.22 (SD 0.67)</b>
<b>Tuberculoid Leprosy</b>	<b>11</b>	<b>6.44</b>	<b>0</b>	<b>-</b>

# Leprosy Reactions

## Type 1

**56%** experienced Type 1 / reversal reaction

**97%** Received oral prednisolone  
Median duration **64 weeks**



Type 1 / Reversal reaction

# Leprosy Reactions



Erythema Nodosum Leprosum

Type 2  
ENL

26%

experienced Erythema Nodosum Leprosum

97%

had multibacillary leprosy (LL 74%, BL 23%, BT 3%)

87%

Received oral prednisolone  
Median duration **67 weeks**

87%

Received thalidomide  
Men AND women  
Median duration **64 weeks**

# Take home messages

- Leprosy in non-endemic settings is a disease of migrants
- Diagnosis is frequently delayed
- Hospital specialists need heightened suspicion to detect cases
- Patients responded well to MDT
- Immunological reactions occurred in 75% - resulting nerve impairment and high steroid burden major contributors to morbidity