Early diagnosis of leprosy
for early MDT

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Détection of leprosy in the world

Number of detected new cases en 2006

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Cases</th>
</tr>
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<tbody>
<tr>
<td>Afrique</td>
<td>34,480</td>
</tr>
<tr>
<td>Amériques</td>
<td>47,612</td>
</tr>
<tr>
<td>Asie du Sud Est</td>
<td>174,118</td>
</tr>
<tr>
<td>Méditerranée Orientale</td>
<td>3,261</td>
</tr>
<tr>
<td>Pacifique Occidental</td>
<td>6,190</td>
</tr>
<tr>
<td>Total</td>
<td>265,661</td>
</tr>
</tbody>
</table>
Comments

- Detection during these last 10 years
  \[46\%\]

But, in fact: very important reduction in India
(30\% a year, for 3 years)

voir 2 courbes suivantes

Détection of leprosy in India / world

Courbe détection Inde (bleue)
Comparée au reste du monde (rouge)

Détection en Inde (vert)
Comparée au reste du monde (rouge)
Detection between 1993 and 2005 in the most endemic countries

- Madagascar: 2006: 1536 NC, soit une diminution de 43% en 1 an et de 69% en 3 ans

2 different situations
- 13 countries = stability or increase
- 4 countries = important reduction (among which India and Madagascar)
Detection of leprosy in the world

Thus: anxiety because:
- In the majority of countries: no important decrease for 10 years
- Some countries have a too important fall to be real

= doubt on reliability of the statistics of certain countries

Detection leprosy in India and Madagascar

Why can we doubt the reliability of the figures of India and Madagascar?

- ref: article de Meima et col. in Bulletin OMS 2004 « The future incidence of leprosy, a scenario analysis »
  - Simulation for period 2000-2020 = rate reduction during 1 year = 2 to 12 %
  - when in fact in India / Madagascar: # 30 %
  - While there was no strategic change for 10 years being able to explain it:
    - no campagn of BCG vaccination
    - no chemoprophylaxy
Detection leprosy in India and Madagascar

No explanation to the medical or biological plan
Possible explanations: operational factors

- Administrative factors (procedures of recording)
  - Modification of the criteria of statement
  - for example figures of Agra are 3 times more high than the official figures
- "Political" factors
  - too fast integration of leprosy programs in the national health system
  - political pressure +++ (strategy "final push")
  - important decline of the quality of the services
Consequently: too late detection

Quality of diagnosis

Indicator for quality of the early diagnosis
= % number of patients
  with disability degree 2 at the time of detection
= very high in many countries
  16 % à Madagascar
  3 to 21 % en Afrique

• Survey quality of diagnosis in Madagascar (2006)
  has proved
  - over diagnosis: 27 % (variations: 4.5 % to 62 %)
  - under diagnosis: probably idem
Causes of the late detection

- Organizational problems at the level of the leprosy programs
- Lack of training of the health workers (in the field)

- In Madagascar, errors of diagnosis
  - 5% in the private Centres
  - 38% in the public Centres
- Frequent lack of bacilloscopy
- Geographical enclosing
- Lack of information for the populations

(social mobilisation in 2006 région Mananjary : 3 à 4 times + de NC than 3 last years in the same areas)

What can we do?

• What can ILEP and ILA do?

• Participation in the improvement of the quality of the services

  = Support to :
  - training for « formateurs »
  - setting up of a system « d’orientation recours »
    in the most competent centers (private in Madagascar)
  - system of training by « compagnonnage »
  - quick training for all health workers in the country
• Participation in close contact with the national leprosy program coordinator:
  - early détection
  - MDT
  - follow up of patients
  - prévention of disabilities (PIRP)
  - training health personnel

Training of « formateurs »

Who then will train the health workers practicing in the field

« Cascade » training
Detection too late

Reversal reaction
Lepromatous leprosy

M D T

*Note: The text in the images is not legible.*
Disabilities
Prévention and réadaptation (PIRP)
Training of « formateurs »

1) 1er cours international francophone sur la lèpre à Bamako
   du 23 / 02 / 04
   au 5 / 03 / 04
Organisé par l’ILEP et l’AFRF
2) Session de formation lèpre pour les responsables provinciaux lèpre de Madagascar

du 3 au 7 mai 2004

Co-organisée par AFRF et PNL
Madagascar
Formation de tous les agents de santé exerçant en périphérie sur le terrain

Short training programme for all general health care workers on the management of common skin diseases and leprosy in Africa

- Exemple :
  Pilot project of fight against the most current skin diseases and leprosy
  Mali 2000 – 2001
  Antoine Mahé & Ousmane Faye

= Project of research in Dermatology of Public health
Short training programme for general health care workers

• Aim:
  Improve the diagnosis and the treatment of the most current skin diseases
  Improve the early diagnosis of the leprosy

Financing of pilot project: International Foundation for Dermatology (IFD)

Activities

• Short training for health workers (field)

• Information for the populations
Activities

• Study 2 areas - urban - rural
  Training: 400 personnels
  - 87 doctors
  - 218 nurses
  - 95 midwife

Algorithmic approach

Dermatological priorities
  • Pyoderma, scabiosis, tinea, contact dermatitis

  • Leprosy

  Training = 1 day (diapositives, clinical cases)

  400 health workers
  trained in 22 sessions
Algorithmic approach
Assessment of the quality of the diagnosis and the treatment

Before training
- 37% inadequate or indistinct diagnosis
- A lot of prescribed not indispensable drugs
- High cost of the prescriptions

After training
- Important improvement of the knowledge of the staffs
  - 89% correct diagnosis
  - 5 new cases of leprosy in 1 year
    (only 1 case, last year)

Assessment after training

<table>
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<tr>
<th></th>
<th>2001</th>
<th>2003</th>
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<tbody>
<tr>
<td>Case without diagnosis</td>
<td>37%</td>
<td>6%</td>
</tr>
<tr>
<td>Exact diagnosis and</td>
<td>42%</td>
<td>85%</td>
</tr>
<tr>
<td>treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of prescription</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction</td>
<td>2,412 F CFA</td>
<td>1,597 F CFA</td>
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<tr>
<td></td>
<td>34%</td>
<td></td>
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Results of the prescription reduction: $P < 10^{-6}$
Conclusion

This program of short training for health workers « de 1er recours »

- Efficacious
- Efficient: coast of training = 25 000 F CFA/person
- Durable

Moreover

Improvement of early diagnosis of leprosy

2002: 11 suspect referred (5 cases) vs 2001: 1 case

Référence

Integration of basic dermatological care into primary health care services in Mali

A Mahé, Ousmane Faye and all.
Bulletin of the WHO december 2005, 83 (12)