Deaths Due To Tuberculosis In The State Of Perak 2005

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Introduction

- One third (2 billion) of the world’s population are infected.

- > 8 million develop active TB annually.

- One third of the near 40 million people living with HIV/AIDS are co-infected with TB.

- An estimated 1.6 million people died of TB in 2005.
Incidence of TB in Perak

- Year 2004: - 50.02 / 100,000 population
- Year 2005: - 50.66 / 100,000 population

Population distribution: 2,256,400
Notification Of New TB Cases In Perak
Year 2001 - 2006

No of TB Cases

2001 2002 2003 2004 2005 2006

SPUTUM - VE  SPUTUM +VE  EXTRA PULMONARY
Notification Of Deaths in TB Patients In Perak
2000 – 2005

Year
2000 2001 2002 2003 2004 2005

No of TB cases
0 50 100 150 200

NO OF DEATHS

- 149
- 127
- 119
- 91
- 138
- 101
Patients who died while on TB treatment 2005

<table>
<thead>
<tr>
<th></th>
<th>No of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>66</td>
</tr>
<tr>
<td>TB</td>
<td>35</td>
</tr>
</tbody>
</table>
Notification of Deaths

Death notification for patients on TB treatment is done in the form TBIS 10J. There were a total of 101 deaths notified, and the actual cause of death is determined after conducting a mortality audit for all these deaths. In 35 (34.6%) cases the actual cause of death was attributed to tuberculosis.

Heldal E, Naalsund A, Kongerud J. Deaths from active tuberculosis: can we rely on notification and mortality figure? Tuber Lung Dis 1996;77:215-21
Most deaths were noted to be in the older age group.

Period of treatment

• Longer delays before diagnosis, treatment and sputum conversion.

• 21% died during the first week of treatment.

(41.9% deaths due to TB)

X Ray Changes

- Advanced: 82.8%
- Moderate: 11.4%
- Minimal: 5.7%
- No Lesion: 0%
X-ray findings

- 83% had advanced pulmonary changes and were sputum positive.

- 17%(6) were TB deaths due to extra-pulmonary causes with minimal to moderate X-ray changes.
## Notification Of TB / HIV Cases
### 1999 - 2005

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NO. OF TB CASES WITH HIV</th>
<th>DEATHS (HIV/TB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>56</td>
<td>23</td>
</tr>
<tr>
<td>2000</td>
<td>84</td>
<td>25</td>
</tr>
<tr>
<td>2001</td>
<td>58</td>
<td>19</td>
</tr>
<tr>
<td>2002</td>
<td>67</td>
<td>20</td>
</tr>
<tr>
<td>2003</td>
<td>55</td>
<td>18</td>
</tr>
<tr>
<td>2004</td>
<td>77</td>
<td>19</td>
</tr>
<tr>
<td>2005</td>
<td>89</td>
<td>25 (4)</td>
</tr>
</tbody>
</table>
Notification of HIV/TB cases - 2005

- No. of HIV/TB deaths = 25
- No. of HIV/TB with complications = 21
- Deaths in HIV cases directly related to TB = 4 \( \frac{4}{35} \) 11%.

Treatment defaulters

• The main independent risk factor for death due to TB was treatment default – 3 cases (9%), due to ongoing transmission of TB, may have higher mortality rates than cases due to reactivation of latent disease.
Conclusion

• Increased mortality risk in patients on TB treatment are more likely due to underlying medical conditions eg. malignancy, HIV, diabetes and alcoholism.

• Elderly age group

• Advanced pulmonary damage with delays in seeking treatment.
Goal 6: Combat HIV/AIDS, malaria and other diseases......TUBERCULOSIS

Targets

MDG 6, Target 8: ...halted by 2015 and begun to reverse the incidence.....

- Targets linked to the MDGs and endorsed by the Stop TB Partnership:
  - by 2005: detect at least 70% of new sputum smear-positive TB cases and cure at least 85% of these cases
  - by 2015: reduce prevalence of and death due to TB by 50% relative to 1990
  - by 2050: eliminate TB as a public health problem (<1 case per million population)