Pharmacovigilance and the Introduction of new drug/regimens in Vietnam

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Vietnam team

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Vietnam

- Surface: 330,000 km²
- Border: China, Laos, Cambodia
- Provinces: 63
- Districts: 683
- Communes: 11,042
- Pop.: 93 million
## Situation of Drug-resistant TB in Viet Nam

<table>
<thead>
<tr>
<th></th>
<th>DRS 3 (06-07)</th>
<th>DRS 4 (11-12)</th>
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<tbody>
<tr>
<td><strong>MDR rate among new TB patients</strong></td>
<td>2.7 % (2.0-3.6%)</td>
<td>4.0 % (2.5 - 5.4%)</td>
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<tr>
<td><strong>MDR rate among retreated patients</strong></td>
<td>19% (14-25%)</td>
<td>23.3% (16.7-29.9)</td>
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<tr>
<td><strong>The number of MDR-TB patients among the number of new TB patients every year</strong></td>
<td>2000 (1500-2700)</td>
<td>3000</td>
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<tr>
<td><strong>The number of MDR-TB patients among the number of retreated patients every year</strong></td>
<td>1700 (1200-2200)</td>
<td>2100</td>
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<tr>
<td><strong>Total number of MDR-TB patients among total number of TB patients every year</strong></td>
<td>3700</td>
<td>5100</td>
</tr>
<tr>
<td><strong>XDR-TB/MDR-TB</strong></td>
<td></td>
<td>5.6%</td>
</tr>
<tr>
<td><strong>FQ res/MDR-TB</strong></td>
<td></td>
<td>16.7%</td>
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MDR-TB RESPONSE (PMDT program)

Progress:
- 2007: GLC’s approval
- 2009: pilot in Ho Chi Minh city
- Until Dec/2016: Total about 8,500 patients were enrolled,
- Treatment success rate: more than 70%
- 101 pts enrolled in shorter regimen (cohort study)
- 99 pts enrolled in Bedaquiline individualized regimen (cohort study)

Current status:
- PMDT coverage: 63/63 provinces
- PMDT guidelines: updated with recent recommendations
- Training materials available for different target groups.
- Xpert MTB/RIF coverage: 100% provinces
- SLDs LPA: 2 labs → will cover all R+ cases detected in 2017
Aim: To assess the new drug containing regimen and new regimen for

Efficacy (conversion rate, cured rate)

Safety (AEs, lost to follow up, regimen changes)

Sites: 3 cities Hà Nội, TP.HCM, Cần Thơ

Number of patients recruited: 100/each study

Inclusion criteria:

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<tr>
<th>BDQ regimen</th>
<th>Shorter regimen</th>
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<tr>
<td>- Resistance to second line drugs: injectable or/and FQs</td>
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<tr>
<td>- Intolerance to existing regimen</td>
<td>Resistance to R, not to second line drugs</td>
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Strengthening the national PV system to support PHPs

GOAL
Develop a national PV system that effectively links with and supports PHP’s practice ensuring drug safety

PV SYSTEM

effective linkages

PHP’s SYSTEM

National level

Regional level

Healthcare facilities

Patients

National level

Regional level

Province & district level

Patients
PHARMACOVIGILANCE PRACTICE IN VIETNAM
PV system data collection

**Spontaneous reporting**
- 9,912 ADR reports (2003 – 2016) ~108.1 reports per million population
- About 10% related to TB drugs

**Cohort event monitoring**
- Related to ARV, anti-TB (only MDR and XDR-TB) drugs and anti-malarial drugs
- At some sentinel sites in PHPs
- Mainly under GF Project

**Targeted spontaneous reporting**
- Up to now, just in HIV/AIIDS programe (TDF-associated nephrotoxicity, EFV-associated neurotoxicity…)

About 10% related to TB drugs

Spontaneous reporting

Cohort event monitoring

Targeted spontaneous reporting
COLLECTING SAFETY DATA RELATED TO TB DRUGS

Since 1994
Both TB & MDR-TB

Spontaneous reporting

Cohort Event Monitoring

Since 2014
MDR-TB at 9 sentinel sites
2014 – 2016; Completed

XDR-TB at 3 sentinel sites
from 2015 to now; On going
Objectives:

- Describe the characteristics of adverse events of BDQ-containing regimens: severity, type, especially cardiotoxicity.

- Analysis of factors affecting the appearance of the AEs of BDQ-containing regimens.

- To provide information about drug safety of new TB drug to support to WHO, NTP and healthcare professionals for decision making.
Data input, analysis

Access longitudinal database

SPSS syntax
Full proposal and study tools can be downloaded from http://canhgiacduoc.org.vn
Causality assessment

Adverse event causality assessment (based on WHO Causality Categories)

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<th>Causality term</th>
<th>Assessment criteria*</th>
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| Certain                 | • Event or laboratory test abnormality, with plausible time relationship to drug intake  
                         • Cannot be explained by disease or other drugs  
                         • Response to withdrawal plausible (pharmacologically, pathologically)  
                         • Event definitive pharmacologically or phenomenologically (i.e. an objective and specific medical disorder or a recognised pharmaceutical phenomenon)  
                         • Rechallenge satisfactory, if necessary |
| Probable/Likely         | • Event or laboratory test abnormality, with reasonable time relationship to drug intake  
                         • Unlikely to be attributed to disease or other drugs  
                         • Response to withdrawal clinically reasonable  
                         • Rechallenge not required |
| Possible                | • Event or laboratory test abnormality, with reasonable time relationship to drug intake  
                         • Could also be explained by disease or other drugs  
                         • Information on drug withdrawal may be lacking or unclear |
| Unlikely                | • Event or laboratory test abnormality, with a time to drug intake that makes a relationship improbable (but not impossible)  
                         • Disease or other drugs provide plausible explanations |
| Conditional/Unclassified| • Event or laboratory test abnormality  
                         • More data for proper assessment needed, or  
                         • Additional data under examination |
| Unassessable/Unclassifiable| • Report suggesting an adverse reaction  
                          • Cannot be judged because information is insufficient or contradictory  
                          • Data cannot be supplemented or verified |

Cardiovascular events detected via ECG by cardiologists
THANK YOU VERY MUCH

For your attention!