Tuberculosis and HIV coinfection still a challenge in Central and Eastern Europe

Prof. A. Panteleev
Pavlov First Saint Petersburg State Medical University
2\textsuperscript{nd} TB hospital, St. Petersburg
Conflict of Interest Disclosure Form

(to be completed by scientific/organising committee members)

NAME: ALEKSANDR PANTELEV

AFFILIATION:

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☐ I have no potential conflict of interest to report
☐ I have the following potential conflict(s) of interest to report

Type of affiliation/financial interest

Name of commercial company

Receipt of grants/research support:

Receipt of honoraria or consultation fees:

Participation in a company-sponsored speaker’s bureau:

Stock shareholder:

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Other support (please specify):

Signature: [Signature]

Date: 20/01/2010
TB incidence estimates in the WHO European, 2006-2017, a rates per 100 000 population.
Incidence of TB, Russia, national data, 2010-2017
Incidence of TB and HIV-infection, Russia, national data, 2010-2017
Incidence and prevalence of TB/HIV, Russia, national data, per 100 000 population
HIV/TB co-infection among new and relapse TB case in WHO European Region, 2016 estimates

European average = 12%

Global average = 10%
Proportion of TB/HIV among all and new cases of TB, Russia 2012-2017

- **2017**: 18.5% (All cases) 20.9% (New cases)
- **2016**: 17.2% (All cases) 20% (New cases)
- **2015**: 15.2% (All cases) 17.3% (New cases)
- **2014**: 10.7% (All cases) 15.1% (New cases)
- **2013**: 9.0% (All cases) 12.5% (New cases)
Roads of HIV transmission, TB/HIV patients, St Petersburg, 2016

- IVDU: 65%
- Sexual: 17%
- Not detected: 18%
Number of patients on ART, St Petersburg

All Russia
2010: among all HIV cases - 11.3% in AIDS stage.
2017: 35.5%
Proportion of TB/HIV patients with CD4 less than 200 cells, St. Petersburg
Proportion of comorbidity in TB/HIV patients, City TB hospital. St. Petersburg
TB detection in HIV population

Standard approaches to early detection of tuberculosis do not work in patients with advanced HIV infection.

59% had disseminated TB
Patients without ARV, without regular medical care

Patients without ART, irregular medical examination

Patients on ART, on regularly dispensersisation, without LTI prophylactics

Patients on ART, LTI prophylactics On regular health care

Availability for medical care system

Risk of TB
85% cases of TB/HIV in St Petersburg was detected among people, who knows their HIV status in 7-10 years, but was not on medical care and treatment.

Official medical system can not access to this group of patients
Proportion of MDR TB among all new cases of HIV/TB, St. Petersburg, City TB hospital, 2006-2017
TB/HIV mortality estimates in the WHO European, 2017 a rates per 100 000 population.
Mortality of TB/HIV patients on ART

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<th>Disseminated TB</th>
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<tr>
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<tr>
<td>12</td>
<td>1.7</td>
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</tr>
</tbody>
</table>

Panteleev A., 2012
Patient with TB/HIV

- TB dissemination (TB sepsis!)
- Acute progression of TB
- Comorbidity
- Drug addiction
- Low CD-cell count, absence of ART
Sputum smear negativation, new cases of TB/HIV, St. Petersburg cohort 2015-2017
To detect TB timely:
1. To find patient
2. To educate doctor for TB/HIV guidelines
3. To have modern and quick TB detection methods
4. To educate and inform patient

Prevent TB:
1. To give ART
2. To know that patient has good compliance
3. Screening for TB
4. LTI treatment
5. To educate and inform patient

To treat TB:
1. To prescribe the correct modern treatment
2. To provide solution to the social and medical problems of patient
3. To educate and inform patient
4. To end TB treatment
5. To follow up patient
Problems of TB/HIV care

1. Lack of social care for HIV and TB/HIV patients
   - lack of access to the most vulnerable groups of HIV patients

2. High level of drug addition, intolerance of medical staff to socially-deviant forms of behavior,
   - impossibility to stay patients on the TB - and ART-treatment
   - difficulties of work of medical staff with active drug users

3. Low educational level and social apathy of patients
   - lots of myths about TB and TB/HIV among patients
Perspectives… (negative variant)

- Inadequate coverage of ART
- Low level of compliance
- Preservation of a large number of HIV people without regular follow-up

HIV

TB
- Growth of TB reservoir
- Increase of TB/HIV incidence
- Increase of TB transmission risk to whole population
- Increase of TB/HIV mortality
Perspectives… (positive variant)

- Increase of HAART coverage
- High level of ART compliance
- Increase of HIV patients with high level of CD4 and undetected VL

TB

- Reducing of TB reservoir
- Decline of incidence TB in HIV population
- Reducing of the risk of TB transition to the general population
- Decline of TB/HIV mortality
Aims of work

- Moving goals in work to the most vulnerable groups of HIV patients,
- Involvement of NGOs in identifying and accompanying HIV people who use drugs,
- Education of medical staff on how to work with drug users, patients with HIV-infection,
- Education of patients about TB and TB/HIV,
- Expansion of social support for patients with HIV/TB
Conclusion

• TB is the most frequent secondary disease in HIV patients, realized in the form of a disseminated process with a high frequency of DR MBT, with a resulting high level of mortality.

• Low coverage of HAART, lack of social support, patient responsibility leads to an inadequate results of treatment of TB.

• Low social level of TB / HIV patients leads to a high frequency of discontinuations from treatment, potentiation of the TB and HIV drug resistance