Epidemiology and burden of viral hepatitis in Krasnodar Region.

Bahtina V.A.

Moscow, 25-26 October 2018
Morbidity of chronic viral hepatitis (KK and RF for the population of 100,000)

MORBIDITY OF THE NEWLY-DIAGNOSED CHRONICAL VIRAL HEPATITIS, MORBIDITY RATE OF NEWLY DIAGNOSED CHRONIC VIRAL HEPATITIS, FOR THE POPULATION OF 100,000

INCL. VHC, FOR THE POPULATION OF 100,000

INCL. VHB, FOR THE POPULATION OF 100,000
Basic scenario of the course of the epidemiological process

- **Patients treated**
  - 2017: 740
  - Constant throughout 2018-2030 (740)

- **Patients with achieved SVR**
  - 2017: 667
  - Constant throughout 2018-2030 (704)

- **Total number of the infected persons**
  - 2017: 177,980
  - 2030: 206,509

- **New cases of the infection contamination**
  - 2017: 10,390
  - 2030: 10,517

Growth of the total number of the infected persons, from 177,980 in 2017 to 206,509 in 2030

Annual intrinsic growth of new patients with CHC will average out at 10,470 people
Basic scenario of the course of the epidemiological process

**Total mortality rate**
- Growth from 5,018 in 2017 to 5,959 in 2030

**Mortality rate due to liver injury**
- Growth from 250 in 2017 to 421 in 2030

**Cases of decompensated liver cirrhosis as the outcome of CHC**
- Growth from 682 in 2017 to 1,127 in 2030

**Cases of hepatocellular carcinoma development among CHC patients**
- Growth from 223 in 2017 to 391 in 2030

Growth in the number of hepatocellular carcinoma development cases from 223 in 2017 to 391 in 2030
Surveillance system
«Viral hepatitis patients registry»
Surveillance system
«Viral hepatitis patients registry»

Fibrosis stages

Outcomes

- Liver cirrhosis: 2%
- Hepatocellular carcinoma: 6%
Specialized clinical hospital for infectious diseases  
Hepatology center structure

**TREATMENT AND DIAGNOSTIC UNIT**
- FOLLOW-UP CARE OFFICE
- OUT-PATIENT OFFICE
- DIAGNOSTIC OFFICES (EGD, U/S, FIBROSCAN)
- DAY-PATIENT FACILITY
- 24/7 HEPATOLOGY UNIT
- IMMUNOPROPHYLAXIS OFFICE

**CLINICAL-DIAGNOSTIC LABORATORY**
**MICROBIOLOGICAL LABORATORY**

**LIVER TRANSPLANT**
SBHI «RESEARCH AND DEVELOPMENT INSTITUTION – KRAI CLINICAL HOSPITAL №1, NAMED AFTER PROF. OCHAPOVSKIIY»
SBHI «KRAI CLINICAL HOSPITAL №2»
Hepatitis school
Linkage to care

MEDICAL ORGANISATIONS OF MUNICIPAL ENTITY
- CASE DETECTION
- INITIAL EXAMINATION
- REGISTRATION OF THE PATIENT

HOSPITALS FOR INFECTIOUS DISEASES (ARMAVIR, NOVOROSSIISK, KRASNODAR, SOCHI)
- IN-PATIENT EXAMINATION
- SPECIFICATION OF THE ACTIVITY PHASE

- KRAI MEDICAL PANEL
- KRAI PATIENTS REGISTRY
- SPECIALIZED CARE:
  OUT-PATIENT HOSPITAL-SUBSTITUTING HOSPITAL

СКИБ
HEPATOLOGY CENTRE
Funding sources

**PERSONS, ENTITLED TO SOCIAL BENEFITS:**
- FEDERAL BUDGET
- LOCAL BUDGET

**FORMS OF COMPULSORY MEDICAL INSURANCE**
DIAGNOSIS-RELATED GROUPS, PROVIDING ANTIVIRAL MEDICATION IN DAY-PATIENT TREATMENT SETTING

**PERSONAL SAVINGS**

**THERE IS NO SPECIAL TARGET PROGRAMME**
Percentage of sources, providing antiviral medication

Funding sources in 2016-2017

- Federal Drug Coverage: 11.4%
- PERSONAL SAVINGS: 5.9%
- CMI: 82.7%

111 pers. 1554 pers. 214 pers.

Covered by social benefits, pers.

- 2013: 90
- 2014: 98
- 2015: 132
- 2016: 85
- 2017: 26

Covered by personal savings, pers.

- 2013: 278
- 2014: 335
- 2015: 369
- 2016: 851
- 2017: 703

Compulsory Medical Insurance

2016: 104 pers.
2017: 110 pers.
The cost of the 4-week treatment (clinical statistical group # 26)

MAX
cost of KSG # 26
294 808,01
The cost of the 4-week treatment (clinical statistical groups # 23 -24)

MAX
cost of clinical statistical group # 24
119 516,76 (CP 2,3),
without CP 20 450,65
Estimated changes in the CHC epidemiologic situation: WHO strategy scenario

- Gradual increase in the numbers of treated patients, up to 5 060 persons per year;
- Gradual increase in the numbers of newly-diagnosed patients, up to 14 140 persons per year;
- Gradual decrease of morbidity rate, so far as 1 030 cases per year;
- Treatment of advanced fibrosis $\geq$F3.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2022</th>
<th>2030</th>
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</thead>
<tbody>
<tr>
<td>Newly-diagnosed patients</td>
<td>1 680</td>
<td>2 510</td>
<td>3 770</td>
<td>9 430</td>
<td>14 140</td>
<td>14 140</td>
</tr>
<tr>
<td>Patients treated</td>
<td>740</td>
<td>1 110</td>
<td>1 670</td>
<td>2 500</td>
<td>3 380</td>
<td>5 060</td>
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<tr>
<td>Cases of infection contamination</td>
<td>10 390</td>
<td>10 400</td>
<td>7 290</td>
<td>4 370</td>
<td>2 160</td>
<td>1 030</td>
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<tr>
<td>Fibrosis stages</td>
<td>$\geq$F1</td>
<td>$\geq$F3</td>
<td>$\geq$F3</td>
<td>$\geq$F3</td>
<td>$\geq$F2</td>
<td>$\geq$F2</td>
</tr>
<tr>
<td>SVR</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
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</tbody>
</table>
Estimated changes in the CHC epidemiologic situation: WHO strategy scenario

- **Patients treated**: 30,221 (2017-2030)
- **Patients with achieved SVR**: 28,645 (2017-2030)
- **Total number of treated persons**: 30,221 (2017-2030)
- **Total number of patients with achieved SVR**: 28,645 (2017-2030)
- **Reduced number of the infected persons**: 89,453 (2017-2030)
- **Reduction of new infectious diseases**: 91,880 (2017-2030)
## Estimated CHC burden – simulation predictions: WHO strategy scenario

<table>
<thead>
<tr>
<th>Prevalence rate</th>
<th>2017</th>
<th>2030</th>
</tr>
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<tbody>
<tr>
<td>Chronic hepatitis C (with viremia)</td>
<td>177,980</td>
<td>118,950</td>
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<tr>
<td>Deaths due to liver injury</td>
<td>250</td>
<td>146</td>
</tr>
<tr>
<td>Hepatocellular carcinoma</td>
<td>223</td>
<td>135</td>
</tr>
<tr>
<td>Decompensated cirrhosis</td>
<td>682</td>
<td>381</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevented cases</th>
<th>The number of prevented cases as of 2030</th>
<th>The number of prevented newly-diagnosed cases during the period of 2017-2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cirrhosis</td>
<td>7,742</td>
<td>51,728</td>
</tr>
<tr>
<td>Decompensated cirrhosis</td>
<td>746</td>
<td>5,073</td>
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<tr>
<td>HCC</td>
<td>256</td>
<td>1,750</td>
</tr>
<tr>
<td>Death as an outcome of a liver disease</td>
<td>1,875</td>
<td></td>
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Suggestions:

OPTIMIZATION OF THE VIRAL HEPATITIS REGULATORY AND LEGAL FRAMEWORK
• Development and establishment of the National strategy on Viral Hepatitis elimination;

INCREASE IN THE DETECTION FREQUENCY OF VIRAL HEPATITIS
• Implementation of the Federal screening programme on Viral Hepatitis Detection;
• Utilization of modern methods of viral hepatitis laboratory diagnostics in medical establishments throughout all subjects of the Russian Federation

MONITORING OF PATIENTS
• Creation of the integrated registry for the viral hepatitis patients throughout all subjects of the Russian Federation

INCREASE IN ACCESSIBILITY TO TREATMENT
• Increase in accessibility and coverage to modern antiviral treatment for chronic viral hepatitis, due to increase in medical aid to viral hepatitis patients’ funding in terms of Compulsory Medical Insurance

ADVANCED PROFESSIONAL TRAINING OF SPECIALISTS
• Upgrading professional level of healthcare personnel, instructing them on modern approaches to diagnostics and treatment of viral hepatitis through information and awareness-raising and educational events (activities)

INCREASE IN POPULATION’S HEALTH AWARENESS
• Executing a set of informative events (popularization/agitation/motivation) with the help of mass media and social organizations.
THANK YOU FOR YOUR ATTENTION!