Features of health preservation of civil aviation personnel in Russia

Dr. Kolesnikova – President of AMDA
Dr. Verba – Vice President of AMDA
Dr. Zabrodina – Head of Central Clinical Hospital of Civil Aviation
Dr. Potievsky – Chairman of Central Flight Expert Medical Commission
Strategies of health preservation

- Active preventive measures in order to decrease the impact of risk factors that could impair capability and affect operating performance

- Medical rehabilitation of personnel having functional disorders caused by adverse conditions of occupational environment
Current system of preservation of airmen health in Russia includes:

- Established working hours
- Medical examination and assessment for medical certification
- Rehabilitation and prevention of incapacitation
Established working hours

- **Mitigate** fatigue development / the threat of tiredness / decreased capability
- **Support** aircrew health

Workload cannot exceed:
- **36** hours per week
- **80** hours per month
- **800** hours per year

*However, it is allowed to increase in-flight hours up to **90** per month and **900** per year provided there is an agreement signed by a pilot and trade union of airmen (except cases of sensorineural hearing loss)*
3 Levels of Medical Provision of Operational Safety

1\textsuperscript{st} level: Medical examination and assessment by Flight Expert Medical Commissions

2\textsuperscript{nd} level: Medical dynamic supervision

3\textsuperscript{rd} level: Pre-flight and pre-shift medical check-ups
1st level: Medical examination and assessment

1. Assessment of medical fitness
2. Medical certification
3. Identifying early stages of illnesses, risk factors and health functional deviations

Experts: a physician, a neurologist, a surgeon, an otolaryngologist, an ophthalmologist, a psychologist
Central Clinical Hospital of Civil Aviation (CFEMC)

- regulating the strategies
- developing and implementing programs of occupational durability supervision
- monitoring of FEMC
<table>
<thead>
<tr>
<th>Age groups</th>
<th>AIRMEN</th>
<th></th>
<th></th>
<th></th>
<th>AIR TRAFFIC CONTROLLERS</th>
<th></th>
<th></th>
<th></th>
<th>FLIGHT ATTENDANTS</th>
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<tbody>
<tr>
<td></td>
<td>Assessed</td>
<td>Fit</td>
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<td>Temp unfit</td>
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<td>Fit</td>
<td>Unfit</td>
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<tr>
<td>Under 29</td>
<td>3034</td>
<td>3021</td>
<td>3</td>
<td>10</td>
<td>888</td>
<td>843</td>
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<td>4</td>
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<td>30-39</td>
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<td>3871</td>
<td>6</td>
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<td>1</td>
<td>740</td>
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<td>50-59</td>
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<td>321</td>
<td>155</td>
<td>2085</td>
<td>1937</td>
<td>78</td>
<td>70</td>
<td>2085</td>
<td>1937</td>
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<td>60 and above</td>
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<td>70</td>
<td>478</td>
<td>404</td>
<td>62</td>
<td>12</td>
<td>478</td>
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<td>358</td>
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<td>4689</td>
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<td>101</td>
<td>5007</td>
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Statistic data on health capability of civil aviation personnel (2016)
“Temporarily unfit” (2016)

- 932 (1.9% out of all assessed persons) conclusions of “temporarily unfit”.

- Average age - 55 years old.

**Reasons for denial:**
- sensorineural hearing loss
- cerebral atherosclerosis
- hypertension
- cardio vascular disease
- cancer of different localizations etc.
2nd level: medical dynamic supervision and follow-up observation

- Monitoring aviation personnel health within the period between medical examination at Flight Expert Medical Commission and semi-annual medical observations

- Providing treatment activities

- Delivering preventive procedures
54 111 examinations
49 532 additional examinations
Evidence of long-term follow up care

44,655 pilots were treated in 2016.
3\textsuperscript{rd} level: pre-flight and pre-shift health check-ups

- Random alcohol / drug test
- Cutaneous integument
- Heart rate and blood pressure temperature
- Pupillary response
- Pharyngeal mucous
- Interviewing
<table>
<thead>
<tr>
<th>Number of check-ups and reasons for suspension</th>
<th>Aviation staff</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>Flight crew</td>
<td>Cabin crew</td>
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<tr>
<td>Overall check-ups</td>
<td>900505</td>
<td>1450888</td>
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<tr>
<td>Suspended (total)</td>
<td>182</td>
<td>1047</td>
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<tr>
<td>• Acute disease</td>
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<tr>
<td>• Acute exacerbation of chronic illness</td>
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<td>155</td>
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<tr>
<td>• Alcohol misuse</td>
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<td>19</td>
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<tr>
<td>• Other substance misuse</td>
<td>-</td>
<td>-</td>
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<tr>
<td>• Non-sufficient pre-flight rest</td>
<td>4</td>
<td>10</td>
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<tr>
<td>• Failed to pass medical examination by aviation practitioner</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>• Absence of valid medical</td>
<td>5</td>
<td>4</td>
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</table>
Aviation Medicine Doctors Association (AMDA)

- Developing aviation medicine to boost operational safety
- Exchanging research results and experience
- Establishing relations with responsible institutions
- Promoting official acknowledgement of aviation medicine

125367, Moscow, Russia
7 Ivankovskoe shosse,
Tel.: +7 495 490 0391
www.avam-avia.ru
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Thank you for your attention!