Integrating rehabilitation in secondary and tertiary level

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Development Strategy of the Medical Rehabilitation System in the Russian Federation

- Population at 13 regions: 18,116,568

- Total population (2016): 146,000,000
The system of medical rehabilitation in Russia

Six classes of the degree of impairment of patients due to diseases and injuries / six clinical statistical groups

Three Stages

Profile: impairment of functions, structures, limitation of vital activity in diseases and conditions

Four Levels

Medical Rehabilitation

Basic program of compulsory health insurance
Logistic of patient in programme medical care

All alive patients are received necessary and adequate medical care.

Emergency Medical Services

General Practitioner

Surgery

Intensive Care Unit

Mortality (n %)

Diagnosis of functions in alive patients (100 - n) % patients

Inpatient medical care

Patient with rehabilitation potential 70 % (100 - n)

Without rehabilitation potential 30 % (100 - n)

Medical rehabilitation

Outpatient medical care

Palliative Nursing care

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Levels of Medical Rehabilitation Care

Primary Level
- Ambulatory Medical Organizations
- Day Hospital
- Mobile Brigade
- Remote Rehabilitation
- Home Care

Secondary Level
- Specialized Department of Multidisciplinary Medical Organization
  Rehabilitation Department /Centre of Secondary Level based
  Multidisciplinary Medical Organization
- Palliative Care

Tertiary Level
- Rehabilitation Centre of Tertiary Level
  1 for 5 mln people

Fourth Level
- Rehabilitation Centre of The Fourth Level
  Federal Medical Researching Centers (depending on medical assistance profile)
Correlation between stages of medical rehabilitation and levels of medical care

Stages of medical rehabilitation in Russia

1st stage
- Acute Unit (ICU, stroke units, cardiology units, surgery units)
- Palliative Units or hospitals
- Nursing Care Units

2nd stage
- Rehabilitation hospital or rehab. department of hospital

3rd stage
- Outpatient’s clinic
- Sanatorium
- Telerehabilitation
- Mobile rehabilitation team
- Home

2nd or 3rd levels

1st level

4th level - the federal specialized scientific medical research centers carrying-out scientific and expert activity

Levels of medical care in Russia
Referral of Patients to Medical Rehabilitation depending on the degree of Impairment based on IRR

Indicator of rehabilitation routing (IRR) – the characteristic of restriction of activity and participation of the patient on the basis of an assessment of mobility, self-service, communication, needs in assistance.

<table>
<thead>
<tr>
<th>IRR point</th>
<th>Characteristics of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 point</td>
<td>Upper good recovery</td>
</tr>
<tr>
<td>2 points</td>
<td>Lower good recovery</td>
</tr>
<tr>
<td>3 points</td>
<td>Upper Moderate disability</td>
</tr>
<tr>
<td>4 points</td>
<td>Lower Moderate disability</td>
</tr>
<tr>
<td>5 points</td>
<td>Upper Severe disability</td>
</tr>
<tr>
<td>6 points</td>
<td>Lower Severe disability</td>
</tr>
</tbody>
</table>

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Multidisciplinary approach. The objective of the first multidisciplinary team meeting is to set common goals, strategy and plan of rehabilitation. Follow-up rounds are intended to control goal assessment.

Goals:
- Specific
- Measurable
- Attainable
- Realistik
- Timed

Program of Individual Rehabilitation
Software for the process of medical rehabilitation

Interface of ICF-reader
Intradepartmental and interdepartmental interaction in electronic format between medical organizations / departments in order to fulfill the list of activities of individual programs of medical rehabilitation and abilitation of patients (IPMRA).

1. Referral of a hospital discharge from IPMRA, regarding performance of the list of activities to medical organizations, sending information to USISHC, routing center 08.07.2019
2. Referral to medical rehabilitation of the next stage
3. Performance of IMPRA
4. Formation of report on performance of IMPRA activities, sending information to USISHC
5. Formation of report on execution of IMPRA activities, sending information to the patient
Implementation of Rehabilitation Services in the System of Medical Care to patient with stroke

1. Medical Preventive Department at the place of residence (MPD)
2. Primary Vascular Department (PVD).
3.1 - Telemedicine Consultation RVC
3.2 - Telemedicine Consultation CMR.
4.1 - Transportation by Neuroreanimation Brigade (NRB)
4.2 - Transportation with Deployable Brigade to different stages of rehabilitation
5 - Regional Vascular Centre (RVC)
6.1 - Round-the-clock Medical Rehabilitation Department (RCMRD)
6.2 - Medical Rehabilitation Centre (MRC)
6.3 - Day Care Medical Rehabilitation Department (DCMRD)
7 - Palliative Care Unit
8 - Outpatient Policlinic Department

Routing a Patient with Acute Cerebrovascular Impairment in the Sverdlovsk Region

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POSITIVE HEALTH EFFECT OF REHABILITATION IMPLEMENTATION INTO HEALTHCARE SERVICE FOR PATIENTS WITH STROKE

According to the data provided by Sverdlovsk Compulsory Healthcare Insurance Fund

<table>
<thead>
<tr>
<th>Treated in DMR/CMR (cases)</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>8 months in 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8%</td>
<td>24%</td>
<td>9.4%</td>
<td>36.34%</td>
</tr>
</tbody>
</table>

Including with IRR 4-5

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>8 months in 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>56%</td>
<td>77%</td>
<td>83%</td>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Admission</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>165</td>
<td>2613</td>
</tr>
<tr>
<td>2017</td>
<td>1904</td>
<td>2231</td>
</tr>
</tbody>
</table>

2016 - average score IRR at admission 3.71, average score at discharge 2.82

2017 – average score IRR at admission 3.91, average score at discharge 2.71
Clinical Practice
Organization of Routing of Patients with Stroke in Kazan
Organization of Medical Rehabilitation in the Republic of Tatarstan

The number of patients who received medical rehabilitation at the second inpatient stage

**Patients with impaired Central Neuro System**
- 2016: 3494
- 2017: 3751
- 2018: 3576

**Patients with impaired muscular skeletal system**
- 2016: 1896
- 2017: 1951
- 2018: 1991

**Total number of patients**
- 2016: 5817
- 2017: 6146
- 2018: 6017

The number of patients who received medical rehabilitation at the third outpatient stage

**Patients with impaired Central Neuro System**
- 2016: 5098
- 2017: 5683
- 2018: 6213

**Patients with impaired muscular skeletal system**
- 2016: 2016

**Total number of patients**
- 2016: 15567
- 2017: 17133
- 2018: 17811

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Organization of the third stage of medical rehabilitation of secondary level in sanatoriums at the expense of the budget of the Republic of Tatarstan (in addition to CMI funding)
The positive results of integrating medical rehabilitation into the medical care system today are:

- Improving mechanisms for assessing the quality of medical care
- Increase the effectiveness of specialized and high-tech medical care.
- Reduced mortality and hospital mortality
- Increased functional independence of patients
- Reduced disability
- Improving the quality of life of patients and the disabled
- Effective use of resources of medical organizations and the system of medical care of the subject as a whole (personnel, equipment, consumables)
- Improving the efficiency of implementation of modern technologies of medical care

Positive health effect of rehabilitation implementation into healthcare service
Thanks for attention!

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