

Review Article

Some Results from a Sociological Hospital Patient's Survey on Neurosurgery Assistance in Mongolia

Enkhbayar T¹, Finchenko EA², Sadovoy MA³, Battur B⁴ and Gilyazev AR⁵

¹Neurohospital "Bayarmed", Ulaanbaatar, Mongolia

²Federal State Novosibirsk Research Institute of Traumatology and Orthopedics, Mongolia

³Novosibirsk State Medical University, Russia

⁴Central Military Hospital, Ulaanbaatar, Mongolia

⁵National Research University, Health Care Administration and Economics, Mongolia

*Corresponding author: Tsevegbat Enkhbayar, Neurohospital "Bayarmed", Ulaanbaatar, Mongolia

Received: June 20, 2022; Accepted: July 28, 2022;

Published: August 04, 2022

Abstract

Introduction: In Mongolia, there is a number of geographical and national characteristics that affect the accessibility and organization of neurosurgical care for the population.

Objective: Identify problems and directions for optimizing neurosurgical care in Mongolia from the consumer's of medical care point of view – patients.

Methods of Research: Sociological, statistical methods.

Results: The results of the conducted research showed that the aggregated priority directions of neurosurgical care optimization according to the interviewed patients of hospitals in Mongolia are optimization of providing neurosurgical care organization, optimization of personnel and logistical support, and patient handling.

Conclusions:

1. The results of a sociological patient's survey revealed that the work of the reception department in surgical clinics is organized insufficiently effectively in relation to neurosurgical profile patients.

2. Technology of therapeutic and diagnostic processes (the regularity of patient's examination by medical personnel, such as attending physicians, duty doctors, and heads of departments) is not fully maintained.

3. Informing patients and their relatives about the results of the examination and the course of treatment is not organized at the proper level.

4. According to the patients, the main problems in the organization of neurosurgical care are: a long queue for examination and treatment in public clinics, unsatisfactory conditions of hospital stay, as well as a high workload of medical personnel.

5. According to the patients, priority directions of neurosurgical care optimization are: improvement of the stages of neurosurgical care organization, personnel and logistical support optimization, and organization of informing population about the work of the neurosurgical service.

Keywords: Mongolia; Neurosurgical care; Sociological survey; Patients

Introduction

Currently the most important goals of healthcare systems are to improve the health of the population, to ensure the availability and proper quality of medical care [1-3,6,10].

Up to date, Mongolia has not conducted comprehensive scientific studies highlighting the problems of neurosurgical care, while the availability of such scientifically based data is of great importance for the organization and planning of neurosurgical care. In this regard, the issues of improving neurosurgical care for the population of Mongolia remain relevant at present, which served as the basis for this study.

Aim

The aim is to identify the problems and ways of optimization of neurosurgical care in Mongolia from the point of view of its

consumers – patients.

Review Methods

The study based on sociological and statistical methods. A sociological survey was conducted to assess the state, problems, and prospects of optimizing neurosurgical care in Mongolia. As a part of the study, 403 respondents (such as patients of neurosurgical/surgical departments) of medical organizations of various organizational and legal forms were interviewed. Representativeness is calculated according to the table for determining the required sample population [4,7-9].

The distribution of respondents was as follows:

- **by gender:** men – 36,5%, women – 63,5%;
- **by age:** under 18 years – 6,5%, from 18 to 30 years – 19,9%, from 31 to 60 years – 60,2%, over 60 years – 13,4%;

- **by social status:** workers – 49,1%, employees – 1,5%, trainee and students – 7,2%, disabled people – 3,2%, seniors – 19,3%, others – 19,9%;

- **by education:** incomplete secondary – 22,3%, secondary – 18,4%, secondary professional education – 9,4%, undergraduate degree – 4,0%, degree – 45,9%.

To assess the reliability of the results, a standard method of measurement was used (average of observed values – *m*), statistical processing of the study results was carried out using the Statistical 6.0 program.

Results

The conducted sociological survey of patients of the neurosurgical (and surgical) department on issues and improvement of neurosurgical care matters evidenced the following results.

More than half of the respondents (53.8%) were referred to the emergency department by physician, 17.8% seek medical help by themselves, 13.0% were delivered by ambulance, 6.0% were referred by a private practitioner, 6.0% were transferred from another department, other – 3.4%. The point to be emphasized is a very significant proportion of patients who applied independently and a sufficiently small proportion of those delivered by ambulance.

Almost a third (30.8%) of respondents rated their condition at admission as poor, satisfactory – 61.3%, good – 7.9% of respondents.

6.7% of respondents were waiting for a neurosurgeon at the emergency department for more than 1 hour, 19.4% from 30 minutes to 1 hour, 70.2% up to 30 minutes, 3.7% of respondents practically did not wait. At the same time, almost half of patients (49.4%) are not satisfied with the work of the reception department, 40.9% are satisfied, and 9.7% of respondents were undecided.

Non-compliance with the hospital regime in the neurosurgical (surgical) department was noted by 12.2% of respondents, compliance – 87.8%. 38.2% were not satisfied with the conditions of stay in the chamber, 33.3% were satisfied, and 28.5% of respondents were undecided.

According to respondents, the attending physician does not examine patients every day – 13.6%, once a day – 57.4%, several times a day – 29.0%. A small part (5.2%) indicated that the attending physician does not inform them about the course of treatment, appointments made, or course of the disease; not as frequently as they would like – 40.5%, informs regularly – 54.3% of respondents.

Among the negative characteristics given by respondents to the attending physician are indicated: prolonged absence from the department – 25.1%, insufficient attention to patients – 15.1%, insufficient tact with patients and staff – 9.7%. In general, 16.6% are not satisfied with their attending physician, 71.2% are satisfied, and 12.2% of respondents were undecided.

According to respondents, duty doctors do not make evening and morning rounds in the wards – 20.1%, do them irregularly – 22.1%, do them regularly – 23.1%, were undecided – 34.7% of respondents. Thus, almost half (42.2%) of respondents believe that duty doctors do not make evening and morning rounds or do them irregularly.

A small part (3.2%) indicated that the head of the department does the rounds irregularly, does it regularly – 90.3%, 6.5% of respondents were undecided.

More than a half (58.6%), if necessary, would like to be surgically operated by the attending physician, by the head of the department – 23.8%, by other doctors of the department – 1.0%, in another hospital – 1.0%, 15.6% of respondents were undecided.

8.2% of the respondents rated the quality of nurses' work as unsatisfactory, 27.0% as satisfactory, and 64.8% as good. Among the negative characteristics given by respondents to nurses, necessary to note the inattention of nurses to patients – 10.9%, carelessness – 2.5%, long waiting time in case of necessary – $3.2 \pm 0.9\%$, frequent absence from the workplace – 1.5% of respondents. In general, 2.5% are not satisfied with the work of junior medical personnel, 96.0% are satisfied, 1.5% of respondents were undecided.

6.2% of respondents were not satisfied with the motion of treatment and its results, 70.5% were satisfied, 23.3% of respondents were undecided. 6.5% were not satisfied with the motion of treatment on holidays and weekends, 80.9% were satisfied, 12.6% of respondents were undecided.

A tenth (10.2%) of respondents indicated that they or their relatives, if necessary, do not have the opportunity to find out about the motion of treatment from the head of the department, have the opportunity – 85.6%, were undecided – 4.2% of respondents.

Among the problems of neurosurgical care, respondents noted (aggregated and adapted answers of 100 respondents):

- Problems of state clinics (53.4%): unsatisfactory patient care by doctors of state clinics – 33.2% and a long queue for examination and treatment in state clinics – 20.2%;

- Unsatisfactory physical infrastructure (34.6%): shortage of beds in district hospitals – 17.8%, unsatisfactory hospital conditions – 16.8%; high workload of medical personnel – 12.1%.

Aggregated priority areas of optimization of neurosurgical care by respondents (per 100 respondents) are defined as follows. Improving of the neurosurgical care organization accounted for slightly more than a half of all respondent's responses (50.2%).

In the section of improving the neurosurgical care organization were noted internal aspects – 45.3%: combining official treatment with traditional medicine – 5.7%; standardization of nurses' work – 5.3%; optimization of the physical queue, reduction of waiting times for medical care – 5.2%; reduction of examination time and improvement of diagnostic quality – 4.1%; improvement of hospital stay conditions – 4.0%; improvement of rehabilitation treatment – 3.9%; expansion areas of activities and development of neurosurgical service – 2.8%; mandatory personal examination of patients by neurosurgeons – 2.7%; optimization of neurosurgical emergency care – 2.1%; optimization of the work organization of neurosurgical (surgical) departments – 1.9%; reduction of the cost of diagnosis and treatment in private clinics – 1.3%; improvement of the culture of medical care – 0.9%; other - 5.4%.

In the organization of neurosurgical care (external aspects), the main areas of improving are indicated (4.9%): salary increase for

doctors, secondary, and junior medical personnel, improvement of hospital conditions – 2.8%; development of private clinics – 1.5%; optimization of medical insurance – 0.6% of respondents.

In personnel improvement (29.1%), the main areas of optimization are recognized as: improving the qualification level of family physician and polyclinic doctors – 8.2%; increasing the level of mutual understanding (interaction) between doctor and patient – 7.8%; compliance with ethics of doctors, middle, and junior medical personnel regarding patients – 4.7%; increasing the responsibility of medical workers and, first of all, doctors – 3.8%; increasing the interest of medical personnel in the patient's health – 3.2%; teamwork skills to achieve a common goal – 1.4% of respondents.

In the field of resource allocation (15.4%) key areas of optimization are: resources and modern equipment support – 9.1%; increase in the number of staff and bed capacity – 5.1%; increase in funding – 1.2% of respondents.

In the field of optimization of work with the population (5.3%), respondents indicated the main areas of improving: raising awareness of population (patients) about neurosurgical care, its capabilities and achievements – 3.4%; training of the population (patients) and their family members basic knowledge of restorative medicine – 1.3%; support (communication) of neurosurgical patients and their families – 1.2%; ensure hiring (and partial payment by the government) an individual rehabilitation therapist and speech therapist – 0.9%.

Thus, the aggregated priority areas for optimizing neurosurgical care, according to the population (patients), are (per 100 respondents): organization (50.2%), personnel (29.1%), resources (15.4%), and population (5.3%).

Discussion

The results of a sociological survey of patients of neurosurgical (surgical) clinics on the problems and ways to improve neurosurgical care in Mongolia found the main problems: a long queue for examination and treatment in state clinics, a shortage of beds in district hospitals, unsatisfactory hospital conditions, as well as a high workload of medical personnel. According to the population (patients), priority areas of improving of neurosurgical care are optimization of the organization of neurosurgical care, personnel policy, logistics, work with the population (informing about the possibilities of neurosurgical care, etc.).

Conclusion

1. The results of a sociological patient's survey revealed that the work of the reception department in surgical clinics is organized insufficiently effectively in relation to neurosurgical profile patients.

2. Technology of therapeutic and diagnostic processes (the regularity of patient's examination by medical personnel, such as attending physicians, duty doctors, and heads of departments) is not fully maintained.

3. Informing patients and their relatives about the results of the examination and the course of treatment is not organized at the proper level.

4. According to the patients, the main problems in the

organization of neurosurgical care are: a long queue for examination and treatment in public clinics, unsatisfactory conditions of hospital stay, as well as a high workload of medical personnel.

5. According to the patients, priority directions of neurosurgical care optimization are: improvement of the stages of neurosurgical care organization, personnel and logistical support optimization, and organization of informing population about the work of the neurosurgical service.

Data for RISC

Orcid0000-0003-0396-1651

Tsevegbat Enkhbayar, Director, Neurohospital "Bayarmed", Ulaanbaatar, Mongolia; President, Mongolian Neurosurgical Society, tel.: +97699089689, +976 99152962, e-mail: ts_enkhbayar@yahoo.com

Orcid0000-0002-2835-6522

Finchenko E.A., Novosibirsk research institute of traumatology and orthopaedics n.a. Ya.L.Tsivyan, chief researcher; 17, Frunze Street Novosibirsk, 630091, tel. 8 (953) 773-95-13, e-mail: E.Finchenko@yandex.ru

Orcid0000-0002-0902-0396

Sadovoy Mihail Anatol'evich, Novosibirsk research institute of traumatology and orthopaedics n.a. Ya.L.Tsivyan, director, professor, doctor of medical sciences, 17, Frunze Street Novosibirsk, 630091, Russia

Novosibirsk state medical institute, Head of the Department of Health Organization and public health, 52, Krasny prospect, Novosibirsk, 630091; e-mail: niito@niito.ru

Batsaikhan Battur, Neurosurgeon, Neurosurgery department of central military hospital. Ulaanbaatar, Mongolia. Secretary, Mongolian Neurosurgical Society, tel.: +976 88188357, e-mail: btturuu@gmail.com

Gilyazev A.R., National Research University, Health care administration and Economics, Moscow, Russia. tel.: +7-991-933-66-93, e-mail: gilajzev@mail.ru.

References

- Kakorina EP, Slepshenko IO. Ob ukrepleniizdorov'jatrudospobnogonaselenija [On strengthening the health of the able-bodied population]. *Zdravoohranenie*. 2009; 4: 17-22.
- Kindarov ZB. Nauchnoebos novaniesovershenstvovani jaorganizacii i jehirohirurgicheskijpomoshhi v sub#ektfederacii [Scientific substantiation of improving the organization of neurosurgical care in the subject of the federation]: *Cand Med Sci*. Moskva: 2014.
- Lindenbraten AL. Organizacionno-pravovyeaspekty upravlenijakachestvom medicinskoj dejatel'nosti [Organizational and legal aspects of management of the quality of medical activity]. *Bjulleten' nacional'nogonauchno-issledovatel'skogoinstitutaobshhestvennogozdorov'ja imeni N.A. Se-mashko*. 2014; 1: 165-169.
- Lisicyn Ju P. Obshhestvennoezdorov'eizdravoohranenie [Public health and health]: *uchebnik / 2-e izd. M. :GJeOTAR-Media*. 2010; 512.
- Maksimova TM, Lushkina NP. Osobennostisostoja nijazdorov'jazhitelejraznyhtipovposelenij [Features of the health status of residents of different types of settlements]. *Problemysocial'nojgigieny, zdravoohranenijaiistorii mediciny* 2011; (1): 3-7.

6. Starodubov V I. Obshhestvenno ezdorov'eizdravoohranenie. Nacional'noerukovodstvo [Public health and public health. National leadership] / pod red. O. P. Shhepinaidr. M.: GJeOTAR-Media. 2013; 624.
7. Finchenko EA, Cycorina IA, Shalygina LS, Ivaninskij OI, Sharapov IV. Informacionno-analiticheskoeob espechenieupravljenijaregional'nyMZdravooh raneniemnaosnovejeks pertryhocenok [Information and analytical support of regional health management based on expert assessments]. Problemysocial'nojgigieny, zdravoohranenijaiistoriiimediciny. 2014; 6: 45-48.
8. Shalygina LS. Jekspertnajaocenkaperspektivrazvitijavysokotehnologichnojmedicinskojpomoshhi v sub#ekte RF [Expert evaluation of the prospects of development of high-tech medical care in the subject of the Russian Federation]. VestnikRoszdravnadzora. 2015; 2: 52-55.
9. Shigan E.N. Metodyprognozirova nijaimodelirovanija v social'no-gigieniches kihissledovanijah [Methods of forecasting and modeling in social and hygienic research]. Moskva Medicina. 1986; 212.
10. Shhepin VO, Molchanova LF, Kalininskaja AA, Shkatova E Ju. Kachestvoz hiznikakrite rijsostojanijazdoro v'jaijeffektiv nostilechebno- profilaktichesk ojpomoshhi [Quality of life as a criterion of the state of health and effectiveness of treatment and preventive care]. Izhevsk. 2011; 172.
11. Shhepin OP, Djatlov V Ju. Zdravoohraneniekaksocial'no-jekonomicheskajasistema [Health as a socio-economic system]. Problemysocial'nojgigieny, zdravoohranenij aiistoriiimediciny. 2012; 3: 3-5.