

MEDICINE IN SUDAN – DIFFICULTIES AND PERSPECTIVES

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The article presents an overview of the history of medicine in Sudan, the difficulties of the health system and the perspectives and opportunities for the development of the medical sector.

The Republic of Sudan is located in north-east Africa and is considered a lower-middle-income country. The country's health system has some many drawbacks, mainly due to economic and managerial reasons, accompanied by prolonged political instability and sanctions.

The history of the development of medicine and the provision of professional medical care in Sudan dates back to 1903, when one of the most famous and well known Wellcome Research Laboratory was founded in Khartoum as part of Gordon Memorial College.

Generally, the country's cultural, political and economic status influence the health services system. In the case of Sudan, the health system is currently experiencing some difficulties. The socioeconomics of Sudan were deteriorating after the separation of South Sudan. Sudan lost 75% of the oil resources and almost half of the country's revenue. Sudan's economy has suffered a great deal from this. Due to these occurrences, funds for health have been cut, adding to the fragility of the health sector.

According to 2017 dates, population of Sudan is about 41,727,150, of which 33.7% of the population lives in urban areas. The population growth rate is 2.41%. Sudan is a young population country with an average age of 19.6 years. The total life expectancy of men and women at birth, which is an indicator of overall health and living standards, is estimated at about 62 and 66 years, respectively, and this is considered to be the average for the least developed countries. Sudan is considered to be a low- and middle-income country: 47% of the population lives below the poverty line.

In addition to severe and sometimes deadly infectious diseases such as malaria, tuberculosis and schistosomiasis, Sudan is also prone to non-communicable diseases, natural and man-made disasters. Drought, floods, internal conflicts and outbreaks of violence are quite common, causing numerous injuries and the need for high-quality emergency medical care.

The main causes of many infectious diseases such as acute respiratory infections, hepatitis E, measles, meningitis, typhoid fever and tuberculosis are poor sanitation and inadequate health care. Malaria is the most common disease and cause of death. Sudan's medical experience in this area is overly limited. In 2003 hospitals registered 3 million cases; malaria victims accounted for up to 40 percent of outpatient consultations and 30 percent of all hospital admissions.

As for children's health, the lack of vitamins, proteins and micronutrients in food is a serious problem. 12.6% of children under the age of 5 suffer from severe exhaustion and stunting. Newborn babies are often prone to diarrhea and pneumonia. As of 2010, 73 out of every 1,000 children born do not live to their fifth birthday.

The annual incidence of tuberculosis in 2010 was 119 cases per 100,000. In the case of HIV/AIDS, the epidemic is classified as low among the general population, with an estimated prevalence of 0.24% with concentrated epidemic in two states.

As for polio, it has been absent in Sudan since 2009, thanks to a vaccination campaign that was launched with the support of the World Health Organization.

Malaria is the leading cause of morbidity and mortality in Sudan, and the entire population is at risk. It commands an inordinate amount of Sudan's limited medical expertise. In 2003 hospitals reported 3 million cases; malaria victims accounted for up to 40 percent of outpatient consultations and 30 percent of all hospital admissions. In 2007 a study was conducted in Sudan which revealed underreporting of malaria episodes and deaths to the formal health system, with the consequent underestimation of the disease burden.

In addition to infectious diseases, cardiovascular diseases have consistently been among the 10 leading causes of hospital mortality over the past decade. Malaria and acute respiratory infections are the first two causes.

According to the data, the prevalence of heart disease is 2.5%. Hypertensive heart disease (HHD), rheumatic heart disease (RHD), ischemic heart disease (IHD) and cardiomyopathy account for more than 80% of cardiovascular disease in Sudan.

In Sudan, the national prevalence of diabetes among adults is 7.7 per cent. In 2017, more than 2,247,000 cases of diabetes were reported in Sudan.

The availability of health services in large cities and rural areas is unequal and varied. In terms of access to health care, Sudan can be divided into three categories: rural areas, rural and suburban areas and the capital region. In rural areas, especially in remote provinces, standard health care is completely absent. For the most part, there are no doctors or clinics in these regions. Slightly more fortunate has rural areas near cities or with access to bus or rail lines. Small primary health care units staffed by qualified and certified health workers provide basic care and counselling, as well as referrals to appropriate clinics in urban areas. There are doctors and hospitals in provincial capitals, but their quantity and quality are insufficient to meet the needs of medical care.

The three cities of the capital region have the best medical facilities and doctors in the country, although many of them will still be considered substandard in other parts of the world. Here, health care is provided in three types of facilities: overcrowded, poorly maintained and under-equipped public hospitals; Private clinics with appropriate facilities and equipment available only to the middle and upper classes; and public clinics where adequate medical care is available for a nominal fee.

It is important to add that the medical sector has some positive side, the number of hospitals has been growing and continues to grow in the last decade. The quality of primary health care, which aims to promote health, is being improved. Child vaccination rates and family planning services are increasing. Of course, these indicators are not ideal, and require further reorganization. It is necessary to build new health-care centres, especially in remote rural areas, equipment upgrades and training of highly qualified medical professionals.

In conclusion, I would like to say that Sudan is a rich country in terms of natural resources and population. Its health service system has strengths and weaknesses. It needs to build on its qualified human work force, stress on its well-designed short and long-term strategies on health care system and the partnership with external funding institutions, while overcoming the challenges on creating the proper health information system, economic support system and centralization of health service and professionals.

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ДЕГТЯРЕВ В.В. – ИЗОБРЕТАТЕЛЬ УНИКАЛЬНОЙ МЕДИЦИНСКОЙ АППАРАТУРЫ ДЛЯ ИССЛЕДОВАНИЯ КОСМОНАВТОВ

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На протяжении веков космос манил людей: одни мечтали совершить полет, другие дотянуться до звезд, а третьи - совершать открытия на благо покорения космоса. Вопросами освоения космического пространства задавалось человечество на протяжении многих тысячелетий, они затрагивали людей различной деятельности и эпох, а особенно людей, посвятивших свою жизнь науке во благо человечества.

Воронежская земля была всегда щедра на уникальных сыновей. Одним из таких стал необыкновенный человек – полковник медицинской службы, доктор медицинских наук, профессор, врач Дегтярев Владимир Александрович [1].

Дегтярев Владимир Александрович родился в 1932 году на станции Сомово, в семье служащих. Отец – Дегтярев Александр Дмитриевич – директор зверосовхоза, мать – Дегтярева Ирина Григорьевна – учительница. Владимир Александрович во время учебы в школе лишился отца, и вся забота о семье легла на него. В 1950 году Владимир Александрович окончил среднюю школу на станции Графская с серебряной медалью и поступил в Воронежский государственный медицинский институт имени Н.Н. Бурденко.

В 1951 году Владимир Александрович перевелся на 2 курс Военной медицинской академии имени С.М. Кирова с одновременным добровольным зачислением в ряды Советской Армии. В 1956 г., после окончания академии, во время распределения среди 9 счастливчиков Дегтярев В.А. попадает в ВДВ, становится начальником батальонного медицинского пункта [2].

В это же время он пробует вести свою первую научную работу под руководством начальника кафедры патофизиологии профессора И.Р. Петрова на тему «Начало болезни». Исследуются заболевания желудочно-кишечного тракта. И в это время у него впервые возникают сомнения в точности общепринятого метода определения артериального давления (АД) по тонам Короткова.

1959 год является судьбоносным для Владимира Александровича. Он получает направление в ВВС в 7-й НИИИ авиационной и космической медицины Московского округа. Институт расширился в связи с подготовкой пилотируемых космических полетов. Владимир Александрович попадает в лабораторию, которая разрабатывала систему аварийного покидания и приземления космических летательных аппаратов. На этом направлении он прослужил 7 лет, и здесь зародилась идея создания портативной, высокоинформативной, простой аппаратуры врачебного контроля за состоянием испытателей [3].

Отрабатывалась система покидания космического корабля в случае аварии на стартовой площадке и воспламенения топлива. Желая обеспечить безопасность космонавта в случае аварии, Владимиром Александровичем и его сотрудниками была создана катапульта с двумя пороховыми зарядами. Отработка системы спасения открывала путь к полету Ю.А. Гагарина. Первое контрольное катапультирование и второе