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# STUDY OF MEDICAL SPECIALISTS' WORKING CONDITIONS IN DIAGNOSTIC RADIOLOGY DURING THE COVID-19 PANDEMIC

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## INTRODUCTION

Diagnostic methods for assessing health status play a significant role in the provision of medical care to the population. About 70–80% of all diagnoses are currently established taking into account the methods of diagnostic radiology. According to T.J. Carroll (2003) and J. Herron, J.H. Reynolds (2006), there is an increase in radiological diagnostics during duty hours by 22% over a four-year period in the USA and by 85% over an eight-year period in the United Kingdom. A special role is assigned to methods of radiation examinations and especially CT during the Covid-19 pandemic. These methods are important for diagnosis, timely detection of complications and assessment of the dynamics of the course of the disease. The study aimed to evaluate the working conditions of medical specialists working in the offices and departments of diagnostic radiology in Moscow during the Covid-19 pandemic.

## MATERIALS AND METHODS

The study was conducted using a questionnaire method; the survey of respondents was implemented using an electronic service in the period of September to November 2020. The study was based on the offices and departments of diagnostic radiology of outpatient clinics in the city of Moscow. 26 specialists (61.5% doctors and 38.5% nursing personnel) working in the offices and departments of diagnostic radiology took part in the survey.

## RESULTS

The analysis of the composition of medical workers in offices and departments of diagnostic radiology revealed that the majority were workers aged 41–50 years (53.8%). Respondents aged under 30, 31–40, and 51 years and older were equally distributed (15.4% each). There were 84.6% of female respondents.

Employment experience in the profession of the majority of medical workers (61.6%) exceeded 10 years, and about half of the respondents (46.2%) had the highest qualification grade.

53.8% of respondents conducted 36–40 examinations per day during the study period, while 46.2% of respondents noted the duration of work with patients during the day for more than 8 hours.

The respondents highlighted the problems encountered in their work: overwork due to a shortage of personnel (38.5% of respondents), conflicts with patients (23.1%), low wages (23.1%), and 30.8% of respondents expressed low estimate of the equipment condition. There were no specialists dissatisfied with the hygienic working conditions, however, only 76.9% noted that assessment of control of individual exposure doses of personnel is performed on a regular basis in accordance with the requirements. The respondents indicated irregular monitoring, its absence, or found it difficult to answer the question (7.7%, respectively). At the same time, less than half of the respondents (46.2%) always use personal protective equipment, 23.1% of the respondents indicated that they most often try to use them, and almost every third (30.8%) noted that they do not always use the means.

## CONCLUSIONS

Thus, an increase in work with patients during the working day up to 8 hours (with a standard load of 4 hours a day with a six-day working week, and 5 hours a day with a five-day working week) indicates a significant (almost by 2 times) increase in the workload on specialists in diagnostic radiology during the Covid-19 pandemic. This is due to both a shortage of personnel and an increase in demand for this type of research. It should also be noted that with significant work experience, many specialists in diagnostic radiology do not fulfill the necessary hygiene requirements to ensure the safety of medical personnel.

*Keywords:*

working conditions, diagnostic radiology, medical specialists, COVID-19