

Table 2

The Dental Hygienist's Time Expenditures, Not Related to the Direct Medioprophyactic

Care for the Patients Provision

The Activities Type:	The Actually Spent Time (min)	The Time, Taken for the Calculations (min)
Service Talks	42	100
Other activities	55	55
Personal time necessary	87	100
Idle time	62	-
Auxiliary activities	846	846
Total:	1,092	1,100

Some correction of the labor expenditures has been made by the experts, so the personal time has been regulated by the rate of 10 minutes per day, as it is taken its place in the other sectors and the branches of the national economy. Thus, the time has been added for the service talks, and the idle possible time has been excluded.

So, the average estimated time for the 1 patient's service by the dental hygienist has been made up 40 minutes. It should be emphasized, that the specialist conducts the admission in the adult dental polyclinic, where he accepts both, as the adults' patients, well as the children ones, that is he works on the family lines.

And it has been conditioned the mixed reception doing, as the activities types structure, their execution frequency, as well as the temporary costs on them.

The load calculation (e.g. the service) of the dental hygienist. The live standard workload of the dental hygienist will be made up 1,5 visit per hour (e.g. 60 min: 40 min).

Conclusion

The dental hygienists will allow to be improved the quality of the primary medical and sanitary care provision, which has a positive impact on the dental health of the population.

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INCREASE IN QUALITY OF REGIMES OF THREE-DIMENSIONAL VISUALIZATION OF COMPUTER GRAPHICS WHILE STUDYING PATIENTS WITH ULTRASOUND

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Intense development and improvement of medical ultrasound technics is founded on using scientific basics of radio and echo ranging, digital electronics, semiconductor technics. Modern medical ultrasound scanners allow us to receive three-dimensional pictures of objects with a resolution of 0,1 mm, Doppler methods allow us to evaluate blood flow in vessels, motion of heart walls and other tissues of the organism with a speed of lower than 1 cm/s.

A reasonability of using volume ultrasound nowadays does not cause any apprehensions while demonstrating images of organs or objects on PC monitor. Nevertheless, two-dimensional ultrasound is a basis of modern echo ranging that provides for a solution of a number of clinical problems of obstetrics, diagnosing diseases and defects of an embryo development. Therefore, a possibility to obtain three-dimensional images of high quality with US will allow us to receive an image for a visual evaluation quickly and increase its real quality.

In order to optimize two-dimensional picture on PC screen one should increase its resolution via increasing a number of channels. However, in this case, frequency of frames of raster scan decreases. While setting a high density, a number of scanning lines increases, and it increase an image resolution.

In order to decrease grain of an image and simplify diagnosing it is recommended to overlap several frames. An increase in an index of average image makes motion of picture on PC screen smooth and slow. At the same time, the real frame frequency does not decrease. However, while studying highly mobile organs, for example, in an obstetrics program, or echocardiogram, we recommend to turn this option off. In order to make an image smoother and clearer it is necessary to set a value of dynamic range in an interval of 40 to 180.

While selecting the option FSI (visualizing a complete range), it is recommended to set the value from 1 to 3. Thus, it will be possible to receive a clearer resolution at less deep areas and then use a resolution with a higher penetration to study deeper structures. One should consider the fact that is control volume is set for 2D image, it will show, at which part Doppler specter is studied. Changing a position of control volume should be done with a trackball. A position is represented in the format xx.x@yy.y mm.

In 3D mode tissues and body parts are presented as three-dimensional (volumetric), not two-dimensional images. In 3D mode data on volume structures is used. It is received by a sensor as a consequent series of two-dimensional images, and three-dimensional images are formed on their basis, it simplifies the process of diagnosing. Forming

volumetric images is a process of calculation that is used to define 3D structure according to two-dimensional sectors. Using intensity of grey for each pixel of two-dimensional image a corresponding voxel – volumetric element of three-dimensional image is defined. An algorithm of forming an image defines a method of visualizing three-dimensional structure.

To increase a quality of three-dimensional reconstruction it is necessary to adjust contrast of the selected structures in 2D mode and set a lower limit value. A clear image from the border of inquiry window to a certain surface can be provided via removing noise in case values of grey surface are lower than values of surface. An upper limit should be selected of value no more than 255. In case values of surface reconstruction algorithm exceed a limit value, surface borders should be marked and adjusted with a scroll box of the upper limit value.

A regime of multiplane reconstruction of three-dimensional image provides for an observing frontal, sagittal, and axial sectors of volumetric image.

- plane A: frontal sector;
- plane B: sagittal sector;
- plane C: axial sector.

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CARDIOVASCULAR ACCIDENTS AND NERVOUS BREAKDOWNS AS THE RESPONSE TO THE GEOPHYSICAL CONDITIONS

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The heliobiological communications research draws the attention of the scientists for a long time [Chizhevsky A.L.1934, Novikova K.F., Ryvkin B.A.1971]. This problem has the big urgency in the connection with the advancement of the persons in a space. The ionospheric spherical waveguide (the walls are formed by an ionosphere and a surface of the Earth) is a source of five resonant frequencies theoretically calculated by Schuman [Balser M. and Wagner C. 1960]. The ionospheric waveguide is excited by thunder-storms in the low geomagnetic latitudes. The waveguide frequencies of 8 and 14 Hz are close to frequencies of one of the

rhythms of the biopotentials of a brain of the person (an alpha rhythm: 8–13 Hz), measured by the German doctor of the psychiatry G. Berg in 1924. In my opinion, the ionospheric waveguide is not the unique natural resonator. The excitation sources can have the various physical nature. According to the geophysical researches presented by [Sterlikova I.V., Ivanov A.P. of 1997], the plasmosphere (one of the structural areas located higher than the ionosphere) can be the amplifier of the high-frequency geomagnetic pulsations. It is necessary to notice the American researchers have registered the Schuman's resonant frequencies by the sputnik on the distances from the Earth above an ionosphere [Simoes F. et.al., 2011] – 450–800 km that corresponds for the plasmosphere. The plasmosphere is dynamical, its dynamics depends on the geomagnetic activity. According to the geophysical net of the stations on the ground surface, the region of the projection plasmapause on the ground surface is displaced to the south with growth of the geomagnetic activity that testifies to approach of the boundary of the plasmosphere to the Earth. The plasmosphere decreases in sizes. The above geomagnetic activity, the above strengthening high-frequency a component of the geomagnetic pulsations in the plasmosphere. According to photo from the American automatic space vehicle IMAGE (NASA) for 31.01.2001 [www. astronnet.ru/db/msg/1167179], the configuration of the plasmapause becomes complicated in the indignant geomagnetic conditions, there is a tail towards the Sun in evening sector.

Murom located in region of the middle-latitude geomagnetic can test whims of the space weather on itself under defined geophysical conditions developing in the plasmosphere. The article purpose is to check concept of the heliobiological communications in the middle-latitude region removed from so-called auroral geophysical zones of the intrusion of the plasma of a solar wind up on a statistical material. The researches of the interrelation of the sudden death from the cardiovascular illnesses and from the nervous breakdowns and the presence or the absence of the geomagnetic pulsations are conducted in the article. The data of the station of the first medical aid and the data of the middle-latitude geophysical observatory in Borok of Yaroslavl region are used in the article. The geomagnetic pulsations have been chosen with the frequency range close to biorhythms: PC1 (regular pulsations, pearls), IPDP (irregular pulsations with the decreasing period), Pi1 (irregular pulsations with the period from 1 to 40 s). Sudden death was observed in most cases at a long absence of the high-frequency geomagnetic pulsations in a frequency range close to the basic biorhythms of the person. The conclusions in the article coordinate by [Sterlikova I.V., 1990 and 2012] and with results of the Australian scientists [Buxton J.R. et.al., 1987] who have achieved simplification of a syndrome of Parkinson on the rabbits irradiated by artificial pulsations of the electric and magnetic fields with the frequency of 8 Hz and with the amplitude 0,7 V and 1000 nTl, accordingly. As