

A direct functional loading over implants and the surrounding bone can be placed in case when implants have an inter-bone height no less than 10 mm, is architectonic of bone tissue corresponds to type I or II. In other cases implants should be involved into functional loading after 2–3 months of their placing. Under regressive transformation of bone (types V–VI of architectonics), unfavourable anatomic conditions, and usage of unusual methods, period of removing implants from functional loading should be increased up to 4–6 months, and sometimes even 10 months.

Treating single teeth row defects using teeth implants.

Two approaches can be used in replacing single defects of teeth rows:

1. Prosthetic on an implant preserving intact teeth.
2. Introduction of one of intact teeth into a prosthesis as an implant support.

Both approaches imply usage of implants of screw and cylindrical shape

Medical observation was carried out on 78 patients.

While replacing defects in area of one-root teeth, using implants with inter-bone diameter less than 4 mm, and height – 10–14 mm with joining temporal orthopedic construction with intact teeth should be considered as an optimal way of action; surplus micro motion over the system «implant-bone tissue» should be excluded.

In case a prosthesis has two points of support (two implants or an implant and an intact tooth), implants of any, even minimal height of inter-bone part can be used (8 mm for two-stage and 10 mm for one-stage implants).

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#### THE DENTAL HYGIENIST LOAD CALCULATION

<sup>1</sup>Kalininskaya A.A., <sup>2</sup>Ildarov R.B.

<sup>1</sup>«The Treatment and Prevention Organization» FSHM ЦНИИОИИ Minzdravotzdevelopment of Russia Moscow, e-mail: Akalininskaya@yandex.ru;

<sup>2</sup>ООО «Comfort – Dent», Moscow

The forms of work and the results of the work quota setting of the dentist hygienist have been presented in the paper.

According to the WHO and the various authors' data, the dental diseases prevalence among the children population is being reached up 75–95%, among the adult one – 100%. So, the challenges, having associated with the teeth and the mouth cavity diseases, are being come in the first place, in the age groups of the population, who is older, than 35 years old.

Its citizens' dental health is constantly being deteriorated, having increased the medical, the social, and the economic damage.

The stomatology development intensive way with the predominant focus on the increase in the clinical and the medical work volume is not quite able to be solved the main challenge – the population dental morbidity reducing. The medical technologies care and the further improvement treatment, and the earlier prevention of the dental diseases is one of the challenges in the further dental care improving (e.g. A.V. Alimsky, 1999, Z.A. Ashuev, 2007).

So, the development and the further implementation of the individual programs of the hygienist education, the population education and the implementation of the measures for the dental disease prevention is the dental hygienist's work main purpose. Thus, the development and the further implementation of the individual programs, the basic hygienic prevention of the dental diseases is the dental hygienist's main objective. So, during the process of the research, the three main groups of the basic activities, having realized and carried out by the dental hygienist, have already been identified by us: the treatment, the prevention, and the training ones.

• The Treatment and Preventive Measures: the anti – inflammatory treatment: the applications, the gum bands, the films, and etc.; the physiotherapy treatment: the gums hydro – massage, the depoferez, the vacuum therapy, and etc.; the immature fissures filling by the temporary filling materials; the fissures sealing (e.g. the invasive and the non – invasive methods), all the fluorination methods; the patients' prophylactic medical clinical examination and the rehabilitation with the decompensated form of the caries, with the diseases of the oral cavity mucosa and the periodontal; the hygienic preparation just before the surgery operation for the periodontal disease, the implantations and the rehabilitation measures implementation in the post – operative period; the teeth whitening; the teeth hyperesthesia treatment; the occlusion test, the preliminary contacts identification, the selective teeth lapping.

• The Preventive Measures: the patient's examination survey with the certain hygienic indices definition; the mouth cavity irrigation (e.g. the abluition) by the antiseptic solutions; the local application or the injection anesthesia conducting; the deposits removal of the dental tartar and the soft incrustation or the dental deposit; the dental

cervices and the sites available of the teeth roots grinding and the polishing after the dental tartar deposits removing; the hygienic indices control definition; the fluorinated content drugs and the preparations use to be improved the remineralization processes of the enamel and the dentin, in the form of the gels, the lacquers, and the rinses, the deep fluoridation.

- The Education Activities and the Training Measures: the studies conducting with the patient by the mouth of cavity individual hygiene method, and the healthy lifestyle.

The dental hygienist work time expenditures have been determined, by means of the methodological approaches, having developed in the Scientific Research Institute of Social Hygiene, Health Economics and Management after N.A. Semashko. The position normative has been designed, in accordance with the steps, having recommended by V.M. Shipova (1998).

So, the primary information has been collected, by means of the observation sheet of the photo – chronometer observations, the conducting of which are preceded the works classifier development – «The Dictionary of Activities Types and Labor Operations of the Dental Hygienist».

*The Structure of the Dental Hygienist's Working Time Expenditures.* All the specialist's activities we, in accordance with the SRI SGiOZ after N.A. Semashko, have divided into 2 main groups:

a) The Production one, which is included the main and the basic activities (e.g. the survey, the patients' examination, the medical treatment, the prophylactic manipulations, the mouth cavity hygiene health education and the etc.), the work with the documentation (e.g. the getting acquainted with the medical records, the filling primary medical care documentation in the primary medical treatment, and the repeated visits, the references, the certificates, the directions completion and etc.);

b) The Non – production one.

The activities types not directly related to the patients are included the following: the support activities (SA) (e.g. the gown dressing, the redressing; the hands washing; the workplace preparation and its cleaning; the equipment inspection; the sterile table covering; the medicines and the dental equipment preparing; the disinfection and the pre-sterilized treatment tools, tips carrying out; the transitions into the central sterilization department; the nurses' work supervision), the service talks, the personal time needed, the other activities types; the idle time.

The structure of the dental hygienist's working time expenditures has been presented below.

In the structure of the specialist's working time the maximum share is made the main activity (e.g. 64%), further the auxiliary work is followed (e.g. 21,7%), the work with the documentation (e.g. 7%), the service talks, and the personal time necessary to 2,6%, the other activities 1,4%.

Since the time it was idle, due to being late for the work, it was excluded just from the calculation. In the expenditures structure of the most of the work, the maximum percent are made up the medical manipulations and the mouth of cavity hygiene education (e.g. respectively, 35,3 and 17%).

Having characterized the specialist's time expenditures structure, as a whole, we can say, that the working time is being used rationally and efficiently by the dental hygienist.

**Table 1**  
The Structure of the Dental Hygienist's Working Time Expenditures (in % of the total)

The Elements of Activities:	The Expenditures structure (%)
<i>I. The Main Activities:</i>	64,7
– talk with the patient	5,0
– examination	2,5
– medical checkup and diagnosis	4,9
– medical treatment and prophylaxis	35,3
– mouth of cavity hygiene education	17,0
<i>II. The Auxiliary Activities:</i>	21,7
– gown dressing, redressing	1,9
– hands washing	2,5
– working place preparation and its cleaning	6,4
– equipment inspection	0,8
– sterile table covering	0,8
– medicines and dental equipment preparation	1,54
– disinfection and pre-sterilized treatment tools, tips carrying out	5,36
– transition into the central sterilization department	2,4
<i>III. The Work with Documentation:</i>	7,0
– introduction to the medical records and the research results review	0,3
– entry into the medical records (e.g. the initial visit)	3,8
– entry into the medical records (e.g. epy follow-up visit)	1,9
– other types of the work with documentation	1,0
<i>IV. The Service Talks:</i>	2,6
– talk with the medical staff	2,6
<i>V. Other Activities:</i>	1,4
– reading of the literature	1,4
<i>VI. The Private Time Necessary:</i>	2,6
– short break, food intake	2,6
<b>Total:</b>	<b>100,0</b>

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**

Kovalev A.S., Shalimova O.A.

FSEI «Orel State Agrarian University», Orel,  
e-mail: iniic@mail.ru

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