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# Opće-zdravstveni status stomatoloških pacijenata

## *The Overall Health-Status of Dental Patients*

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### Sažetak

Svrha istraživanja bila je procijeniti opće-zdravstveni status populacije stomatoloških pacijenata, nakon obrade podataka iz ispunjenih Upitnika o zdravlju FDI-a koje je preporučila Hrvatska stomatološka komora. Podaci iz 2045 upitnika koje su ispunili pacijenti Zavoda za endodonciju i restaurativnu stomatologiju tijekom godine 2005. uneseni su u kompjutorsku bazu podataka te statistički obrađeni. Obrada podataka pokazala je da 30,1% stomatoloških pacijenata boluje od neke bolesti, a najčešće su kardiovaskularne (14,7%). Česte su i alergije bolesti (13,1%). U upitnicima je registrirano i 1,5% pacijenata s virusnim hepatitisom te 0,6% s TBC-om. Razmjerno malo pacijenata upisalo je HIV-seropozitivnost (0,2%) i izloženost virusu HIV-a (0,5%). Transfuziju je primilo 12% pacijenata. Stomatološki pacijent iznad 75 godina u prosjeku uzima 2,16 lijekova. Vrlo česte sistemske bolesti kod stomatoloških pacijenata te povećana potrošnja lijekova kod pacijenata starije dobi, upućuje na to da je potrebna dodatna izobrazba stomatologa kako bi se s takvim bolesnicima moglo odgovarajuće postupati.

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### Uvod

Napredak medicine, sve duži životni vijek i sve duže održavanje vlastite denticije razlog je za sve veći broj starijih pacijenata koji trebaju stomatološku zaštitu. Većina ima niz kroničnih bolesti te uzima mnogo lijekova koji mogu interferirati sa stomatološkim zahvatom. Iznimno je važno da je stomatolog obaviješten o općem medicinskom statusu pacijenta, kako bi se izbjegle moguće komplikacije i za život opasni incidenti. Kako bi se učinkovito i brzo dobili podaci o zdravstvenom stanju pacijenata, izrađeni su mnogi upitnici koje ispunjavaju pacijent ili njegov skrbnik prije ulaska u ordinaciju. Neki od upitnika kompjutorski su generirani, pa program na pozitivan odgovor na neko pitanje otvara sljedeći

### Introduction

Progress in medicine, expansion of the life-expectancy, as well as the ever longer preservation of the patient's natural dentition have resulted in an ever growing number of elderly patients who require dental care. Most such patients, however, have some kind of a chronic disease and are consequently taking a considerable number of various medicinal drugs which may interfere with the dental treatment. It is therefore of critical importance for a dentist to be acquainted with general health status of the patient so as to avoid possible complications or even life-threatening incidents. In order to provide a quick and efficient insight into the general state of health of each patient, a number of different forms

deći niz pitanja (1). Hrvatska stomatološka komora preporučila je Upitnik o zdravlju Federation Dental Internationala (FDI-a) koji bi trebao ispuniti svaki pacijent tijekom prvog dolaska u stomatološku ambulantu (2). Taj upitnik sadržava pitanja o najčešćim bolestima i stanjima koja imaju utjecaja na stomatološki zahvat. Nakon što ga pacijent ispuni, on postaje legalna i moralna obveza u medicinskoj i stomatološkoj praksi (1).

Premda je niz razloga zašto pacijenti ne upisuju točne podatke u obrazac (privatnost, zaboravljivost i informacije “nevažne” za stomatologa), on je ipak osnova za daljnju anamnestičku provjeru (3). Iako se zdravstveni upitnik pokazao dobrim kad je riječ o podacima o zdravstvenom statusu stomatoloških pacijenata, potrebna je i usmena dopuna medicinske anamneze u ordinaciji uz pomoć liječnika. Na taj se način eliminiraju lažno-pozitivni i lažno-negativni iskazi (4).

Konačnu vrijednost upitnik dobiva u sposobnosti liječnika da tumači odgovore pacijenta te dodatnim, ciljanim pitanjima razjasni pojedine simptome ili stanja koja je pacijent naveo. Ponekad je potrebno razgovarati s liječnikom zaduženim za pacijentovu osnovnu bolest, kako bi se moglo optimalno postupati s pacijentom na temelju dijagnoze i težine bolesti (3). Podatke u upitniku treba obnoviti svakih šest mjeseci ili, ako je pacijent duže odsutan, da bi se spriječilo zastarijevanje podataka.

Osim toga ti su upitnici vrijedna baza podataka o populaciji koja posjećuje stomatološku ambulantu, a na osnovi njihove analize može se bolje planirati organizacija stomatološke zaštite (5).

Svrha ovog istraživanja bila je ispitati opće-zdravstveni status populacije stomatoloških pacijenata statističkom analizom Upitnika o zdravlju FDI-a.

were developed, usually in the form of a questionnaire which is filled in by the patient, or (in case of a minor or mentally disabled person) by his/her representative, prior to entering the dental office. Some questionnaires were computer-generated, inasmuch the program, whenever encountering a YES answer, would incite a group of follow-up detailed-questions related to the area having been answered by YES (1). The Croatian Dental Chamber has recommended the FDI Health Questionnaire (FDI World Dental Federation) to be filled in by every patient upon his/her first dental visit (2). The questionnaire contains entries regarding the most frequently found diseases or conditions affecting a dental treatment. Once filled out by the patient, the questionnaire becomes legally and morally binding in the medical and dental practice (1).

Despite the reasons for which a patient may fail to enter the data completely truthfully into the form (such as e.g. concern for one's privacy, forgetfulness, or simply belief i.e. his/her judgement that a particular piece of data is irrelevant for the dentist), the FDI Health Questionnaire remains to be the basis for further anamnestic evaluation of the patient (3). And indeed, although the FDI form has proved to be a solid basis for familiarizing with the patient's general state of health, the need for a verbal completion of the anamnesis with the aid of the dental practitioner still remains. In such manner the fake statements, positive and negative alike, are eventually eliminated (4).

The questionnaire attains its sublime final value by an aggregated capacity of the doctor to interpret the answers originally provided by the patient and combine those with follow-up focused questions, so as to eventually explain in full the particular symptoms or conditions originally stated by the patient. Sometimes it is even necessary to contact the patient's own G.P. or specialist, in order to properly deal with the patient, based on his/her diagnosis and level of the disease (3). The data in the form should be refreshed every six months and in the case of a longer absence of the patient so that it should not become obsolete.

Beyond the scope of any single dental treatment, the questionnaires are a valuable and long-lasting data-base on the wide population attending the dental practice and they can be analyzed and used for planning a better-quality dental care in the future (5).

The purpose of the present study is to examine the general-health status of the population of dental patients by means of the FDI Health Questionnaire.

## Materijali i postupci

U istraživanju je statistički obrađeno 2045 ispunjenih upitnika o zdravlju pacijenata Zavoda za endodonciju i restaurativnu stomatologiju Stomatološkog fakulteta Sveučilišta u Zagrebu. Upitnike o zdravlju (FDI) popunjavali su pacijenti stariji od 18 godina i njihovi roditelji/skrbnici ako su bili mlađi od 18. To je obavljeno 2005. tijekom prvog dolaska na Zavod te godine. Upitnik se popunjavao u čekaonici, a pacijentima je ponuđena pomoć pri svakoj nejasnoći u ispunjavanju. Nakon što je upitnik ispunjen, u ordinaciji je uzeta detaljna anamneza o opće-zdravstvenom stanju, alergijama i lijekovima koje pacijent uzima, čime je upitnik relevantno nadopunjen.

Prema potrebi razgovaralo se s pacijentovim liječnikom opće prakse ili specijalistom koji liječi osnovnu bolest.

Prvi niz pitanja koncipiran je na zaokruživanju odgovora DA ili NE, ili je trebalo napisati odgovor. Bolesti navedene u odgovoru na pitanje: "Od koje bolesti bolujete?" razvrstane su u devet kategorija: kardiovaskularne, plućne, probavne, urinarnе, neurološke, spolne, infektivne, imunološke i metaboličke. Odgovor na pitanje: "Koje lijekove uzimate?" razvrstan je prema broju lijekova koje pacijent uzima. U drugom dijelu Upitnika pacijent je kvačicom označavao stanje ili bolest koje se odnose na njega. Podaci su upisani u kompjutorsku bazu podataka, a koristio se program Microsoft Access. Nakon toga su obrađeni metodama deskriptivne statistike. Razlike između spola i dobnih skupina utvrđene su testom ANOVA.

## Rezultati

U ukupnom broju od 2045 pacijenata koji su ispunili Upitnik o zdravlju, žene su činile 60,4% (1235), a razlika u broju žena i muškaraca statistički je znatna ( $p < 0,001$ ). Prosječna starost ženskih ispitanika bila je 39,4 godina, a muških 39.

Prosječna starost muškaraca i žena nije bila statistički znatno različita ( $p = 0,605$ ), kao ni prosječna starost muškaraca i žena u različitim dobnim razdobljima. Najčešće su stomatologa posjećivali pacijenti u dobi oko 25 godina i pedesetogodišnjaci (Sli-

## Materials and Methods

The research has encompassed a total of 2045 individual health-questionnaires of the Department of Endodontics and Restorative Dentistry at the Zagreb University Dental School. Those FDI-recommended forms were filled in by the patients of and above 18 years of age, or, in the case of minors, by their adult representatives, all during the year of 2005 and upon their very first visit to the Department that same year. The form was completed in the waiting room and the patients were offered assistance in case of any entry which might have been unclear to them. After the form had been initially completed, a detailed anamnesis followed upon patient's entrance into the dental office covering the general state of health, allergies or drugs taken by the patient, by which the form would be considered to be finally completed.

Where necessary, patient's own G.P. or specialist dealing with the patient's primary disease was contacted.

The first set of questions was conceived on the YES/NO answer principle, or by filling in an answer into the designated space. The diseases stated within the "From which disease are you suffering?" field were categorized in nine (9) groups: cardiovascular, pulmonary, digestive, urinary, neurologic, venereal, infective, immunologic and metabolic. The answers to the "What medicines are you taking?" field were further sub-divided by the number of the drug(s) the patient was taking. In the second part of the questionnaire the patient was encouraged to mark by a tick or a cross into the box  next to the disease or health-condition where applicable. The data was then entered into a Microsoft Access-generated computer data-base and subsequently processed by the descriptive statistics methods. The gender-specific and age-specific differences were measured by the ANOVA test.

## Results

Out of the total of 2045, female patients were represented by 60.4% (1235 in absolute figures); this difference between the male and female representation is statistically relevant ( $p < 0.001$ ). The overall average age was 39.4 years in female and 39 in male patients.

The overall average age of men and women was not statistically significant ( $p = 0.605$ ), nor was so the average men vs. women age-difference within the specific age-brackets. Most frequently attending

ka 1.). Raspodjela dobi statistički znatno odstupa od normalne teoretske raspodjele ( $Z = 4,555$ ,  $p < 0,001$ ). Na pitanje boluju li od kakvih bolesti, pozitivno je odgovorilo 30,1% (615) ispitanika, a raspodjela sistemskih bolesti prikazana je u Tablici 1.

Učestalost pozitivnih odgovora na prvi niz pitanja iz Upitnika i raspodjela prema dobi prikazani su u Tablici 2. i 3. Od ukupnog broja ispitanika 42,2% uzima lijekove (Tablica 4). Njihova potrošnja raste prema dobi ispitanika, pa kod najstarijih iznosi 2,16 po ispitaniku (Slika 2.), a uočena je veća potrošnja lijekova kod žena (Tablica 5.) i to statistički znatna ( $p < 0,001$ ).

Rezultati analize drugog dijela Upitnika predstavljeni su u Tablici 6., a njihova raspodjela u odnosu prema dobi u Tablici 7.

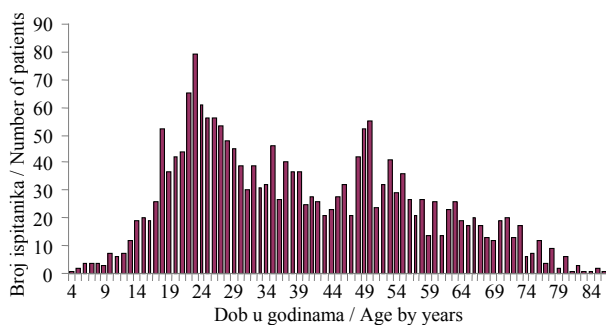
the dentist were the patients of about 25 years of age, and again those of about 50 years of age (Fig. 1). The age distribution is statistically significantly aberrant from the theoretical normal distribution (the bell curve) ( $Z = 4.555$ ,  $p < 0.001$ ). When asked if suffering from any disease, 30.1% of patients gave an affirmative answer (615); the distribution of systemic (non-dental) diseases is shown in Table 1.

The incidence of affirmative answers to the first set of questions contained in the Questionnaire and the associated age-distribution are shown in Tables 2 and 3. Out of the total of 2045 interviewees, 42.2% were taking some medicines (Table 4). The typical amount of medicine-taking was rising proportionally with the age of the patient, ultimately reaching 2.16 different types of medicines per person in the oldest patients (Fig. 2); also, a higher level of medicine-taking was noticed in women (0.87) and it is statistically significant ( $p < 0.001$ ).

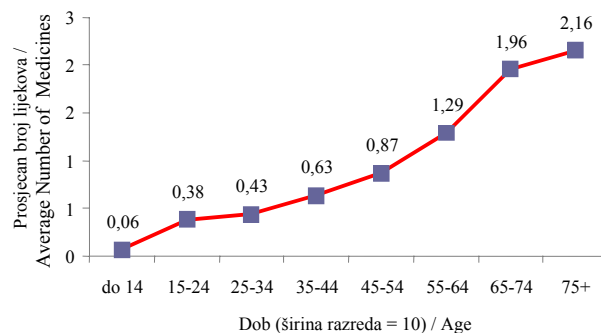
The results of the second part of the Questionnaire are shown in Table 5 and their age-related distribution in Table 6.

**Tablica 1.** Zastupljenost sistemskih bolesti prema sustavima  
**Table 1** Prevalence of systemic diseases (by organic systems)

N (%) ispitanika • Number of patients (absolute and percentage)	Ne • No		Da • Yes		Ukupno • Total	
Boluju li od neke bolesti • Suffering from any disease	1429	(69,9)	615	(30,1)	2044	(100,0)
Kardiovaskularne • Cardiovascular	1744	(85,3)	301	(14,7)	2045	(100,0)
Plućne • Pulmonary	1969	(96,3)	76	(3,7)	2045	(100,0)
Probavne • Gastrointestinal	1932	(94,5)	113	(5,5)	2045	(100,0)
Urinarne • Urinary	2019	(98,7)	26	(1,3)	2045	(100,0)
Neurološke • Neurological	2010	(98,3)	34	(1,7)	2044	(100,0)
Spolne • Venereal	2038	(99,7)	7	(0,3)	2045	(100,0)
Infektivne • Infective	2006	(98,1)	38	(1,9)	2044	(100,0)
Imunološke • Immunological	1975	(96,6)	70	(3,4)	2045	(100,0)
Metaboličke • Metabolic	1858	(90,9)	187	(9,1)	2045	(100,0)



**Slika 1.** Raspodjela pacijenata s obzirom na dob  
**Figure 1** Distribution of patients by age



**Slika 2.** Grafički prikaz broja lijekova koje pacijenti uzimaju u odnosu prema dobi

**Figure 2** Average Number of medicines taken by patients (per patient per age-bracket)

Tablica 2. Prvi dio upitnika

Table 2 Questionnaire - part one

N (%) ispitanika • No (%) of subjects	Ne • No		Da • Yes		Ukupno • Total	
Liječeni kod dr. u posljednje dvije godine • Treated by a G.P./specialist over the past two years	943	(46,1)	1102	(53,9)	2045	(100,0)
Liječeni u bolnici u posljednje dvije godine • Hospital treatment over the past two years	1780	(87,0)	265	(13,0)	2045	(100,0)
Uzimaju li lijekove • Taking medicines	1183	(57,8)	862	(42,2)	2045	(100,0)
Komplikacije (i u obitelji) pri anesteziji • Complications with anaesthesia (also includes relatives)	2013	(98,4)	32	(1,6)	2045	(100,0)
Alergije na lijekove ili drugo • Allergies to medicines or other	1777	(86,9)	268	(13,1)	2045	(100,0)
Poremećaj zgrušavanja krvi • Bleeding disorders	1976	(96,6)	69	(3,4)	2045	(100,0)
Liječeni zračenjem glave ili vrata • Received radiotherapy of the head and neck area	2009	(98,2)	36	(1,8)	2045	(100,0)
Infektivna bolest • Infective disease	2009	(98,2)	36	(1,8)	2045	(100,0)
Primili transfuziju • Transfusion	1799	(88,0)	246	(12,0)	2045	(100,0)
Izloženi virusu HIV-a • Exposed to HIV virus	2034	(99,5)	11	(0,5)	2045	(100,0)
HIV seropozitivni • HIV seropositive	2040	(99,8)	5	(0,2)	2045	(100,0)
Trudnoća • Pregnancy	2030	(99,3)	15	(0,7)	2045	(100,0)

Tablica 3. Raspodjela odgovora na prvi niz pitanja u odnosu prema dobi

Table 3 Distribution of answers to the part-one set of questions, by age

	Dob • Age							
	Do 14 • Up to 14	15-24	25-34	35-44	45-54	55-64	65-74	75+
Liječeni kod dr. u posljednje dvije godine • Treated by a G.P./specialist over the past two years	31,9%	43,6%	44,5%	52,3%	54,8%	72,5%	83,8%	81,6%
Liječeni u bolnici u posljednje dvije godine • Hospital treatment over the past two years	2,9%	6,1%	11,9%	14,5%	12,4%	19,3%	24,7%	26,5%
Uzimaju li lijekove • Taking medicines	5,8%	27,9%	30,1%	39,4%	47,5%	63,9%	79,9%	85,7%
Komplikacije (i u obitelji) pri anesteziji • Complications with anaesthesia (also includes relatives)	2,9%	0,9%	0,7%	1,9%	1,4%	3,0%	1,9%	4,1%
Alergije na lijekove ili drugo • Allergies to medicines or other	10,1%	12,6%	10,5%	13,5%	12,1%	17,6%	15,6%	20,4%
Poremećaj zgrušavanja krvi • Bleeding disorders	0,0%	1,3%	1,2%	1,9%	3,7%	6,9%	10,4%	14,3%
Liječeni zračenjem glave ili vrata • Received radiotherapy of the head and neck area	0,0%	0,4%	1,6%	1,6%	2,0%	4,7%	2,6%	0,0%
Infektivna bolest • Infective disease	0,0%	1,1%	2,1%	2,6%	2,8%	1,3%	0,0%	2,0%
Primili transfuziju • Transfusion	0,0%	2,2%	6,3%	13,2%	16,3%	22,3%	29,2%	26,5%
Izloženi virusu HIV-a • Exposed to HIV virus	0,0%	0,2%	0,9%	0,3%	0,8%	0,9%	0,0%	0,0%
HIV seropozitivni • HIV seropositive	0,0%	0,2%	0,5%	0,0%	0,3%	0,4%	0,0%	0,0%
Trudnoća • Pregnancy	0,0%	0,4%	2,8%	0,3%	0,0%	0,0%	0,0%	0,0%

**Tablica 4.** Raspodjela ispitanika u odnosu prema broju lijekova koje uzimaju**Table 4** Distribution of patients by the number of medicines taken

	N (%) ispitanika • Number of patients	
ne • NONE	1183	(57,8)
da, jedan lijek • YES, one medicine	454	(22,2)
dva lijeka • TWO medicines	223	(10,9)
tri lijeka • THREE medicines	111	(5,4)
četiri lijeka • FOUR medicines	45	(2,2)
pet lijekova • FIVE medicines	21	(1,0)
šest lijekova • SIX medicines	5	(0,2)
sedam lijekova • SEVEN medicines	2	(0,1)
osam lijekova • EIGHT medicines	1	(0,0)
Ukupno • Total	2045	(100,0)

**Tablica 5.** Deskriptivna statistika broja lijekova u odnosu prema spolu**Table 5** Descriptive statistics of number of medications taken by sex

	N	Aritmetička sredina • Mean	Standardna devijacija • Standard deviation	Min.	Maks.
Muškarci • Male	810	0,62	1,098	0	8
Žene • Female	1235	0,87	1,181	0	7
Ukupno • Total	2045	0,77	1,155	0	8

**Tablica 6.** Odgovori na drugi dio upitnika**Table 6** Questionnaire - part two

No. (%) ispitanika • Number of patients	Ne • No		Da • Yes		Ukupno • Total	
Mane srčanih zalistaka • Heart-valve defects	2007	(98,2)	37	(1,8)	2044	(100,0)
Urođene srčane mane • Congenital heart anomalies	2023	(98,9)	22	(1,1)	2045	(100,0)
Bronhiektazije • Bronchiectasia	2035	(99,5)	10	(0,5)	2045	(100,0)
Bolesti štitnjače • Thyroid gland disease	1947	(95,2)	98	(4,8)	2045	(100,0)
Dijabetes • Diabetes	1990	(97,4)	54	(2,6)	2044	(100,0)
Sinusitis • Sinusitis	1833	(89,6)	212	(10,4)	2045	(100,0)
Malignom • Malignant diseases	1997	(97,7)	47	(2,3)	2044	(100,0)
Endokarditis • Endocarditis	2034	(99,5)	11	(0,5)	2045	(100,0)
Stalni kašalj • Chronic coughing	2008	(98,3)	35	(1,7)	2043	(100,0)
TBC • Tuberculosis	2032	(99,4)	13	(0,6)	2045	(100,0)
Artritis • Arthritic disease	1939	(94,9)	105	(5,1)	2044	(100,0)
Umjetni srčani zalistak • Artificial heart valve	2032	(99,4)	13	(0,6)	2045	(100,0)
Srčani pacemaker • Pacemaker	2034	(99,5)	11	(0,5)	2045	(100,0)
Psihijatrijsko liječenje • Psychiatric treatment	1985	(97,1)	60	(2,9)	2045	(100,0)
Epilepsija • Epilepsy	2028	(99,2)	17	(0,8)	2045	(100,0)
Povećane žlijezde • Enlarged lymph nodes	2028	(99,2)	17	(0,8)	2045	(100,0)
Gastrointestinalni ulkus • Stomach/Intestinal ulcers	1944	(95,1)	100	(4,9)	2044	(100,0)
Visoki krvni tlak • High blood pressure	1794	(87,7)	251	(12,3)	2045	(100,0)
Anemija • Anemia	1913	(93,6)	131	(6,4)	2044	(100,0)
Glaukom • Glaucoma	2013	(98,4)	32	(1,6)	2045	(100,0)
Spolna bolest • Venereal disease	2033	(99,4)	12	(0,6)	2045	(100,0)
Alergijske teškoće • Allergic difficulties	1728	(84,6)	315	(15,4)	2043	(100,0)
Virusni hepatitis • Viral hepatitis	2014	(98,5)	31	(1,5)	2045	(100,0)
Astma • Asthma	2003	(97,9)	42	(2,1)	2045	(100,0)
Leukemija • Leukemia	2040	(99,9)	3	(0,1)	2043	(100,0)
Usna kandidijaza • Oral candidiasis	2030	(99,3)	15	(0,7)	2045	(100,0)
Žutica • Jaundice	1981	(96,9)	64	(3,1)	2045	(100,0)
Plućni ispljuvak • Pulmonary secretion	2037	(99,7)	6	(0,3)	2043	(100,0)

Tablica 7. Raspodjela odgovora na drugi dio Upitnika prema dobnim skupinama  
Table 7 Distribution of answers to the part-two set of questions, by age

	Do 14 • Up to 14	15-24	25-34	35-44	45-54	55-64	65-74	75+
Mane srčanih zalistaka • Heart valves defects	0,0%	0,7%	0,0%	1,0%	1,7%	3,0%	7,1%	14,3%
Urođene srčane mane • Congenital heart defects	0,0%	1,3%	0,5%	1,0%	0,8%	2,1%	0,6%	4,1%
Bronhiektazije • Bronchiectasia	0,0%	0,2%	0,0%	0,3%	0,0%	2,1%	1,9%	0,0%
Bolesti štitnjače • Thyroid gland disease	0,0%	0,7%	2,6%	2,9%	7,9%	11,2%	11,0%	8,2%
Dijabetes • Diabetes	0,0%	0,2%	0,7%	1,3%	2,2%	6,9%	11,0%	10,2%
Sinusitis • Sinusitis	1,4%	5,4%	10,7%	11,9%	14,0%	12,9%	11,7%	12,2%
Malignom • Malignant diseases	0,0%	0,0%	0,5%	2,9%	2,8%	6,9%	2,6%	12,2%
Endokarditis • Endocarditis	0,0%	0,0%	0,0%	0,6%	0,3%	0,4%	3,9%	2,0%
Stalni kašalj • Chronic coughing	1,4%	1,8%	0,5%	1,3%	1,1%	2,6%	5,2%	4,1%
TBC • Tuberculosis	0,0%	0,0%	0,2%	0,6%	0,6%	1,3%	3,2%	0,0%
Artritis • Arthritic diseases	0,0%	0,9%	0,5%	4,2%	3,7%	13,7%	20,8%	18,4%
Umjetni srčani zalistak • Artificial heart valve	0,0%	0,2%	0,0%	1,0%	0,3%	0,4%	2,6%	6,1%
Srčani pacemaker • Pacemaker	0,0%	0,0%	0,0%	0,0%	0,6%	1,7%	1,9%	4,1%
Psihijatrijsko liječenje • Psychiatric treatment	0,0%	0,9%	2,3%	4,2%	5,1%	4,7%	2,6%	0,0%
Epilepsija • Epilepsy	1,4%	0,4%	1,6%	1,0%	0,8%	0,4%	0,0%	0,0%
Povećane žlijezde • Enlarged lymph nodes	0,0%	0,7%	0,7%	1,0%	0,0%	2,1%	1,9%	0,0%
Gastrointestinalni ulkus • Stomach/Intestinal ulcers	0,0%	0,2%	2,3%	5,2%	8,4%	8,6%	10,4%	14,3%
Visoki krvni tlak • High blood pressure	1,4%	0,2%	2,3%	7,1%	14,9%	28,8%	46,8%	51,0%
Anemija • Anemia	1,4%	4,7%	5,6%	7,4%	8,1%	7,3%	9,1%	4,1%
Glaukom • Glaucoma	0,0%	0,2%	0,0%	0,6%	2,5%	2,6%	5,2%	12,2%
Spolna bolest • Venereal disease	0,0%	0,7%	0,9%	0,6%	0,3%	0,4%	0,0%	2,0%
Alergijske teškoće • Allergic difficulties	8,7%	15,5%	14,5%	15,5%	17,4%	17,2%	14,3%	12,2%
Virusni hepatitis • Viral hepatitis	0,0%	0,7%	1,4%	2,6%	2,2%	1,3%	1,9%	0,0%
Astma • Asthma	0,0%	2,7%	0,9%	2,6%	2,0%	2,6%	3,2%	0,0%
Leukemija • Leukemia	0,0%	0,0%	0,2%	0,0%	0,0%	0,9%	0,0%	0,0%
Usna kandidijaza • Oral candidiasis	0,0%	0,4%	0,0%	0,3%	0,6%	1,7%	3,2%	2,0%
Žutica • Jaundice	0,0%	2,5%	2,8%	3,9%	3,9%	3,0%	4,5%	2,0%
Plućni ispljuvak • Pulmonary secretion	0,0%	0,2%	0,5%	0,3%	0,6%	0,0%	0,0%	0,0%

## Rasprava

Mnogobrojne su zamjerke upitnicima o opće-zdravstvenom stanju koje ispunjavaju sami pacijenti, kao što su: potreban visok stupanj samosvjesnosti i integriteta pacijenta, ne uzimanje u obzir težine bolesti, ne postavljanje bolesti u vremenske okvire (6). Prednost im je brzina dobivanja informacija. Bradford i suradnici (7) su usporedbom podataka iz upitnika s podacima iz medicinske dokumentacije ispitivanih pacijenata, zaključili da se oni preklapaju u 95% slučajeva.

Od 2045 pacijenata koji su ispunili upitnik o zdravlju, 30,1% napisalo je da imaju neku od sistemskih i drugih bolesti. To je u skladu s rezultatima drugih istraživanja (5, 8).

Veći udio žena u odnosu prema muškarcima u ovom istraživanju u skladu je s čestim nalazom da žene češće posjećuju stomatologa. (9, 10). Smatra se da je razlog taj što one bolje održavaju oral-

## Discussion

There are numerous objections to patient-filled general-health questionnaires. Some of those would be: a high level of self-consciousness and integrity of the patient required; ignoring full severity of one's disease; not placing the disease into a recognizable time-frame (6). An advantage of such questionnaires is that information is obtained expediently. Bradford et al. (7) have compared the data from the questionnaire(s) given by the patients to the data available in the professionally issued medical documents in relation to their respective diseases, and have established a 95% positive overlapping.

Out of the total of 2045, 30.1% of the patients have stated the presence of some kind of a systemic (i.e. non dental-related) or some other type of a disease. This is in line with the results by other researchers (5, 8).

A higher incidence of female patients in the research is explained by the known fact that wom-

no zdravlje i veću pozornost posvećuju estetskom izgledu i zdravom osmijehu (11).

U raspodjeli dobi ima naznaka bimodalnosti. Više je pacijenata u dobi oko 25 i oko 50 posjetilo stomatologa. To se može tumačiti povećanim potrebama za stomatološkom uslugom u toj dobi.

Od sistemskih bolesti najviše je bilo kardiovaskularnih - 14,7%, što je važno za stomatološki zahvat, jer se ti pacijenti smatraju rizičnom skupinom. Bolesti srca i krvnih žila u našoj su zemlji na vrhu ljestvice mortaliteta s udjelom od 52,1% u ukupnom mortalitetu godine 1999. (12). Istražujući irsku populaciju stomatoloških pacijenata, Fenlon sa suradnicima (13) ističe 10,4% pacijenata s kardiovaskularnim bolestima, što je manje u odnosu prema našim rezultatima. Razlika se može objasniti višim zdravstvenim standardom u Irskoj. Isti autor navodi rizik od endokarditisa kod 5,8% pacijenata, a u našem istraživanju - ako se pod rizikom za endokarditis smatra već preboljeli endokarditis, mane srčanih zalistaka i urođene srčane mane te umjetni srčani zalisci - taj rizik ima 4,0% pacijenata. Prema riječima Robbinsa (14), infekcije zuba i stomatološki zahvati na prvom su mjestu u nastanku bakterijskog endokarditisa. Cawson (15) smatra da se 6% - 10% slučajeva bakterijskog endokarditisa javlja nakon stomatoloških intervencija zbog diseminacije bakterija te da je kod takvih pacijenata nužna dobra oralna higijena i antibiotska profilaksa. Chandler i Sahuquillo (16) dobili su podatak da u sklopu populacije koja boluje od kardiovaskularnih bolesti (13,8%), svaki četvrti pacijent pati od hipertenzije, što je čimbenik najvećeg rizika za srčanu i bubrežnu insuficijenciju te moždani infarkt. Stres i strah u stomatološkoj ordinaciji mogu pojačati lučenje adrenalina i dodatno povećati rizik (17). Posebno se oprezno mora davati lokalna anestezija s vazokonstriktorom, što vrijedi i za pacijente s hipertiroidizmom (18). U našem istraživanju 4,8% pacijenata imalo je bolesti štitnjače. Alergije na lijekove pronađene su kod 13,1% pacijenata. Chandler i Sahuquillo (16) pronašli su alergije na lijekove kod 8,3% pacijenata - od njih 15% je imalo težak oblik reakcije i potrebu za bolničkim liječenjem. Fenlon (13) je pronašao da od ukupno 6% alergičnih pacijenata, njih polovica (3,6%) je alergična na penicilin. Dijabetes je pronađen kod 2,6% naših ispitanika, što odgovara prevalenciji u općoj populaciji (2,4%) (19). U SAD-u 6,2% sveukupnog stanovništva boluje od te metaboličke bolesti (20,21), a u Njemačkoj je taj postotak između 4% i 5%, s većim udjelom bolesnika starijih od 50 godina (22), što se

en visit dentists frequently than men (9, 10). This is due to the fact that women in general care more about oral health and give more importance to the esthetic appearance and healthy smile (11).

Considering the age-distribution of the interviewees, elements of bi-modality are obvious. Namely, most patients visiting the dentist were about 25 and again 50 years old. This is explained by an increased need for dental care at exactly those two age-levels.

Topping the list among the systemic diseases were the cardiovascular diseases (14.7%), which is significant for dental treatment because those patients represent a risk group. The heart and blood vessel diseases are otherwise on top of the mortality list in Croatia (52.1% of all cases in 1999) (12). Having investigated the dental-patient population in Ireland, Fenlon et al. (13) have found as low as 10.4% patients with cardiovascular diseases which is lower than our results. The 4-5% difference can be attributed to a higher health care standard in Ireland. Same authors quote the endocarditis risk in 5.8% of patients, whereas, in our research (by endocarditis we understand the history of endocarditis, heart-valve defects and congenitive heart anomalies, mostly artificial heart-valves) that risk would amount to 4.0% of patients. Referring to Robbins (14), tooth-infections and dental treatments are topping the list in the development of bacteriological endocarditis. Cawson (15) believes that 6-10% of all cases of bacteriological endocarditis is developed following a dental intervention, due to the dissemination of the bacteria, and that, in such patients, good oral hygiene and antibiotic prophylaxis are needed. Chandler and Sahuquillo (16) have reported that, within the population suffering from cardiovascular diseases (13.8%), one out of four patients suffered from hypertension, the most serious risk-factor for heart failure or renal insufficiency, as well as for cerebral infarction. Stress and fear in the dental office may enhance adrenaline secretion and additionally enhance the risk (17). Special care must be taken when administering a local anaesthesia with a vasoconstrictor, and the same is true of the patients suffering from hyperthyraeosis (18). In the present research, 4.8% of the patients had stated the thyroid-gland diseases. Allergies to specific drugs were found in 13.1% of patients. Chandler and Sahuquillo (16) have found allergies to medicines in 8.3% of patients, out of which number 15% had had a severe form of reaction and required a hospital treatment. For the purpose of comparison, in the USA a total of 6.2% of the population is suffering from that metabolic dis-



vidi i u našim rezultatima. Dokazana je povezanost između dijabetesa i bolesti parodontata, te 24% svih slučajeva pokazuje natprosječnu učestalost pulpitisa (23). Uzimajući u obzir podatke o broju pacijenata sa šećernom bolešću, moguće je učinkovito planirati vrijeme njihova naručivanja. Važno je da ti pacijenti ne čekaju dugo kako bi mogli na vrijeme jesti te uzeti lijekove ili inzulin.

Infektivne bolesti u našem istraživanju zastupljene su kod 1,9% pacijenata. HIV pozitivnih ispitanika bilo je 0,2%, a pacijenata s preboljenim hepatitisom 1,5%. Ako se tome dodaju pacijenti izloženi nakon transfuzije riziku kontaminacije virusom hepatitisa i HIV-a (12%), oni izvrgnuti virusu HIV-a (0,5%), pacijenti s TBC-om (0,6%) te oni koji su naveli nespecifičnu žuticu (3,1%), tada je daleko veći broj pacijenata, potencijalnih izvora širenja infekcije. Uvidom u te podatke postaje jasno koliko je važno sprječavati širenje infekcije u stomatološkoj ordinaciji.

Znati koje lijekove pacijent povremeno ili trajno uzima iznimno je važno zbog mogućih interakcija sa stomatološkim zahvatom, anestezijom i lijekovima koje propisuje stomatolog (24). Mnogo je pacijenata u ovom istraživanju (42,2%) napisalo da uzimaju jedan do čak osam lijekova istodobno. Ispunjavanje upitnika u čekaonici daje pacijentima više vremena i staloženosti za unošenje točnih podataka o lijekovima koje uzimaju.

## Zaključak

Naše ispitivanje pokazalo je visok udjel kardiovaskularnih i alergijskih bolesti, te veliku potrošnju lijekova kod pacijenata starije dobi, što može biti vrlo važno za stomatologa u planiranju zahvata i sprječavanju komplikacija. Mnogo je i pacijenata s rizikom infektivnih bolesti.

ease (20, 21), whereas in Germany that percentage varies between 4% and 5%, out of which there is a higher prevalence of the population above 50 years of age (22) which concurs with our own results. Fenlon (13) found that in the otherwise 6% of allergic patients approximately one half (3.6%) were allergic to penicillin. Diabetes was found in 2.6% of patients in our research, which corresponds to the general-population incidence of 2.4% (19). A correlation between diabetes and periodontal disease has been proved; 24% of all cases show high incidence of pulpitis (23). Knowing the data on the diabetic patients, a dentist can efficiently make plans so as to timely invite them for dental visits. These patients should not wait excessively and that they should be able to plan taking food and drugs, and especially insulin, at appropriate times.

In this research infective/contagious diseases were represented in 1.9% of the patients. We had 0.2% of HIV-positive patients and 1.5% of those who had a positive hepatitis history. Should we add to those numbers the patients who may have been exposed to HIV risk (0.5%), the TBC patients (0.6%), as well as the patients having had atypical hepatitis (3.1%), then a combined number of the potentially infectious patients becomes even greater. The data are warning as to the prevention of infections in a dental office.

Knowing which medication the patient is taking, temporarily or continuously is of utmost importance in view of possible interactions with the dental procedure, anaesthetic, or the medicinal drugs to be prescribed by the dentist. There is a great percentage of patients (42.2%) in this research who are taking one, up to as many as eight drugs simultaneously. Completing the Questionnaire in the waiting room, while waiting for the treatment, allows the patients more time and more calm to accurately enter exact data on the drugs they are taking.

## Conclusion

The present research showed a high incidence of cardio-vascular and allergic diseases, as well as a high consumption of drugs in the elderly patients, which may be critically important for a dentist when planning dental treatment and preventing possible complications. Also frequently found were patients with the risk of infectious diseases.

**Abstract**

The purpose of the study was to evaluate the general health condition i.e. overall health-status of the dental patients population by processing the data obtained from the FDI health-questionnaires which was recommended by the Croatian Dental Chamber. The data which was collected from a total of 2045 individual medical history questionnaires - personally filled in by the patients who attended this Department of Endodontics and Restorative Dentistry during the year of 2005 - was loaded into a computer data-base and statistically analyzed. The analysis showed presence of some kind of a disease in 30.1% of patients; topping the list by incidence were cardiovascular diseases (14.7%). Also, highly represented were various allergic diseases (13.1%). A 1.5% had developed a viral hepatitis, whereas 0.6% of the patients had even had TBC. A comparatively small percentage of patients (0.2%) had admitted to HIV seropositivity resp. exposure to the HIV virus (0.5%). A total of 12% of the group had received a blood-transfusion at some point. Typically, a dental patient above 75 years of age was taking in average 2.16 different types of medicinal drugs. High incidence of systemic diseases in dental patients and an increased consumption of medicinal drugs in the elderly dental patients indicates the need for an enhanced education of the dentist in order to enable his/her proper attitude toward such patients.

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