ONKOLOŠKI INŠTITUT V LJUBLJANI REGISTER RAKA ZA SR SLOVENIJO Ljubljana, Vrazov trg 4

B. RAVNIHAR

Epidemiological Aspects of Cancer Registration in Slovenia, Yugoslavia

DELO ŠT. LJUBLJANA, 1968

ONKOLOŠKI INŠTITUT V LJUBLJANI THE INSTITUTE OF ONCOLOGY, LJUBLJANA

REGISTER RAKA ZA SR SLOVENIJO CANCER REGISTRY OF SLOVENIA

Vrazov trg 4, Ljubljana, Jugoslavija - Yugoslavia

B. RAVNIHAR

Epidemiological Aspects of Cancer Registration in Slovenia, Yugoslavia

P

THE INSTITUTE OF ONCOLOGY, LJUBLJANA Director: Professor Božena Ravnihar, M.D.

EPIDEMIOLOGICAL ASPECTS OF CANCER REGISTRATION IN SLOVENIA, YUGOSLAVIA

(A brief review)
B.Ravnihar

In Slovenia a countrywide permanent cancer registration has been introduced January 1st, 1950, based on compulsory notification of all recognized cases of cancer. In this connection the Cancer Registry of Slovenia has been established at the Institute of Oncology, Ljubljana.

Registration area, its population and medical services

Since the "background "of cancer registration, i.e. the country and its population, is of prime interest from the epidemiological point of view, some main physical and demographic features of Slovenia shall be presented first, together with a brief information on medical services, as they represent an important factor regarding the reliability of compiled data.

Slovenia, one of the six republics of the Socialist Federal Republic of Yugoslavia, occupies the most north-western part of the state and covers an area of 20.255 square kilometers. According to the official mid-year population estimates, the population accounted 1,676.000 (806.156 males, 869.844 females) in the year 1967 (1).

According to the last census, March 1961, the population comprises: 95,6% native Slovenes, 3,2% other Slavic nations, and 1,2% non-Slavic nationalities (2). The main occupational composition of the population is: industry 31,4%, agriculture 31,3%, professionals 7,8%, commerce 7,6%, personal services 4,3% and others 17,6% (3). Of the total population only 10,4% live in conurbation of more than loo.ooo inhabitants. In the towns considered as " statistical urban area " (almost all with over 10.000 population) there live 22% of the total population (4,5). The largest city Ljubljana, the capital of the Socialist Republic of Slovenia, counts 224.261 inhabitants (1965) (6).

In Slovenia there is a birth-, death-, and migration registration system, and reliable vital statistics based on this registration are available.

Relatively well developed medical services cover the whole country, and are accessible to all. In 1965 the average number of persons per physician was 993, and per hospital bed 122 (7). Private practice hardly exists (only 0,4% of the physicians).

The average life expectancy for the new-born in 1961 was calculated to be 68 years for males and 72 for females. The average age of the deceased in the period 1960 - 1964 was 60.1 in males and 66.4 in females (8).

In 1964 the total number of deaths accounted 16.729 (lo,3 per looo population), of these 2.347, i.e.

14,0% due to cancer (Int.List No.140-205). Cancer is in the second place among the causes of death. In the period 1958 - 1965 the average annual cancer mortality rate was 139,5 per loo.000 population (151,8 for males, 128,2 for females) (9).

In 1964, 91% of deaths have been certified by a physician, the rest by lay-coroners. Autopsy was performed in 11% of the deceased (lo).

Cancer registration in Slovenia

The aims and tasks of the Slovene Cancer Registry are, in brief, as follows:

- Compilation of data on all newly diagnosed cases of cancer in the population of Slovenia.
- Compilation of periodical follow-up information as to the condition of the registered patients until the end of their lives.
- Furnishing of statistical surveys and reports on cancer incidence and on the survival of the patients, as well as the end results of cancer therapy.

The main items of information collected by the Registry are: age, sex, area of residence, primary site of cancer, histological type of cancer, stage at diagnosis, when and where the diagnosis was established, when and where the first treatment was given, type of treatment, findings at follow-up, and survival.

The Registry should thus provide the health authorities and the medical profession with all basic information necessary for planning and evaluating the cancer control program, and the organization of medical care. On the other hand, the information should serve as a sound basis for clinical and epidemiological investigations.

According to the compulsory cancer notification regulations all clearly malignant neoplasms, or those considered very likely to be malignant, have to be reported, regardless of having been microscopically confirmed or not. Besides, the following neoplasms of benign, or "border-line" character, or undefined whether malignant or not, as: "carcinoma-in-situ", papilloma of the urinary bladder, carcinoid, brain tumor - any, mixed tumor of salivary gland, and polycythemia rubra vera, have to be reported as well. This group of neoplasms is not included in our regular tabulations, except tumors of the brain clearly designed as malignant (Int.List No.193) and "carcinoma-in-situ".

In this connection it should be noted that cancer cases and not cancer patients count as units in the register.

The cancer notification comprises also nonresidents who are treated in the hospitals of Slovenia but they are not included in the incidence reports.

Compulsory notification concerns the hospital departments mainly, as it is assumed that every patient

in whom cancer diagnosis has been established or suspected, is sent to a hospital. Moreover, from hospitals the best quality of reporting can be expected.

Hospitals are obliged to report every cancer patient every time when admitted to an in- or outpatient department, regardless whether the patient had been in another hospital before, or not. The attending physicians and the record clerks are responsible for notification. They are requested to complete their reports after the discharge or death of the patient, and to submit to the Registry as complete information about the disease as possible, including histological and possibly also autopsy findings. A special record form is used for cancer notification. The collecting of complete and accurate information about the individual patients is greatly facilitated by the fact that sooner or later, about 45% of all cancer patients from Slovenia are admitted to the Institute of Oncology, Ljubljana, the seat of the Registry.

Non-hospital establishments for out-patient care are requested to notify those newly diagnosed cancer cases only, which have not been sent to the hospital for one reason or another.

In addition, all pathological institutions, histological and cytological laboratories are requested to provide the Registry with copies of their examination reports whenever the diagnosis of a clearly malignant neoplasm or other reportable neoplasm has been established.

Cancer patients who for one reason or another escape the registration during their lives can be brought to the attention of the Registry through the official death certificates. Death certificates in which cancer is mentioned are passed to the Registry by the Republic Institute of Public Health.

Death certificates of persons not reported to the Registry before are thoroughly checked and a query is made for additional information by contacting the certifying physician, or, if necessary, the close relatives of the deceased. If it is found that the deceased had been previously treated for his cancer in a hospital, a report is requested from the hospital concerned, and if submitted, the case is not registered as obtained from the death certificate. During the last decade about 15% of the recorded cases have been registered annually on the basis of death certificates only. However, there were no more than about 7% of cases in which the death certificate was the only source of data without any additional information.

In the Registry the file of reported cases is routinely matched against the file of death certificates. All records received are also checked for duplication (against alphabetical file), and for accuracy. If necessary, additional information and explanations are always requested from the hospitals or physicians.

Cancer cases which remain undiagnosed (for instance in old people in a few backward rural areas, who avoid visiting the doctor), and cancer patients who the the hospitals omitted to report and have been definitely cured of cancer, may also escape registration. It is impossible to ascertain the number of such cases. It is roughly estimated that altogether they might represent no more than 5% of the real incidence. On the other hand it could be assumed that there are certainly cases which were erroneously identified and recorded as malignant in view of the fact that about 25% of the registered cases (in the last period) have not been microscopically confirmed. In spite of these deficiencies in registration it is believed that they do not have an appreciable influence on the total recorded incidence rates for the various sites.

Follow-up

In conducting the follow-up program the Registry is responsible for obtaining information on every recorded cancer patient at least once a year, up to the end of his life. Periodical follow-up examinations are more or less regularly carried out by the Institute of Oncology and the few existing regional cancer clinics (dispensaries), but, unfortunately, only exceptionally by hospitals.

If no information on the patient has been received for more than one year, a questionnaire is sent to either the local physician or to the regional health center. If necessary, the community authorities, the patient's relatives, or even the patient himself are asked for information.

In spite of considerable efforts in collecting follow-up information, still about 7% of the total number of recorded patients are lost to follow-up within the first five years following the diagnosis, most of them being non-residents, however.

The purpose of collecting follow-up information is not only to check the end-results of the treatment and the survival of the patients, it is also to improve the accuracy of information in individual cases. Information acquired during the further course of the disease, sometimes at a subsequently performed operation, or by histological verification, or by autopsy, do not seldom change the previously recorded clinical diagnosis as to the malignancy or supposed primary site and type of the neoplasm. Consequently, the incidence figures for a particular period can never reach absolute stability, as already pointed out by Doll et al.(11); therefore they are obviously more reliable for the remote periods than for the recent ones.

Coding

In the Registry the reported data on cancer patients are coded and transferred onto IDM punch cards. The code used for anatomical sites keeps strictly to the International Classification of Diseases, given by WHO. The code used for histological types is in accordance with the three digit Malignancy and Histology Code which was issued by WHO in 1956 (WHO/HS/CANC/24.1.2.) For the purpose of incidence studies all cases are classified according to the calendar year in which the

diagnosis was first established.

Tabulation and publications

The collected data are tabulated, and the basic information applying to the sex- and age- specific cancer incidence rates, according to the site, are presented every year in the Registry's annual report. They are forwarded also to the World Health Organization and published in the "Epidemiological and Vital Statistics Report "; up to now they have been published for the years 1952 - 1964 (12). In addition, the Institute of Oncology has issued a monograph in English with the incidence, survival and other relevant data for the whole period 1950 - 1955 (13). Further, the report comprising incidence data for the period 1956 - 1960, and information on the salient features of the Registry, is presented in the VICC publication "Cancer Incidence in Five Continents " (11).

Cancer incidence

In this place only some of the most outstanding features of cancer incidence in Slovenia, which might be of interest from the epidemiological point of view, shall be given. They are based on the data collected by the Registry up to now, and presented in the publications cited above. The incidence is defined as the number of cancer cases diagnosed in each year and reported to the Registry by hospitals, plus the number of deceased with cancer during the same period, who have not been reported to the Registry before as cases.

In the year 1964, for instance, the total number of new cancer cases registered amounted to 3A46, which represents an incidence rate per loo.ooo population of 211,3 (213,1 in males, 209,6 in females).

Trend

While in the period 1950 - 1960 the crude incidence rates exhibited a rather steap increase (137,0 in 1950, 206,5 in 1960), the total cancer risk in the current decade appears to tend to stabilization. However, the incidence rates for some cancers exhibit perceptible changes. This is first of all true for lung cancer in males, which shows a steady increase (e.g. in 1961: 32,7 and in 1964: 44,9 per loo.ooo male population), and which can be brought into correlation with the increasing consumption of cigarettes. In 1964 the number of newly diagnosed lung cancer cases in males almost reached the number of newly diagnosed cases of cancer of the stomach which is the leading site in males, and in the second place in females. In the last years, however, a tendency toward declination is being observed in this cancer.

Most common cancers

The most common cancers, as percentage of the total number of new cases in 1964, are given in Table 1., and the crude incidence rates for the five leading sites in the same year are presented in Table 2.

The most common cancers as percentage of the total number of new cases, by sex: Slovenia, 1964.

	Males			Females	
Int. List A No.	Site Control of the C	Per Cent	Int. List A No.	Site	Per Cent
44-59	All sites	100	44-59	All sites	100
46	Stomach	21,3	52	Cervix uteri (& ca in situ)	20,0
50	Lung	21,1	46	Stomach	14,1
55	Skin	9,1	51	Breast	12,2
44	Buccal cavity & pharynx	6,3	55	Skin	10,2
54	Prostate	5,3	53	Uterus - other & unspec.	5,2
.48	Rectum	3,9	47	Intestine	3,5
59	Lymphomas	3,2	48	Rectum	3,4
47	Intestine	2,8	50	Lung	2,8
49	Larynx	2,8	58	Leukaemia	2,6
58	Leukaemia	2,5	44	Buccal cavity & pharynx	2,2
45	Oesophagus	2,2		~ Inter Atty	

TABLE 2.

The cancer incidence rates per 100.000 population for the five leading sites, by sex: Slovenia, 1964.

	h	iales			Females	
Int. List No.	A Site		Rate	Int. List A No.	Site	Rate
46	Stomach		45,6	52	Cervix uteri	41,8
50	Lung		44,9	45	(& ca in situ) Stomach	29,5
55	Skin		19.5	51	Breast	25,7
44	Buccal cavi & pharynx	ty	13,4	55	Skin	21,4
54	Prostate		11,4	53	Uterus-other & unspec. parts	10,8

If in females the "carcinoma-in-situ" cases would be excluded from cases of cancer of the cervix uteri, the rates of this cancer would approach that of cancer of the stomach, but would still dominate. Further, it should be pointed out that the frequency of cancer of the ovary, as of the specific site, is also relatively high, but this cannot be seen if case distribution by site is made according to List A of the ICD (in which malignant neoplasms of the ovary are included under "all other and unspecified sites": A 57). Thus, cancer of the ovary would be in the sixth place on the female site-frequency list.

In the publication " Cancer Incidence in Five Continents " (11) the age-adjusted incidence rates by sex and site, calculated from the average annual incidence in the period 1956 - 1960, are presented for Slovenia, together with the relevant data of 31 other cancer registries in 23 countries. The incidence is adjusted to the age distribution of three standard populations: African, World and European. The cancer epidemiologist may find this presentation of special interest. However, as emphasized by the editors of the publication, one has to be very careful in drawing conclusions from comparisons of the given rates between the countries. In this connection attention should be drawn also to the article of Doll and Cook (14), concluding that " No single index is capable of replacing the individual sex- and age-specific incidence rates ... ".

Geographical incidence variations

The given list of most common cancers in our country indicates to which one's our attention is particularly drawn, also from the etiological point of view. International variations in incidence rates of these cancers are well known, but in Slovenia itself rather great differences in incidence rates are observed between the particular geographical regions, which could perhaps be attributed to the influence of the environmental factors. The magnitude of these variations in most common sites can be seen from Table 3.

TABLE 3.

The lowest and the highest crude average annual incidence rates per loo.ooo population of relevant regions, by most common sites: Slovenia, 1956 - 1960.

Int. List No.		ite	Sex	Inc	cidence highe	st	Slovenia average
46 50 55 52	Lun Ski	n vix	male♀ male male♀ female	18,6 13,7 10,0 7,3	65 53 47 52	, o , 9	28,4 28,8 19,7 29,2
51	Bre	ast	female	13,7	37	"l	24,4

It is a special characteristic of Slovenia that although small, it shows a great deal of variety with regard to its geographical features. There are alpine and costal regions, the Pannonian plain and the Karst, and still other specific regions yet.

Accordingly, the population living in these regions differs considerably in customs, habits, food, etc. Since differences in the age composition, in the proportion of the population living in urban and rural areas, and differences regarding health services between the regions do not appear to be significant, understanding of the reasons for incidence variations observed would be worth-while further investigations.

Epidemiological studies on cancer etiology

variations, according to the standard factors, as provided by cancer registry, may of course permit the formulation of a hypothesis only, regarding the etiology of a particular cancer. If a hypothesis should be proved, a special study is needed, requiring special methodology in collecting information on the study—as well as on control—cases. In planning an epidemio—logical study the registry can render most valuable assistance in choosing study samples, or in furnishing basic information on relevant cancer cases. On the other hand the registry could be of assistance in assessing the completeness of cases comprised in the study.

As to the epidemiological investigations on cancer etiology in Slovenia, a study of breast cancer - in relation to lactation, childbearing and other relevant factors - as part of an international collaborative project, is being conducted by the Institute of Oncology in Slovenia. In the near past some investigations concerning stomach cancer in relation to the diet pattern have been carried out, partly also within the frame of an international study (15,16).

Since it is assumed that the factors influencing the incidence of cancer might also predetermine
the course of the disease, the end-results data which
can be provided by the registry are not useful only
in evaluating the effectiveness of cancer therapy, but
might contribute to the epidemiological investigations
too, as already pointed out by Haenszel (17).

Conclusions

Concluding, we wish to emphasize that according to our experiences the keeping of population-based permanent cancer registry is rather demanding regarding the staff and the funds. However, all endeavors are worth while in view of the important assistance which the continuous cancer registration in a defined population can render to the epidemiological investigations of malignant diseases, provided that the registration is complete, and the incidence data reliable. This is certainly more likely to be achieved if the

size of population is manageable for a registry, and on the other hand, large enough to yield a sufficient number of cases for analysis within an acceptable period. Besides, the health education of the population and the health services should be on an appropriate level.

STIMMARY

In the Socialist Republic of Slovenia the country-wide cancer registration was started January 1st 1950, based on compulsory notification of all recognized malignant neoplasms in the area. The registration is being carried out by the Cancer Registry of Slovenia, established at the Institute of Oncology, Ljubljana.

In view of the one of the most important functions of the Registry, i.e. the cancer incidence studies in a defined population, the main physical and demographical features of the registration area, and of its medical services, are described in the first place.

Further, accounts of registration and follow-up procedures, of coding and tabulation are given, as well as information on the Registry's publications.

The percentage distribution and the incidence rates of most common cancers in Slovenia are presented in tables. Attention is drawn to the geographical variations observed.

The valuable assistance which the cancer registry can render to the investigations of cancer etiology is pointed out. Possible contribution of end-results data is indicated.

Epidemiological studies which have been carried out up to now by the Institute of Oncology, mainly as a part of international collaborative projects, have been devoted to stomach and breast cancer.

In view of the experiences acquired the problems and conditions which might influence the success of cancer registration are briefly outlined.

REFERENCES

- 1. Statistički bilten (Statistical Bulletin), 496, 1967. Savezni zavod za statistiku (Federal Institute for Statistics), Beograd.
- 2. Savezni zavod za statistiku (Federal Institute for Statistics), Beograd unpublished data.
- 3. Statistički bilten (Statistical Bulletin), 398, 1966. Savezni zavod za statistiku (Federal Institute for Statistics), Beograd.
- 4. Mesečni statistični pregled SR Slovenije (Monthly Statistical Survey of the S.R.Slovenia), 14,8, 1965. Zavod SR Slovenije za statistiko (Institute for Statistics of the S.R.Slovenia), Ljubljana.
- 5. Statistički bilten (Statistical Bulletin), 193, 1960. Savezni zavod za statistiku (Federal Institute for Statistics), Beograd.
- 6. Mesečni statistični pregled SR Slovenije (Monthly Statistical Survey of the S.R.Slovenia), 14,6,1965. Zavod SR Slovenije za statistiko (Institute for Statistics of the S.R.Slovenia), Ljubljana.
- 7. Zdravstveni delavci, zdravstvene šole in zdravstveni zavodi v SR Sloveniji v letu 1965 (Medical personnel, medical schools and medical institutions in S.R. Slovenia in 1965). Zavod za zdravstveno varstvo Republiški zdravstveni center (Institute of Public Health of the S.R.Slovenia Republic Health Center), Ljubljana.

- 8. Novak, K., Poprečna starost prebivalstva in poprečna doba doživetja (The average age of the population and the average life expectancy). Prikazi in študije (Surveys and Studies), 13: 15 20, 1967. Zavod SR Slovenije za statistiko (Institute for Statistics of the S.R.Slovenia), Ljubljana.
- 9. Novak, K., Umrljivost po najpogostejših vzrokih smrti v SR Sloveniji (Mortality according to the most common causes of death in S.R.Slovenia). Prikazi in študije (Surveys and Studies), 13: 9 15, 1967. Zavod SR Slovenije za statistiko (Institute for Statistics of the S.R.Slovenia), Ljubljana.
- lo. Statistički godišnjak (Annual Statistical Report),
 1966. Savezni zavod za statistiku (Federal Institute
 for Statistics), Beograd.
- 11. Doll, R., Payne, P.M., and Waterhouse, J.A.H.,

 Cancer incidence in five continents. International

 Union Against Cancer, Springer-Verlag, Berlin, 1966.
- 12. Epidemiological and Vital Statistics Report, WHO,
 - 14: 425 506, 1961
 - 16: 671 772, 1963
 - 17: 643 736, 1964
 - 19: 573 660, 1966
- 13. Ravnihar, B., Valentin A., Božič T., Doič I., and Pečirer, D., Cancer in Slovenia, 1955. Oncological Institute, Slovene Cancer Registry, Ljubljana, 1967.

- 14. Doll, R., Cook, P., Summarizing indices for comparison of cancer incidence date. Int.J. Cancer, 2: 269 - 279, 1967.
- 15. Wynder, L., Kmet, J., Dungal, N. and Segi, M.,
 An epidemiological investigation of gastric cancer.

 Cancer 16: 1461 1466, 1963.
- 16. Kmet, J., Upliv lokalne ishrane na kretanje morbiditeta raka želuca u Jugoslaviji (Influence of the
 local food on stomach cancer morbidity in Yugoslavia). Onkološki inštitut (Institute of Oncology),
 Ljubljana, 1964. Separate monograph (cyclostyle).
- 17. Haenszel, W.M., Contribution of end results data
 to cancer epidemiology. International Symposium
 on End Results of Cancer Therapy, NCI Monograph 15,
 1964, U.S. Department of Health Education, and
 Welfare, Public Health Service.

Address of author:

Dr. Božena Ravnihar, Professor The Institute of Oncology Vrazov trg 4 Ljubljana, Yugoslavia ,

TUMOR RECORD

FRONT

PRIJAVNICA

R	ENTRALNI	PECISTER			H HH H	024	VIVE OZE	
	AKA SRS Š	ST. (pusti prazno)			za rakavo obolenje			3. ŠTEVILKA PRIJAVI
Ol	DDELEK	1						
4 DE	HIMEK					5	SPOL: moški	□ ženski
		RIIMEK			ROJEN:			leto
		WINDAY						/
				······ '	. Million			
	TALNO VALIŠČE: 1	craj	ulica				št poš	šta
øb	čina		okraj				republika	·
9 SE	אר וביד עיד	'A ODDELEK ALI	DATUM	dan	mesec	leto	13 POSLAN V T	'A ODDELEK ALI KLINI
	LINIKO:	A ODDELEK ALI	10. SPREJEMA				KO ZARADI	
	prvič		11. ODPUSTA	•			☐ preiska v e	☐ zdravljenja
	ponovno za	radi: 🗌 iste bolezni						□ prvega
	1	nov. malignoma	12. SMRTI					☐ ponovnega
zavod malignoma	14. ALI (če »	JE BIL KDAJ POPREJ U la« navedi diagnozo, naslo	v zavoda, kjer je bil	ugoto	vljen oz. 2	dravlj	en in ime lečečego	•
zave	Diagi Naslo	noza		F	riimek in			
/ ta jega	zavod	la		ii	ne zdra v n	ika		
prvič v ta z i sedanjega 1	15. ALI	JE BIL SEDANJI MALIG da« navedi naslov zavoda				☐ d	a 🗌 ne	
in pi	Nasic	nv .	· -	P	riimek in			
prišel 1 zaradi	zavod	la		iı	ne zdravn	ika		
16. DATUM, KO JE BIL PRVIC 17. ALI JE BIL B					AVLJEN NOMA? □ da □ ne			
je t	mesec		leto 19	·	(če »da∢	izpol	ni podatke pod 18)
če elek	18. ZAV	DD IN DATUM PREHOD	NEGA ZDRAVLJEI	NJA S	EDANJEG	A MA	LIGNOMA PO Č	ASOVNEM ZAPOREDJU
i le,	Nasle	ov zavoda:					Datum:	
oh ca, e	1	***************************************					nd	do
Izp išnie	1				**************			
- Ho	'							
Izpolr (bolnišnica,	'							
ulod)	3 19. STAN			***********			od	do
ulod)	3	IJE MALIGNOMA OB SP jega malignoma): ırna lokalizacija:	REJEMU (označi en	o ali ı	oeč, le č	e je bo	odolnik že bil popi	rej z dra vljen zaradi
ulod)	3	IJE MALIGNOMA OB SP jega malignoma): irna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma	o ali 1	več, le č stanek, pr stanek, pr	e je bo ogres	od	rejzdravljen zaradi nov pojav nov pojav
ulod)	3	IJE MALIGNOMA OB SP jega malignoma): irna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma	o ali v	oeč, le č stanek, pr stanek, pr stanek, pr	e je be ogres ogres ogres	od	dodo rej z dra vljen zaradi nov pojav nov pojav nov pojav
	3	IJE MALIGNOMA OB SP jega malignoma): arna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi	o ali 1	stanek, protanek, protanek, pro	e je bo ogres ogres ogres	od	do
	3	IJE MALIGNOMA OB SP jega malignoma): irna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi CIJA: regionalna (n	o ali i	stanek, prostanek, prostanek, pro	e je bo ogres ogres ogres	olnik že bil popi recidiv recidiv recidiv	do
	3	IJE MALIGNOMA OB SP jega malignoma): irna lokalizacija: irna lokalizacija: ipna lokalizacija: ipna lokalizacija: ipna lokalizacija: ipna lokalizacija: ipna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi CIJA: regionalna (n oddaljena (næ	o ali v os os avedi)	stanek, prostanek, prostanek, prostanek, prostanek, pro	e je bo ogres ogres ogres	olnik že bil popi recidiv recidiv recidiv	do
	3	IJE MALIGNOMA OB SP jega malignoma): arna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi CIJA: regionalna (n oddaljena (ne	o ali v o s o s o s o s o s o s o s o s o s o s	stanek, protanek, protanek	e je bo ogres ogres ogres	od	do
	3	JE MALIGNOMA OB SP jega malignoma): una lokalizacija: ulalna lokalizacija: jena lokalizacija: VA IN PRIMARNA LOKA ASTATIČNA LOKALIZAC OLOŠKA DIAGNOZA	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi, CIJA: regionalna (n oddaljena (næ CITOLOŠKA 1	o ali a	stanek, prostanek, pro	e je bo ogres ogres ogres	od	do
	3	IJE MALIGNOMA OB SP jega malignoma): arna lokalizacija: jena lokalizacija: A IN PRIMARNA LOKA ASTATIČNA LOKALIZAC DLOŠKA DIAGNOZA di vrsto in v oklepaju oz če je citološka):	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi CIJA: regionalna (n oddaljena (næ CITOLOŠKA l nači s »H« če je	o ali t	stanek, prostanek, prostanek, prostanek, prostanek, prostanek	e je bo ogres ogres ogres	od	do
	3	JE MALIGNOMA OB SP jega malignoma): urna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi CIJA: regionalna (n oddaljena (næ CITOLOŠKA 1 nači s »H« če je označi eno ali več): ne	o ali a	stanek, prostanek, pro	e je bo ogres ogres ogres ogres	olnik že bil popı recidiv recidiv recidiv	do
Podatki o bolezni v tem zavodu (bolnišnica, oddelek, klinika) (boln	3	JE MALIGNOMA OB SP jega malignoma): urna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi CIJA: regionalna (n oddaljena (næ CITOLOŠKA 1 mači s »H« če je označi eno ali več): ne	o ali a	stanek, prostanek, pro	e je bo ogres ogres ogres sška in	od	do
	3	JE MALIGNOMA OB SP jega malignoma): urna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi CIJA: regionalna (n oddaljena (næ CITOLOŠKA 1 nači s »H« če je označi eno ali več): ne	o ali a	stanek, prestanek, pre	e je bo ogres ogres ogres ska in	od	do
	3	JE MALIGNOMA OB SP jega malignoma): Irna lokalizacija: Irna lokalizacija: Irna l	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi, CIJA: regionalna (n oddaljena (næ CITOLOŠKA l mači s »H« če je označi eno ali več): ne	o ali a	stanek, prostanek, pro	e je bo ogres ogres ogres ska in skopsko	od	do
	3	JE MALIGNOMA OB SP jega malignoma): Inna lokalizacija: Inna lokalizacija: Inna lokalizacija: Inna lokalizacija: Inna lokalizacija: Inna lokalizacija:	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi, CIJA: regionalna (n oddaljena (næ CITOLOŠKA l cnači s »H« če je označi eno ali več): ne	o ali a	stanek, prostanek, pro	e je bo ogres ogres ogres ska in skopsko	od	do
	3	JJE MALIGNOMA OB SP jega malignoma): Ima lokalizacija: Ima lokalizacija: Ima	REJEMU (označi en brez malignoma brez malignoma brez malignoma LIZACIJA (navedi, CIJA: regionalna (n oddaljena (næ CITOLOŠKA l mači s »H« če je označi eno ali več): ne	o ali a	stanek, prostanek, pro	ška in	olnik že bil popi recidiv recidiv recidiv recidiv ko NEPREVERJE a operacija ene ali laboratorij	do

ONKOLOŠKI INŠTITUT LJUBLJANA

THE INSTITUTE OF ONCOLOGY, LJUBLJANA

1. CANCER RELISTRY OF SLOVENIA REGISTER No. (leave blank)						RECO			3. RECORD No.
D	OSPITAL EPARTMENT CLINIC			(En	glish t	ranslati	on)		
4. F	AMILY NAME				Š.	SEX:	m a	le [] female
М	AIDEN FAMILY NAME	and the second second	6	5. DATE OF	BIRT	i: day		mon th	year
	INST NAME			7. NATIONA	LITY				
(t	DDRESS: place								•
	ommuni ty	**************************************			I			-	
9. A	DMITTED TO THIS DEPARTMENT R CLINIC:	DATE	day	mon th	year		CLINIC		HIS DEPARTMENT
	first time	10. ADMISSION					examino	ition	☐ treatment
	repeatedly: for the same candition	11. DISCHARGE							☐ first
H.	new cancer	12. DEATH	***						☐ repeated
this institution ause of this cancer	14. HAS EVER BEFORE ANOTHER CA (if "yes" give the diagnosis, institut Diagnosis ———————————————————————————————————	ion where diagnosed or	r treated	d, and name	of the	attending	7 phy sic	ian)	
to this	Înstitution		Na	me of physi	cion_			•	
admitted to rsttime be	15. HAS THIS CANCER EVER BEEN PI (if "yes" give institution and name of		ED?	☐ yes	□ no				
snad Sirst	Institution		Na	me of physi	cion_			-	
has bec for the	16. DATE OF FIRST DIAGNOSIS OF TH	IS CANCER:	17.	HAS THE PRESENT				OUSL'	Y TREATED FOR THE
enti ic) f	month	year 19		(if "yes" f	ill in it	em 18)			
Fill in only if the patient has been admitted to ospital,department,clinic) for the first time bea	18. INSTITUTION AND DATE OF PREV					•	Date		
on ly depa						from _			_, to
ital,	2.	***************************************			<u></u>	from			_ , po
Fill in only if (hospital, departm	3					from	. 7.	4.25	to
-	19. CONDITION AT ADMISSION (check of	one or more only i	thep	atient has	een p	reviou	sly ti	eate	d for present cancer):
tment, clinic)	primary site: no cancer regional site: no cancer remote site: no cancer	□ residual can □ residual can □ residual can	cer, pro	gressing		recurre	nce		new appearance new appearance
ерат	20. TYPE OF CANCER AND PRIMARY	SITE (specify)							
al, d	21. SECONDARY SITE: regional (special	fy)						~	
spit	remote (specify)							
this institution (hospital, departm	22. HISTOLOGIC DIAGNOSIS (specify the type and add "H" if diagon "C" if it was cytologic) primary cancer metastasis	CYTOLOGIC D gnosis was histologic,	IAGNOS	sis 🔾					DATE:
Information on condition in t	23. DIAGNOSIS ESTABLISHED (check of MICROSCOPICALLY:	ne or more):			rative s	urgery			BUT ESTABLISHED BY: specify)

	24. STADIJ BOLEZNI (izpol	ni le, če bolnik ni bil	poprej zdrav	ljen zaradi se	danjega malignoma)	:
Stanje v tem z avodu (nadaljevanje)	označi le za ca colli ut	PIJO (prvi klinični vtis) eri, mammae, vesicae, zgor. ia, po mednarodni klasifi-	IN OBDUK		VKLJUČNO OPERA klinični vtis) označi A	
em jeva			□ in situ (s □ lokalizira	samo na osnovi h	istologije)	
e v i			_	ma razširitev:	A STATE OF THE STA	
anje (ng				acije bezgavk	1-	
<u> </u>	To Ti T2	Ts : T4		nfiltracije bezgav ali difuzni razse		
		2 N3 M	☐ nedoloče	n		
	25. NAČIN ZDRAVLJENJA	(označi eno ali več):			DATUM:	
	OPERACIJA MALIGNOM	IA (navedi)	·······			*************
	Vključno odstranjena end	okrina žleza (navedi)				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Operacija za hormonski e	ekt (navedi)	······································			
		MALIGNOMA (navedi aparat	in obsevano to-			
linik	kalizacijo)			od	do	
Zdravljenje v tej bolnišnici ali kliniki		i efekt (navedi)			do	
ភ្ជ		ZAPRTI IZVORI (navedi)				
nišn.					do	
bolı		PI — ODPRTI IZVORI (nave	v	*		
tei	***************************************	······································		. od	do	
ije v	KEMOTERAPLIA (naved	i)		od	do	
/ljer	*					***************************************
dra		A (hormoni, antihormoni, ster			d.	
. 23	***************************************				do	
		OMU UPERJENA TERAPIJA			do	
	A1111111111111111111111111111111111111		do			
	26. BREZ ZDRAVLJENJA U bolnik odklonil	•				
		III III III III (Raveat V210K)				
-	27. STANJE OB:	28. VZROK SMRTI (
* 1	odpustu ali smrti	·	•			***********
ıstu	□ brez znakov maligno	predhoden,				
odpustu	malignom prisoten	osnovna		***************************************		***************************************
	prisotnost malignoma	bolezen c) druge				
sm	neznana, negotova	pomembne	*********************************	^	**************************************	
boln		30101111				
Stanje bolnika ob ali smrti	29. OBDUKCIJA: 🗌 da 🔲 1	ne	-		Code compagning and anti-construct operation and the construction of the construction of the construction of the code of the c	
Sta	•	ozor malignom, metastaze!)				*************
	atanyonananananananananananananananan	***************************************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
		•				
	30. BOLNIK NAPOTEN (vpi	i naslov):			RSTVOM (navedi 1 ime zdravnika ali 1	
ola	domov		nažne sestre	•		
Kontrola	3					
M I	32. NAJBLIŽJI SORODNIK A	ALI PRIJATELI:			***************************************	************
.	Priimek		Moules			
	DATUM PRIJAVE:	7DDA VCTVENI A DMIN			*	
dan	mesec leto	ZDRAVSTVENI ADMIN	METRATOR:		ζ, KI JE IZPOLNIL EDAL PRIJΛVNICC	
		Podpis			D-4-:-	
		,			Podpis	
		(Priimek in ime t			c in ime tiskano)	

	24. STAGE OF DISEASE (fill in	only if patient has not b	een previously	treated for pre	sent concer):	
Condition in this institution (continued)	A. STAGE BEFORE TREATME check only for cancers of the breast, bladder,upper digesti (according to the international	following sites: cervix uteri.	THAT DERIV	/ED FROM SURGER ession) check for all	CE AVAILABLE,INCLUDING Y OR AUTOPSY (corrected concers, also for those	
this tinue		in situ (based only				
in in			☐ localised☐ regional s			
li tior		I III 🔲 IV	☐ lymph	nodes involvement		
Cond	\square T ₀ \square T ₁ \square T ₂	\square T ₃ \square T ₄		iph nodes involvemen diffuse spread, gene		
	\square N $_0$ \square N $_1$ \square N $_2$	□ N ₃ □ M	undefined			
	25. TYPE OF TREATMENT (check SURGICAL REMOVAL OF CAN	·			DATE:	
	including removal of endocrine					
			. 1			
	Surgery for hormonal effect (spe	the unit and irrodiated site)		-	* * * * * * * * * * * * * * * * * * * *	
	TEELINADIO ITTERNAT (Specify	me unit ma inaratea si te				
nic		1-17-17-17-17-17-17-17-17-17-17-17-17-17		from	to	
clir	Teletherapy for hormonal effect	(specify)		from	to	
this hospital or clinic	RADIUM OR ISOTPES - SEALE	D SOURCES (specify)				
ospit				from	to	
is h	RADIOACTIVE ISOTOPES - OP		,			
			*	from	to	
ent i	-			from	to	
Treatment in					· · · · · · · · · · · · · · · · · · ·	
Ĕ	HORMONE THERAPY (hormons, antihonnons, steroids - specify)				to	
	OTHER CANCER - DIRECTED THERAPY (specify)					
	OTHER CANCER - DIRECTED					
<u> </u>				from	to	
	26. NO CANCER-DIRECTEDTREA					
		ot indicated (specify reason)			·	
	other reason (specify)					
.	27. CONDITION:	28. CAUSE OF DEATH (
discharge	on discharge or at death					
isc	no evidence of cancer	undirect b)				
é	presence of cancer presence of cancer	underlying condition c)				
tient death	unknown, uncertain	other significant				
at at		conditions				
Condition of patient or at death		·	-			
nditi	29. AUTOPSY: yes no	- cancer, metastases!)				
ੌ	NO TOP ST T INDINGS (ARRENGE	- cancer, metastases:)				
	•			<u> </u>		
	30. PATIENT SENT TO (give addre	00)+	3) DATIENT CU	ALL BELINDER CA	DE OF Laine address of the	
	home		institution or	the name of physicia	RE OF: (give address of the m or visiting nurse):	
dn		_				
Follo w-up	elswhere					
요	32. NEAREST RELATIVE OR FRIE	IND:				
	Family name and name		Address			
	DATE OF REPORT	RECORD CLER		PHYSICIA	N FILLING-IN OR	
day	month year				IE RECORD REPORT:	
		Signature			anghiro	
				51	gnature	
	1	(Family and first name in bl	lock letters)	(Family and first	t name in block letters)	

2. USTANOVA, KI POROČA	EK		PORO o kontroli			
. "					4. F	OJEN:
DEVIJEVI					dan mesec	:
IME		***************************************		<	leto	
	okraj					
	IOZA (prim. lok.)				••••••	
7. DATUM ZADNJEGA I JAVLJEN CENTRALN	PREGLEDA, KI JE BIL	8. I	OATUM ZADNJEGA I ENTRALNI REGISTE	POROČILA, I		
dan mesec	leto 19		n mesec			
9. DATUM ZADNJEGA I	PREGLEDA PRI VAS:		DATUM ZADNJEGA O BOLNIKU:	POROČILA,	KI STE C	GA DOBILI
dan mesec	leto 19	d	an mesec			leto-19
□ da □ ne (če »da« nav vrsta in p	rimarna lokalizacija ZDRAVLJEN OD ČASA ZADN		histo	loška diagnoz	a	
	1					
			**************************************		·····	***************************************
13. STANJE BOLNIKA: (označi eno ali več)	☐ pri zadnjem pregledu: ☐ brez znakov malignoma ☐ malignom prisoten ☐ prisotnost malignoma neznana, negotova	□ bre □ ma	ljenem poročilu: z znakov malignoma lignom prisoten sotnost malignoma mana, negotova	□ mali □ priso	i: znakov m gnom pris otnost mal nana, nego	oten dignoma
4. IZVOR PODATKOV C	NAVEDENEM STANJU BOLNI	KA:			***************************************	
□ PREGLEDAL ZDRA	AVNJK: v tej ustanovi (navedi priimek in ime) v drugi ustanovi (navedi priimek, imc in n					
	izven zdravstvene ustano (navedi priimek, ime in n	ve				
Pri ustreznem podatku j	orečitaj kvadratek!			Obrn	i!	

1. CANCER REGISTRY OF SLOVENIA					FRONT	
REGISTER No.		-				
2. DEDODENIA MARKENIA		FOLLOW-U		Ī		
2. REPORTING INSTITUTION		(English t	ranslation)			
3				4. DATE	OF BIRTH	
3. FAMILY NAME			West of the second seco	day		
MAIDEN FAMILY NAME				mon th	·	
FIRST NAME				year		
5. ADDRESS OF PERMANENT RESIDENCE: place	street	No.	post _	~		
community district		repub	lic			
6. RECORDED DIAGNOSIS (primary site)			OGICAL DIAGNO			
7. DATE OF LAST FOLLOW-UP EXAMINATION REPORTE TO THE REGISTRY:	ED 8. DA	TE OF LAST REPORT	RECEIVED BY	THE REGIS	STRY:	
day month year	19 da	y month			year 19	
9. DATE OF LAST FOLLOW-UP EXAMINATION BY YOU:		TE OF LAST REPORT	YOU RECEIVED	ABOUT P	ATIENT	
day month year	19· da	y month			year 19	
11. HAS DIAGNOSIS CHANGED SINCE LAST FOLLOW-UP E	EXAMINATION REP	ORTED TO THE REGIST	ΓRY ?			
type of cancer		histolo	gical dia g nosis			
			•			
12. WAS PATIENT TREATED SINCE LAST EXAMINATION yes no (if "yes" specify)	REPORTED TO RE	GISTRY ?				
for which reason					*	
when (date)	where (in stite	tion)				
			•			
13. STATUS OF PATIENT: at last examination:	□ accord	ing to report received:	at death:			
(check one or more) no evidence of cance	er no	evidence of cancer	no ev	idence of o	cancer	
presence of cancer	J	esence of cancer	_	ence of can		
presence of cancer		esence of concer		nce of can		
unknown, uncertain	un	known, uncertein	unkno	own, uncert	ain	
14. SOURCE OF INFORMATION ON THE GIVEN STATUS OF	THE PATIENT:					
☐ EXAMINED BY PHYSICIAN:		٠				
in this institution (give family name and na	ane)					
in another institution (yive family name, name	•					

in no institution

(give family name, name and address)

	OR PODATKOV (nad OROČILO:	daljevanje):		
L] FO		ga: 🗌 pismeno 🖂	l vade a	
elle			ustno a (navedi)	-
4				

	od drugod (na	avedi)		
	***************************************		·	
15. PRIPO	OMBE O POSEBNO	STIH, ki zadevaj	o potek bolezni in stanje bolnika:	, .
,				**************************************

16. BOLN	NIKA BO KONTRO		riimek in ime zdravnika, patrona žne sestre oziror	
*************	***************************************	***************************************		
17 ATT 1	IF BOLNIK LIMBI	V ČASII OD Z	ADNJEGA PREGLEDA, KI JE BIL JAVLJE	N CENTRAL NEMIL REGISTRUS
	ne (če »da« naved		ADINIDA I REGELDA, KI JE DIE JAVESE	IN CENTRALINEMO REGISTRO,
datum	smrti		kraj smrti	
	OK SMRTI (mrliški l		·	
	neposr	eden a)		
	predho	oden b)		
	•	,		
		c)		
2	dma a	lodatan		
	drug (iodateii		
10 0557				
19. OBDU	UKCIJA: 🗌 da 🗌 n	e		·
OBDU	JKCIJSKI IZVID:(p	ozor malignom, m	netastazel)	
				ė
	~******			
		*		

Kdo i	e izvršil obdukcijo (p	riimak in		
				/

	Datum poročila		Poročilo izpolnil:	Poročilo pregledal zdravnik:
dan	mesec	leto	(priimek in ime, tiskano)	(priimek in ime, tiskano)
		10		
		19	Podpis	Podpis
			•	•

SOURCE OF IN	FORMATION (continued):		
☐ REPORT	:		
	from patient himself; Dy letter	□ personal	
	from patient's relative or friend (sp		
	•	₩	
*	from elswhere (specify)		
15. SPECIAL NO	OTES, relating to the course of diseas	se and status of patient:	
			4
16. PATIENT W		ve family name and name of physician, of visitin	g nurse, and the institution):
\a			
☐ yes	NT DIED SINCE LAST REPORT TO no (if "yes" give)		
date of deat	h	place of death	
18. CAUSE OF	DEATH (death certificate):		
	undirect a)		
	antecedent b)		
	c)		
	other contributing	•	
	other continuing		
19. AUTOPSY:	☐ Yes ☐ no		
		•	
AUTOPSY F	INDINGS: (attention-cancer, metasta	ses!)	
			-
/			
		÷	
e			
	autopsy was performed (family name		
of the pathel	ogist and address of the pathological	department)	_
D	ate of report	Filled in by:	Reviewed by physician:
day	mon th year	(family name and name, in block letters)	(family name and name, in block letters)
	19		
	N.	Si g nature	Signature
,			

Obrazec za kodificiranje

Priimek Last name Dekliški priimek Maiden name lme Firstname

Stolpec		Obeležje	Šifra
Column	Field	Iten .	Code
1—3	Α	Številka bolnišnice in oddelka	
		Hospital, Department Number	
4—6	В	Bolnišnica prvega poteka zdravljenja Hospital - First Course of Treatmen t	
		Tekoča št.	
7—12	С	\$t. primera Current No.	
		Case Number Leto Year	
13	D	Spol	_
		Sex	1
14	E	Narodnost	-
		Nationali ty Področje	
15—19	F	Region Področje stalnega bivališča Okraj	
13—17		Residence District	_
		Občina Communi ty	
20—21	G	Starost ob diagnozi	
		Age at Diagnosis	
22	H	Opredelitev primera	-
23—26	1 , 1	Datum prve diagnoze	
		Date of First Diagnosis	
27—30	1	Datum sprejema v področju registra	
31	к	Date of Admission to Registry Malignost	
31		Malignancy	
32—34	L	Primarna lokalizacija	
35	м	Primary Site	
33	141	Zaporedno število	
36—38	N	Histološka vrsta	
	0	Histological Type	
39 .		Potrditev diagnoze	
40	P	Stadij bolezni	
44, 42		Stage of Disease	
41—43	Q	Zdravljenje pred sprejemom Tumor Treatment - Prior to Admission	
4446	R	Zdravljenje prvi potek	
47. 40		Tumor Treatment - First Course	
4749	S	Zdravljenje nadaljnji potek	
5053	SS	Datum zadnje kontrole ali smrti	
	_	Date of Last Follow-up or Death	
54	T	Kraj smrti	
55	U	Stonje ob kontroli ali smrti	
		Status at Follow-up or Death	
56—59	V	Doba preživetja od diagnoze	
60—63	z	Vzroki smrti	
		Cause of Death	
64	ZZ	Obdukcija Au topsy	
	1 1	Pozor i Preskoči 13 stolpcevi 1	
	1	Attention! Leave blank 13 columns!	
78	W	Opis luknjane kartice	
7980	YY	Leto zamenjave luknjane kartice	
50	1	Year of Replacement of Punch Card	-