

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

LJUBLJANA, marec - March, 1968

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 100.000 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 (10,3 per 1000 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 100.000 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 (10).

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 non-residents 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 out-patient 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 IBM 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 IICC 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 3446, which represents an incidence rate per 100.000 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 steep 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 100.000 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.

TABLE 1.

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

Males			Females		
Int. List A No.	Site	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			

TABLE 2.

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

Males			Females		
Int. List A No.	Site	Rate	Int. List A No.	Site	Rate
46	Stomach	45,6	52	Cervix uteri (& ca in situ)	41,8
50	Lung	44,9	45	Stomach	29,5
55	Skin	19,5	51	Breast	25,7
44	Buccal cavity & pharynx	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 100.000 population of relevant regions, by most common sites: Slovenia, 1956 - 1960.

Int. List A No.	Site	Sex	Incidence rate		Slovenia average
			lowest	highest	
46	Stomach	male&female	18,6	65,3	28,4
50	Lung	male	13,7	53,0	28,8
55	Skin	male&female	10,0	47,9	19,7
52	Cervix uteri	female	7,3	52,2	29,2
51	Breast	female	13,7	37,1	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

The cancer incidence data by site and their 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 epidemiological 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.

SUMMARY

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.
10. 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

ONKOLOŠKI INŠTITUT LJUBLJANA

PRIJAVNICA

za rakavo obolenje

3. ŠTEVILKA PRIJAVE

1. CENTRALNI REGISTER
RAKA SRS ŠT. (pusti prazno)
2. BOLNIŠNICA
- ODDELEK
- ALI KLINIKA

4. PRIIMEK
- DEKLIŠKI PRIIMEK
- IME
5. SPOL: moški ženski
6. ROJEN: dan mesec leto
7. NARODNOST

8. STALNO
BIVALIŠČE: kraj ulica št. pošta
- občina okraj republika

- | 9. SPREJET V TA ODDELEK ALI
KLINIKO: | DATUM | | | 13. POSLAN V TA ODDELEK ALI KLINI-
KO ZARADI | | | |
|---|---|--------------|------|---|--|------------------------------------|--------------------------------------|
| | dan | mesec | leto | | | | |
| | <input type="checkbox"/> prvič | 10. SPREJEMA | | | | <input type="checkbox"/> preiskave | <input type="checkbox"/> zdravljenja |
| | <input type="checkbox"/> ponovno zaradi: <input type="checkbox"/> iste bolezni
<input type="checkbox"/> nov. malignoma | 11. ODPUSTA | | | | <input type="checkbox"/> prvega | <input type="checkbox"/> ponovnega |
| | 12. SMRTI | | | | | | |

14. ALI JE BIL KDAJ POPREJ UGOTOVLJEN DRUG MALIGNOM? da ne
(če »da« navedi diagnozo, naslov zavoda, kjer je bil ugotovljen oz. zdravljen in ime lečečega zdravnika)
- Diagnoza
- Naslov zavoda Priimek in ime zdravnika

15. ALI JE BIL SEDANJI MALIGNOM ŽE POPREJ UGOTOVLJEN: da ne
(če »da« navedi naslov zavoda, priimek in ime zdravnika)
- Naslov zavoda Priimek in ime zdravnika

16. DATUM, KO JE BIL PRVIČ UGOTOVLJEN SEDANJI MALIGNOM:
mesec leto 19.....
17. ALI JE BIL BOLNIK ŽE ZDRAVLJEN ZARADI SEDANJEGA MALIGNOMA? da ne
(če »da« izpolni podatke pod 18)

18. ZAVOD IN DATUM PREHODNEGA ZDRAVLJENJA SEDANJEGA MALIGNOMA PO ČASOVNEM ZAPOREDJU:
- | Naslov zavoda: | Datum: |
|----------------|-------------------|
| 1. | od do |
| 2. | od do |
| 3. | od do |

19. STANJE MALIGNOMA OB SPREJEMU (označi eno ali več, le če je bolnik že bil poprej zdravljen zaradi sedanjega malignoma):
- | | | | | |
|--------------------------|---|---|----------------------------------|------------------------------------|
| primarna lokalizacija: | <input type="checkbox"/> brez malignoma | <input type="checkbox"/> ostanek, progres | <input type="checkbox"/> recidiv | <input type="checkbox"/> nov pojav |
| regionalna lokalizacija: | <input type="checkbox"/> brez malignoma | <input type="checkbox"/> ostanek, progres | <input type="checkbox"/> recidiv | <input type="checkbox"/> nov pojav |
| oddaljena lokalizacija: | <input type="checkbox"/> brez malignoma | <input type="checkbox"/> ostanek, progres | <input type="checkbox"/> recidiv | <input type="checkbox"/> nov pojav |

20. VRSTA IN PRIMARNA LOKALIZACIJA (navedi)

21. METASTATIČNA LOKALIZACIJA: regionalna (navedi)
- oddaljena (navedi)

22. HISTOLOŠKA DIAGNOZA CITOLOŠKA DIAGNOZA DATUM:
- (navedi vrsto in v oklepaju označi s »H« če je diagnoza histološka in s »C« če je citološka):
- primarni malignom
- metastaze

23. DIAGNOZA UGOTOVLJENA (označi eno ali več):
- | | |
|--|--|
| MIKROSKOPSKO: <input type="checkbox"/> da <input type="checkbox"/> ne <input type="checkbox"/> dvomljiva | MIKROSKOPSKO NEPREVERJENA, PAČ PA UGOTOVLJENA: |
| <input type="checkbox"/> biopsija | <input type="checkbox"/> rentgenološko |
| <input type="checkbox"/> kiretaža | <input type="checkbox"/> eksplorativna operacija |
| <input type="checkbox"/> operativni preparat | <input type="checkbox"/> endoskopsko |
| <input type="checkbox"/> autoptičen preparat | <input type="checkbox"/> druge klinične ali laboratorijske metode (navedi) |
| <input type="checkbox"/> hemogram | |
| <input type="checkbox"/> kostni mozeg | |
| <input type="checkbox"/> parafinski preparat | |
| koncentriranih tekočin | |
| <input type="checkbox"/> aspiracijska citodiagnostika | |
| — iz eksudata | |
| — iz solidnega tumorja | |

Pri ustreznem podatku prečrtaj kvadrater! Izpolni vsakikrat, ko je bolnik sprejet, bodisi v stalež — bodisi ambulantno!

THE INSTITUTE OF ONCOLOGY, LJUBLJANA

TUMOR RECORD

3. RECORD No. _____

1. CANCER REGISTRY OF SLOVENIA
REGISTER No. (leave blank) _____

(English translation)

2. HOSPITAL _____
DEPARTMENT _____
or CLINIC _____

4. FAMILY NAME _____
MAIDEN FAMILY NAME _____
FIRST NAME _____

5. SEX: male female

6. DATE OF BIRTH: day _____ month _____ year _____

7. NATIONALITY _____

8. ADDRESS: place _____ street _____ No. _____ post _____
(permanent residence)
community _____ district _____ republic _____

9. ADMITTED TO THIS DEPARTMENT OR CLINIC:
 first time
 repeatedly: for the same condition new cancer

DATE	day	month	year
10. ADMISSION			
11. DISCHARGE			
12. DEATH			

13. ADMITTED TO THIS DEPARTMENT OR CLINIC FOR
 examination treatment
 first repeated

Fill in only if the patient has been admitted to this institution (hospital, department, clinic) for the first time because of this cancer

14. HAS EVER BEFORE ANOTHER CANCER BEEN DIAGNOSED? yes no
(if "yes" give the diagnosis, institution where diagnosed or treated, and name of the attending physician)
Diagnosis _____
Institution _____ Name of physician _____

15. HAS THIS CANCER EVER BEEN PREVIOUSLY DIAGNOSED? yes no
(if "yes" give institution and name of physician)
Institution _____ Name of physician _____

16. DATE OF FIRST DIAGNOSIS OF THIS CANCER: month _____ year 19 _____
17. HAS THE PATIENT BEEN PREVIOUSLY TREATED FOR THE PRESENT CANCER? yes no
(if "yes" fill in item 18)

18. INSTITUTION AND DATE OF PREVIOUS TREATMENT OF PRESENT CANCER BY SEQUENCE:
Institution: _____ Date: _____
1. _____ from _____ to _____
2. _____ from _____ to _____
3. _____ from _____ to _____

Information on condition in this institution (hospital, department, clinic)

19. CONDITION AT ADMISSION (check one or more only if the patient has been previously treated for present cancer):
primary site: no cancer residual cancer, progressing recurrence new appearance
regional site: no cancer residual cancer, progressing recurrence new appearance
remote site: no cancer residual cancer, progressing recurrence new appearance

20. TYPE OF CANCER AND PRIMARY SITE (specify) _____

21. SECONDARY SITE: regional (specify) _____
remote (specify) _____

22. HISTOLOGIC DIAGNOSIS CYTOLOGIC DIAGNOSIS DATE: _____
(specify the type and add "H" if diagnosis was histologic, or "C" if it was cytologic)
primary cancer _____
metastasis _____

23. DIAGNOSIS ESTABLISHED (check one or more):
MICROSCOPICALLY: yes no dubious
 biopsy exfoliative cytology
 curettage aspirational cytology
 operative specimen aspiration cytology
 autopsy specimen exudate
 hemogram solid tumor
 bone marrow smear
 paraffin specimen of concentrated body fluids
MICROSCOPICALLY NOT VERIFIED, BUT ESTABLISHED BY:
 X ray
 explorative surgery
 endoscopy
 other clinical or laboratory methods (specify) _____

Check the relevant data by crossing the square I fill in every time when patient is admitted, either to in- or out- patient department!

Turn over!

Stanje v tem zavodu (nadaljevanje)

24. STADIJ BOLEZNI (izpolni le, če bolnik ni bil poprej zdravljen zaradi sedanjega malignoma):

A. STADIJ PRED TERAPIJO (prvi klinični vtis) označi le za ca colli uteri, mammae, vesicae, zgor. digest, in respir. trakta, po mednarodni klasifikaciji (TNM)

- 0 I II III IV
 T₀ T₁ T₂ T₃ T₄
 N₀ N₁ N₂ N₃ M

B. STADIJ PO VSEH IZVIDIH VKLJUČNO OPERACIJE IN OBDUKCIJE (popravljen klinični vtis) označi za vse malignome, **tuđi** za tiste pod A

- in situ (samo na osnovi histologije)
 lokaliziran
 regionalna razširitev:
 infiltracije bezgavk
 brez infiltracije bezgavk
 oddaljen ali difuzni razsev, generalizacija
 nedoločen

Zdravljenje v tej bolnišnici ali kliniki

25. NAČIN ZDRAVLJENJA (označi eno ali več):

DATUM:

OPERACIJA MALIGNOMA (navedi)

Vključno odstranjena endokrina žleza (navedi)

Operacija za hormonski efekt (navedi)

TELERADIOTERAPIJA MALIGNOMA (navedi aparat in obsevano lokalizacijo)

od do

Teleterapija za hormonski efekt (navedi)

od do

RADIJ ALI IZOTOPI — ZAPRTI IZVORI (navedi)

od do

RADIOAKTIVNI IZOTOPI — ODPRTI IZVORI (navedi)

od do

KEMOTERAPIJA (navedi)

od do

HORMONSKA TERAPIJA (hormoni, antihormoni, steroidi — navedi)

od do

DRUGA PROTI MALIGNOMU UPERJENA TERAPIJA (navedi)

od do

26. BREZ ZDRAVLJENJA UPERJENEGA PROTI MALIGNOMU (vzrok — označi eno):

- bolnik odklonil ni indicirano (navedi vzrok)
- drug vzrok (navedi)

Stanje bolnika ob odpustu ali smrti

27. STANJE OB:

- odpustu ali smrti
 brez znakov malignoma
 malignom prisoten
 prisotnost malignoma neznan, negotova

28. VZROK SMRTI (mrliški list)

- neposreden a)
- predhoden, posreden b)
- osnovna bolezen c)
- druge pomembne boleznii

29. OBDUKCIJA: da ne

OBDUKCIJSKI IZVID (pozor malignom, metastaze!)

Kontrola

30. BOLNIK NAPOTEN (vpiši naslov):

domov

v drugo bolnišnico

drugam

31. BOLNIK BO POD NADZORSTVOM (navedi naslov zavoda oziroma priimek in ime zdravnika ali patronažne sestre):

32. NAJBLIŽJI SORODNIK ALI PRIJATELJ:

Priimek in ime Naslov

DATUM PRIJAVE:

ZDRAVSTVENI ADMINISTRATOR:

ZDRAVNIK, KI JE IZPOLNIL ALI PREGLEDAL PRIJAVNICO:

dan	mesec	leto

Podpis

(Priimek in ime tiskano)

Podpis

(Priimek in ime tiskano)

Condition in this institution (continued)

24. STAGE OF DISEASE (fill in only if patient has not been previously treated for present cancer):

A. STAGE BEFORE TREATMENT (first clinical impression)
check only for cancers of the following sites: cervix uteri, breast, bladder, upper digestive and respiratory organs (according to the international classification - TNM)

B. STAGE BASED ON ALL EVIDENCE AVAILABLE, INCLUDING THAT DERIVED FROM SURGERY OR AUTOPSY (corrected clinical impression) check for all cancers, also for those checked under A.

- 0 I II III IV
- T₀ T₁ T₂ T₃ T₄
- N₀ N₁ N₂ N₃ M

- in situ (based only on histology)
- localised
- regional spread:
 - lymph nodes involvement
 - no lymph nodes involvement
- remote or diffuse spread, generalization
- undefined

Treatment in this hospital or clinic

25. TYPE OF TREATMENT (check one or more):

DATE:

SURGICAL REMOVAL OF CANCER (specify) _____

including removal of endocrine gland (specify) _____

Surgery for hormonal effect (specify) _____

TELERADIO THERAPY (specify the unit and irradiated site)

_____ from _____ to _____

Teletherapy for hormonal effect (specify) _____ from _____ to _____

RADIUM OR ISOTOPES - SEALED SOURCES (specify) _____ from _____ to _____

RADIOACTIVE ISOTOPES - OPEN SOURCES (specify) _____ from _____ to _____

CHEMOTHERAPY (specify) _____ from _____ to _____

HORMONE THERAPY (hormons, antihormons, steroids - specify) _____ from _____ to _____

OTHER CANCER - DIRECTED THERAPY (specify) _____ from _____ to _____

26. NO CANCER-DIRECTED TREATMENT (reason - check one):

- refused by patient not indicated (specify reason) _____
- other reason (specify) _____

Condition of patient on discharge or at death

27. CONDITION:

- on discharge or at death
- no evidence of cancer
- presence of cancer
- presence of cancer unknown, uncertain

28. CAUSE OF DEATH (death certificate)

- direct a) _____
- antecedent undirect b) _____
- underlying condition c) _____
- other significant conditions _____

29. AUTOPSY: yes no

AUTOPSY FINDINGS (Attention - cancer, metastases!) _____

Follow-up

30. PATIENT SENT TO (give address):

home _____

to other hospital _____

elsewhere _____

31. PATIENT SHALL BE UNDER CARE OF: (give address of the institution or the name of physician or visiting nurse):

32. NEAREST RELATIVE OR FRIEND:

Family name and name _____ Address _____

DATE OF REPORT			RECORD CLERK	PHYSICIAN FILLING-IN OR CHECKING THE RECORD REPORT:
day	month	year		
			Signature _____ (Family and first name in block letters)	Signature _____ (Family and first name in block letters)

1. CENTRALNI REGISTER
RAKA LRS ŠT.

2. USTANOVA,
KI POROČA
.....

POROČILO

o kontroli bolnika

4. ROJEN:

3. PRIIMEK
DEKLIŠKI
PRIIMEK

dan

mesec

IME

leto

5. STALNO

BIVALIŠČE: kraj ulica št. pošta

občina okraj republika

. PRIJAVLJENA DIAGNOZA (prim. lok.)

HISTOLOŠKA DIAGNOZA

7. DATUM ZADNJEGA PREGLEDA, KI JE BIL
JAVLJEN CENTRALNEMU REGISTRU:

dan mesec leto 19.....

8. DATUM ZADNJEGA POROČILA, KI GA JE PREJEL
CENTRALNI REGISTER:

dan mesec leto 19.....

9. DATUM ZADNJEGA PREGLEDA PRI VAS:

dan mesec leto 19.....

10. DATUM ZADNJEGA POROČILA, KI STE GA DOBILI
O BOLNIKU:

dan mesec leto 19.....

11. ALI SE JE DIAGNOZA SPREMENILA OD ZADNJEGA PREGLEDA, KI JE BIL JAVLJEN CENTRALNEMU REGISTRU?

 da ne (če »da« navedi)

vrsta in primarna lokalizacija

histološka diagnoza

12. ALI JE BIL BOLNIK ZDRAVLJEN OD ČASA ZADNJEGA PREGLEDA, KI JE BIL JAVLJEN CENTRALNEMU
REGISTRU? da ne (če »da« navedi)

zakaj

kdaj (datum) kje (naslov ustanove)

13. STANJE BOLNIKA: pri zadnjem pregledu: po dobljenem poročilu: ob smrti:

(označi eno ali več)

<input type="checkbox"/> brez znakov malignoma	<input type="checkbox"/> brez znakov malignoma	<input type="checkbox"/> brez znakov malignoma
<input type="checkbox"/> malignom prisoten	<input type="checkbox"/> malignom prisoten	<input type="checkbox"/> malignom prisoten
<input type="checkbox"/> prisotnost malignoma neznana, negotova	<input type="checkbox"/> prisotnost malignoma neznana, negotova	<input type="checkbox"/> prisotnost malignoma neznana, negotova

14. IZVOR PODATKOV O NAVEDENEM STANJU BOLNIKA:

 PREGLEDAL ZDRAVNIK:v tej ustanovi
(navedi priimek in ime)v drugi ustanovi
(navedi priimek, ime in naslov)izven zdravstvene ustanove
(navedi priimek, ime in naslov)

Pri ustreznem podatku prečrtaj kvadratek!

Obrni!

1. CANCER REGISTRY OF SLOVENIA

REGISTER No. _____

FOLLOW-UP REPORT

2. REPORTING INSTITUTION _____

(English translation)

3. FAMILY NAME _____ MAIDEN FAMILY NAME _____ FIRST NAME _____	4. DATE OF BIRTH:	
	day _____	
	month _____	
	year _____	

5. ADDRESS OF PERMANENT

RESIDENCE: place _____ street _____ No. _____ post _____

community _____ district _____ republic _____

6. RECORDED DIAGNOSIS (*primary site*) _____

HISTOLOGICAL DIAGNOSIS _____

7. DATE OF LAST FOLLOW-UP EXAMINATION REPORTED TO THE REGISTRY:

day _____ month _____ year 19 _____

8. DATE OF LAST REPORT RECEIVED BY THE REGISTRY:

day _____ month _____ year 19 _____

9. DATE OF LAST FOLLOW-UP EXAMINATION BY YOU:

day _____ month _____ year 19 _____

10. DATE OF LAST REPORT YOU RECEIVED ABOUT PATIENT

day _____ month _____ year 19 _____

11. HAS DIAGNOSIS CHANGED SINCE LAST FOLLOW-UP EXAMINATION REPORTED TO THE REGISTRY ?

 yes no (*if "yes" give*)

type of cancer _____

histological diagnosis _____

12. WAS PATIENT TREATED SINCE LAST EXAMINATION REPORTED TO REGISTRY ?

 yes no (*if "yes" specify*)

for which reason _____

when (*date*) _____ where (*institution*) _____

13. STATUS OF PATIENT:

(check one or more) at last examination: no evidence of cancer presence of cancer presence of cancer

unknown, uncertain

 according to report received: no evidence of cancer presence of cancer presence of cancer

unknown, uncertain

 at death: no evidence of cancer presence of cancer presence of cancer

unknown, uncertain

14. SOURCE OF INFORMATION ON THE GIVEN STATUS OF THE PATIENT:

 EXAMINED BY PHYSICIAN:

in this institution

(give family name and name) _____

in another institution

(give family name, name and address) _____

in no institution

(give family name, name and address) _____

Check the relevant data by crossing the square !

Turn over !

IZVOR PODATKOV (nadaljevanje):

 POROČILO:bolnika samega: pismeno ustno
bolnikovega svojca ali prijatelja (navedi)

od drugod (navedi)

15. PRIPOMBE O POSEBNOSTIH, ki zadevajo potek bolezni in stanje bolnika:

16. BOLNIKA BO KONTROLIRAL (navedi priimek in ime zdravnika, patrona žne sestre oziroma naslov ustanove):

17. ALI JE BOLNIK UMRL V ČASU OD ZADNJEGA PREGLEDA, KI JE BIL JAVLJEN CENTRALNEMU REGISTRU?

 da ne (če »da« navedi)

datum smrti kraj smrti

18. VZROK SMRTI (mrliški list):

neposreden a)

predhoden b)

c)

drug dodaten

19. OBDUKCIJA: da ne

OBDUKCIJSKI IZVID: (pozor malignom, metastazel)

Kdo je izvršil obdukcijo (priimek in
ime obducenta in naslov prosekture)

Datum poročila

dan	mesec	leto
		19.....

Poročilo izpolnil:
(priimek in ime, tiskano)

Podpis

Poročilo pregledal zdravnik:
(priimek in ime, tiskano)

Podpis

SOURCE OF INFORMATION (*continued*):

REPORT:

from patient himself; by letter personal

from patient's relative or friend (*specify*) _____

from elsewhere (*specify*) _____

15. SPECIAL NOTES, relating to the course of disease and status of patient:

16. PATIENT WILL BE UNDER FOLLOW-UP BY (*give family name and name of physician, of visiting nurse, and the institution*):

17. HAS PATIENT DIED SINCE LAST REPORT TO THE REGISTRY?

yes no (*if "yes" give*)

date of death _____ place of death _____

18. CAUSE OF DEATH (*death certificate*):

undirect a) _____

antecedent b) _____

c) _____

other contributing _____

19. AUTOPSY: yes no

AUTOPSY FINDINGS: (*attention - cancer, metastases!*) _____

By whom the autopsy was performed (*family name and first name of the pathologist and address of the pathological department*) _____

Date of report

day	month	year
		19__

Filled in by:
 (family name and name, *in block letters*)

Reviewed by physician:
 (family name and name, *in block letters*)

Signature

Signature

Obrazec za kodificiranje

Priimek Last name		Dekliški priimek Maiden name		Ime First name	
Stolpec Column	Field	Obležje Item		Šifra Code	
1—3	A	Številka bolnišnice in oddelka Hospital, Department Number		---	
4—6	B	Bolnišnica prvega poteka zdravljenja Hospital - First Course of Treatment		---	
7—12	C	Št. primera Case Number		Tekoča št. Current No.	
13	D	Spol Sex		Leto Year	
14	E	Narodnost Nationality		---	
15—19	F	Področje stalnega bivališča Residence		Področje Region	
20—21	G	Starost ob diagnozi Age at Diagnosis		Okraj District	
22	H	Opredeleitev primera Class of Case		Občina Community	
23—26	I	Datum prve diagnoze Date of First Diagnosis		---	
27—30	J	Datum sprejema v področju registra Date of Admission to Registry		---	
31	K	Malignost Malignancy		---	
32—34	L	Primarna lokalizacija Primary Site		---	
35	M	Zaporedno število Sequence Number		---	
36—38	N	Histološka vrsta Histological Type		---	
39	O	Potrditev diagnoze Diagnostic Confirmation		---	
40	P	Stadij bolezni Stage of Disease		---	
41—43	Q	Zdravljenje pred sprejemom Tumor Treatment - Prior to Admission		---	
44—46	R	Zdravljenje prvi potek Tumor Treatment - First Course		---	
47—49	S	Zdravljenje nadaljnji potek Tumor Treatment - Subsequent Courses		---	
50—53	SS	Datum zadnje kontrole ali smrti Date of Last Follow-up or Death		---	
54	T	Kraj smrti Where the Patient Died		---	
55	U	Stanje ob kontroli ali smrti Status at Follow-up or Death		---	
56—59	V	Doba preživetja od diagnoze Survival Time since Diagnosis		---	
60—63	Z	Vzroki smrti Cause of Death		---	
64	ZZ	Obdukcija Autopsy		---	
Pozor! Preskoči 13 stolpcev! Attention! Leave blank 13 columns!					
78	W	Opis luknjane kartice Punch Card Description		---	
79—80	YY	Leto zamenjave luknjane kartice Year of Replacement of Punch Card		---	