



# Skin Melanoma Clinical Registry

of the Cancer Registry of  
Republic of Slovenia

2018-2022

report



## Report of the Skin Melanoma Clinical Registry of the Slovenian Cancer Registry 2018–2022

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Report of the

**Skin Melanoma  
Clinical Registry**

at the Slovenian Cancer Registry

for the 2018–2022 period

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In recent years, more than 15,000 Slovenians have been diagnosed with cancer every year, and more than 6,000 have died. There are currently more than 100,000 Slovenians who have ever been diagnosed with cancer. As it is more common in older people and the large post-war generation is approaching this age, it is expected that the burden of the disease will continue to increase, even if the exposure to risk factors remains the same as today. Over the last ten years, cancer incidence in Slovenia has increased by an average of 2% per year and mortality by just under 1% per year. A systematic and long-term reduction in the cancer burden is only possible through comprehensive disease management. To this end, the Republic of Slovenia launched the National Cancer Control Programme in 2010, in which goals were set for the period up to 2015. The third National Cancer Control Programme, launched in 2021, sets the strategic goals for the years 2022 to 2026 to reduce the incidence, increase survival and improve the quality of life of cancer patients.

The collection of data on cancer patients has a long tradition in Slovenia, as the Institute of Oncology Ljubljana (OI Ljubljana) has one of the oldest population-based cancer registries in Europe. The Cancer Registry of the Republic of Slovenia (SCR, the Registry) has been providing data on the incidence, prevalence and survival rate of Slovenian cancer patients without interruption since 1950. The cancer burden indicators are the starting point for evaluating the performance of primary and secondary cancer prevention, diagnosis, treatment, rehabilitation and palliative care, as well as for planning facilities and resources. Data on the amount of funding allocated to various programmes alone does not confirm that these resources are being used effectively and contributing to improving the health of the population.

Data on the diagnosis and treatment of cancer patients are scarce in population-based cancer registries. Therefore, the SCR only records a basic set of treatment-related data: the start of treatment and a rough specification of the type of treatment. This information usually only relates to the first treatment that a patient receives – progressions with their dates and therapies are usually not systematically followed up. Another problem concerns the time delay in reporting the indicators, as the SCR currently reports data with a one- to two-year delay compared to the planned time frame (i.e. with a two- to three-year delay compared to the incidence year) due to irregular notifying and the resulting time-consuming querying of the service providers. Short- and long-term monitoring of indicators for evaluating the quality of care for cancer patients is made possible by detailed data on the type of disease and the diagnostic process, as well as on treatment procedures and response to treatment, which are collected in so-called clinical registries. It makes sense to establish clinical registries in the setting of population-based cancer registries, as these already have population- and health system-specific knowledge on collecting, processing, storing and analysing data on cancer patients and, above all, already have a system for obtaining a core set of cancer cases. In addition, the SCR also has the appropriate legal basis for the acquisition, storage and linkage of all health data of oncology patients in Slovenia, as stipulated in the Act on databases in the field of healthcare.

In line with the goals of the National Cancer Control Programme 2017–2021, Slovenia is establishing clinical registries within the SCR for breast, prostate, colorectal, lung cancer and skin melanoma. These are the five most common types of cancer, accounting for more than half of all cancers in the Slovenian population. Clinical registries would monitor quality indicators for the diagnosis and treatment of common cancers, such as total time from diagnosis to treatment, compliance of treatment with current guidelines, number of annual admissions by individual providers, treatment complications, survival rates, etc. These data would make it possible to identify and correct systemic deviations or to verify whether the criteria for the planned networks of oncology centres are being met.

In 2018, the Institute of Oncology Ljubljana established the first national clinical oncology registry – the Skin Melanoma Clinical Registry (KrMel) – within the setting of the Cancer Registry of the Republic of Slovenia. It was in the case of skin melanoma that the professional community was the first to agree on a set of data to be collected to monitor the quality of care, and the establishment of KrMel was facilitated by the centralisation of care for patients with advanced melanoma in Slovenia. The rules and procedures for registering cases in KrMel are in line with the current principles of the population-based registry, allowing direct data transfer between the two registries and simultaneous reporting on both population-based cancer burden and quality of care indicators.

This is the sixth report compiled from the data of the Slovenian Skin Melanoma Clinical Registry. Following the example of the SCR annual reports and the OI Ljubljana hospital registry reports, the KrMel report begins with a presentation of the population burden of skin melanoma in Slovenia and compares it with the burden in other countries. This is followed by a description of the characteristics of the patients, their disease and their survival. The indicators for the quality of care are divided into diagnosis and treatment indicators. A very important part of the report is the set of indicators that address the compliance of patient care with the guidelines. In addition, we have defined 24 composite quality of care indicators, which are presented at the end of the report.

## Data Sources

Cancer registration has been mandatory and prescribed by law in the Republic of Slovenia since the establishment of the SCR (Official Gazette of the RS No 10/50, No 29/50, No 14/65, No 1/80, No 45/82, No 42/85; Official Gazette of the RS No 9/92, No 65/00, No 47/15 and No 31/18). All patients who have their permanent residence in the Republic of Slovenia at the time of diagnosis are registered in the SCR/KrMel. The main source of KrMel data are the pathohistological examinations with a diagnosis of skin melanoma, which are currently still sent to the registry in paper form by 11 Slovenian pathology laboratories. From them we extract the patient's personal data, information about the provider of surgical treatment and the pathohistological prognostic factors. Since the prognosis and possible additional treatment depend mainly on the prognostic factors of the primary tumour, in KrMel we record all data on the primary tumour defined in the standardised pathohistological report; for pathohistological reports that are not structured according to the current Slovenian Recommendations for the Treatment of Patients with Skin Melanoma, we extract and code the relevant data during the registration processes in KrMel.

The melanoma patients identified based on the pathohistological examinations are verified and, if necessary, supplemented with data on skin melanoma patients reported to the SCR by all hospitals and diagnostic centres in Slovenia through cancer notification forms. Another complementary source for the core set of patients in KrMel are the medical reports on the cause of death provided to us by the National Institute of Public Health of the Republic of Slovenia. In the present Report, no patients are included for whom information was obtained only from the cancer notification forms or from the report on the cause of death. Between 2018 and 2022, three melanomas were diagnosed at autopsy, all in 2021.

Almost all Slovenian patients with skin melanoma for whom lymph node surgery, systemic therapy or radiotherapy is recommended due to advanced disease are treated at OI Ljubljana. The genetic characterisation of melanoma patients in Slovenia is also centralised: BRAF, NRAS and c-KIT mutations are determined in the molecular diagnostics laboratory at OI Ljubljana for all patients requiring systemic therapy. The primary data source for the quality of care of melanoma patients are therefore the medical records of patients at OI Ljubljana: surgical reports, prescriptions for systemic therapy, discharge letters, records of outpatient and multidisciplinary board consultations, results from the molecular laboratory, etc. SCR/KrMel staff have access to all paper and electronic documents in OI Ljubljana for all patients registered in KrMel.

In order to calculate the prevalence and survival of patients, we need information called vital status (whether a person is alive, dead or their vital status is unknown on a given date). The Registry receives this information, updated daily, from the Central Population Registry for all persons included in the Registry.

## Data Processing

The data collected from all the above sources are coded by nurses with specialised knowledge in KrMel in accordance with the international and internal SCR rules for cancer registration. In addition, patients are grouped according to the Slovenian Recommendations for the Treatment of Patients with Skin Melanoma.

### Tumour Site and Morphology

The 10th revision of the International Classification of Diseases and Related Health Problems for Statistical Purposes (ICD-10) has been in force since 1997 for the classification of neoplasms according to their primary site. The classification of neoplasms according to their morphology, for which we use the morphological axis of the International Classification of Diseases for Oncology, is also crucial for the classification of malignant diseases. We have been using the third edition (ICDO-3) since 2012, with updates in 2011, and the new revision ICD-O-3.2 from 2020. All patients with skin melanoma who are registered in the SCR with the histological ICDO-3 codes for melanoma 8720 to 8780 and site according to ICD-10 are recorded in KrMel: skin (C43 and D03), vulva (C51), penis and scrotum (C60 and C63), secondary malignant tumours of lymph nodes or organs (C77, C78 and C79), and malignant neoplasms without specification of site (C80). All melanomas coded with C are invasive, and D03 represents skin melanoma in situ. Patients with multiple tumours of the same histological type that appear at the same time or at different times are registered only once. Patients who are initially diagnosed with melanoma in situ and later with an invasive melanoma are an exception: for these patients, two separate tumours are registered. If an individual has had multiple lesions detected, only the main (largest or first) lesion is included in the incidence, and the pathohistological and surgical parameters are monitored for all lesions. Mortality is presented using the ICD-10 codes as reported by the National Institute of Public Health (NIJZ). As there is often insufficient information on the disease available at the time of death, the only ICD-10 code used to represent a death due to skin melanoma is C43.

### Disease Staging

Several classifications are used to show the spread of disease at the time of diagnosis. The spread is defined on the basis of the findings of any recorded procedure – from surgery to autopsy record, if the patient has not received treatment beforehand.

- Stage according to the TNM classification (UICC, 8th revision): T for tumour, N for nodus (lymph node), M for metastasis. Tumour (T) is classified into 4 basic groups (T1 to T4) depending on its size, N usually has the value "0" if the lymph nodes are not affected, and N1 to N3 depending on the number of affected lymph nodes. The designation M0 means the absence of distant metastases and M1 their presence.
- The simplified staging is based on the TNM classification. A localised stage is defined as a case of disease in which the tumour is designated as T1, T2 or T3, the regional lymph nodes are not affected and there are no metastases in distant organs (N0, M0). In the regional stage, tumours are classified as T4 and/or the regional lymph nodes are also affected (N1) and there are no distant lymph node or organ metastases (M0). In the group of distant stage, we classify cases in which distant lymph node or organ metastases have been detected (M1).
- Tumour thickness according to Breslow: it is measured in mm and represents the distance from the granular layer of the epidermis (in the case of ulcerations, the distance is measured from the base of the ulceration) to the deepest growing tumour cell. In aggregated figures, it is indicated by median and mean values.

## Treatment

One of the central roles of the KrMel is the systematic recording of treatment data. In contrast to the SCR, clinical registries document both the first treatment and the treatment initiated after the disease progression. All treatments started in the first six months after diagnosis are defined as first treatments. Systemic treatment lines are recorded chronologically as neoadjuvant and adjuvant systemic therapy, first-line, second-line and subsequent lines (3+), regardless of whether the patient was treated as part of the first treatment or disease progression.

## Survival and Time to Disease Progression

Survival indicates the proportion of patients who are still alive after a certain period of time from diagnosis for a selected group of patients. There are several ways and methods of calculating survival. The most basic and simplest survival measure is the so-called observed survival, which includes in the calculation all deaths, including those not caused by cancer. In this report, we show observed survival calculated using the Kaplan-Meier method by sex, age, site, histological type and stage or tumour thickness at diagnosis. Only patients with invasive melanoma are included in the survival calculation (except for site and stage, where patients with melanoma in situ are added). If a patient has more than one melanoma in the selected time period, only the first tumour is included in the survival analysis. Also excluded from the analysis are patients in whom the melanoma was only diagnosed at the time of death. Patients lost from the Central Population Registry are included in the analysis until the last day of follow-up, at which they are censored.

We also estimate the time to disease progression using the Kaplan-Meier method. In this case, we define the event – disease progression – as local, regional, systemic or in transit recurrence or death of the patient.

## Terminology Used

Hereby we present an overview of included terms and subgroups by ICD-10 codes for skin melanoma (other synonymous terminologies are cutaneous melanoma, cutaneous malignant melanoma, melanoma skin cancer and malignant melanoma of skin).

ICD-10 code	Primary site designation
Vsi (C43, C51, C60, C63, C77–C80, D03)	Skin melanoma
C43, C51, C60, C63, C77–C80	Invasive skin melanoma
C43, C51, C60, C63	Primary invasive skin melanoma
C43, C51, C60, C63, D03	Primary skin melanoma
C77–C80	Melanoma of secondary or unspecified origin
C43	Malignant skin melanoma
D03	Melanoma in situ

Main lesions – all cases with single primary skin melanoma and melanoma lesion with highest baseline stage in multiple primary skin melanoma.

All lesions – all lesions of single and multiple primary skin melanoma cases.

# Burden of Skin Melanoma

Nearly 325,000 people are affected by malignant skin melanoma globally each year, according to estimates. The disease is more common in white people living near the equator, where UV radiation is stronger. The incidence is highest in Australia and New Zealand, followed by North America and Northern Europe, while it is lowest in Asia. In Australia, large-scale prevention measures were introduced after 1960 and soon proved successful: the burden of disease began to decline in women after 1985, and somewhat later in men and especially among younger people.

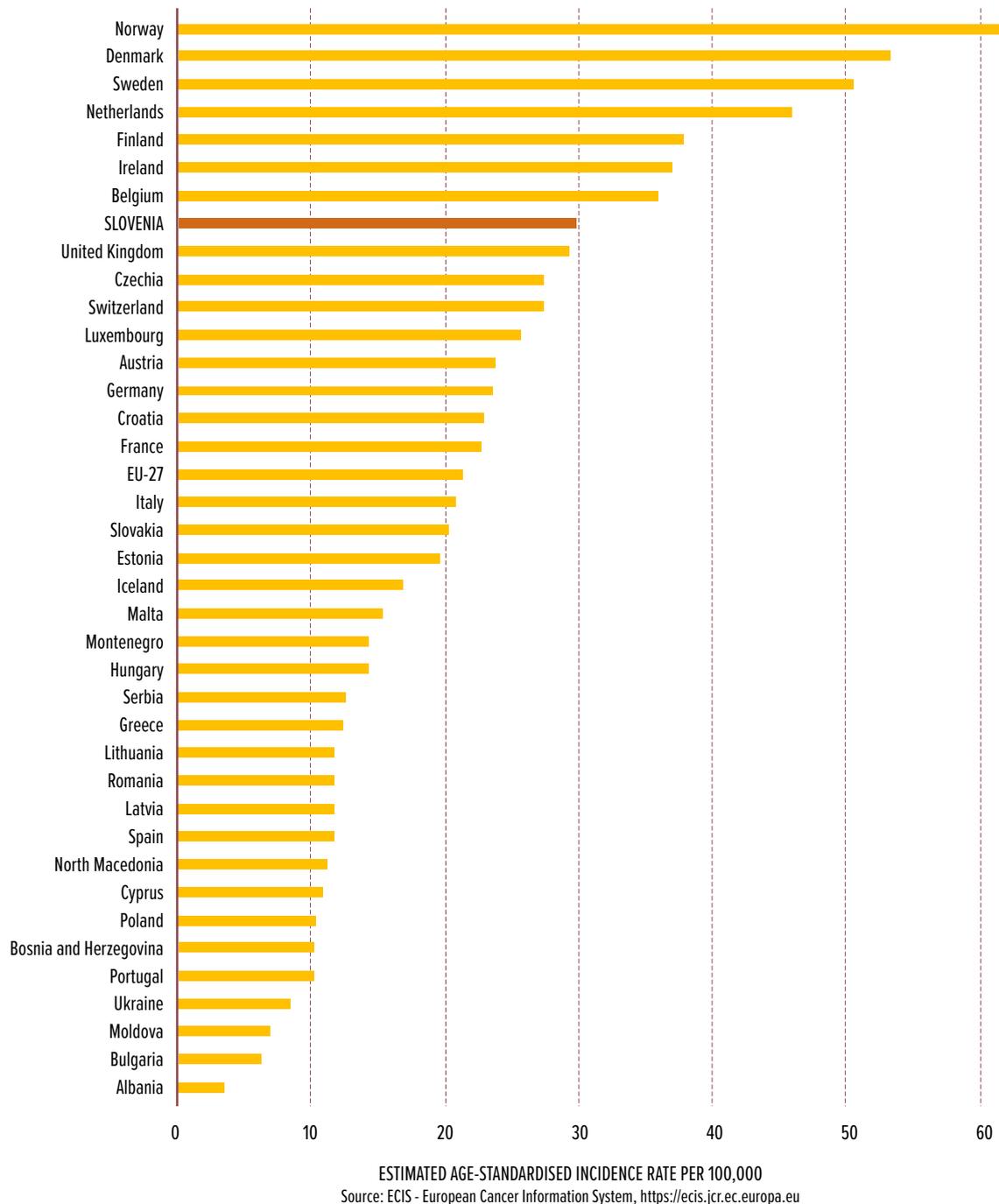


Figure 1a: Estimated age-standardised incidence (new European standard) of malignant skin melanoma for both sexes combined in Europe 2022.

In Europe, melanoma is less common than in Australia, and on average it is the sixth most common cancer in women and in men. The estimated average age-standardised incidence rate (new European standard) for 2022 in Europe was 21.5 cases per 100,000 inhabitants. With a rate of 29.8/100,000, Slovenia is well above the European average; in the European union (EU), the incidence rates were highest in Denmark and Sweden (53.3/100,000 and 50.5/100,000). The relatively low mortality rate indicates that the disease has a fairly good prognosis on average. Worldwide, 57,000 people die of skin melanoma every year. In the 27 EU countries, Slovenia and Poland have the highest age-standardised mortality rate with 5.4 deaths per 100,000 inhabitants.

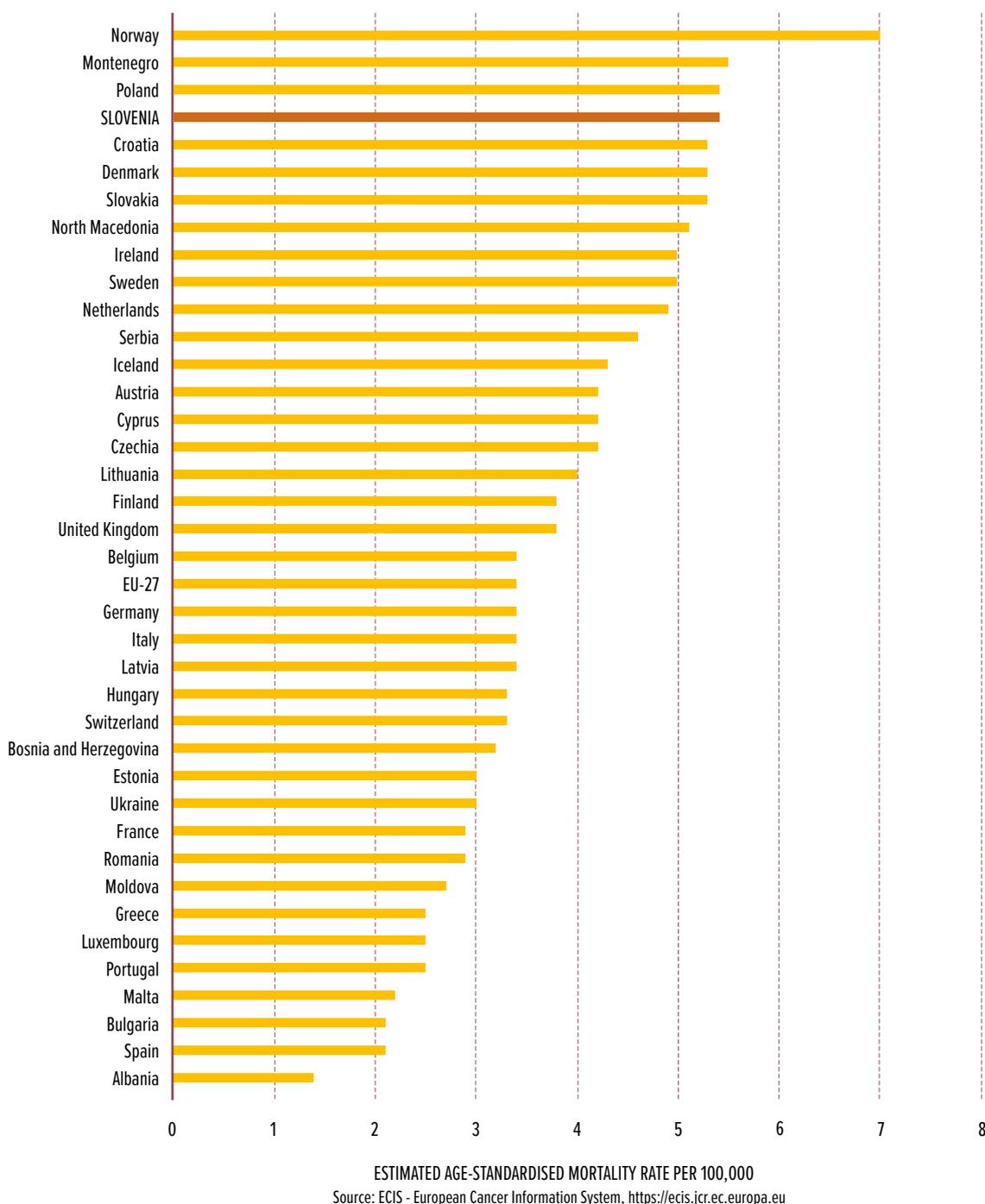


Figure 1b: Estimated age-standardised mortality rate (new European standard) of malignant skin melanoma for both sexes combined in Europe 2022.

The geographical analysis of the Registry data shows that the population at the highest risk of malignant skin melanoma is the population of central Slovenia, especially Ljubljana and its surroundings, and Primorska. The development of malignant skin melanoma is equally associated with genetic susceptibility (fair-skinned people with a large number of pigmented lesions have a higher risk), environmental exposure (people living in the equatorial zone or under the ozone hole have a higher risk) and risky behaviour (frequent sunburn). Many studies cite socio-economic status as an indirect factor linking all three risk factors: people with a higher socioeconomic status have a higher risk of malignant skin melanoma. Successful people are more likely to engage in modern but risky behavioural patterns, the common denominator of which is occasional intense sun exposure (skiing in high mountain ski resorts, long holidays at the equator, etc.). Similarly to the rest of the world, part of the geographical differences in Slovenia can be explained by socio-economic inequality: it has been calculated that socioeconomic inequality in Slovenia is responsible for less than a fifth of all malignant skin melanomas.

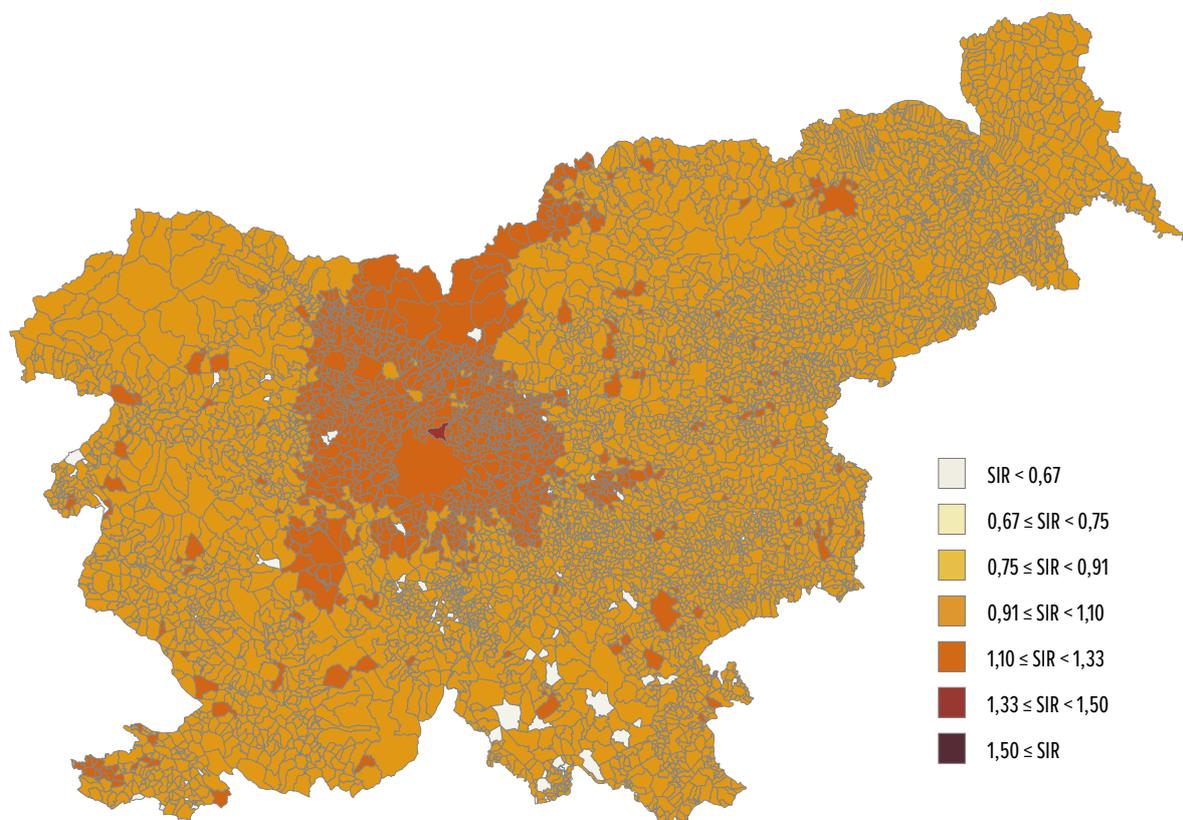


Figure 2: Map of malignant skin melanoma (C43) by electoral district; spatially smoothed standardised incidence rates, Slovenia 2005–2014.

Malignant skin melanoma is one of the cancers with the steepest increase in incidence in recent decades. In Slovenia, the crude incidence rate has risen by 3.7% per year over the last ten years and the age-standardised rate by 0.2% (not statically significant). The number of new cases already exceeds 600 per year, making malignant melanoma of the skin the sixth most newly diagnosed cancer. In 2022, 888 people in Slovenia developed invasive skin melanoma. The mortality rate has remained stable over time. On average, around 130 people die of malignant skin melanoma every year.

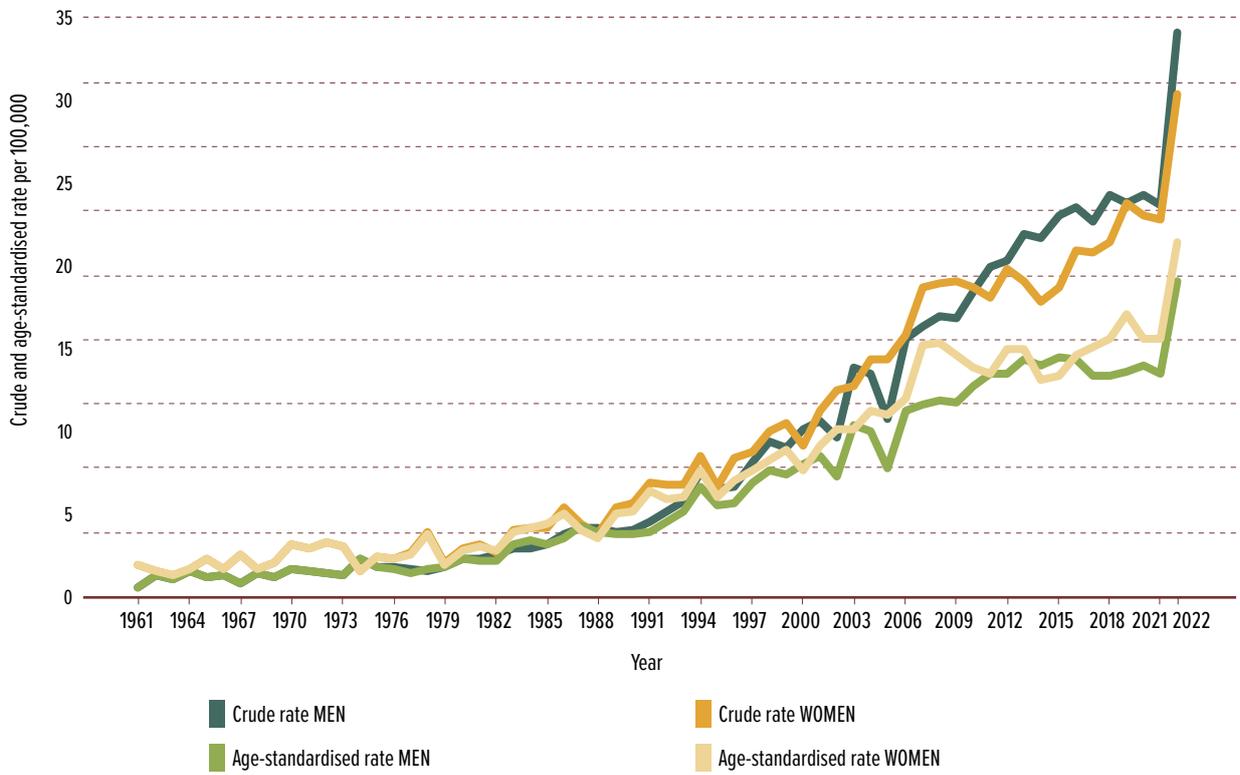


Figure 3a: Time trend of the crude and age-standardised incidence rate of malignant skin melanoma (C43) per 100,000 population.

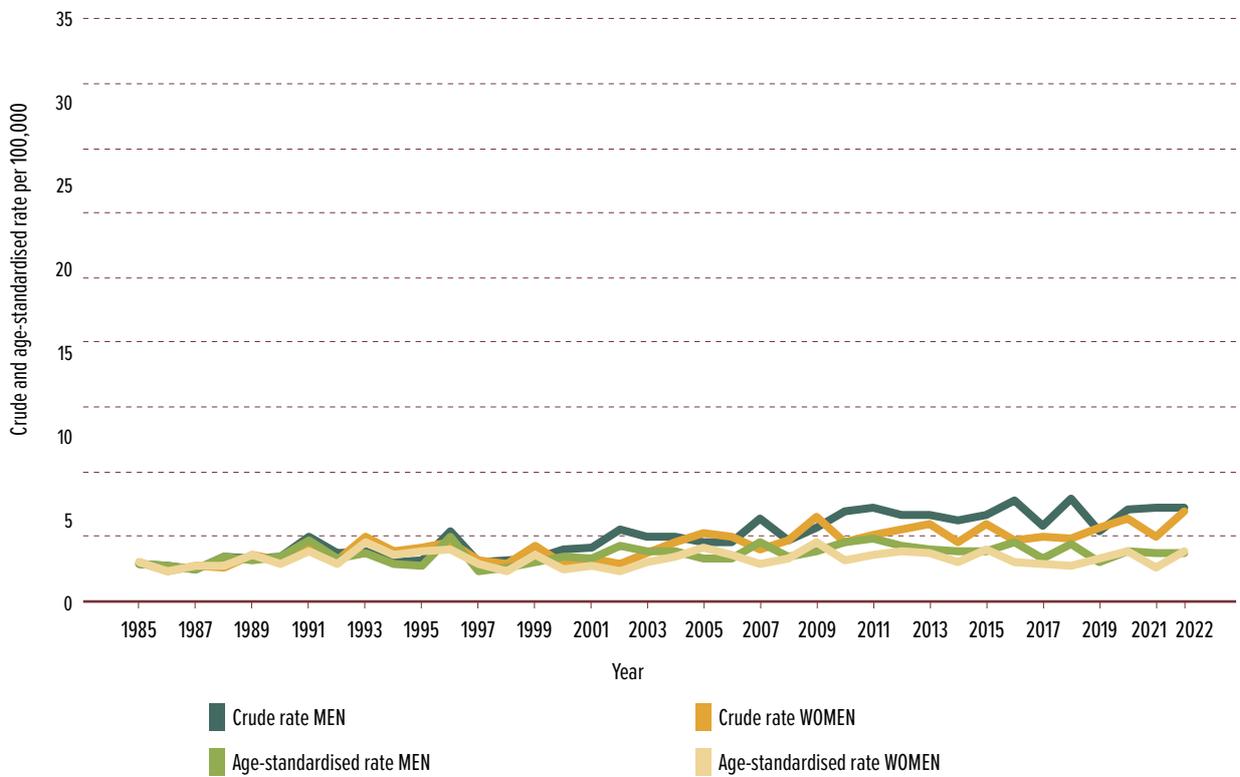


Figure 3b: Time trend of crude and age-standardised malignant skin melanoma (C43) mortality rate per 100,000 population.

Until a few years ago, about 10% more women than men were affected, but today there is no longer a gender difference. Today, more than 8,500 people live with a diagnosis of malignant skin melanoma (prevalence). More detailed epidemiological data for Slovenian patients with malignant skin melanoma diagnosed between 2018 and 2022 are presented in the table below.

Basic epidemiological data on malignant skin melanoma (C43), Slovenia 2018–2022.

INCIDENCE (2018–2022 average)	Males	Females	Both
Number of new cases per year	351	326	678
Percentage of all cancers (%)	5.3	5.2	5.2
Rank by frequency among all cancers	5	5	6
Percentage of all cancers other than skin cancer (%)	6.5	6.5	6.5
Cancer risk by age 75 (cumulative risk) (%)	1.9	1.8	1.8
Crude incidence rate per 100,000	33.5	31.2	32.4
Age-standardised incidence rate (ASR) per 100,000 (W)	17.6	17.3	17.2
Estimated annual change of crude incidence rate latest 10 years (%)	3.0*	4.5*	3.7*
Estimated annual change of ASR latest 10 years (%)	1.3	3.4*	2.3
MORTALITY (2018–2022 average)			
Number of deaths per year	73	60	133
Percentage of all cancer deaths (%)	2.0	2.1	2.1
Risk of dying from cancer by age 75 (cumulative risk) (%)	0.3	0.2	0.3
Crude mortality rate per 100,000	6.9	5.7	6.3
Age-standardised mortality rate (ASR) per 100,000 (W)	3.1	2.0	2.5
Estimated annual change of crude mortality rate latest 10 years (%)	0.8	1.7	1.2
Estimated annual change of ASR latest 10 years (%)	-1.8	-1.3	-1.6
PREVALENCE (on 31 December 2022)			
Persons living with cancer at the end of 2022 (prevalence)	3971	4661	8632
Persons living with cancer per 100,000 (prevalence rate)	374.9	444.1	409.3
1-year prevalence	457	402	859
5-year prevalence	1516	1462	2978

\*The mean annual change is statistically significant at a risk level of 0.05.

Since 1997, the Registry has not only recorded cases of invasive skin melanoma, but also melanoma in situ (D03 according to ICD-10). In recent years, around 370 new cases of melanoma in situ have been registered each year. Additionally around 30 melanomas occur annually on eyes and mucous membranes – these cases are not included in this report.

As shown in Figure 4, melanoma occurs most frequently on the trunk – in more than half of all new cases in men and in more than a third in women. The median age at diagnosis has risen by more than ten years over the last three decades and has reached 64 years in the past 5 years (median is 62 for women and 66 for men).

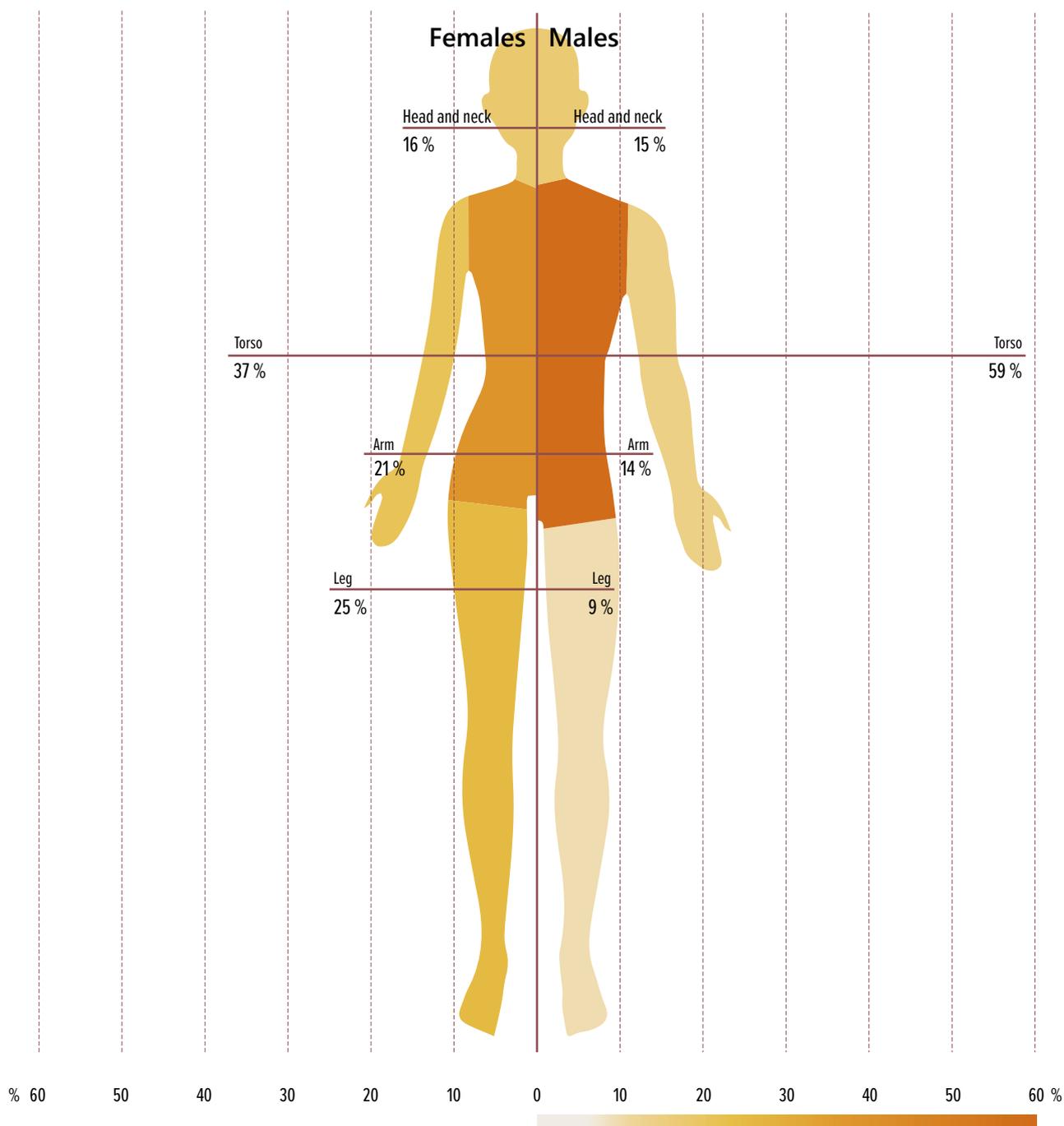


Figure 4: Proportions of malignant and in situ skin melanoma (C43, D03) by site and sex, Slovenia 2018–2022.

Tumour thickness at the time of diagnosis is a key determinant for the prognosis of the disease. In the last 30 years, the proportion of patients whose tumour is thinner than 0.8 mm at diagnosis has doubled – patients with melanomas thinner than 0.8 mm now account for almost half of all diagnosed melanomas (Figure 5).

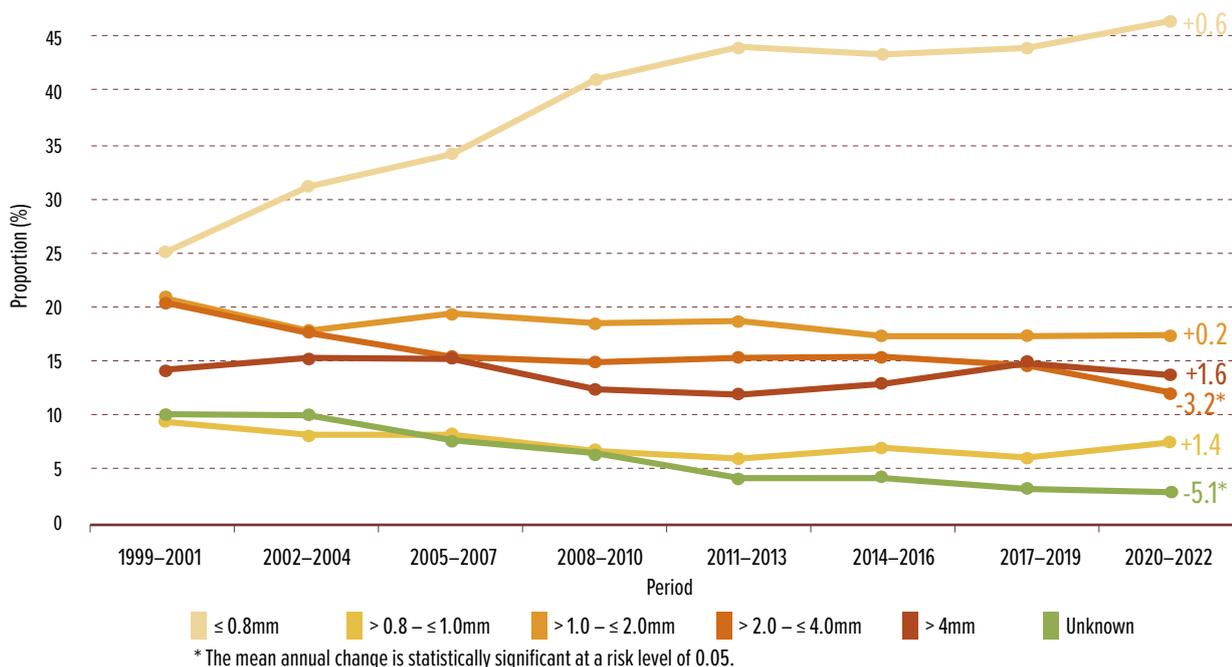


Figure 5: Breslow tumour thickness proportions (mm) for malignant skin melanomas (C43) with mean annual change for the last 10 years, Slovenia 1999–2022.

The 5-year net survival rate for melanoma patients is increasing; from 57% for patients diagnosed in 1984–1986, it has risen to 91% for patients diagnosed in 2018–2022. The survival rate of women is slightly better than that of men, on average by four percentage points in 2018–2022. The time trend in survival of patients with malignant skin melanoma is improving in all age groups and in all tumour stages, except for the distant stage. In terms of age, the 5-year survival rate is worst in patients aged 65 and over at diagnosis, but even in this group it is already above 89%.

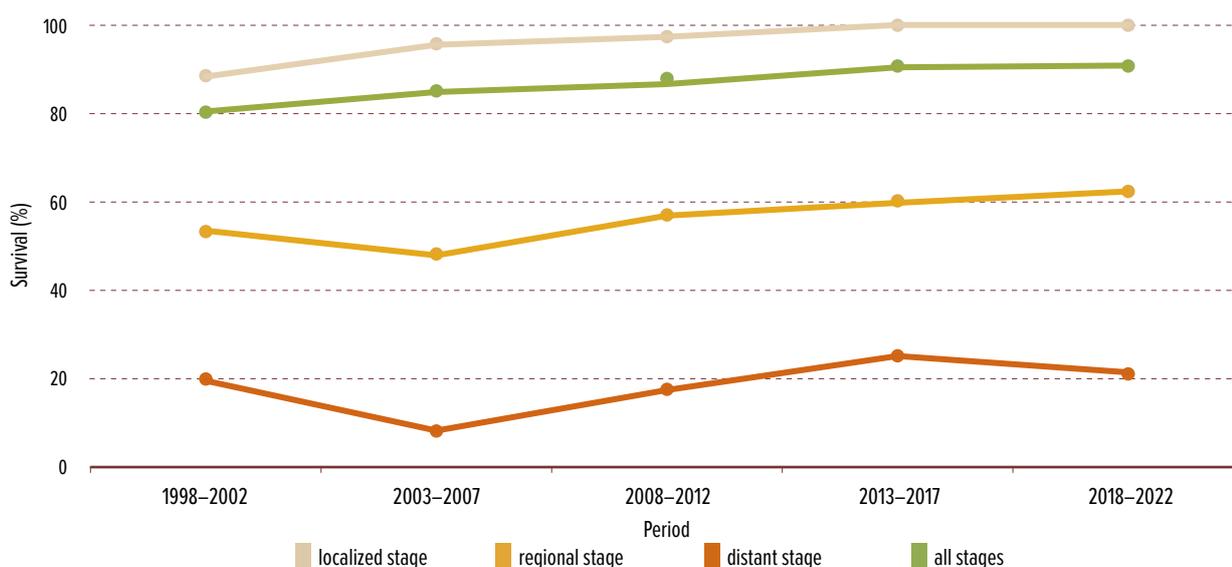


Figure 6: Time trend of 5-year net survival of patients with malignant skin melanoma (C43) by stage, Slovenia 1998–2022.

The 5-year net survival for patients with localised stage is now almost 100% and has improved by 5 percentage points over the last 20 years. The five-year net survival of patients with regional spread at diagnosis is 62%, and 21% for patients with disseminated disease at diagnosis (Figure 6).

Data from the EUROCORE and CONCORD surveys show that Slovenia is one of the countries where survival has improved most rapidly over the years. According to the results of the latest Concord-3 study, which compared the survival of 1,553,109 skin melanoma patients from 59 countries, Slovenia is in the group of 17 European countries with a five-year net survival of over 85%. The five-year net survival of patients diagnosed in 2000–2014 in 28 European countries is shown in the figure below. In the most successful countries, the five-year net survival is already over 90%.

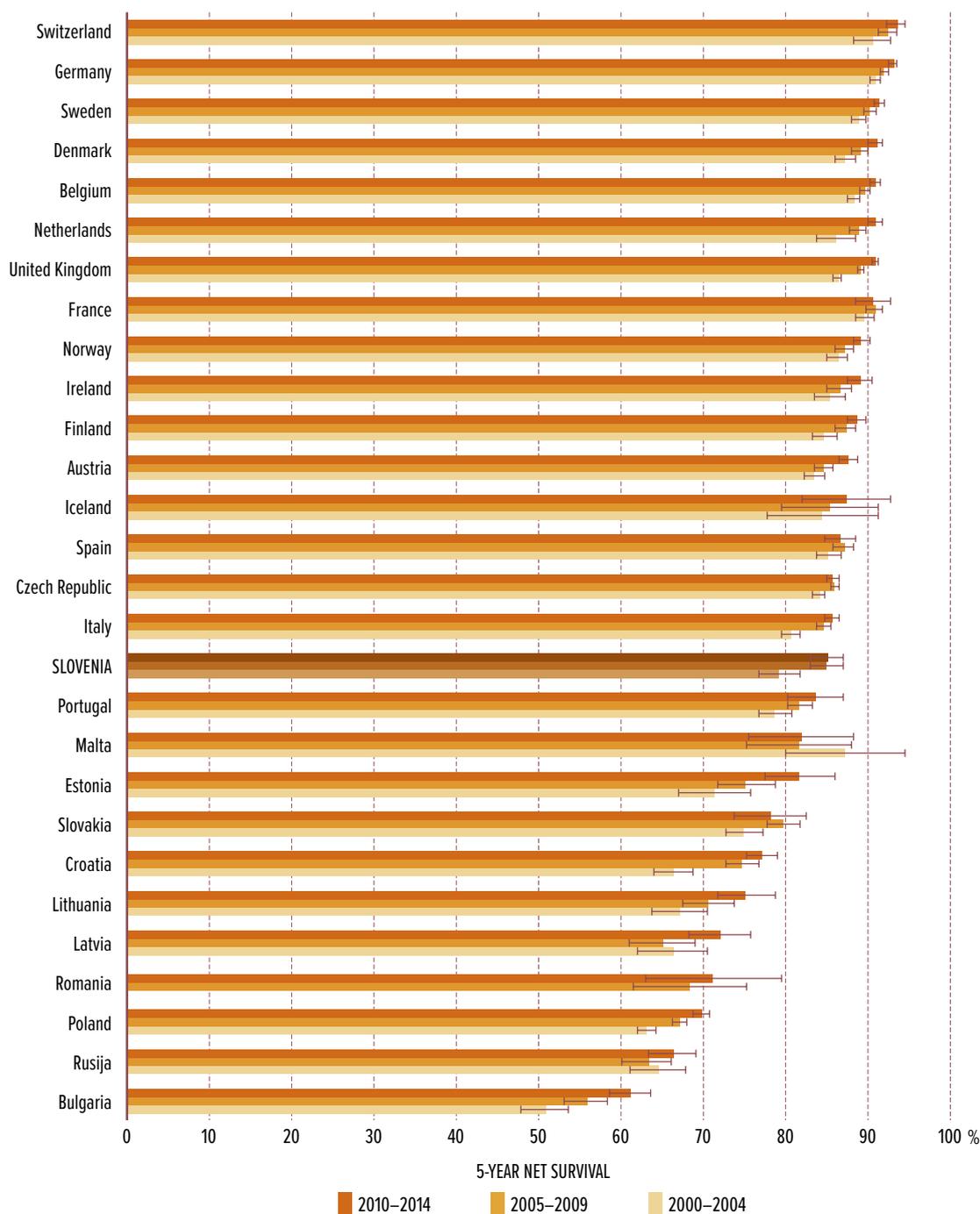


Figure 7: Primary invasive skin melanoma (C43, C51, C60, C63) – age-standardised 5-year net survival in adults (15–99 years) by European countries and period of diagnosis 2000–2014: the Concord-3 study.

# Patients and Disease Characteristics

Table 1: Incidence of skin melanoma (C43, C51, C60, C63, C77–C80, D03) by site, age, and sex with crude incidence rate (CR) per 100,000 population and cumulative rate (CumR), Slovenia 2018–2022.

Year	ICD code	Primary site	Sex	All ages	Age																			CR	CumR 0-74
					0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85+			
2018	All	Skin melanoma	M+F	940	0	0	0	2	5	9	26	48	62	80	80	64	110	117	89	117	65	66	45.4	2.6	
			M	476	0	0	0	1	2	3	8	20	22	30	46	41	59	60	45	70	38	31	46.2	2.6	
	F	464	0	0	0	1	3	6	18	28	40	50	34	23	51	57	44	47	27	35	44.6	2.7			
	C43, C51, C60, C63	Primary invasive skin melanoma	M	323	0	0	0	0	2	3	5	8	13	18	35	38	43	28	52	28	25	31.4	1.7		
			F	289	0	0	0	0	2	4	10	18	25	32	15	13	29	37	32	28	20	27.8	1.6		
	C77 - C80	Melanoma of secondary or unspecified origin	M	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0.4	0.0	
			F	5	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	0.5	0.0	
	D03	Melanoma in situ	M	149	0	0	0	1	0	0	3	12	9	12	11	16	20	16	17	17	9	6	14.5	0.9	
F			170	0	0	0	1	1	2	8	10	15	17	19	10	21	19	12	19	6	10	16.3	1.0		
2019	All	Skin melanoma	M+F	1001	0	1	1	1	5	15	26	45	69	68	83	89	107	141	118	109	68	55	47.9	2.9	
			M	507	0	0	0	0	1	6	7	21	32	27	46	49	54	73	71	62	31	27	48.5	3.0	
	F	494	0	1	1	1	4	9	19	24	37	41	37	40	53	68	47	47	37	28	47.3	2.9			
	C43, C51, C60, C63	Primary invasive skin melanoma	M	320	0	0	0	0	1	4	5	13	16	18	33	32	29	47	40	39	27	16	30.6	1.8	
			F	321	0	1	1	0	3	7	13	13	20	28	20	30	36	42	30	29	26	22	30.8	1.8	
	C77 - C80	Melanoma of secondary or unspecified origin	M	8	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	1	0	0	0.8	0.07	
			F	4	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	1	0	0	0.4	0.03	
	D03	Melanoma in situ	M	179	0	0	0	0	0	2	2	8	16	9	13	17	24	24	27	22	4	11	17.1	1.1	
F			169	0	0	0	1	1	2	4	11	17	13	17	10	16	26	16	18	11	6	16.2	1.0		
2020	All	Skin melanoma	M+F	997	0	0	0	6	8	11	27	39	55	70	100	92	76	106	129	132	75	71	47.5	2.7	
			M	523	0	0	0	2	2	5	12	14	22	26	50	51	46	62	88	72	41	30	49.6	2.9	
	F	474	0	0	0	4	6	6	15	25	33	44	50	41	30	44	41	60	34	41	45.3	2.5			
	C43, C51, C60, C63	Primary invasive skin melanoma	M	330	0	0	0	2	1	3	7	7	16	20	31	39	32	35	52	39	30	16	31.3	1.9	
			F	312	0	0	0	2	2	4	10	14	21	28	35	25	15	32	28	40	24	32	29.8	1.6	
	C77 - C80	Melanoma of secondary or unspecified origin	M	11	0	0	0	0	0	0	0	0	0	0	0	1	1	0	4	2	1	2	1.0	0.1	
			F	10	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	1	1	1	3	1.0	0.04
	D03	Melanoma in situ	M	182	0	0	0	0	1	2	5	7	6	6	18	11	14	27	32	31	10	12	17.3	1.0	
F			152	0	0	0	2	4	2	5	11	11	15	15	16	13	12	12	19	9	6	14.5	0.9		
2021	All	Skin melanoma	M+F	1006	0	0	0	6	4	16	20	44	48	70	83	95	108	124	120	105	92	71	47.7	2.7	
			M	498	0	0	0	3	1	3	10	13	23	33	38	41	55	62	71	64	48	33	47.1	2.6	
	F	508	0	0	0	3	3	13	10	31	25	37	45	54	53	62	49	41	44	38	48.4	2.8			
	C43, C51, C60, C63	Primary invasive skin melanoma	M	322	0	0	0	2	1	3	9	8	16	22	25	27	37	35	48	36	33	20	30.4	1.7	
			F	307	0	0	0	2	0	6	9	18	12	27	26	30	31	36	35	24	24	27	29.3	1.7	
	C77 - C80	Melanoma of secondary or unspecified origin	M	11	0	0	0	0	0	0	0	1	1	1	2	1	1	2	0	2	0	0	1.0	0.1	
			F	8	0	0	0	0	0	0	0	0	0	0	0	2	1	1	2	1	0	1	0	0.8	0.05
	D03	Melanoma in situ	M	165	0	0	0	1	0	0	1	4	6	10	11	13	17	25	23	26	15	13	15.6	0.8	
F			193	0	0	0	1	3	7	1	13	13	10	17	23	21	24	13	17	19	11	18.4	1.1		
2022	All	Skin melanoma	M+F	1401	0	0	0	5	6	10	25	61	102	119	122	141	142	167	173	138	104	86	66.4	3.8	
			M	736	0	0	0	3	2	5	10	21	41	48	63	81	85	103	100	75	55	44	69.5	4.1	
	F	665	0	0	0	2	4	5	15	40	61	71	59	60	57	64	73	63	49	42	63.4	3.7			
	C43, C51, C60, C63	Primary invasive skin melanoma	M	464	0	0	0	2	1	3	6	13	31	31	38	45	49	59	63	54	35	34	43.8	2.5	
			F	411	0	0	0	2	4	3	7	25	32	41	33	39	37	42	50	36	32	28	39.2	2.3	
	C77 - C80	Melanoma of secondary or unspecified origin	M	6	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	0	0	0	0.6	0.0	
			F	7	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	2	1	0	0.7	0.0	
	D03	Melanoma in situ	M	266	0	0	0	1	1	2	4	8	10	17	25	35	36	42	34	21	20	10	25.1	1.6	
F			247	0	0	0	0	0	2	8	15	29	30	25	20	18	22	23	25	16	14	23.5	1.4		
2018 - 2022	All	Skin melanoma	M+F	5345	0	1	1	20	28	61	124	237	336	407	468	481	543	655	629	601	404	349	51.0	14.7	
			M	2740	0	0	0	9	8	22	47	89	140	164	243	263	299	360	375	343	213	165	52.2	15.2	
	F	2605	0	1	1	11	20	39	77	148	196	243	225	218	244	295	254	258	191	184	49.8	14.5			
	C43, C51, C60, C63	Primary invasive skin melanoma	M	1759	0	0	0	6	6	16	32	49	92	109	162	168	185	219	231	220	153	111	33.5	9.5	
			F	1640	0	1	1	6	11	24	49	88	110	156	129	137	148	189	175	157	126	133	31.4	9.0	
	C77 - C80	Melanoma of secondary or unspecified origin	M	40	0	0	0	0	0	0	0	1	1	1	3	3	3	7	11	6	2	2	0.8	0.3	
			F	34	0	0	0	0	0	0	0	2	0	1	2	3	2	7	3	3	3	4	4	0.7	0.2
	D03	Melanoma in situ	M	941	0	0	0	3	2	6	15	39	47	54	78	92	111	134	133	117	58	52	17.9	5.4	
F			931	0	0	0	5	9	15	26	60	85	85	93	79	89	103	76	98	61	47	17.8	5.3		

Table 2: Prevalence of skin melanoma (C43, C51, C60, C63, C77–C80, D03) by site and sex, Slovenia 2018–2022.

Year	ICD code	Primary site	Sex	Prevalence* on 31 Dec in the relevant year				
				Years after diagnosis				Complete prevalence
				<1	1–4	5–9	10+	
2018	All	Skin melanoma	M+F	922	2861	2696	3127	9606
			M	461	1453	1251	1210	4375
			F	461	1408	1445	1917	5231
	C43, C51, C60, C63	Primary invasive skin melanoma	M	310	1006	869	989	3174
			F	289	931	967	1605	3792
	C77 - C80	Melanoma of secondary or unspecified origin	M	2	7	4	3	16
			F	4	7	2	4	17
	D03	Melanoma in situ	M	149	440	378	218	1185
F			168	470	476	308	1422	
2019	All	Skin melanoma	M+F	977	3067	2712	3546	10302
			M	495	1533	1315	1378	4721
			F	482	1534	1397	2168	5581
	C43, C51, C60, C63	Primary invasive skin melanoma	M	311	1042	926	1090	3369
			F	311	978	949	1749	3987
	C77 - C80	Melanoma of secondary or unspecified origin	M	5	6	4	3	18
			F	2	9	2	4	17
	D03	Melanoma in situ	M	179	485	385	285	1334
F			169	547	446	415	1577	
2020	All	Skin melanoma	M+F	965	3238	2823	3863	10889
			M	505	1586	1399	1511	5001
			F	460	1652	1424	2352	5888
	C43, C51, C60, C63	Primary invasive skin melanoma	M	318	1026	975	1194	3513
			F	301	1035	958	1867	4161
	C77 - C80	Melanoma of secondary or unspecified origin	M	7	7	5	3	22
			F	7	6	4	4	21
	D03	Melanoma in situ	M	180	553	419	314	1466
F			152	611	462	481	1706	
2021	All	Skin melanoma	M+F	980	3316	2975	4242	11513
			M	481	1638	1473	1685	5277
			F	499	1678	1502	2557	6236
	C43, C51, C60, C63	Primary invasive skin melanoma	M	310	1036	1013	1304	3663
			F	300	1050	997	2000	4347
	C77 - C80	Melanoma of secondary or unspecified origin	M	6	8	5	3	22
			F	6	8	6	3	23
	D03	Melanoma in situ	M	165	594	455	378	1592
F			193	620	499	554	1866	
2022	All	Skin melanoma	M+F	1378	3435	3036	4627	12476
			M	725	1702	1509	1847	5783
			F	653	1733	1527	2780	6693
	C43, C51, C60, C63	Primary invasive skin melanoma	M	457	1060	1036	1397	3950
			F	402	1061	999	2131	4593
	C77 - C80	Melanoma of secondary or unspecified origin	M	4	8	8	3	23
			F	5	10	5	4	24
	D03	Melanoma in situ	M	264	634	465	447	1810
F			246	662	523	645	2076	

\* A person diagnosed with more than one cancer is included as a prevalent case in each cancer site, but for all sites together each person is counted only once.

Table 3: Skin melanoma (C43) mortality by age and sex with crude mortality rate (CR) per 100,000 population, Slovenia 2018–2022.

Year	Sex	All ages	Age				CR
			0–19	20–49	50–74	75+	
2018	M+F	131	1	9	59	62	6.3
	M	81	1	5	44	31	7.9
	F	50	0	4	15	31	4.8
2019	M+F	115	0	12	44	59	5.5
	M	56	0	7	24	25	5.4
	F	59	0	5	20	34	5.7
2020	M+F	141	0	12	62	67	6.7
	M	74	0	3	36	35	7.0
	F	67	0	9	26	32	6.4
2021	M+F	128	0	13	46	69	6.1
	M	76	0	9	30	37	7.2
	F	52	0	4	16	32	5.0
2022	M+F	148	0	10	69	69	7.0
	M	76	0	5	37	34	7.2
	F	72	0	5	32	35	6.9
2018	M+F	663	1	56	280	326	6.3
–	M	363	1	29	171	162	6.9
2022	F	300	0	27	109	164	5.7

Table 4: Skin melanoma (C43, C51, C60, C63, C77–C80, D03) incidence by site and sex, Slovenia 2018–2022.

ICD code	Primary site	Sex	Year					Mean of yearly values 2018–2022
			2018	2019	2020	2021	2022	
C43, C51, C60, C63, C77–C80	Invasive skin melanoma	M+F	621	653	663	648	888	694.6
		M	327	328	341	333	470	359.8
		F	294	325	322	315	418	334.8
D03	Melanoma in situ	M+F	319	348	334	358	513	374.4
		M	149	179	182	165	266	188.2
		F	170	169	152	193	247	186.2
C43, C51, C60, C63	Primary invasive skin melanoma	M+F	612	641	642	629	875	679.8
		M	323	320	330	322	464	351.8
		F	289	321	312	307	411	328.0
C77–C80	Melanoma of secondary or unspecified origin	M+F	9	12	21	19	13	14.8
		M	4	8	11	11	6	8.0
		F	5	4	10	8	7	6.8
C43	Malignant melanoma of skin	M	321	320	330	322	464	351.4
		F	286	319	310	307	410	326.4
C43.0	Malignant melanoma of lip	M	0	0	1	0	0	0.2
		F	1	1	0	0	0	0.4
C43.1	Malignant melanoma of eyelid, including canthus	M	1	1	0	1	0	0.6
		F	1	0	1	1	1	0.8
C43.2	Malignant melanoma of ear and external auricular canal	M	3	9	7	3	4	5.2
		F	3	5	6	3	4	4.2
C43.3	Malignant melanoma of other and unspecified parts of face	M	17	11	20	6	25	15.8
		F	18	27	23	21	24	22.6
C43.4	Malignant melanoma of scalp and neck	M	37	28	18	23	26	26.4
		F	15	17	13	16	19	16.0
C43.5	Malignant melanoma of trunk	M	187	171	195	194	287	206.8
		F	101	105	96	115	153	114.0

Continued. —>

Table 4: Continued.

ICD code	Primary site	Sex	Year					Mean of yearly values 2018–2022
			2018	2019	2020	2021	2022	
C43.6	Malignant melanoma of upper limb, including shoulder	M	34	49	42	46	72	48.6
		F	69	79	65	53	88	70.8
C43.7	Malignant melanoma of lower limb, including hip	M	33	43	41	41	46	40.8
		F	73	80	99	94	117	92.6
C43.8	Overlapping malignant melanoma of skin	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C43.9	Malignant melanoma of skin, unspecified	M	9	8	6	8	4	7.0
		F	5	5	7	4	4	5.0
C51	Malignant neoplasm of vulva	Ž	3	2	2	0	1	1.6
C60	Malignant neoplasm of penis	M	2	0	0	0	0	0.4
C63	Malignant neoplasm of other and unspecified male genital organs	M	0	0	0	0	0	0.0
C77	Secondary and unspecified malignant neoplasm of lymph nodes	M	0	0	1	1	1	0.6
		F	2	0	1	0	2	1.0
C77.0	Lymph nodes of head, face and neck	M	0	0	1	1	1	0.6
		F	0	0	1	0	2	0.6
C77.1	Intrathoracic lymph nodes	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C77.2	Intra-abdominal lymph nodes	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C77.3	Axillary and upper limb lymph nodes	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C77.4	Inguinal and lower limb lymph nodes	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C77.5	Intrapelvic lymph nodes	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C77.8	Lymph nodes of multiple regions	M	0	0	0	0	0	0.0
		F	2	0	0	0	0	0.4
C77.9	Lymph node, unspecified	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C78	Secondary malignant neoplasm of respiratory and digestive organs	M	0	0	1	1	0	0.4
		F	0	0	1	0	0	0.2
C78.0	Secondary malignant neoplasm of lung	M	0	0	0	1	0	0.2
		F	0	0	1	0	0	0.2
C78.1	Secondary malignant neoplasm of mediastinum	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C78.2	Secondary malignant neoplasm of pleura	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C78.3	Secondary malignant neoplasm of other and unspecified respiratory organs	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C78.4	Secondary malignant neoplasm of small intestine	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C78.5	Secondary malignant neoplasm of large intestine and rectum	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C78.6	Secondary malignant neoplasm of retroperitoneum and peritoneum	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0

Continued. —&gt;

Table 4: Continued.

ICD code	Primary site	Sex	Year					Mean of yearly values 2018–2022
			2018	2019	2020	2021	2022	
C78.7	Secondary malignant neoplasm of liver and intrahepatic bile ducts	M	0	0	1	0	0	0.2
		F	0	0	0	0	0	0.0
C78.8	Secondary malignant neoplasm of other and unspecified digestive organs	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C79	Secondary malignant neoplasm of other and unspecified sites	M	0	2	3	2	1	1.6
		F	1	1	3	2	1	1.6
C79.0	Secondary malignant neoplasm of kidney and renal pelvis	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C79.1	Secondary malignant neoplasm of bladder and other and unspecified urinary organs	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C79.2	Secondary malignant neoplasm of skin	M	0	0	1	1	0	0.4
		F	1	0	2	1	1	1.0
C79.3	Secondary malignant neoplasm of brain and cerebral meninges	M	0	1	1	1	0	0.6
		F	0	0	0	0	0	0.0
C79.4	Secondary malignant neoplasm of other and unspecified parts of nervous system	M	0	0	1	0	0	0.2
		F	0	0	0	0	0	0.0
C79.5	Secondary malignant neoplasm of bone and bone marrow	M	0	1	0	0	0	0.2
		F	0	0	0	0	0	0.0
C79.6	Secondary malignant neoplasm of ovary	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C79.7	Secondary malignant neoplasm of adrenal gland	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
C79.8	Secondary malignant neoplasm of other specified sites	M	0	0	0	0	1	0.2
		F	0	1	1	1	0	0.6
C80	Malignant neoplasm, without specification of site	M	4	6	6	7	4	5.4
		F	2	3	5	6	4	4.0
D03	Melanoma in situ	M	149	179	182	165	266	188.2
		F	170	169	152	193	247	186.2
D03.0	Melanoma in situ of lip	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
D03.1	Melanoma in situ of eyelid, including canthus	M	0	0	0	1	1	0.4
		F	1	1	4	2	3	2.2
D03.2	Melanoma in situ of ear and external auricular canal	M	2	2	1	4	1	2.0
		F	1	0	3	0	3	1.4
D03.3	Melanoma in situ of other and unspecified parts of face	M	16	17	21	17	24	19.0
		F	35	29	21	24	39	29.6
D03.4	Melanoma in situ of scalp and neck	M	6	14	10	13	23	13.2
		F	9	9	5	8	4	7.0
D03.5	Melanoma in situ of trunk	M	93	111	112	100	154	114.0
		F	66	76	59	84	105	78.0
D03.6	Melanoma in situ of upper limb, including shoulder	M	22	24	24	24	47	28.2
		F	28	26	28	40	51	34.6
D03.7	Melanoma in situ of lower limb, including hip	M	9	9	14	4	16	10.4
		F	30	27	32	35	42	33.2
D03.8	Melanoma in situ of other sites	M	0	0	0	0	0	0.0
		F	0	0	0	0	0	0.0
D03.9	Melanoma in situ, unspecified	M	1	2	0	2	0	1.0
		F	0	1	0	0	0	0.2

Table 5: Number and proportion of primary invasive skin melanoma (C43, C51, C60, C63) per patient, Slovenia 2018–2022.

Year	2018		2019		2020		2021		2022		2018–2022	
Number of tumours	Number of patients	%										
1	543	88.7	583	91.0	592	92.2	573	91.1	810	92.6	3101	91.2
2	57	9.3	49	7.6	43	6.7	46	7.3	56	6.4	251	7.4
3	11	1.8	5	0.8	5	0.8	6	1.0	5	0.6	32	0.9
4	1	0.2	2	0.3	0	0.0	3	0.5	3	0.3	9	0.3
5	0	0.0	1	0.2	1	0.2	0	0.0	1	0.1	3	0.1
More than 5	0	0.0	1	0.2	1	0.2	1	0.2	0	0.0	3	0.1
All	612	100.0	641	100.0	642	100.0	629	100.0	875	100.0	3399	100.0

Table 6a: Number and proportion of primary invasive skin melanoma (C43, C51, C60, C63) by UICC stage, Slovenia 2018–2022.

UICC STAGE	Number of new cases	Year					
		2018	2019	2020	2021	2022	2018–2022
All	Number	612	641	642	629	875	3399
	%*	100.0	100.0	100.0	100.0	100.0	100.0
IA	Number	297	309	337	311	499	1753
	%*	48.5	48.2	52.5	49.4	57.0	51.6
IB	Number	83	67	73	86	106	415
	%*	13.6	10.5	11.4	13.7	12.1	12.2
All stage I	Number	380	376	410	397	605	2168
	%*	62.1	58.7	63.9	63.1	69.1	63.8
IIA	Number	39	67	54	40	62	262
	%*	6.4	10.5	8.4	6.4	7.1	7.7
IIB	Number	40	45	38	26	50	199
	%*	6.5	7.0	5.9	4.1	5.7	5.9
IIC	Number	44	39	42	31	54	210
	%*	7.2	6.1	6.5	4.9	6.2	6.2
All stage II	Number	123	151	134	97	166	671
	%*	20.1	23.6	20.9	15.4	19.0	19.7
IIIA	Number	9	12	9	10	9	49
	%*	1.5	1.9	1.4	1.6	1.0	1.4
IIIB	Number	23	20	19	21	23	106
	%*	3.8	3.1	3.0	3.3	2.6	3.1
IIIC	Number	48	53	44	62	44	251
	%*	7.8	8.3	6.9	9.9	5.0	7.4
IIID	Number	6	9	6	12	4	37
	%*	1.0	1.4	0.9	1.9	0.0	1.1
All stage III	Number	86	94	78	105	80	443
	%*	14.1	14.7	12.1	16.7	9.1	13.0
IV	Number	21	17	13	25	19	95
	%*	3.4	2.7	2.0	4.0	2.2	2.8
Unknown	Number	2	3	7	5	5	22
	%*	0.0	0.0	1.1	0.8	0.6	0.6

\* Percentages are not calculated for less than 5 cases.

Table 6b:

Sites of distant metastases of primary invasive skin melanoma (C43, C51, C60, C63), Slovenia 2018–2022.

Year	M classification	Anatomical site of metastasis	Number of new cases / metastases
2018	Number of new cases	All	610
	M0	Number of new cases without metastasis	589
	M1	Number of new cases with distant metastases	21
	M1a	Skin, subcutaneous tissue, lymph nodes	26
	M1b	Lung	8
	M1c	Visceral organs and all other defined sites excluding CNS	11
	M1d	CNS	6
		All	51
2019	Number of new cases	All	641
	M0	Number of new cases without metastasis	624
	M1	Number of new cases with distant metastases	17
	M1a	Skin, subcutaneous tissue, lymph nodes	15
	M1b	Lung	8
	M1c	Visceral organs and all other defined sites excluding CNS	13
	M1d	CNS	2
		All	38
2020	Number of new cases	All	642
	M0	Number of new cases without metastasis	629
	M1	Number of new cases with distant metastases	13
	M1a	Skin, subcutaneous tissue, lymph nodes	10
	M1b	Lung	5
	M1c	Visceral organs and all other defined sites excluding CNS	10
	M1d	CNS	4
		All	29
2021	Number of new cases	All	629
	M0	Number of new cases without metastasis	604
	M1	Number of new cases with distant metastases	25
	M1a	Skin, subcutaneous tissue, lymph nodes	28
	M1b	Lung	17
	M1c	Visceral organs and all other defined sites excluding CNS	17
	M1d	CNS	1
		All	63
2022	Number of new cases	All	875
	M0	Number of new cases without metastasis	856
	M1	Number of new cases with distant metastases	19
	M1a	Skin, subcutaneous tissue, lymph nodes	15
	M1b	Lung	10
	M1c	Visceral organs and all other defined sites excluding CNS	13
	M1d	CNS	5
		All	43
2018–2022	Number of new cases	All	3397
	M0	Number of new cases without metastasis	3302
	M1	Number of new cases with distant metastases	95
	M1a	Skin, subcutaneous tissue, lymph nodes	94
	M1b	Lung	48
	M1c	Visceral organs and all other defined sites excluding CNS	64
	M1d	CNS	18
		All	224

Table 7a: Number and proportion of primary invasive skin melanoma (C43, C51, C60, C63) according to Breslow thickness, Slovenia 2018–2022.

Breslow thickness (mm)		Number of new cases	Year					2018–2022
			2018	2019	2020	2021	2022	
All		Number	612	641	642	629	875	3399
		%	100.0	100.0	100.0	100.0	100.0	100.0
Specified	All specified	Number	592	619	621	604	857	3293
		%	96.7	96.6	96.7	96.0	97.9	96.9
		Mean	2.5	2.5	2.2	2.4	1.8	2.2
		Median	1.0	1.0	0.9	1.0	0.8	0.9
	≤ 0.8	Number	271	278	282	263	449	1543
		%*	44.3	43.4	43.9	41.8	51.3	45.4
	> 0.8 - ≤ 1.0	Number	33	34	56	51	54	228
		%*	5.4	5.3	8.7	8.1	6.2	6.7
	> 1.0 - ≤ 2.0	Number	111	102	107	118	146	584
		%*	18.1	15.9	16.7	18.8	16.7	17.2
	> 2.0 - ≤ 4.0	Number	77	111	89	73	99	449
		%*	12.6	17.3	13.9	11.6	11.3	13.2
> 4	Number	100	94	87	99	109	489	
	%*	16.3	14.7	13.6	15.7	12.5	14.4	
Unknown		Number	20	22	21	25	18	106
		%*	3.3	3.4	3.3	4.0	2.1	3.1

\* Percentages are not calculated for less than 5 cases.

Table 7b: Number and proportion of primary invasive skin melanoma (C43, C51, C60, C63) with confirmed ulceration according to Breslow thicknesses, Slovenia 2018–2022.

Breslow thickness (mm)		Number of new cases	Year					2018–2022
			2018	2019	2020	2021	2022	
All		Number	147	146	141	143	167	744
		%*	100.0	100.0	100.0	100.0	100.0	100.0
≤ 0.8		Number	11	10	6	6	8	41
		%*	7.5	6.8	4.3	4.2	4.8	5.5
> 0.8 - ≤ 1.0		Number	2	2	5	5	4	18
		%*	-	-	3.5	3.5	-	2.4
> 1.0 - ≤ 2.0		Number	19	22	22	20	28	111
		%*	12.9	15.1	15.6	14.0	16.8	14.9
> 2.0 - ≤ 4.0		Number	38	48	42	35	45	208
		%*	25.9	32.9	29.8	24.5	26.9	28.0
> 4		Number	77	64	66	77	81	365
		%*	52.4	43.8	46.8	53.8	48.5	49.1
Unknown		Number	0	0	0	0	1	1
		%*	-	-	-	-	-	-

\* Percentages are not calculated for less than 5 cases.

Table 7c: Number and proportion of Breslow thickness distribution in primary invasive skin melanoma (C43, C51, C60, C63) by sex and age, Slovenia 2018–2022.

Year	Breslow thickness	Sex	Age									
			All ages		0–19		20–49		50–74		75+	
			Number	%	Number	%	Number	%	Number	%	Number	%
2018	All	M+F	612	100.0	0	-	140	22.9	295	48.2	177	28.9
		M	323	100.0	0	-	49	15.2	169	52.3	105	32.5
		F	289	100.0	0	-	91	31.5	126	43.6	72	24.9
	≤ 0.8	M	133	100.0	0	-	23	17.3	72	54.1	38	28.6
		F	138	100.0	0	-	55	39.9	60	43.5	23	16.7
	> 0.8 - ≤ 1.0	M	17	58.8	0	-	4	-	10	58.8	3	-
		F	16	81.3	0	-	6	37.5	7	43.8	3	-
	> 1.0 - ≤ 2.0	M	55	100.0	0	-	8	14.5	34	61.8	13	23.6
		F	56	100.0	0	-	22	39.3	23	41.1	11	19.6
	> 2.0 - ≤ 4.0	M	48	91.7	0	-	4	-	28	58.3	16	33.3
		F	29	86.2	0	-	4	-	18	62.1	7	24.1
	> 4	M	57	100.0	0	-	8	14.0	19	33.3	30	52.6
		F	43	93.0	0	-	3	-	15	34.9	25	58.1
	Unknown	M	13	84.6	0	-	2	-	6	46.2	5	38.5
F		7	0.0	0	-	1	-	3	-	3	-	
2019	All	M+F	641	99.7	2	-	141	22.0	339	52.9	159	24.8
		M	320	100.0	0	-	57	17.8	181	56.6	82	25.6
		F	321	99.4	2	-	84	26.2	158	49.2	77	24.0
	≤ 0.8	M	127	100.0	0	-	25	19.7	71	55.9	31	24.4
		F	151	100.0	0	-	54	35.8	72	47.7	25	16.6
	> 0.8 - ≤ 1.0	M	17	64.7	0	-	3	-	11	64.7	3	-
		F	17	58.8	0	-	4	-	10	58.8	3	-
	> 1.0 - ≤ 2.0	M	52	100.0	0	-	13	25.0	31	59.6	8	15.4
		F	50	96.0	2	-	13	26.0	27	54.0	8	16.0
	> 2.0 - ≤ 4.0	M	53	100.0	0	-	8	15.1	30	56.6	15	28.3
		F	58	100.0	0	-	9	15.5	30	51.7	19	32.8
	> 4	M	57	100.0	0	-	6	10.5	29	50.9	22	38.6
		F	37	94.6	0	-	2	-	15	40.5	20	54.1
	Unknown	M	14	64.3	0	-	2	-	9	64.3	3	-
F		8	0.0	0	-	2	-	4	-	2	-	
2020	All	M+F	642	99.4	4	-	133	20.7	324	50.5	181	28.2
		M	330	99.4	2	-	54	16.4	189	57.3	85	25.8
		F	312	99.4	2	-	79	25.3	135	43.3	96	30.8
	≤ 0.8	M	130	99.2	1	-	25	19.2	79	60.8	25	19.2
		F	152	100.0	0	-	50	32.9	72	47.4	30	19.7
	> 0.8 - ≤ 1.0	M	31	96.8	1	-	13	41.9	12	38.7	5	16.1
		F	25	100.0	0	-	6	24.0	10	40.0	9	36.0
	> 1.0 - ≤ 2.0	M	51	100.0	0	-	7	13.7	32	62.7	12	23.5
		F	56	96.4	2	-	12	21.4	30	53.6	12	21.4
	> 2.0 - ≤ 4.0	M	52	94.2	0	-	3	-	33	63.5	16	30.8
		F	37	100.0	0	-	6	16.2	14	37.8	17	45.9
	> 4	M	58	93.1	0	-	4	-	29	50.0	25	43.1
		F	29	89.7	0	-	3	-	5	17.2	21	72.4
	Unknown	M	8	0.0	0	-	2	-	4	-	2	-
F		13	53.8	0	-	2	-	4	-	7	53.8	

Continued. —>

Table 7c: Continued.

Year	Breslow thickness	Sex	Age									
			All ages		0–19		20–49		50–74		75+	
			Number	%	Number	%	Number	%	Number	%	Number	%
2021	All	M+F	629	99.4	4	-	131	20.8	330	52.5	164	26.1
		M	322	99.4	2	-	59	18.3	172	53.4	89	27.6
		F	307	99.3	2	-	72	23.5	158	51.5	75	24.4
	≤ 0.8	M	117	100.0	0	-	33	28.2	58	49.6	26	22.2
		F	146	100.0	0	-	43	29.5	78	53.4	25	17.1
	> 0.8 - ≤ 1.0	M	22	86.4	0	-	8	36.4	11	50.0	3	-
		F	29	89.7	0	-	11	37.9	15	51.7	3	-
	> 1.0 - ≤ 2.0	M	64	96.9	2	-	10	15.6	38	59.4	14	21.9
		F	54	98.1	1	-	10	18.5	32	59.3	11	20.4
	> 2.0 - ≤ 4.0	M	42	100.0	0	-	5	11.9	18	42.9	19	45.2
		F	31	87.1	0	-	4	-	14	45.2	13	41.9
	> 4	M	61	95.1	0	-	3	-	34	55.7	24	39.3
		F	38	89.5	1	-	3	-	14	36.8	20	52.6
	Unknown	M	16	81.3	0	-	0	-	13	81.3	3	-
F		9	55.6	0	-	1	-	5	55.6	3	-	
2022	All	M+F	875	99.5	4	-	197	22.5	455	52.0	219	25.0
		M	464	99.6	2	-	85	18.3	254	54.7	123	26.5
		F	411	99.5	2	-	112	27.3	201	48.9	96	23.4
	≤ 0.8	M	229	99.6	1	-	49	21.4	132	57.6	47	20.5
		F	220	99.1	2	-	76	34.5	114	51.8	28	12.7
	> 0.8 - ≤ 1.0	M	30	100.0	0	-	9	30.0	10	33.3	11	36.7
		F	24	100.0	0	-	6	25.0	13	54.2	5	20.8
	> 1.0 - ≤ 2.0	M	85	98.8	1	-	15	17.6	55	64.7	14	16.5
		F	61	100.0	0	-	16	26.2	36	59.0	9	14.8
	> 2.0 - ≤ 4.0	M	53	100.0	0	-	8	15.1	28	52.8	17	32.1
		F	46	100.0	0	-	7	15.2	22	47.8	17	37.0
	> 4	M	59	94.9	0	-	3	-	25	42.4	31	52.5
		F	50	100.0	0	-	7	14.0	16	32.0	27	54.0
	Unknown	M	8	0.0	0	-	1	-	4	-	3	-
F		10	100.0	0	-	0	-	0	-	10	100.0	
2018 – 2022	All	M+F	3399	100.0	14	0.4	742	21.8	1743	51.3	900	26.5
		M	1759	100.0	6	0.3	304	17.3	965	54.9	484	27.5
		F	1640	100.0	8	0.5	438	26.7	778	47.4	416	25.4
	≤ 0.8	M	736	99.7	2	-	155	21.1	412	56.0	167	22.7
		F	807	99.8	2	-	278	34.4	396	49.1	131	16.2
	> 0.8 - ≤ 1.0	M	117	99.1	1	-	37	31.6	54	46.2	25	21.4
		F	111	100.0	0	-	33	29.7	55	49.5	23	20.7
	> 1.0 - ≤ 2.0	M	307	99.0	3	-	53	17.3	190	61.9	61	19.9
		F	277	100.0	5	1.8	73	26.4	148	53.4	51	18.4
	> 2.0 - ≤ 4.0	M	248	100.0	0	-	28	11.3	137	55.2	83	33.5
		F	201	100.0	0	-	30	14.9	98	48.8	73	36.3
	> 4	M	292	100.0	0	-	24	8.2	136	46.6	132	45.2
		F	197	99.5	1	-	18	9.1	65	33.0	113	57.4
	Unknown	M	59	100.0	0	-	7	11.9	36	61.0	16	27.1
F		47	100.0	0	-	6	12.8	16	34.0	25	53.2	

\* Percentages are not calculated for less than 5 cases.

Table 8: Number and proportion of skin melanoma (C43, C51, C60, C63, C77–C80, D03) by histological type, Slovenia 2018–2022.

Year		2018		2019		2020		2021		2022		2018–2022	
ICD-0-3 code	Histological type	Number	%*	Number	%*								
8720	Malignant melanoma, NOS**	368	39.1	421	42.1	448	44.9	487	48.4	587	41.9	2311	43.2
8721	Nodular melanoma	93	9.9	88	8.8	79	7.9	105	10.4	137	9.8	502	9.4
8722	Balloon cell melanoma	0	-	0	-	0	-	0	-	0	-	0	-
8723	Malignant melanoma, regressing	0	-	0	-	0	-	0	-	0	-	0	-
8730	Amelanotic melanoma	2	-	0	-	0	-	0	-	0	-	2	-
8740	Malignant melanoma in junctional lesion	0	-	0	-	0	-	0	-	0	-	0	-
8741	Malignant melanoma in precancerous melanosis	0	-	0	-	0	-	0	-	0	-	0	-
8742	Lentigo maligna	83	8.8	63	6.3	54	5.4	49	4.9	60	4.3	309	5.8
8743	Superficial spreading melanoma**	377	40.1	402	40.2	388	38.9	341	33.9	588	42.0	2096	39.2
8744	Acral lentiginous melanoma, malignant	8	0.9	9	0.9	11	1.1	10	1.0	7	0.5	45	0.8
8745	Desmoplastic melanoma, malignant	3	-	3	-	6	0.6	2	-	8	0.6	22	0.4
8761	Malignant melanoma in giant pigmented lesion	0	-	0	-	0	-	0	-	0	-	0	-
8770	Mixed epithelioid and spindle cell melanoma	3	-	4	-	1	-	5	0.5	6	0.4	19	0.4
8771	Epithelioid cell melanoma	3	-	8	0.8	9	0.9	6	0.6	5	0.4	31	0.6
8772	Spindle cell melanoma, NOS	0	-	3	-	1	-	1	-	3	-	8	0.1
8780	Blue lesion, malignant	0	-	0	-	0	-	0	-	0	-	0	-
8720–8780	All	940	100.0	1001	100.0	997	100.0	1006	100.0	1401	100.0	5345	100.0

\* Percentages are not calculated for less than 5 cases.

\*\* The histological types were recoded in 2023, which is why the numbers differ from previous reports.

# Survival

Table 9a: One-, three- and five-year survival to first progress or death and observed survival with median of survival with 95% confidence interval (CI) of patients with skin melanoma (C43, C51, C60, C63, C77–C80, D03) by ICD classification and sex, Slovenia 2018–2022.

Survival type	ICD code	Primary site	Sex	Number	1-year survival (95% CI)		3-year survival (95% CI)		5-year survival (95% CI)		Median of survival (months)
Time to first progress or death	C43, C51, C60, C63	Primary invasive skin melanoma	M+F	3381	91.0	90.0–91.9	80.7	79.3–82.1	73.8	71.9–75.8	/
			M	1752	89.6	88.2–91.1	78.1	76.0–80.3	70.7	67.9–73.7	/
			F	1629	92.4	91.2–93.7	83.4	81.5–85.4	77.1	74.5–79.8	/
	D03	Melanoma in situ	M+F	1838	99.1	98.6–99.5	95.5	94.5–96.6	92.2	90.4–93.9	/
			M	923	98.7	98.0–99.4	94.1	92.4–95.9	90.0	87.2–92.8	/
			F	915	99.5	99.0–99.9	97.0	95.7–98.3	94.3	92.3–96.4	/
	C77–C80	Melanoma of secondary or unspecified origin	M+F	73	24.7	16.5–36.8	18.0	10.8–29.9	12.0	5.6–25.7	5.3
			M	40	20.0	10.8–37.2	16.7	8.1–34.1	8.3	1.8–39.6	4.9
			F	33	30.3	18.1–50.8	18.9	9.0–39.9	14.2	5.6–36.2	8.1
Observed survival	C43, C51, C60, C63	Primary invasive skin melanoma	M+F	3381	95.1	94.3–95.8	85.1	83.8–86.5	77.9	76.0–79.8	/
			M	1752	94.2	93.1–95.3	83.0	81.1–85.0	74.4	71.5–77.3	/
			F	1629	96.0	95.1–97.0	87.4	85.7–89.2	81.6	79.2–84.2	/
	D03	Melanoma in situ	M+F	1838	99.1	98.6–99.5	95.5	94.5–96.6	92.2	90.4–93.9	/
			M	923	98.7	98.0–99.4	94.1	92.4–95.9	90.0	87.2–92.8	/
			F	915	99.5	99.0–99.9	97.0	95.7–98.3	94.3	92.3–96.4	/
	C77–C80	Melanoma of secondary or unspecified origin	M+F	73	45.2	35.1–58.2	31.6	22.4–44.6	21.3	11.9–38.0	9.8
			M	40	35.0	22.9–53.4	29.6	18.3–47.9	19.7	7.8–50.2	6.8
			F	33	57.6	43.0–77.2	34.1	20.9–55.7	21.9	9.8–49.2	17.4

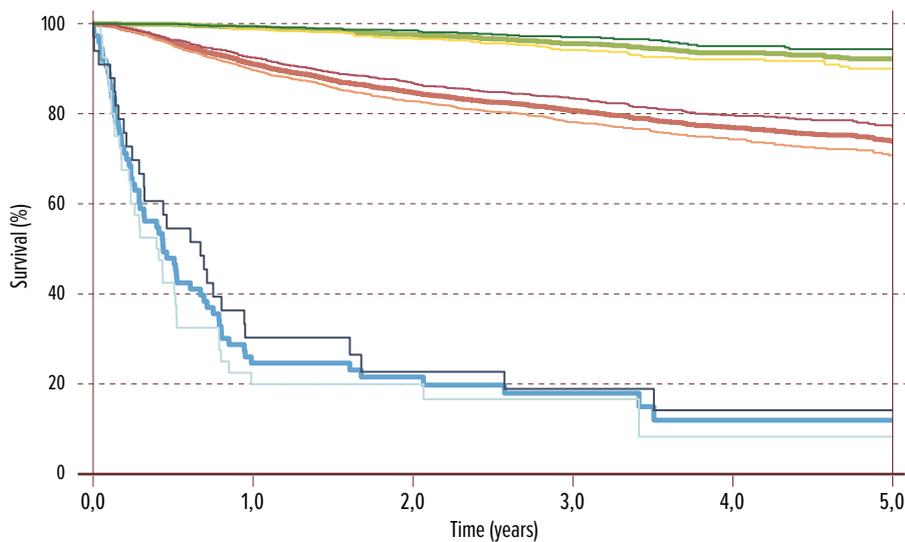


Figure 8: Kaplan-Meier survival curve to first progress or death for patients with skin melanoma (C43, C51, C60, C63, C77–C80, D03) by ICD classification and sex, Slovenia 2018–2022.

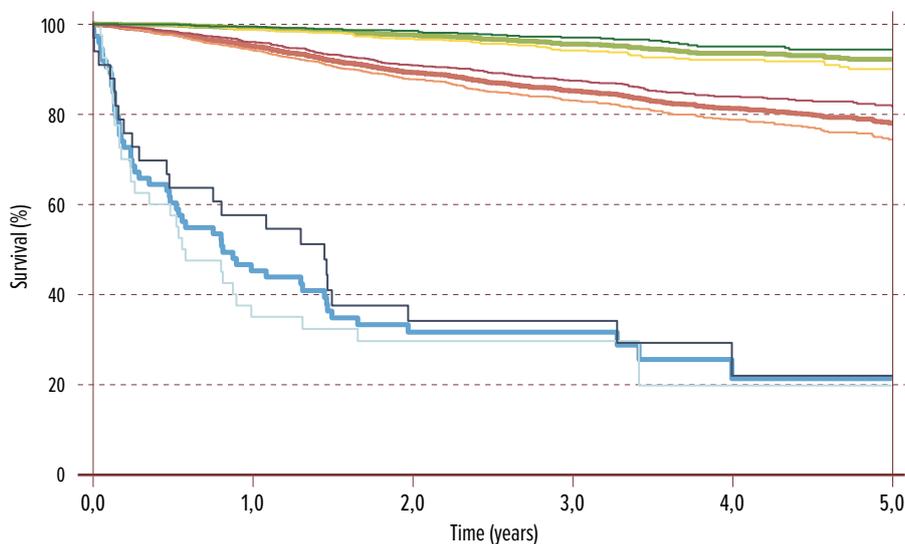


Figure 9: Kaplan-Meier observed survival curve for patients with skin melanoma (C43, C51, C60, C63, C77–C80, D03) by ICD classification and sex, Slovenia 2018–2022.

Table 9b: One-, three- and five-year survival to first progress or death and observed survival with median of survival with 95% confidence interval (CI) of patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by histological type, Slovenia, 2018–2022.

Survival type	ICD-O-3 code	Histological type	Number	1-year survival (95% CI)		3-year survival (95% CI)		5-year survival (95% CI)		Median of survival (months)
Time to first progress or death	8720–8780	All	3454	89.6	88.6–90.6	79.4	77.9–80.8	72.5	70.6–74.5	/
	8720	Malignant melanoma, NOS	651	77.3	74.1–80.6	67.2	63.5–71.1	58.4	53.0–64.3	/
	8721	Nodular melanoma	497	79.1	75.6–82.7	59.5	54.9–64.4	50.5	45.2–56.4	/
	8742	Lentigo maligna	88	93.2	88.1–98.6	77.5	69.0–87.0	68.3	57.6–81.0	/
	8743	Superficial spreading melanoma	2091	95.8	95.0–96.7	88.4	86.9–89.9	82.4	80.2–84.6	/
	8722, 8723, 8730, 8740, 8741, 8744, 8745, 8761, 8770–8772, 8780	Other histological types	127	88.2	82.8–94.0	73.1	65.2–81.8	69.4	60.7–79.3	/
Observed survival	8720–8780	All	3454	94.0	93.2–94.8	84.0	82.7–85.4	76.7	74.8–78.6	/
	8720	Malignant melanoma, NOS	651	84.8	82.1–87.6	72.4	68.9–76.1	61.5	56.2–67.4	/
	8721	Nodular melanoma	497	89.5	86.9–92.3	68.3	63.9–73.0	59.2	53.8–65.2	/
	8742	Lentigo maligna	88	98.9	96.7–100.0	82.6	74.7–91.4	75.6	65.4–87.3	/
	8743	Superficial spreading melanoma	2091	97.8	97.1–98.4	91.5	90.2–92.9	85.3	83.2–87.4	/
	8722, 8723, 8730, 8740, 8741, 8744, 8745, 8761, 8770–8772, 8780	Other histological types	127	93.7	89.6–98.0	83.9	77.2–91.1	80.1	72.0–89.0	/

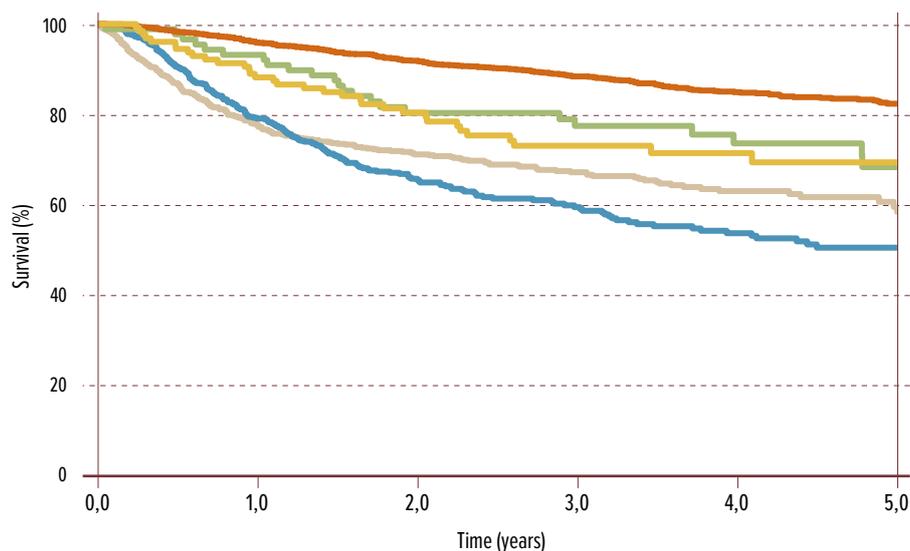


Figure 10: Kaplan-Meier survival curve to first progress or death for patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by histological type, Slovenia, 2018–2022.

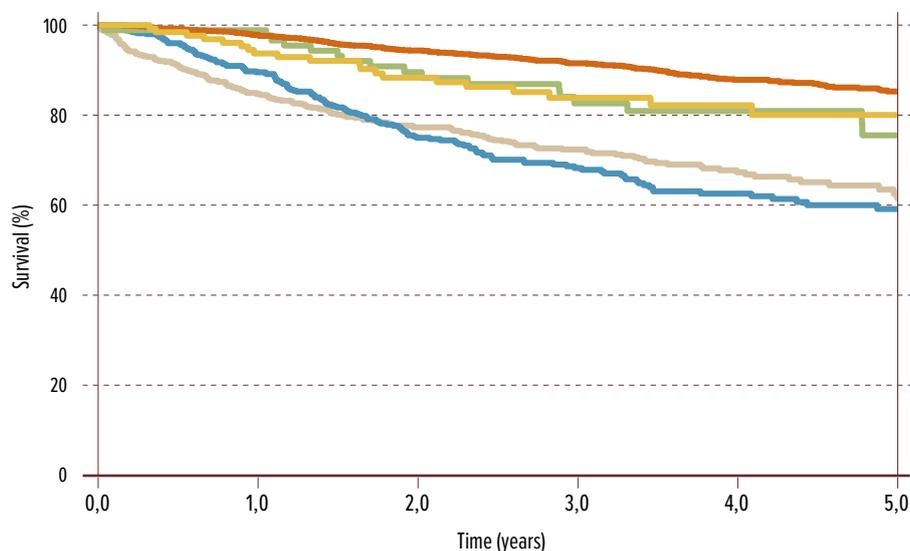


Figure 11: Kaplan-Meier observed survival curve for patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by histological type, Slovenia, 2018–2022.

Table 9c: One-, three- and five-year survival to first progress or death and observed survival with median of survival with 95% confidence interval (CI) of patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by age group, Slovenia 2018–2022.

Survival type	Age group	Number	1-year survival (95% CI)		3-year survival (95% CI)		5-year survival (95% CI)		Median of survival (months)
Time to first progress or death	All ages	3454	89.6	88.6–90.6	79.4	77.9–80.8	72.5	70.6–74.5	/
	0–19	14	100.0	100.0–100.0	100.0	100.0–100.0	100.0	100.0–100.0	/
	20–49	750	96.0	94.6–97.4	91.6	89.5–93.8	89.8	87.2–92.6	/
	50–74	1785	91.7	90.4–92.9	83.8	82.0–85.7	78.0	75.6–80.5	/
	75+	905	80.0	77.4–82.6	60.2	56.8–63.8	47.8	43.6–52.5	58.2
Observed survival	All ages	3454	94.0	93.2–94.8	84.0	82.7–85.4	76.7	74.8–78.6	/
	0–19	14	100.0	100.0–100.0	100.0	100.0–100.0	100.0	100.0–100.0	/
	20–49	750	98.5	97.7–99.4	95.0	93.3–96.8	91.9	89.3–94.6	/
	50–74	1785	95.9	94.9–96.8	88.6	87.0–90.2	83.0	80.7–85.4	/
	75+	905	86.5	84.3–88.8	65.6	62.3–69.1	52.0	47.7–56.8	/

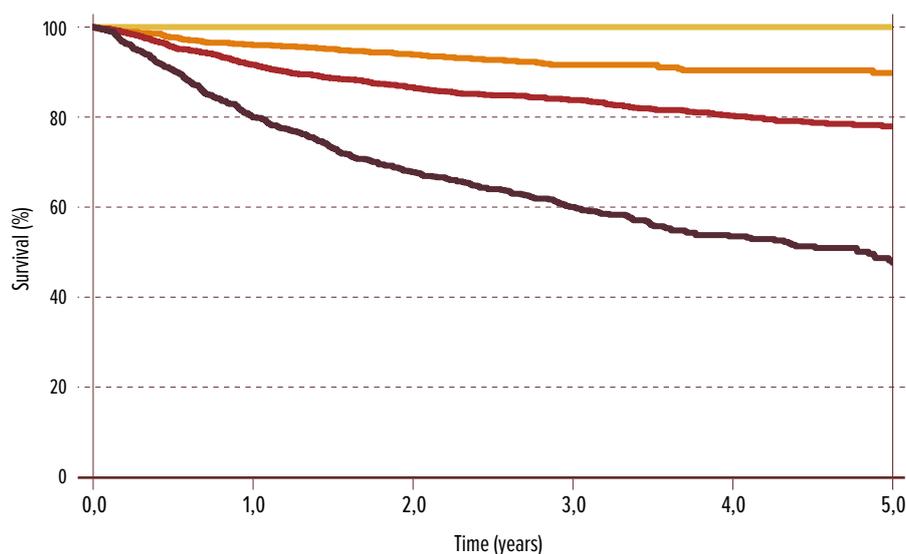


Figure 12: Kaplan-Meier survival curve to first progress or death for patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by age group, Slovenia 2018–2022.

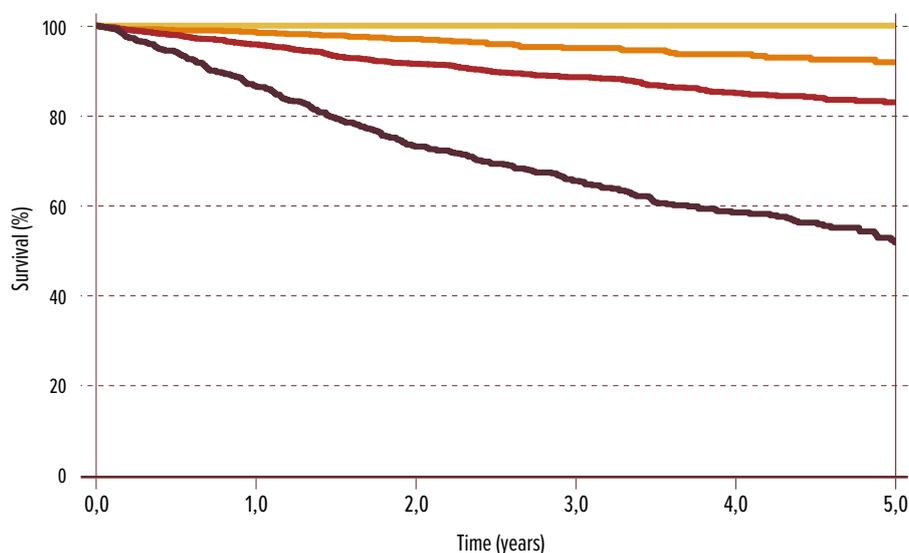


Figure 13: Kaplan-Meier observed survival curve for patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by age group, Slovenia 2018–2022.

Table 9d: One-, three- and five-year survival to first progress or death and observed survival with median of survival with 95% confidence interval (CI) of patients with skin melanoma (C43, C51, C60, C63, C77–C80, D03) by UICC stage (simplified classification), Slovenia 2018–2022.

Survival type	UICC stadij	Number	1-year survival (95% CI)		3-year survival (95% CI)		5-year survival (95% CI)		Median of survival (months)
Time to first progress or death	All stages	5292	92.9	92.2–93.6	85.0	83.9–86.0	79.3	77.9–80.7	/
	0 (In situ)	1838	99.1	98.6–99.5	95.5	94.5–96.6	92.2	90.4–93.9	/
	I	2164	98.8	98.3–99.3	94.7	93.7–95.8	90.4	88.6–92.3	/
	II	664	85.7	83.1–88.4	65.9	62.1–69.9	55.1	50.4–60.1	/
	III	442	74.0	70.0–78.2	50.5	45.8–55.8	39.0	33.1–46.0	36.8
	IV	91	31.9	23.6–43.0	17.6	10.9–28.3	11.1	5.5–22.6	6.5
	Unknown*	93	33.3	25.0–44.4	23.9	16.4–35.0	17.9	10.8–29.6	7.4
Observed survival	All stages	5292	95.8	95.2–96.3	88.0	87.0–89.0	82.0	80.6–83.4	/
	0 (In situ)	1838	99.1	98.6–99.5	95.5	94.5–96.6	92.2	90.4–93.9	/
	I	2164	99.2	98.8–99.6	95.2	94.2–96.3	90.8	89.0–92.7	/
	II	664	92.9	91.0–94.9	75.9	72.5–79.6	64.2	59.5–69.3	/
	III	442	88.7	85.8–91.7	64.4	59.6–69.4	51.6	45.5–58.5	66.7
	IV	91	48.4	39.1–59.8	25.5	17.6–36.9	19.9	12.5–31.6	11.2
	Unknown*	93	51.6	42.4–62.8	40.9	31.9–52.5	30.8	20.9–45.4	15.6

\*Includes unknown and unidentified stages.

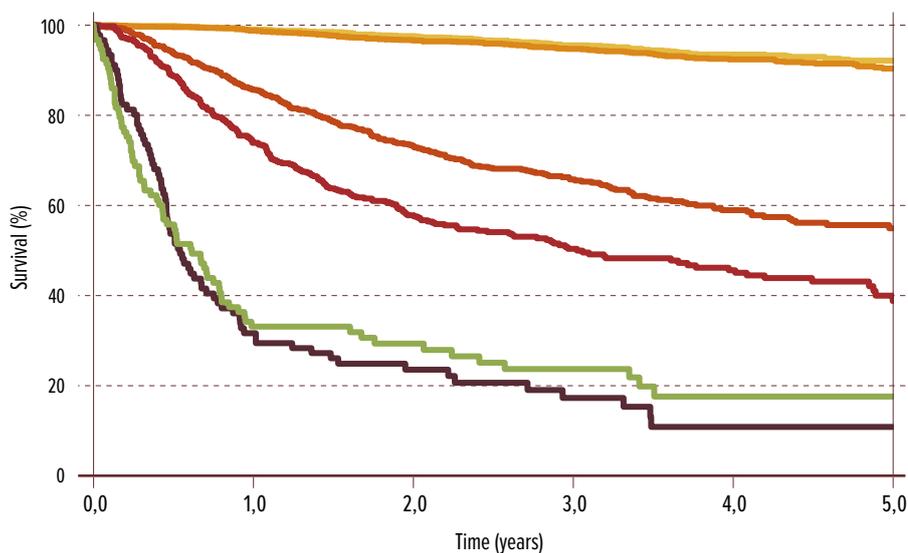


Figure 14: Kaplan-Meier survival curve to first progress or death for patients with skin melanoma (C43, C51, C60, C63, C77–C80, D03) by UICC stage, Slovenia 2018–2022.

Legend for Figure 14:  
— in situ  
— I  
— II  
— III  
— IV  
— unknown

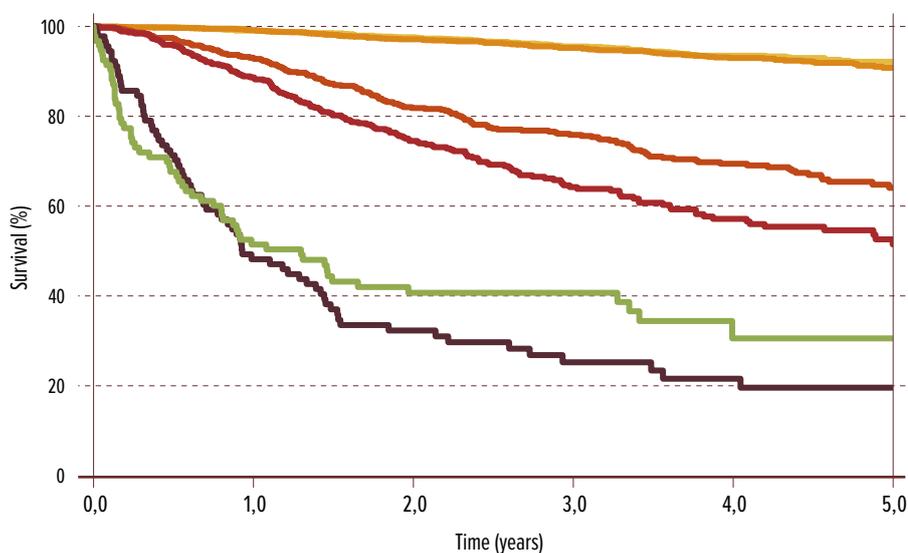


Figure 15: Kaplan-Meier observed survival curve for patients with skin melanoma (C43, C51, C60, C63, C77–C80, D03) by UICC stage, Slovenia 2018–2022.

Table 9e: One-, three- and five-year survival to first progress or death and observed survival with median of survival with 95% confidence interval (CI) of patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by Breslow thickness, Slovenia, 2018–2022.

Survival type	Breslow thickness	Number	1-year survival (95% CI)		3-year survival (95% CI)		5-year survival (95% CI)		Median of survival (months)
Time to first progress or death	All	3454	89.6	88.6–90.6	79.4	77.9–80.8	72.5	70.6–74.5	/
	≤ 0,8	1670	98.8	98.3–99.3	95.6	94.5–96.7	90.9	88.8–93.1	/
	> 0,8–≤ 1,0	97	96.9	93.5–100.0	90.2	83.8–97.1	88.3	81.1–96.1	/
	> 1,0–≤ 2,0	695	89.4	87.1–91.7	76.7	73.4–80.2	70.7	66.6–75.0	/
	> 2,0–≤ 4,0	457	86.9	83.8–90.0	68.2	63.7–73.0	56.3	50.5–62.6	/
	> 4	360	71.7	67.2–76.5	47.9	42.7–53.7	37.5	31.7–44.3	34.0
	Unknown	175	42.3	35.6–50.3	27.0	20.9–34.9	14.7	6.2–34.9	9.5
Observed survival	All	3454	94.0	93.2–94.8	84.0	82.7–85.4	76.7	74.8–78.6	/
	≤ 0,8	1670	99.0	98.5–99.5	95.8	94.7–96.9	91.1	88.9–93.2	/
	> 0,8–≤ 1,0	97	99.0	97.0–100.0	90.9	84.6–97.7	89.0	81.9–96.7	/
	> 1,0–≤ 2,0	695	94.8	93.2–96.5	81.4	78.3–84.7	75.5	71.5–79.7	/
	> 2,0–≤ 4,0	457	93.0	90.7–95.4	78.1	74.0–82.3	65.8	60.3–71.9	/
	> 4	360	86.7	83.2–90.3	62.5	57.3–68.1	49.5	42.9–57.0	59.7
	Unknown	175	58.3	51.4–66.1	41.4	34.4–49.8	28.4	19.6–41.1	17.9

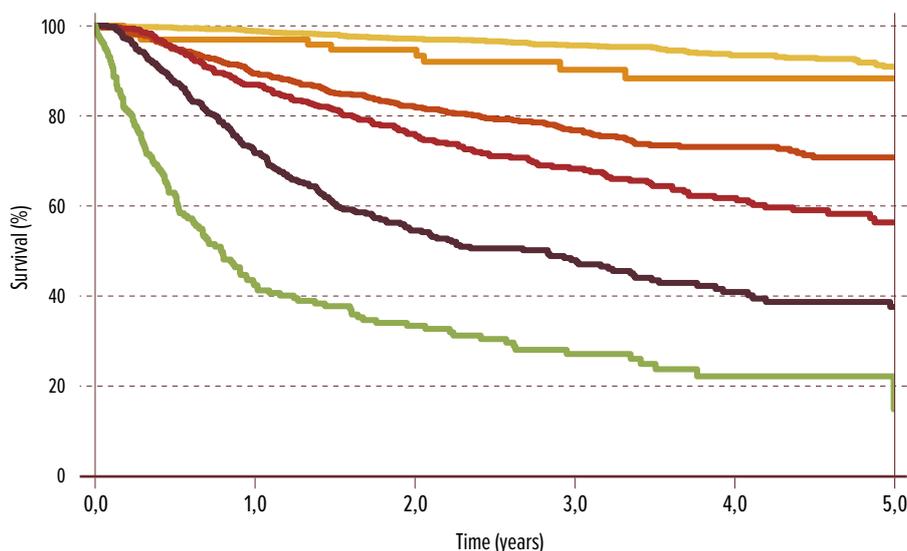


Figure 16: Kaplan-Meier survival curve to first progress or death for patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by Breslow thickness, Slovenia, 2018–2022.

- < 0,8mm
- 0,8 < ... ≤ 1,0mm
- 1,0 < ... ≤ 2,0mm
- 2,0 < ... ≤ 4,0mm
- > 4mm
- unknown

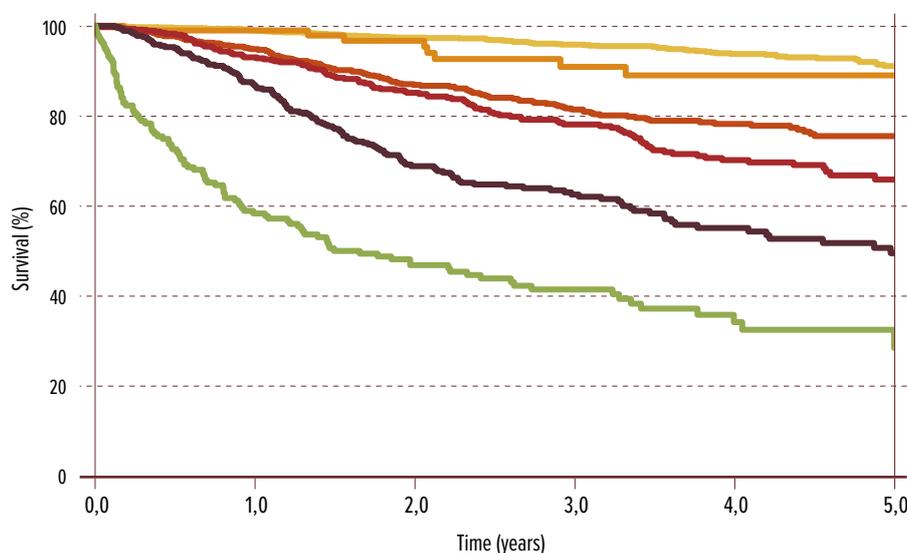


Figure 17: Kaplan-Meier observed survival curve for patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by Breslow thickness, Slovenia, 2018–2022.

# Diagnostics

Table 10: Health care institution that performed excisional biopsy (all lesions are included) to diagnose primary skin melanoma (C43, C51, C60, C63, D03), Slovenia 2018–2022.

Year	2018		2019		2020		2021		2022		2018–2022	
Healthcare institution	Number	%*	Number	%*								
<b>Hospitals</b>	<b>776</b>	<b>76.6</b>	<b>711</b>	<b>67.5</b>	<b>685</b>	<b>66.2</b>	<b>662</b>	<b>62.7</b>	<b>768</b>	<b>52.0</b>	<b>3602</b>	<b>63.9</b>
Hospital Topolšica	0	-	0	-	0	-	0	-	1	-	1	-
Institute of Oncology Ljubljana	43	4.2	31	2.9	47	4.5	36	3.4	36	2.4	193	3.4
General Hospital Brežice	5	-	5	-	3	-	14	-	13	-	40	0.7
General Hospital Celje	113	11.2	90	8.5	92	8.9	61	5.8	58	3.9	414	7.3
General Hospital Dr. Franc Derganc Nova Gorica	25	2.5	20	1.9	16	1.5	16	1.5	12	-	89	1.6
General Hospital Dr. Jožeta Potrča Ptuj	8	-	7	-	16	1.5	20	1.9	36	2.4	87	1.5
General Hospital Izola	51	5.0	39	3.7	35	3.4	27	2.6	23	1.6	175	3.1
General Hospital Jesenice	62	6.1	52	4.9	40	3.9	35	3.3	43	2.9	232	4.1
General Hospital Murska Sobota	32	3.2	28	2.7	17	1.6	30	2.8	38	2.6	145	2.6
General Hospital Novo mesto	32	3.2	38	3.6	36	3.5	29	2.7	33	2.2	168	3.0
General Hospital Slovenj Gradec	31	3.1	18	1.7	19	1.8	24	2.3	26	1.8	118	2.1
General Hospital Trbovlje	4	-	5	-	5	-	3	-	0	-	17	0.3
University Medical Centre Ljubljana	228	22.5	246	23.4	243	23.5	212	20.1	282	19.1	1211	21.5
University Medical Centre Maribor	142	14.0	132	12.5	116	11.2	155	14.7	167	11.3	712	12.6
<b>Private clinics</b>	<b>199</b>	<b>19.6</b>	<b>282</b>	<b>26.8</b>	<b>292</b>	<b>28.2</b>	<b>358</b>	<b>33.9</b>	<b>628</b>	<b>42.5</b>	<b>1759</b>	<b>31.2</b>
Agencija Avanta družba za komuniciranje d.o.o.	2	-	0	-	0	-	0	-	0	-	2	-
Ageno d.o.o.	0	-	0	-	0	-	0	-	1	-	1	-
AKD d.o.o.	12	-	16	1.5	15	1.4	6	-	20	1.4	69	1.2
Ambulanta Genus d.o.o.	0	-	0	-	0	-	0	-	1	-	1	-
Aristotel d.o.o.	1	-	0	-	1	-	0	-	1	-	3	-
ARSDERMA d.o.o.	18	1.8	9	-	6	-	10	-	19	1.3	62	1.1
asist.mag. Marko Bitenc - zasebni zdravnik	0	-	1	-	1	-	0	-	0	-	2	-
BB dermatologija d.o.o.	0	-	0	-	0	-	6	-	6	-	12	-
Bival zdravje, zdravstvo, storitve in trgovina, d.o.o	0	-	0	-	0	-	0	-	1	-	1	-
Cardial d.o.o.	0	-	0	-	0	-	0	-	1	-	1	-
Derma center Maribor	0	-	0	-	2	-	2	-	2	-	6	-
Dermacenter center za estetiko in lasersko odstranjevanje žil, znamenj in dlak	3	-	0	-	2	-	3	-	8	-	16	0.3
Dermadent, d.o.o.	0	-	0	-	0	-	7	-	9	-	16	0.3
Dermatologija Bartenjev d.o.o.	50	4.9	65	6.2	19	1.8	49	4.6	81	5.5	264	4.7
Dermatologija Jasmina Demšar s.p.	3	-	8	-	5	-	2	-	2	-	20	0.4
Dermatologija mag. Metka Adamič dr.med. s.p.	6	-	0	-	0	-	2	-	1	-	9	-
Dermatologija Maja Kalač Pandurovič, zdravstvene in druge storitve, d.o.o.	1	-	8	-	11	-	4	-	2	-	26	0.5
Dermatologija Rogl Fabjan d.o.o.	3	-	2	-	46	4.4	55	5.2	32	2.2	138	2.4
Dermatologija.si d.o.o.	0	-	0	-	0	-	1	-	4	-	5	-
Dermatološki center Derm - Blanka Zagoričnik Opara	0	-	1	-	0	-	0	-	0	-	1	-
Dermatovenerologija Natalija Evdakova Bodiroža	1	-	12	-	7	-	4	-	2	-	26	0.5
Dermis d.o.o.	0	-	0	-	2	-	0	-	1	-	3	-
Dermoestetika Izola	0	-	0	-	0	-	1	-	0	-	1	-
Diagnostični center Bled	1	-	7	-	2	-	1	-	1	-	12	-
Endomed d.o.o.	0	-	1	-	0	-	0	-	0	-	1	-
Ergomed medicinski center, d. o. o.	0	-	0	-	1	-	6	-	3	-	10	-
Estetika Fabjan	11	-	12	-	26	2.5	56	5.3	198	13.4	303	5.4
Estetika Med-Art d.o.o.	0	-	1	-	1	-	0	-	2	-	4	-
Estetika Milošević, plastična, rekonstrukcijska in estetska kirurgija d.o.o.	0	-	0	-	0	-	1	-	4	-	5	-

Continued. —>

Table 10: Continued.

Year	2018		2019		2020		2021		2022		2018–2022	
Healthcare institution	Number	%*										
Inštitut za dermatologijo	0	-	0	-	0	-	1	-	0	-	1	-
Janežič Tomaž, dr.med.	10	-	15	1.4	17	1.6	12	-	17	1.2	71	1.3
Juventina clinic d.o.o.	0	-	2	-	1	-	2	-	5	-	10	-
Kirurgija Arnež, d.o.o.	6	-	6	-	11	-	10	-	21	1.4	54	1.0
Kirurški center Toš d.o.o.	3	-	4	-	11	-	24	2.3	16	1.1	58	1.0
Klinika Božikov d.o.o.	1	-	0	-	1	-	6	-	3	-	11	-
Klinika Doktor 24 d.o.o.	7	-	3	-	5	-	6	-	10	-	31	0.6
Klinika Omnia, specialistične medicinske dejavnosti, d.o.o.	0	-	0	-	0	-	1	-	1	-	2	-
Koprivec, družinska medicina, d.o.o.	2	-	0	-	0	-	0	-	0	-	2	-
Lantana, d.o.o.	0	-	0	-	0	-	1	-	1	-	2	-
Medartis (bivši DTMC)	3	-	1	-	2	-	4	-	5	-	15	0.3
MTC fontana d.o.o.	0	-	1	-	0	-	0	-	0	-	1	-
Olivier's d.o.o.	5	-	3	-	0	-	0	-	0	-	8	-
p. e. Medicina Volovec	0	-	0	-	0	-	1	-	0	-	1	-
Plastična kirurgija Zorman	1	-	1	-	3	-	0	-	4	-	9	-
Poliklinika Nobilis d.o.o.	0	-	5	-	3	-	6	-	15	1.0	29	0.5
Proderma d.o.o.	1	-	1	-	5	-	0	-	1	-	8	-
Profiderma d.o.o.	0	-	0	-	1	-	0	-	0	-	1	-
Remeda, medicinski center Domžale, d.o.o.	0	-	2	-	0	-	2	-	0	-	4	-
Sanatorij Rožna dolina	1	-	0	-	0	-	1	-	0	-	2	-
Simed, zdravstveni center	22	2.2	53	5.0	45	4.3	40	3.8	82	5.6	242	4.3
Simmed	0	-	1	-	2	-	0	-	0	-	3	-
Venolek d.o.o.	0	-	0	-	0	-	0	-	1	-	1	-
Vok Marko - dermatovenerološka ordinacija	0	-	4	-	0	-	0	-	0	-	4	-
Zasebna ambulanta družinske medicine - Franc Novak, dr. med., spec. splošne medicine, ordinacija splošne medicine	1	-	0	-	0	-	0	-	0	-	1	-
Zdrav splet d.o.o.	0	-	0	-	1	-	0	-	1	-	2	-
Zdravilišče Rogaška - zdravstvo d.o.o.	8	-	21	2.0	28	2.7	22	2.1	35	2.4	114	2.0
Zdravje d.o.o.	0	-	0	-	1	-	0	-	0	-	1	-
Zdravstvene storitve, Lina Virnik Kovač s.p.	0	-	0	-	0	-	2	-	7	-	9	-
private institution unknown	16	1.6	16	1.5	8	-	1	-	1	-	42	0.7
<b>Community health centres</b>	<b>36</b>	<b>3.6</b>	<b>55</b>	<b>5.2</b>	<b>54</b>	<b>5.2</b>	<b>33</b>	<b>3.1</b>	<b>75</b>	<b>5.1</b>	<b>253</b>	<b>4.5</b>
ZD Ajdovščina	0	-	0	-	0	-	0	-	2	-	2	-
ZD Celje	0	-	0	-	0	-	0	-	1	-	1	-
ZD Ivančna Gorica	0	-	1	-	2	-	0	-	4	-	7	-
ZD Ljubljana - Center	0	-	0	-	1	-	0	-	0	-	1	-
ZD Nova Gorica	0	-	1	-	1	-	0	-	0	-	2	-
ZD Postojna	13	-	13	-	16	1.5	7	-	10	-	59	1.0
ZD Sevnica	0	-	1	-	0	-	0	-	0	-	1	-
ZD Škofja Loka	4	-	4	-	2	-	0	-	0	-	10	-
ZD Trbovlje	11	-	16	1.5	8	-	14	-	15	1.0	64	1.1
Železniški zdravstveni dom Ljubljana	8	-	19	1.8	24	2.3	12	-	43	2.9	106	1.9
Other	2	0.2	5	0.5	4	0.4	3	0.3	6	0.4	20	0.4
Healthcare institution unknown	1	-	3	-	3	-	1	-	4	-	12	-
Institution outside of Slovenia	1	-	2	-	1	-	2	-	2	-	8	-
<b>All</b>	<b>1013</b>	<b>100.0</b>	<b>1053</b>	<b>100.0</b>	<b>1035</b>	<b>100.0</b>	<b>1056</b>	<b>100.0</b>	<b>1477</b>	<b>100.0</b>	<b>5634</b>	<b>100.0</b>

\* Proportions are not calculated for less than 15 cases.

Table 11: Histopathology laboratory that assessed the excisional biopsy specimens (all lesions are included) to diagnose primary skin melanoma (C43, C51, C60, C63, D03), Slovenia 2018–2022.

Year	2018		2019		2020		2021		2022		2018–2022	
Histopathology lab	Number	%	Number	%								
Institute of Oncology Ljubljana	47	4.6	37	3.5	58	5.6	38	3.6	48	3.2	228	4.0
General Hospital Celje	103	10.2	83	7.9	73	7.1	48	4.5	56	3.8	363	6.4
General Hospital Dr. Franc Derganc Nova Gorica	24	2.4	18	1.7	13	1.3	14	1.3	9	0.6	78	1.4
General Hospital Izola	50	4.9	38	3.6	33	3.2	23	2.2	21	1.4	165	2.9
General Hospital Jesenice	56	5.5	49	4.7	35	3.4	25	2.4	35	2.4	200	3.5
General Hospital Murska Sobota	1	0.1	2	0.2	12	1.2	14	1.3	24	1.6	53	0.9
General Hospital Novo mesto	38	3.8	34	3.2	35	3.4	32	3.0	27	1.8	166	2.9
General Hospital Slovenj Gradec	25	2.5	18	1.7	19	1.8	32	3.0	35	2.4	129	2.3
University of Ljubljana, Faculty of Medicine	468	46.2	595	56.5	547	52.9	622	58.9	855	57.9	3087	54.8
University Medical Centre Ljubljana	19	1.9	23	2.2	33	3.2	29	2.7	39	2.6	143	2.5
University Medical Centre Maribor	138	13.6	124	11.8	124	12.0	101	9.6	117	7.9	604	10.7
University Clinic Golnik	0	0.0	1	0.1	1	0.1	0	0.0	0	0.0	2	0.0
Diagnostični center Bled	28	2.8	19	1.8	37	3.6	67	6.3	25	1.7	176	3.1
Institution outside of Slovenia	9	0.9	5	0.5	4	0.4	10	0.9	184	12.5	212	3.8
Health institution unknown	7	0.7	7	0.7	11	1.1	1	0.1	2	0.1	28	0.5
All	1013	100.0	1053	100.0	1035	100.0	1056	100.0	1477	100.0	5634	100.0

Table 12: Type of biopsy for pathology report (all lesions are included) for primary skin melanoma (C43, C51, C60, C63, D03), Slovenia 2018–2022.

Year	Melanoma lesions	Type of biopsy				
		Number of all biopsies	Excisional biopsy	Incisional biopsy	Punch biopsy	Other
2018	All melanoma lesions	1064	1013	22	25	4
	Main melanoma lesions	947	902	20	22	3
	Non-main melanoma lesions	117	111	2	3	1
2019	All melanoma lesions	1089	1053	6	23	7
	Main melanoma lesions	997	965	6	20	6
	Non-main melanoma lesions	92	88	0	3	1
2020	All melanoma lesions	1088	1035	10	33	10
	Main melanoma lesions	1000	955	8	27	10
	Non-main melanoma lesions	88	80	2	6	0
2021	All melanoma lesions	1109	1056	5	42	6
	Main melanoma lesions	1010	964	5	36	5
	Non-main melanoma lesions	99	92	0	6	1
2022	All melanoma lesions	1533	1477	0	49	7
	Main melanoma lesions	1423	1369	0	47	7
	Non-main melanoma lesions	110	108	0	2	0
2018 – 2022	All melanoma lesions	5883	5634	43	172	34
	Main melanoma lesions	5377	5155	39	152	31
	Non-main melanoma lesions	506	479	4	20	3

Table 13: Diagnostic histopathology of excisional biopsy specimens (all lesion excisions are included) in primary invasive skin melanoma (C43, C51, C60, C63), Slovenia 2018–2022.

Year	2018		2019		2020		2021		2022		2018–2022	
Histopathological diagnosis	Number	%	Number	%								
<b>Radial growth</b>												
No	126	20.0	109	16.6	94	14.5	99	15.2	148	16.6	576	16.5
Superficial spreading melanoma	409	64.9	446	67.8	412	63.7	446	68.3	622	69.7	2335	67.1
Lentigo malignant	33	5.2	15	2.3	15	2.3	19	2.9	18	2.0	100	2.9
Acral lentiginous	6	1.0	9	1.4	12	1.9	9	1.4	7	0.8	43	1.2
Unspecified type	22	3.5	38	5.8	78	12.1	56	8.6	74	8.3	268	7.7
Cannot be assessed	5	0.8	6	0.9	4	0.6	4	0.6	8	0.9	27	0.8
Unknown	29	4.6	35	5.3	32	4.9	20	3.1	16	1.8	132	3.8
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
<b>Vertical growth</b>												
No	111	17.6	138	21.0	160	24.7	154	23.6	234	26.2	797	22.9
Epithelioid cell type	316	50.2	354	53.8	308	47.6	349	53.4	384	43.0	1711	49.2
Spindle cell type	35	5.6	27	4.1	28	4.3	21	3.2	42	4.7	153	4.4
Mixed cell type	117	18.6	92	14.0	97	15.0	100	15.3	129	14.4	535	15.4
Cannot be assessed	1	0.2	1	0.2	2	0.3	3	0.5	2	0.2	9	0.3
Present, type unknown	28	4.4	18	2.7	23	3.6	8	1.2	35	3.9	112	3.2
Unknown	22	3.5	28	4.3	29	4.5	18	2.8	67	7.5	164	4.7
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
<b>Ulceration</b>												
No	472	74.9	504	76.6	488	75.4	498	76.3	720	80.6	2682	77.0
Present	147	23.3	146	22.2	141	21.8	143	21.9	167	18.7	744	21.4
Cannot be assessed	0	0.0	2	0.3	3	0.5	4	0.6	1	0.1	10	0.3
Unknown	11	1.7	6	0.9	15	2.3	8	1.2	5	0.6	45	1.3
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
<b>Pigmentation</b>												
Absent	49	7.8	45	6.8	35	5.4	38	5.8	56	6.3	223	6.4
Mild to moderate	477	75.7	504	76.6	531	82.1	487	74.6	623	69.8	2622	75.3
Strong	57	9.0	79	12.0	40	6.2	90	13.8	84	9.4	350	10.1
Unknown	47	7.5	30	4.6	41	6.3	38	5.8	130	14.6	286	8.2
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
<b>Lymphocytic infiltration</b>												
Absent	92	14.6	74	11.2	59	9.1	70	10.7	97	10.9	392	11.3
Mild	356	56.5	383	58.2	416	64.3	378	57.9	461	51.6	1994	57.3
Substantial	158	25.1	151	22.9	132	20.4	176	27.0	221	24.7	838	24.1
Present, amount unknown	2	0.3	20	3.0	11	1.7	10	1.5	96	10.8	139	4.0
Cannot be assessed	0	0.0	2	0.3	1	0.2	3	0.5	2	0.2	8	0.2
Unknown	22	3.5	28	4.3	28	4.3	16	2.5	16	1.8	110	3.2
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
<b>Regression</b>												
No	460	73.0	483	73.4	479	74.0	453	69.4	628	70.3	2503	71.9
Present	138	21.9	152	23.1	141	21.8	177	27.1	248	27.8	856	24.6
Present, thinner than Breslow	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Unknown	32	5.1	23	3.5	27	4.2	23	3.5	17	1.9	122	3.5
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0

Continued. —>

Table 13: Continued.

Year	2018		2019		2020		2021		2022		2018–2022	
Histopathological diagnosis	Number	%	Number	%								
Associated melanocytic lesion												
No	378	60.0	405	61.6	412	63.7	391	59.9	547	61.3	2133	61.3
Dysplastic	76	12.1	47	7.1	67	10.4	67	10.3	56	6.3	313	9.0
Typical	96	15.2	76	11.6	89	13.8	89	13.6	115	12.9	465	13.4
Congenital	21	3.3	14	2.1	13	2.0	22	3.4	19	2.1	89	2.6
Other	15	2.4	69	10.5	35	5.4	61	9.3	69	7.7	249	7.2
Unknown	44	7.0	47	7.1	31	4.8	23	3.5	87	9.7	232	6.7
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
Microsatellites												
No	571	90.6	616	93.6	600	92.7	603	92.3	860	96.3	3250	93.4
Present	26	4.1	23	3.5	22	3.4	29	4.4	21	2.4	121	3.5
Cannot be assessed	0	0.0	1	0.2	1	0.2	2	0.3	2	0.2	6	0.2
Unknown	33	5.2	18	2.7	24	3.7	19	2.9	10	1.1	104	3.0
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
Lymphovascular invasion												
No	585	92.9	590	89.7	601	92.9	600	91.9	774	86.7	3150	90.5
Yes	25	4.0	38	5.8	20	3.1	33	5.1	24	2.7	140	4.0
Cannot be assessed	0	0.0	11	1.7	4	0.6	7	1.1	4	0.4	26	0.7
Unknown	20	3.2	19	2.9	22	3.4	13	2.0	91	10.2	165	4.7
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
Perineural invasion												
No	350	55.6	415	63.1	561	86.7	604	92.5	824	92.3	2754	79.1
Yes	15	2.4	31	4.7	28	4.3	16	2.5	23	2.6	113	3.2
Unknown	265	42.1	212	32.2	58	9.0	33	5.1	46	5.2	614	17.6
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
Lateral surgical margin												
Not involved	610	96.8	640	97.3	631	97.5	633	96.9	880	98.5	3394	97.5
Margin involved	16	2.5	12	1.8	11	1.7	15	2.3	11	1.2	65	1.9
Cannot be assessed	0	0.0	2	0.3	0	0.0	1	0.2	0	0.0	3	0.1
Unknown	4	0.6	4	0.6	5	0.8	4	0.6	2	0.2	19	0.5
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
Deep surgical margin												
Not involved	619	98.3	642	97.6	630	97.4	634	97.1	883	98.9	3408	97.9
Margin involved	5	0.8	8	1.2	10	1.5	14	2.1	8	0.9	45	1.3
Cannot be assessed	0	0.0	1	0.2	0	0.0	1	0.2	0	0.0	2	0.1
Unknown	6	1.0	7	1.1	7	1.1	4	0.6	2	0.2	26	0.7
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0
Skin outside the tumour												
Unremarkable	253	40.2	264	40.1	475	73.4	492	75.3	593	66.4	2077	59.7
Melanocytic lesion	19	3.0	16	2.4	46	7.1	4	0.6	10	1.1	95	2.7
Malignant skin tumour (non-melanoma)	1	0.2	0	0.0	3	0.5	0	0.0	2	0.2	6	0.2
Other	103	16.3	124	18.8	108	16.7	120	18.4	262	29.3	717	20.6
Unknown	254	40.3	254	38.6	15	2.3	37	5.7	26	2.9	586	16.8
All	630	100.0	658	100.0	647	100.0	653	100.0	893	100.0	3481	100.0

Table 14: Diagnostic histopathology of surgically removed regional lymph nodes in the primary treatment of invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Year	2018				2019				2020				2021				2022				2018–2022			
Diagnostic histopathology of surgically removed regional lymph nodes	Sentinel lymph node biopsy	Lymphadenectomy	All	Proportion (%)	Sentinel lymph node biopsy	Lymphadenectomy	All	Proportion (%)	Sentinel lymph node biopsy	Lymphadenectomy	All	Proportion (%)	Sentinel lymph node biopsy	Lymphadenectomy	All	Proportion (%)	Sentinel lymph node biopsy	Lymphadenectomy	All	Proportion (%)	Sentinel lymph node biopsy	Lymphadenectomy	All	Proportion (%)
<b>Presence of extracapsular growth</b>																								
No	35	13	48	16.8	41	18	59	20.1	45	19	64	20.1	37	4	41	14.1	54	23	77	26.3	212	77	289	19.5
Yes	8	13	21	7.3	5	8	13	4.4	1	11	12	3.8	2	8	10	3.4	3	6	9	3.1	19	46	65	4.4
Unknown	8	15	23	8.0	4	11	15	5.1	5	11	16	5.0	6	9	15	5.2	3	5	8	2.7	26	51	77	5.2
No positive lymph nodes	168	26	194	67.8	183	23	206	70.3	209	17	226	71.1	212	12	224	77.2	192	7	199	67.9	964	85	1049	70.9
All	219	67	286	100.0	233	60	293	100.0	260	58	318	100.0	257	33	290	100.0	252	41	293	100.0	1221	259	1480	100.0
<b>Fusion status of positive lymph nodes</b>																								
No	47	25	72	25.2	12	24	36	12.3	48	28	76	23.9	45	8	53	18.3	59	26	85	29.0	211	111	322	21.8
Yes	0	16	16	5.6	0	11	11	3.8	3	11	14	4.4	0	13	13	4.5	0	7	7	2.4	3	58	61	4.1
Unknown	4	0	4	1.4	38	2	40	13.7	0	2	2	0.6	0	0	0	0.0	1	1	2	0.7	43	5	48	3.2
No positive lymph nodes	168	26	194	67.8	183	23	206	70.3	209	17	226	71.1	212	12	224	77.2	192	7	199	67.9	964	85	1049	70.9
All	219	67	286	100.0	233	60	293	100.0	260	58	318	100.0	257	33	290	100.0	252	41	293	100.0	1221	259	1480	100.0
<b>Tumour in fat or connective tissue outside of lymph nodes or vascular system</b>																								
No	43	32	75	26.2	35	24	59	20.1	41	20	61	19.2	31	4	35	12.1	49	18	67	22.9	199	98	297	20.1
Yes	1	5	6	2.1	4	4	8	2.7	2	14	16	5.0	2	9	11	3.8	5	9	14	4.8	14	41	55	3.7
Unknown	7	4	11	3.8	11	9	20	6.8	8	7	15	4.7	12	8	20	6.9	6	7	13	4.4	44	35	79	5.3
No positive lymph nodes	168	26	194	67.8	183	23	206	70.3	209	17	226	71.1	212	12	224	77.2	192	7	199	67.9	964	85	1049	70.9
All	219	67	286	100.0	233	60	293	100.0	260	58	318	100.0	257	33	290	100.0	252	41	293	100.0	1221	259	1480	100.0

Table 15: Number of imaging tests in baseline staging of skin melanoma (C43, C51, C60, C63, C77–C80, D03) by UICC stage, Slovenia 2018–2022.

Year	Imaging tests	Number of melanomas	I	II	III	IV	Unknown	In situ
2018	No imaging test done	613	269	16	7	1	2	318
	One of imaging tests was done	163	84	56	15	5	2	1
	2 imaging tests were done	127	26	45	43	8	5	0
	3 imaging tests were done	33	1	5	20	6	1	0
	4 or more imaging tests were done	4	0	1	1	1	1	0
	Diagnosed at autopsy	0	0	0	0	0	0	0
	All	940	380	123	86	21	11	319
2019	No imaging test done	663	277	33	3	1	2	347
	One of imaging tests was done	152	69	62	16	1	3	1
	2 imaging tests were done	139	29	55	42	10	3	0
	3 imaging tests were done	41	1	1	31	3	5	0
	4 or more imaging tests were done	6	0	0	2	2	2	0
	Diagnosed at autopsy	0	0	0	0	0	0	0
	All	1001	376	151	94	17	15	348
2020	No imaging test done	657	293	22	4	1	4	333
	One of imaging tests was done	164	86	58	13	1	5	1
	2 imaging tests were done	120	31	48	29	5	7	0
	3 imaging tests were done	47	0	4	29	4	10	0
	4 or more imaging tests were done	9	0	2	3	2	2	0
	Diagnosed at autopsy	0	0	0	0	0	0	0
	All	997	410	134	78	13	28	334

Continued. —>

Table 15: Continued.

Year	Imaging tests	Number of melanomas	I	II	III	IV	Unknown	In situ
2021	No imaging test done	629	258	13	2	0	1	355
	One of imaging tests was done	163	101	46	9	3	2	2
	2 imaging tests were done	120	35	33	40	6	5	1
	3 imaging tests were done	76	3	4	46	11	12	0
	4 or more imaging tests were done	14	0	1	8	3	2	0
	Diagnosed at autopsy	4	0	0	0	2	2	0
	All	1006	397	97	105	25	24	358
2022	No imaging test done	982	446	26	3	0	2	505
	One of imaging tests was done	223	127	79	11	3	0	3
	2 imaging tests were done	129	28	51	36	5	4	5
	3 imaging tests were done	56	4	10	28	6	8	0
	4 or more imaging tests were done	11	0	0	2	5	4	0
	Diagnosed at autopsy	0	0	0	0	0	0	0
	All	1401	605	166	80	19	18	513
2018 – 2022	No imaging test done	3544	1543	110	19	3	11	1858
	One of imaging tests was done	865	467	301	64	13	12	8
	2 imaging tests were done	635	149	232	190	34	24	6
	3 imaging tests were done	253	9	24	154	30	36	0
	4 or more imaging tests were done	44	0	4	16	13	11	0
	Diagnosed at autopsy	4	0	0	0	2	2	0
	All	5345	2168	671	443	95	96	1872

Table 16: The presence of BRAF, NRAS and c-KIT mutation in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Molecular properties of tumours	Year					
	2018	2019	2020	2021	2022	2018–2022
BRAF positive: V600E	12	21	40	82	82	237
BRAF positive: V600K	2	5	7	14	6	34
BRAF positive: other	28	35	6	4	2	75
BRAF negative	40	48	55	53	86	282
BRAF unknown	93	121	54	5	13	286
NRAS positive	8	8	8	16	18	58
NRAS negative	24	36	25	28	66	179
NRAS unknown	143	186	129	114	105	677
c-KIT positive	0	1	0	1	3	5
c-KIT negative	28	41	30	24	65	188
c-KIT unknown	147	188	132	133	121	721
Testing unsuccessful	0	0	0	1	3	4

Table 17: Level of serum LDH in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Level of serum LDH ( $\mu$ kat/L)	Year					
	2018	2019	2020	2021	2022	2018–2022
LDH determined	90	107	95	141	121	554
Elevated*	23	26	15	14	19	97
Not elevated**	67	81	80	127	102	457
LDH: average	4.4	4.9	4.2	4.8	4.1	4.5
LDH: median	3.1	3.0	3.0	3.0	3.0	3.0
LDH: minimum	2.0	1.7	0.0	1.2	1.5	0.0
LDH: maximum	42.8	74.4	61.8	79.3	79.3	79.3

\* over 4,13 M; over 4,12 F

\*\* below 4,13 M; below 4,12 F

# Treatment

Table 18a: Number and proportion of patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by type of first treatment, Slovenia 2018–2022.

Type of first treatment	2018		2019		2020		2021		2022		2018–2022	
	Number	%	Number	%								
No treatment	6	1.0	9	1.4	9	1.4	6	0.9	4	0.5	34	1.0
Surgery and systemic therapy	26	4.2	39	6.0	35	5.3	54	8.3	59	6.6	213	6.1
Surgery and radiotherapy	26	4.2	23	3.5	25	3.8	11	1.7	21	2.4	106	3.1
Surgery, radiotherapy and systemic therapy	4	0.6	19	2.9	9	1.4	14	2.2	4	0.5	50	1.4
Radiotherapy and systemic therapy	3	0.5	2	0.3	1	0.2	1	0.2	0	0.0	7	0.2
Surgery (exclusively)	551	88.7	558	85.5	579	87.3	547	84.4	795	89.5	3030	87.2
Systemic therapy (exclusively)	5	0.8	3	0.5	3	0.5	10	1.5	4	0.5	25	0.7
Radiotherapy (exclusively)	0	0.0	0	0.0	2	0.3	1	0.2	1	0.1	4	0.1
Diagnosed at autopsy	0	0.0	0	0.0	0	0.0	4	0.6	0	0.0	4	0.1
All	621	100.0	653	100.0	663	100.0	648	100.0	888	100.0	3473	100.0

Table 18b: Number of patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by UICC stage and type of first treatment, Slovenia 2018–2022.

Type of first treatment	UICC stage											
	All stages	IA	IB	IIA	IIB	IIC	IIIA	IIIB	IIIC	IIID	IV	Unknown
No treatment	34	0	0	0	0	0	0	1	2	0	9	22
Surgery and systemic therapy	213	0	1	1	6	4	29	41	80	4	40	7
Surgery and radiotherapy	106	7	2	4	6	7	2	6	38	13	9	12
Surgery, radiotherapy and systemic therapy	50	0	0	0	0	1	0	2	29	10	4	4
Radiotherapy and systemic therapy	7	0	0	0	0	0	0	0	0	0	3	4
Surgery (exclusively)	3030	1746	412	257	187	198	18	56	102	10	19	25
Systemic therapy (exclusively)	25	0	0	0	0	0	0	0	0	0	8	17
Radiotherapy (exclusively)	4	0	0	0	0	0	0	0	0	0	1	3
Diagnosed at autopsy	4	0	0	0	0	0	0	0	0	0	2	2
All	3473	1753	415	262	199	210	49	106	251	37	95	96

Table 18c: Number and proportion of patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by age group and type of first treatment, Slovenia 2018–2022.

Type of first treatment	Age									
	All ages		0–19		20–49		50–74		75+	
	Number	%	Number	%	Number	%	Number	%	Number	%
No treatment	34	1.0	0	0.0	4	0.5	13	0.7	17	1.8
Surgery and systemic therapy	213	6.1	1	7.1	52	6.9	145	8.1	15	1.6
Surgery and radiotherapy	106	3.1	0	0.0	4	0.5	42	2.3	60	6.5
Surgery, radiotherapy and systemic therapy	50	1.4	0	0.0	11	1.5	37	2.1	2	0.2
Radiotherapy and systemic therapy	7	0.2	0	0.0	2	0.3	5	0.3	0	0.0
Surgery (exclusively)	3030	87.2	13	92.9	676	90.1	1519	85.0	822	89.3
Systemic therapy (exclusively)	25	0.7	0	0.0	1	0.1	22	1.2	2	0.2
Radiotherapy (exclusively)	4	0.1	0	0.0	0	0.0	2	0.1	2	0.2
Diagnosed at autopsy	4	0.1	0	0.0	0	0.0	3	0.2	1	0.1
All	3473	100.0	14	100.0	750	100.0	1788	100.0	921	100.0

Table 19a: Surgical treatment of regional lymph nodes for invasive skin melanoma (C43, C51, C60, C63, C77–C80) by treatment indication, Slovenia 2018–2022.

Year	ICD code	Surgical treatment	Treatment indication		
			Number of treatments	Primary treatment	Treatment of recurrence
2018	C43, C51, C60, C63	All treatments	309	292	17
		Sentinel lymph node biopsy	234	233	1
		Lymphadenectomy	75	59	16
	C77–C80	All treatments	2	2	0
		Sentinel lymph node biopsy	1	1	0
		Lymphadenectomy	1	1	0
	All treatments	311	294	17	
2019	C43, C51, C60, C63	All treatments	340	318	22
		Sentinel lymph node biopsy	263	261	2
		Lymphadenectomy	77	57	20
	C77–C80	All treatments	4	1	3
		Sentinel lymph node biopsy	0	0	0
		Lymphadenectomy	4	1	3
	All treatments	344	319	25	
2020	C43, C51, C60, C63	All treatments	298	286	12
		Sentinel lymph node biopsy	257	256	1
		Lymphadenectomy	41	30	11
	C77–C80	All treatments	4	4	0
		Sentinel lymph node biopsy	1	1	0
		Lymphadenectomy	3	3	0
	All treatments	302	290	12	
2021	C43, C51, C60, C63	All treatments	305	294	11
		Sentinel lymph node biopsy	255	254	1
		Lymphadenectomy	50	40	10
	C77–C80	All treatments	3	2	1
		Sentinel lymph node biopsy	1	1	0
		Lymphadenectomy	2	1	1
	All treatments	308	296	12	
2022	C43, C51, C60, C63	All treatments	319	312	7
		Sentinel lymph node biopsy	293	293	0
		Lymphadenectomy	26	19	7
	C77–C80	All treatments	4	4	0
		Sentinel lymph node biopsy	0	0	0
		Lymphadenectomy	4	4	0
	All treatments	323	316	7	
2018–2022	C43, C51, C60, C63	All treatments	1571	1502	69
		Sentinel lymph node biopsy	1302	1297	5
		Lymphadenectomy	269	205	64
	C77–C80	All treatments	17	13	4
		Sentinel lymph node biopsy	3	3	0
		Lymphadenectomy	14	10	4
	All treatments	1588	1515	73	

Table 19b: Number of patients with non-sentinel lymph node involvement after primary treatment with lymph node dissection in primary invasive skin melanoma (C43, C51, C60, C63), Slovenia 2018–2022.

Year	Surgery	Number of examined lymph nodes	Number of resected lymph nodes at lymphadenectomy					Proportion (%)
			0	1	2 to 5	6 or more	All	
2018	Neck dissection (with or without superficial parotidectomy)	< 15	0	0	0	0	0	0.0
		≥ 15	4	4	2	1	11	5.4
	Axillary dissections	< 10	0	0	1	0	1	0.5
		≥ 10	10	9	5	3	27	13.2
	Inguinal dissection (with or without dissection of iliac or obturator lymph nodes)	< 5	0	0	0	0	0	0.0
≥ 5		9	4	7	0	20	9.8	
All			23	17	15	4	59	28.8
2019	Neck dissection (with or without superficial parotidectomy)	< 15	0	0	0	0	0	0.0
		≥ 15	3	5	7	0	15	7.3
	Axillary dissections	< 10	0	0	1	0	1	0.5
		≥ 10	12	9	6	3	30	14.6
	Inguinal dissection (with or without dissection of iliac or obturator lymph nodes)	< 5	0	0	0	0	0	0.0
≥ 5		2	5	2	2	11	5.4	
All			17	19	16	5	57	27.8
2020	Neck dissection (with or without superficial parotidectomy)	< 15	1	0	0	0	1	0.5
		≥ 15	2	0	1	1	4	2.0
	Axillary dissections	< 10	0	3	0	0	3	1.5
		≥ 10	7	4	1	3	15	7.3
	Inguinal dissection (with or without dissection of iliac or obturator lymph nodes)	< 5	0	0	0	0	0	0.0
≥ 5		2	1	3	1	7	3.4	
All			12	8	5	5	30	14.6
2021	Neck dissection (with or without superficial parotidectomy)	< 15	0	0	0	0	0	0.0
		≥ 15	2	2	6	1	11	5.4
	Axillary dissections	< 10	0	1	0	0	1	0.5
		≥ 10	4	5	10	3	22	10.7
	Inguinal dissection (with or without dissection of iliac or obturator lymph nodes)	< 5	0	0	0	0	0	0.0
≥ 5		1	1	2	2	6	2.9	
All			7	9	18	6	40	19.5
2022	Neck dissection (with or without superficial parotidectomy)	< 15	0	1	0	0	1	0.5
		≥ 15	0	0	1	0	1	0.5
	Axillary dissections	< 10	0	0	0	0	0	0.0
		≥ 10	0	2	4	4	10	4.9
	Inguinal dissection (with or without dissection of iliac or obturator lymph nodes)	< 5	0	0	0	0	0	0.0
≥ 5		0	6	1	0	7	3.4	
All			0	9	6	4	19	9.3
2018 – 2022	Neck dissection (with or without superficial parotidectomy)	< 15	1	1	0	0	2	0.0
		≥ 15	11	11	17	3	42	42.0
	Axillary dissections	< 10	0	4	2	0	6	6.0
		≥ 10	33	29	26	16	104	104.0
	Inguinal dissection (with or without dissection of iliac or obturator lymph nodes)	< 5	0	0	0	0	0	0.0
≥ 5		14	17	15	5	51	51.0	
All			59	62	60	24	205	100.0

Table 19c: Amount and proportion of positive sentinel lymph nodes by Breslow thickness in patients with primary invasive skin melanoma (C43, C51, C60, C63) the course of first treatment, Slovenia 2018–2022.

Year	Sentinel lymph node biopsy (SNB)	Breslow thickness (mm)						All
		< 0.8	≤ 1.0	> 1.0 - ≤ 2.0	> 2.0 - ≤ 4.0	> 4	Unknown	
2018	Number of SNBs	10	16	88	56	54	1	225
	Number of checked nodes	98	70	352	386	349	4	1259
	Number of positive nodes	1	3	8	20	16	1	49
	Proportion of positive nodes (%)	10.0	18.8	9.1	35.7	29.6	100.0	21.8
2019	Number of SNBs	11	22	89	82	48	1	253
	Number of checked nodes	17	51	301	459	334	62	1224
	Number of positive nodes	1	1	10	23	13	1	49
	Proportion of positive nodes (%)	9.1	4.5	11.2	28.0	27.1	100.0	19.4
2020	Number of SNBs	13	32	96	60	50	3	254
	Number of checked nodes	38	65	280	354	172	4	913
	Number of positive nodes	0	0	12	20	12	1	45
	Proportion of positive nodes (%)	0.0	0.0	12.5	33.3	24.0	33.3	17.7
2021	Number of SNBs	11	40	101	57	41	3	253
	Number of checked nodes	21	89	273	221	335	16	955
	Number of positive nodes	1	1	12	20	27	0	61
	Proportion of positive nodes (%)	9.1	2.5	11.9	35.1	65.9	0.0	24.1
2022	Number of SNBs	24	30	114	73	43	1	285
	Number of checked nodes	47	61	275	180	122	5	690
	Number of positive nodes	0	2	11	22	12	0	47
	Proportion of positive nodes (%)	0.0	6.7	9.6	30.1	27.9	0.0	16.5
2018 – 2022	Number of SNBs	69	140	488	328	236	9	1270
	Number of checked nodes	221	336	1481	1600	1312	91	5041
	Number of positive nodes	3	7	53	105	80	3	251
	Proportion of positive nodes (%)	4.3	5.0	10.9	32.0	33.9	33.3	19.8

Table 20: Radiotherapeutic treatment for invasive skin melanoma (C43, C51, C60, C63, C77–C80) by type of radiotherapy and treatment indication, Slovenia 2018–2022.

Year	ICD code	Radiotherapy (RT) type	Treatment indication			
			Number of treatments	Primary treatment	Treatment of recurrence	
2018	C43, C51, C60, C63	All treatments	92	35	57	
		Primary RT	4	4	0	
		Postoperative RT	45	29	16	
		Palliative RT	43	2	41	
	C77–C80	All treatments	2	1	1	
		Primary RT	0	0	0	
		Postoperative RT	1	1	0	
		Palliative RT	1	0	1	
	All treatments			94	36	58
	2019	C43, C51, C60, C63	All treatments	106	47	59
Primary RT			0	0	0	
Postoperative RT			62	45	17	
Palliative RT			44	2	42	
C77–C80		All treatments	7	3	4	
		Primary RT	1	1	0	
		Postoperative RT	1	1	0	
		Palliative RT	5	1	4	
All treatments			113	50	63	
2020		C43, C51, C60, C63	All treatments	75	31	44
	Primary RT		1	1	0	
	Postoperative RT		35	27	8	
	Palliative RT		39	3	36	
	C77–C80	All treatments	10	8	2	
		Primary RT	1	1	0	
		Postoperative RT	4	4	0	
		Palliative RT	5	3	2	
	All treatments			85	39	46
	2021	C43, C51, C60, C63	All treatments	52	26	26
Primary RT			0	0	0	
Postoperative RT			33	24	9	
Palliative RT			19	2	17	
C77–C80		All treatments	11	4	7	
		Primary RT	0	0	0	
		Postoperative RT	3	2	1	
		Palliative RT	8	2	6	
All treatments			63	30	33	
2022		C43, C51, C60, C63	All treatments	52	29	23
	Primary RT		2	2	0	
	Postoperative RT		26	19	7	
	Palliative RT		24	8	16	
	C77–C80	All treatments	7	6	1	
		Primary RT	1	1	0	
		Postoperative RT	5	4	1	
		Palliative RT	1	1	0	
	All treatments			59	35	24
	2018 – 2022	C43, C51, C60, C63	All treatments	377	168	209
Primary RT			7	7	0	
Postoperative RT			201	144	57	
Palliative RT			169	17	152	
C77–C80		All treatments	37	22	15	
		Primary RT	3	3	0	
		Postoperative RT	14	12	2	
		Palliative RT	20	7	13	
All treatments			414	190	224	

Table 21a: Number of systemic treatments by regimen, therapeutic subgroups and administered drugs according to place in therapy in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Year	Regimen	Systemic therapy					Therapeutic subgroup	Systemic therapy					Drug	Systemic therapy				
		Neoadjuvant	Adjuvant	First line	Second line	Subsequent lines		Neoadjuvant	Adjuvant	First line	Second line	Subsequent lines		Neoadjuvant	Adjuvant	First line	Second line	Subsequent lines
2018	Anti PD-1	0	25	32	5	4	Anti PD-1	0	25	32	5	4	Nivolumab Pembrolizumab	0 0	16 9	3 29	0 5	1 3
	BRAF in MEK inhibitors	0	5	21	4	4	BRAF inhibitors	0	5	21	4	4	Dabrafenib Vemurafenib	0 0	5 0	20 1	4 0	1 3
							MEK inhibitors	0	5	21	4	4	Cobimetinib Trametinib	0 0	0 5	1 20	0 4	3 1
	Combination immunotherapy	0	0	2	7	1	Anti CTLA-4	0	0	2	7	1	Ipilimumab	0	0	2	7	1
							Anti PD-1	0	0	2	7	1	Nivolumab	0	0	2	7	1
	Combination chemotherapy	0	0	1	3	6	Nitrosourea analogues	0	0	0	0	2	Lomustine	0	0	0	0	2
							Platinum analogues	0	0	1	3	6	Cisplatin Carboplatin	0 0	0 0	0 1	0 3	2 4
							Taxanes	0	0	1	3	4	Paclitaxel	0	0	1	3	4
							Vinca alkaloids	0	0	0	0	2	Vinblastine	0	0	0	0	2
	Monochemotherapy	0	0	2	9	1	Alkylating agents	0	0	2	9	1	Dakarbazine Temozolomide	0 0	0 0	2 0	8 1	1 1
All	0	30	58	28	16	All	0	35	82	42	29	All	0	35	82	41	29	
2019	Anti PD-1	0	38	20	7	1	Anti PD-1	0	38	20	7	1	Nivolumab Pembrolizumab	0 0	22 16	3 18	5 2	0 1
	BRAF in MEK inhibitors	0	25	19	6	3	BRAF inhibitors	0	25	19	6	3	Dabrafenib Vemurafenib	0 0	25 0	16 3	5 2	2 1
							MEK inhibitors	0	25	19	6	3	Cobimetinib Trametinib	0 0	0 25	3 16	2 5	1 2
	BRAF inhibitors	0	0	0	0	1	BRAF inhibitors	0	0	0	0	1	Dabrafenib	0	0	0	0	1
	Other combination of therapies	0	0	0	0	1	Anti PD-1	0	0	0	0	1	Pembrolizumab	0	0	0	0	1
							Other protein kinase inhibitors	0	0	0	0	1	Lenvatinib	0	0	0	0	1
	Combination immunotherapy	1	0	8	7	2	Anti CTLA-4	1	0	8	7	2	Ipilimumab	1	0	8	7	2
							Anti PD-1	1	0	8	7	2	Nivolumab	1	0	8	7	2
	Combination chemotherapy	0	0	1	0	5	Platinum analogues	0	0	1	0	5	Carboplatin	0	0	1	0	5
							Taxanes	0	0	1	0	5	Paclitaxel	0	0	1	0	5
Monochemotherapy	0	0	5	8	3	Alkylating agents	0	0	5	8	3	Dakarbazine Temozolomide	0 0	0 0	4 1	8 0	3 0	
All	1	63	53	28	16	All	2	88	81	41	27	All	2	88	81	43	27	
2020	Anti PD-1	0	34	18	1	0	Anti PD-1	0	34	18	1	0	Nivolumab Pembrolizumab	0 0	11 23	2 16	0 1	0 0
	BRAF in MEK inhibitors	0	9	8	4	0	BRAF inhibitors	0	9	8	4	0	Dabrafenib Vemurafenib	0 0	9 0	6 2	4 0	0 0
							MEK inhibitors	0	9	8	4	0	Cobimetinib Trametinib	0 0	0 9	2 6	0 4	0 0
	Combination immunotherapy	0	0	6	4	0	Anti CTLA-4	0	0	6	4	0	Ipilimumab	0	0	6	4	0
							Anti PD-1	0	0	6	4	0	Nivolumab	0	0	6	4	0
	Combination chemotherapy	0	0	0	2	1	Platinum analogues	0	0	0	2	1	Carboplatin	0	0	0	2	1
							Taxanes	0	0	0	2	1	Paclitaxel	0	0	0	2	1
	Monochemotherapy	0	0	5	3	2	Alkylating agents	0	0	5	3	2	Dakarbazine Temozolomide	0 0	0 0	5 1	3 0	2 0
All	0	43	37	14	3	All	0	52	51	24	4	All	0	52	51	24	4	

Continued. —>

Table 21a: Continued.

Year	Regimen	Systemic therapy					Therapeutic subgroup	Systemic therapy					Drug	Systemic therapy				
		Neoadjuvant	Adjuvant	First line	Second line	Subsequent lines		Neoadjuvant	Adjuvant	First line	Second line	Subsequent lines		Neoadjuvant	Adjuvant	First line	Second line	Subsequent lines
2021	Anti PD-1	2	47	24	2	2	Anti PD-1	2	47	24	2	2	Nivolumab Pembrolizumab	0 2	9 38	1 23	1 1	1 1
	BRAF in MEK inhibitors	2	15	10	5	3	BRAF inhibitors	2	15	10	5	3	Dabrafenib Vemurafenib	2 0	15 0	10 0	5 0	2 1
							MEK inhibitors	2	15	10	5	3	Cobimetinib Trametinib	0 2	0 15	0 10	0 5	1 2
	Other combination of therapies	1	0	1	0	0	Anti CTLA-4	0	0	1	0	0	Ipilimumab	0	0	1	0	0
							Anti PD-1	1	0	1	0	0	Nivolumab Pembrolizumab	0 1	0 0	1 0	0 0	0 0
							BRAF inhibitors	1	0	1	0	0	Dabrafenib	1	0	1	0	0
							MEK inhibitors	1	0	1	0	0	Trametinib	1	0	1	0	0
	Combination immunotherapy	0	0	5	5	2	Anti CTLA-4	0	0	5	5	2	Ipilimumab	0	0	5	5	2
							Anti PD-1	0	0	5	5	2	Nivolumab	0	0	5	5	2
	Combination chemotherapy	0	0	0	0	1	Platinum analogues	0	0	0	0	1	Carboplatin	0	0	0	0	1
Taxanes							0	0	0	0	1	Paclitaxel	0	0	0	0	1	
Monochemotherapy	0	0	0	4	0	Alkylating agents	0	0	0	4	0	Dakarbazinee	0	0	0	4	0	
All	5	62	40	16	8	All	9	77	58	26	14	All	9	77	58	26	14	
2022	Anti PD-1	2	51	21	1	1	Anti PD-1	2	51	21	1	1	Nivolumab Pembrolizumab	0 2	2 49	1 20	1 0	1 0
	BRAF in MEK inhibitors	0	7	4	3	0	BRAF inhibitors	0	7	4	3	0	Dabrafenib Vemurafenib	0 0	7 0	4 1	3 0	0 0
							MEK inhibitors	0	7	4	3	0	Cobimetinib Trametinib	0 0	0 7	1 4	0 3	0 0
	Combination immunotherapy	0	0	5	1	2	Anti CTLA-4	0	0	5	1	2	Ipilimumab	0	0	5	1	2
							Anti PD-1	0	0	5	1	2	Nivolumab	0	0	5	1	2
Monochemotherapy	0	0	0	2	0	Alkylating agents	0	0	0	2	0	Dakarbazinee	0	0	0	2	0	
All	2	58	30	7	3	All	2	65	39	11	5	All	2	65	41	11	5	
Mean of yearly values 2018–2022	Anti PD-1	0,8	39,0	23,0	3,2	1,6	Anti PD-1	0,8	39,0	23,0	3,2	1,6	Nivolumab Pembrolizumab	0,0 0,8	12,0 27,0	2,0 21,2	1,4 1,8	0,6 1,0
	BRAF in MEK inhibitors	0,4	12,2	12,4	4,4	2,0	BRAF inhibitors	0,4	12,2	12,4	4,4	2,0	Dabrafenib Vemurafenib	0,4 0,0	12,2 0,0	11,2 1,4	4,2 0,4	1,0 1,0
							MEK inhibitors	0,4	12,2	12,4	4,4	2,0	Cobimetinib Trametinib	0,0 0,4	0,0 12,2	1,4 11,2	0,4 4,2	1,0 1,0
	BRAF inhibitors	0,0	0,0	0,0	0,0	1,0	BRAF inhibitors	0,0	0,0	0,0	0,0	1,0	Dabrafenib	0,0	0,0	0,0	0,0	1,0
	Other combination of therapies	0,5	0,0	0,5	0,0	0,5	Anti CTLA-4	0,0	0,0	1,0	0,0	0,0	Ipilimumab	0,0	0,0	1,0	0,0	0,0
							Anti PD-1	0,5	0,0	0,5	0,0	0,5	Nivolumab Pembrolizumab	0,0 0,5	0,0 0,0	1,0 0,0	0,0 0,5	0,0 0,5
							BRAF inhibitors	1,0	0,0	1,0	0,0	0,0	Dabrafenib	1,0	0,0	1,0	0,0	0,0
							Other protein kinase inhibitors	0,0	0,0	0,0	0,0	1,0	Lenvatinib	0,0	0,0	0,0	0,0	1,0
	Combination immunotherapy	0,2	0,0	5,2	4,8	1,4	Anti CTLA-4	0,2	0,0	5,2	4,8	1,4	Ipilimumab	0,2	0,0	5,2	4,8	1,4
							Anti PD-1	0,2	0,0	5,2	4,8	1,4	Nivolumab	0,2	0,0	5,2	4,8	1,4
	Combination chemotherapy	0,0	0,0	0,5	1,3	3,3	Nitrosourea analogues	0,0	0,0	0,0	0,0	2,0	Lomustine	0,0	0,0	0,0	0,0	2,0
							Platinum analogues	0,0	0,0	0,5	1,3	3,3	Cisplatin Carboplatin	0,0 0,0	0,0 0,0	0,0 0,5	0,0 1,3	2,0 2,8
Taxanes							0,0	0,0	0,5	1,3	2,8	Paclitaxel	0,0	0,0	0,5	1,3	2,8	
Vinca alcaloids							0,0	0,0	0,0	0,0	2,0	Vinblastinee	0,0	0,0	0,0	0,0	2,0	
Monochemotherapy	0,0	0,0	2,4	5,2	1,2	Alkylating agents	0,0	0,0	2,4	5,2	1,2	Dakarbazinee Temozolomidee	0,0 0,0	0,0 0,0	2,2 0,5	5,0 0,5	1,2 0,5	
All	1,9	51,2	44,0	18,9	11,0	All	4,5	63,4	65,1	29,3	22,1	All	4,5	63,4	66,5	30,0	24,1	

Table 21b: Number of systemic treatments by regimen, therapeutic subgroups and administered drugs by treatment indication in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Year	Place in therapy	Regimen	Treatment indication		Therapeutic subgroup	Treatment indication		Drug	Treatment indication	
			Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence
2018	Neoadjuvant	/	/	/	/	/	/	/	/	/
	Adjuvant	Anti PD-1	17	8	Anti PD-1	17	8	Nivolumab Pembrolizumab	14 3	2 6
		BRAF in MEK inhibitors	3	2	BRAF inhibitors MEK inhibitors	3 3	2 2	Dabrafenib Trametinib	3 3	2 2
	First line	Anti PD-1	10	22	Anti PD-1	10	22	Nivolumab Pembrolizumab	1 9	2 20
		BRAF in MEK inhibitors	7	14	BRAF inhibitors	7	14	Dabrafenib Vemurafenib	7 0	13 1
					MEK inhibitors	7	14	Cobimetinib Trametinib	0 7	1 13
		Combination immunotherapy	0	2	Anti CTLA-4	0	2	Ipilimumab	0	2
					Anti PD-1	0	2	Nivolumab	0	2
		Combination chemotherapy	1	0	Platinum analogues	1	0	Carboplatin	1	0
					Taxanes	1	0	Paclitaxel	1	0
	Monochemotherapy	0	2	Alkylating agents	0	2	Dakarbazinee	0	2	
	Second line	Anti PD-1	0	5	Anti PD-1	0	5	Pembrolizumab	0	5
		BRAF in MEK inhibitors	0	4	BRAF inhibitors	0	4	Dabrafenib	0	4
					MEK inhibitors	0	4	Trametinib	0	4
		Combination immunotherapy	0	7	Anti CTLA-4	0	7	Ipilimumab	0	7
					Anti PD-1	0	7	Nivolumab	0	7
		Combination chemotherapy	0	3	Platinum analogues	0	3	Carboplatin	0	3
					Taxanes	0	3	Paclitaxel	0	3
	Monochemotherapy	0	9	Alkylating agents	0	9	Dakarbazinee	0	8	
							Temozolomidee	0	1	
	Subsequent lines	Anti PD-1	0	4	Anti PD-1	0	4	Nivolumab	0	1
								Pembrolizumab	0	3
		BRAF in MEK inhibitors	0	4	BRAF inhibitors	0	4	Dabrafenib Vemurafenib	0 0	1 3
								MEK inhibitors	0	4
		Combination immunotherapy	0	1	Anti CTLA-4	0	1			
					Anti PD-1	0	1	Nivolumab	0	1
		Combination chemotherapy	0	6	Nitrosourea analogues	0	2	Lomustine	0	2
					Platinum analogues	0	6	Cisplatin Carboplatin	0 0	2 4
					Taxanes	0	4	Paclitaxel	0	4
					Vinca alkaloids	0	2	Vinblastinee	0	2
	Monochemotherapy	0	1	Alkylating agents	0	1	Dakarbazinee Temozolomidee	0 0	1 1	
	All	All	38	94	All	49	139	All	49	140
	2019	Neoadjuvant	Combination immunotherapy	0	1	Anti CTLA-4 Anti PD-1	0 0	1 1	Ipilimumab Nivolumab	0 0
Adjuvant		Anti PD-1	26	12	Anti PD-1	26	12	Nivolumab Pembrolizumab	16 10	6 6
		BRAF in MEK inhibitors	23	2	BRAF inhibitors	23	2	Dabrafenib	23	2
MEK inhibitors					23	2	Trametinib	23	2	

Continued. —>

Table 21b: Continued.

Year	Place in therapy	Regimen	Treatment indication		Therapeutic subgroup	Treatment indication		Drug	Treatment indication		
			Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence	
2019	First line	Anti PD-1	5	15	Anti PD-1	5	15	Nivolumab Pembrolizumab	0 5	3 13	
		BRAF in MEK inhibitors	7	12	BRAF inhibitors	7	12	Dabrafenib Vemurafenib	5 2	11 1	
					MEK inhibitors	7	12	Cobimetinib Trametinib	2 5	1 11	
		Combination immunotherapy	1	7	Anti CTLA-4	1	7	Ipilimumab	1	7	
					Anti PD-1	1	7	Nivolumab	1	7	
		Combination chemotherapy	1	0	Platinum analogues	1	0	Carboplatin	1	0	
	Taxanes				1	0	Paclitaxel	1	0		
	Monochemotherapy	1	4	Alkylating agents	1	4	Dakarbazinee Temozolomidee	1 0	3 1		
							Anti PD-1	0	7	Anti PD-1	0
	Second line	BRAF in MEK inhibitors	0	6	BRAF inhibitors	0	6	Dabrafenib Vemurafenib	0 0	5 2	
					MEK inhibitors	0	6	Cobimetinib Trametinib	0 0	2 5	
	Combination immunotherapy	0	7	Anti CTLA-4	0	7	Ipilimumab	0	7		
				Anti PD-1	0	7	Nivolumab	0	7		
	Monochemotherapy	0	8	Alkylating agents	0	8	Dakarbazinee	0	8		
							Anti PD-1	0	1	Anti PD-1	0
	Subsequent lines	BRAF in MEK inhibitors	0	3	BRAF inhibitors	0	3	Dabrafenib Vemurafenib	0 0	2 1	
					MEK inhibitors	0	3	Cobimetinib Trametinib	0 0	1 2	
		BRAF inhibitors	0	1	BRAF inhibitors	0	1	Dabrafenib	0	1	
		Other combination of therapies	0	1	Anti PD-1	0	1	Pembrolizumab	0	1	
					Other protein kinase inhibitors	0	1	Lenvatinib	0	1	
		Combination immunotherapy	0	2	Anti CTLA-4	0	2	Ipilimumab	0	2	
					Anti PD-1	0	2	Nivolumab	0	2	
		Combination chemotherapy	0	5	Platinum analogues	0	5	Carboplatin	0	5	
					Taxanes	0	5	Paclitaxel	0	5	
		Monochemotherapy	0	3	Alkylating agents	0	3	Dakarbazinee Temozolomidee	0 0	3 1	
	All							64	96	All	96
	2020	Neoadjuvant	/	/	/	/	/	/	/	/	
		Adjuvant	Anti PD-1	30	4	Anti PD-1	30	4	Nivolumab Pembrolizumab	8 22	3 1
			BRAF in MEK inhibitors	9	0	BRAF inhibitors	9	0	Dabrafenib	9	0
		MEK inhibitors				9	0	Trametinib	9	0	
First line		Anti PD-1	4	14	Anti PD-1	4	14	Nivolumab Pembrolizumab	0 4	2 12	
		BRAF in MEK inhibitors	4	4	BRAF inhibitors	4	4	Dabrafenib Vemurafenib	3 1	3 1	
					MEK inhibitors	4	4	Cobimetinib Trametinib	1 3	1 3	
		Combination immunotherapy	2	4	Anti CTLA-4	2	4	Ipilimumab	2	4	
					Anti PD-1	2	4	Nivolumab	2	4	
Monochemotherapy		0	5	Alkylating agents	0	5	Dakarbazinee	0	5		

Continued. —>

Table 21b: Continued.

Year	Place in therapy	Regimen	Treatment indication		Therapeutic subgroup	Treatment indication		Drug	Treatment indication	
			Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence
2020	Second line	Anti PD-1	0	1	Anti PD-1	0	1	Pembrolizumab	0	1
		BRAF in MEK inhibitors	0	4	BRAF inhibitors	0	4	Dabrafenib	0	4
					MEK inhibitors	0	4	Trametinib	0	4
		Combination immunotherapy	0	4	Anti CTLA-4	0	4	Ipilimumab	0	4
					Anti PD-1	0	4	Nivolumab	0	4
	Combination chemotherapy	0	2	Platinum analogues	0	2	Carboplatin	0	2	
				Taxanes	0	2	Paclitaxel	0	2	
	Monochemotherapy	0	3	Alkylating agents	0	3	Dakarbazinee	0	3	
	Subsequent lines	Combination chemotherapy	0	1	Platinum analogues	0	1	Carboplatin	0	1
					Taxanes	0	1	Paclitaxel	0	1
Monochemotherapy		0	2	Alkylating agents	0	2	Dakarbazinee	0	2	
All	49	48	All	64	67	All	64	67		
2021	Neoadjuvant	Anti PD-1	1	1	Anti PD-1	1	1	Pembrolizumab	1	1
		BRAF in MEK inhibitors	1	1	BRAF inhibitors	1	1	Dabrafenib	1	1
					MEK inhibitors	1	1	Trametinib	1	1
		Other combination of therapies	0	1	Anti PD-1	0	1	Pembrolizumab	0	1
	BRAF inhibitors				0	1	Dabrafenib	0	1	
	MEK inhibitors				0	1	Trametinib	0	1	
	Adjuvant	Anti PD-1	43	4	Anti PD-1	43	4	Nivolumab Pembrolizumab	9 34	0 4
		BRAF in MEK inhibitors	14	1	BRAF inhibitors	14	1	Dabrafenib	14	1
	MEK inhibitors				14	1	Trametinib	14	1	
	First line	Anti PD-1	15	9	Anti PD-1	15	9	Nivolumab Pembrolizumab	0 15	1 8
					BRAF in MEK inhibitors	6	4	BRAF inhibitors MEK inhibitors	6 6	4 4
		Other combination of therapies	1	0	Anti CTLA-4	1	0	Ipilimumab	1	0
					Anti PD-1	1	0	Nivolumab	1	0
					BRAF inhibitors MEK inhibitors	1 1	0 0	Dabrafenib Trametinib	1 1	0 0
		Combination immunotherapy	4	1	Anti CTLA-4	4	1	Ipilimumab	4	1
					Anti PD-1	4	1	Nivolumab	4	1
	Second line	Anti PD-1	0	2	Anti PD-1	0	2	Nivolumab Pembrolizumab	0 0	1 1
		BRAF in MEK inhibitors	0	5	BRAF inhibitors	0	5	Dabrafenib	0	5
					MEK inhibitors	0	5	Trametinib	0	5
		Combination immunotherapy	0	5	Anti CTLA-4	0	5	Ipilimumab	0	5
					Anti PD-1	0	5	Nivolumab	0	5
	Monochemotherapy	0	4	Alkylating agents	0	4	Dakarbazinee	0	4	
	Subsequent lines	Anti PD-1	0	2	Anti PD-1	0	2	Nivolumab Pembrolizumab	0 0	1 1
		BRAF in MEK inhibitors	0	3	BRAF inhibitors	0	3	Dabrafenib Vemurafenib	0 0	2 1
					MEK inhibitors	0	3	Cobimetinib Trametinib	0 0	1 2
		Combination immunotherapy	0	2	Anti CTLA-4	0	2	Ipilimumab	0	2
					Anti PD-1	0	2	Nivolumab	0	2
Combination chemotherapy		0	1	Platinum analogues	0	1	Carboplatin	0	1	
	Taxanes			0	1	Paclitaxel	0	1		
All	All	83	43	All	110	65	All	110	65	

Continued. —>

Table 21b: Continued.

Year	Place in therapy	Regimen	Treatment indication		Therapeutic subgroup	Treatment indication		Drug	Treatment indication	
			Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence
2022	Neoadjuvant	Anti PD-1	0	2	Anti PD-1	0	2	Pembrolizumab	0	2
	Adjuvant	Anti PD-1	46	5	Anti PD-1	46	5	Nivolumab Pembrolizumab	2 44	0 5
		BRAF in MEK inhibitors	6	1	BRAF inhibitors MEK inhibitors	6 6	1 1	Dabrafenib Trametinib	6 6	1 1
	First line	Anti PD-1	11	10	Anti PD-1	11	10	Nivolumab Pembrolizumab	0 11	1 9
		BRAF in MEK inhibitors	1	3	BRAF inhibitors	1	3	Dabrafenib Vemurafenib	1 0	3 1
					MEK inhibitors	1	3	Cobimetinib Trametinib	0 1	1 3
	Combination immunotherapy	3	2	Anti CTLA-4 Anti PD-1	3 3	2 2	Ipilimumab Nivolumab	3 3	2 2	
	Second line	Anti PD-1	0	1	Anti PD-1	0	1	Nivolumab	0	1
		BRAF in MEK inhibitors	0	3	BRAF inhibitors	0	3	Dabrafenib	0	3
					MEK inhibitors	0	3	Trametinib	0	3
		Combination immunotherapy	0	1	Anti CTLA-4	0	1	Ipilimumab	0	1
	Anti PD-1				0	1	Nivolumab	0	1	
	Monochemotherapy	0	2	Alkylating agents	0	2	Dakarbazinee	0	2	
	Subsequent lines	Anti PD-1	0	1	Anti PD-1	0	1	Nivolumab	0	1
		Combination immunotherapy	0	2	Anti CTLA-4	0	2	Ipilimumab	0	2
					Anti PD-1	0	2	Nivolumab	0	2
	All	All	67	33	All	77	45	All	77	47
Mean of yearly values 2018–2022	Neoadjuvant	Anti PD-1	0,5	1,5	Anti PD-1	0,5	1,5	Pembrolizumab	0,5	1,5
		BRAF in MEK inhibitors	1,0	1,0	BRAF inhibitors	1,0	1,0	Dabrafenib	1,0	1,0
					MEK inhibitors	1,0	1,0	Trametinib	1,0	1,0
					Other combination of therapies	0,0	1,0	Anti PD-1 BRAF inhibitors MEK inhibitors	0,0 0,0 13,0	1,0 1,0 6,5
	Combination immunotherapy	0,0	1,0	Anti CTLA-4 Anti PD-1	0,0 0,0	1,0 1,0	Ipilimumab Nivolumab	0,0 0,0	1,0 1,0	
	Adjuvant	Anti PD-1	32,4	6,6	Anti PD-1	32,4	6,6	Nivolumab Pembrolizumab	9,8 22,6	2,2 4,4
		BRAF in MEK inhibitors	11,0	1,2	BRAF inhibitors	11,0	1,2	Dabrafenib	11,0	1,2
	MEK inhibitors				11,0	1,2	Trametinib	11,0	1,2	
	First line	Anti PD-1	9,0	14,0	Anti PD-1	9,0	14,0	Nivolumab Pembrolizumab	0,2 8,8	1,8 12,4
		BRAF in MEK inhibitors	5,0	7,4	BRAF inhibitors	5,0	7,4	Dabrafenib Vemurafenib	4,4 1,8	6,8 1,6
					MEK inhibitors	5,0	7,4	Cobimetinib Trametinib	0,8 4,4	1,0 6,8
		Other combination of therapies	1,0	0,0	Anti CTLA-4	1,0	0,0	Ipilimumab	1,0	0,0
					Anti PD-1	1,0	0,0	Nivolumab	1,0	0,0
					BRAF inhibitors	1,0	0,0	Dabrafenib	1,0	0,0
					MEK inhibitors	1,0	0,0	Trametinib	1,0	0,0
		Combination immunotherapy	2,0	3,2	Anti CTLA-4	2,0	3,2	Ipilimumab	2,0	3,2
	Anti PD-1				2,0	3,2	Nivolumab	2,0	3,2	
	Combination chemotherapy	1,0	0,0	Platinum analogues	1,0	0,0	Carboplatin	1,0	0,0	
				Taxanes	1,0	0,0	Paclitaxel	1,0	0,0	
	Monochemotherapy	0,3	3,7	Alkylating agents	0,3	3,7	Dakarbazinee Temozolomidee	0,3 0,0	3,3 1,0	

Continued. —>

Table 21b: Continued.

Year	Place in therapy	Regimen	Treatment indication		Therapeutic subgroup	Treatment indication		Drug	Treatment indication		
			Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence		Primary treatment	Treatment of recurrence	
Mean of yearly values 2018–2022	Second line	Anti PD-1	0,0	3,2	Anti PD-1	0,0	3,2	Nivolumab Pembrolizumab	0,0 0,0	2,3 2,3	
		BRAF in MEK inhibitors	0,0	4,4	BRAF inhibitors	0,0	4,4	Dabrafenib Vemurafenib	0,0 0,0	4,2 1,5	
					MEK inhibitors	0,0	4,4	Cobimetinib Trametinib	0,0 0,0	1,5 4,2	
		Combination immunotherapy	0,0	4,8	Anti CTLA-4	0,0	4,8	Ipilimumab	0,0	4,8	
					Anti PD-1	0,0	4,8	Nivolumab	0,0	4,8	
		Combination chemotherapy	0,0	2,5	Platinum analogues	0,0	2,5	Carboplatin	0,0	2,5	
					Taxanes	0,0	2,5	Paclitaxel	0,0	2,5	
		Monochemotherapy	0,0	5,2	Alkylating agents	0,0	5,2	Dakarbazinee Temozolomidee	0,0 0,0	5,0 1,0	
		Subsequent lines	Anti PD-1	0,0	2,0	Anti PD-1	0,0	2,0	Nivolumab Pembrolizumab	0,0 0,0	1,0 1,7
			BRAF in MEK inhibitors	0,0	3,3	BRAF inhibitors	0,0	3,3	Dabrafenib Vemurafenib	0,0 0,0	1,7 1,7
	MEK inhibitors					0,0	3,3	Cobimetinib Trametinib	0,0 0,0	1,7 1,7	
	BRAF inhibitors		0,0	1,0	BRAF inhibitors	0,0	1,0	Dabrafenib	0,0	1,0	
	Other combination of therapies		0,0	1,0	Anti PD-1	0,0	1,0	Pembrolizumab	0,0	1,0	
					Other protein kinase inhibitors	0,0	1,0	Lenvatinib	0,0	1,0	
	Combination immunotherapy		0,0	1,8	Anti CTLA-4	0,0	1,8	Ipilimumab	0,0	1,8	
					Anti PD-1	0,0	1,8	Nivolumab	0,0	1,8	
	Combination chemotherapy		0,0	3,3	Nitrosourea analogues	0,0	2,0	Lomustine	0,0	2,0	
					Platinum analogues	0,0	3,3	Cisplatin Carboplatin	0,0 0,0	2,0 2,8	
					Taxanes	0,0	2,8	Paclitaxel	0,0	2,8	
					Vinca alkaloids	0,0	2,0	Vinblastinee	0,0	2,0	
	Monochemotherapy		0,0	2,0	Alkylating agents	0,0	2,0	Dakarbazinee Temozolomidee	0,0 0,0	2,0 1,0	
	All		63,2	75,0	All	99,2	120,8	All	95,6	128,1	

Table 21c: Number of systemic treatments by treatment type, medication group and administered medication by UICC stage at diagnosis in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Stage	Place in therapy	Regimen	Year					Therapeutic subgroup	Year					Drug	Year								
			2018	2019	2020	2021	2022		Mean of yearly values 2018–2022	2018	2019	2020	2021		2022	Mean of yearly values 2018–2022	2018	2019	2020	2021	2022	Mean of yearly values 2018–2022	
IA	Neoadjuvant	Anti PD-1	0	0	0	1	0	0,2	Anti PD-1	0	0	0	1	0	0,2	Pembrolizumab	0	0	0	1	0	0,2	
		BRAF in MEK inhibitors	0	0	0	1	0	0,2	BRAF inhibitors	0	0	0	1	0	0,2	Dabrafenib	0	0	0	1	0	0,2	
	Adjuvant	Anti PD-1	1	1	0	0	0	0,4	Anti PD-1	1	1	0	0	0	0,4	Pembrolizumab	1	1	0	0	0	0,4	
		First line	Anti PD-1	1	0	1	0	0	0,4	Anti PD-1	1	0	1	0	0	0,4	Pembrolizumab	1	0	1	0	0	0,4
			BRAF in MEK inhibitors	2	2	0	0	0	0,8	BRAF inhibitors	2	2	0	0	0	0,8	Dabrafenib	1	2	0	0	0	0,6
	Second line	Combination immunotherapy	MEK inhibitors	2	2	0	0	0	0,8	MEK inhibitors	2	2	0	0	0	0,8	Vemurafenib	1	0	0	0	0	0,2
			Cobimetinib	1	0	0	0	0	0,2	Trametinib	1	2	0	0	0	0,6	Trametinib	1	2	0	0	0	0,6
		Anti CTLA-4	0	1	0	0	0	0,2	Anti CTLA-4	0	1	0	0	0	0,2	Ipilimumab	0	1	0	0	0	0,2	
	Subsequent lines (3+)	Monochemotherapy	Anti PD-1	0	1	0	0	0	0,2	Anti PD-1	0	1	0	0	0	0,2	Nivolumab	0	1	0	0	0	0,2
			Alkylating agents	1	0	0	0	0	0,2	Alkylating agents	1	0	0	0	0	0,2	Pembrolizumab	0	1	0	0	0	0,2
All	All	5	6	1	2	0	2,8	All	7	9	1	3	0	4,0	All	7	9	1	3	0	4,0		
IB	Neoadjuvant	Anti PD-1	0	0	0	0	1	0,2	Anti PD-1	0	0	0	0	1	0,2	Pembrolizumab	0	0	0	0	1	0,2	
	Adjuvant	Anti PD-1	0	2	0	0	1	0,6	Anti PD-1	0	2	0	0	1	0,6	Nivolumab	0	2	0	0	0	0,4	
		BRAF in MEK inhibitors	1	0	0	0	0	0,2	BRAF inhibitors	1	0	0	0	0	0,2	Pembrolizumab	0	0	0	0	1	0,2	
	First line	Combination immunotherapy	MEK inhibitors	1	0	0	0	0,2	MEK inhibitors	1	0	0	0	0,2	Dabrafenib	1	0	0	0	0	0,2		
			Trametinib	1	0	0	0	0	0,2	Trametinib	1	0	0	0	0	0,2	Trametinib	1	0	0	0	0	0,2
		Anti PD-1	1	2	0	0	0	0,6	Anti PD-1	1	2	0	0	0	0,6	Nivolumab	0	1	0	0	0	0,2	
	Second line	Combination immunotherapy	Pembrolizumab	1	2	0	0	0,6	Pembrolizumab	1	2	0	0	0	0,6	Pembrolizumab	1	2	0	0	0	0,6	
			Dabrafenib	0	1	0	0	0	0,2	Dabrafenib	0	1	0	0	0	0,2	Dabrafenib	0	1	0	0	0	0,2
		BRAF in MEK inhibitors	0	1	0	0	0	0,2	BRAF inhibitors	0	1	0	0	0	0,2	Trametinib	0	1	0	0	0	0,2	
	Subsequent lines (3+)	Combination immunotherapy	MEK inhibitors	0	1	0	0	0	0,2	MEK inhibitors	0	1	0	0	0	0,2	Dabrafenib	0	1	0	0	0	0,2
Trametinib			0	1	0	0	0	0,2	Trametinib	0	1	0	0	0	0,2	Trametinib	0	1	0	0	0	0,2	
Anti CTLA-4		0	1	0	0	0	0,2	Anti CTLA-4	0	1	0	0	0	0,2	Ipilimumab	0	1	0	0	0	0,2		
All	All	2	8	0	0	2	2,4	All	3	11	0	0	2	3,2	All	3	12	0	0	2	3,4		
IIA	Neoadjuvant	Combination immunotherapy	0	1	0	0	0	0,2	Anti CTLA-4	0	1	0	0	0	0,2	Ipilimumab	0	1	0	0	0	0,2	
	Adjuvant	Anti PD-1	Anti PD-1	0	1	0	0	0,2	Anti PD-1	0	1	0	0	0	0,2	Nivolumab	0	1	0	0	0	0,2	
			Nivolumab	1	2	0	0	0	0,6	Nivolumab	1	2	0	0	0	0,6	Nivolumab	1	2	0	0	0	0,6
	First line	Combination immunotherapy	Pembrolizumab	2	0	0	1	1	1,4	Pembrolizumab	2	0	0	1	1	1,4	Pembrolizumab	2	0	0	1	1	0,8
			Trametinib	1	1	2	0	0	0,8	Trametinib	1	1	2	0	0	0,8	Pembrolizumab	1	1	2	0	0	0,8
		BRAF in MEK inhibitors	3	0	1	0	0	0,8	BRAF inhibitors	3	0	1	0	0	0,8	Dabrafenib	3	0	0	0	0	0,6	
	Second line	Combination immunotherapy	Vemurafenib	0	0	1	0	0	0,2	Vemurafenib	0	0	1	0	0	0,2	Vemurafenib	0	0	1	0	0	0,2
			Trametinib	3	0	0	0	0	0,6	Trametinib	3	0	0	0	0	0,6	Trametinib	3	0	0	0	0	0,6
		Anti CTLA-4	0	1	0	0	1	0,4	Anti CTLA-4	0	1	0	0	1	0,4	Ipilimumab	0	1	0	0	1	0,4	
	Subsequent lines (3+)	Monochemotherapy	Anti PD-1	0	1	0	0	0	0,2	Anti PD-1	0	1	0	0	0	0,2	Nivolumab	0	1	0	0	1	0,4
Nivolumab			0	1	0	0	0	0,2	Nivolumab	0	1	0	0	0	0,2	Nivolumab	0	1	0	0	0	0,2	
Anti PD-1		0	0	1	0	0	0,2	Anti PD-1	0	0	1	0	0	0,2	Pembrolizumab	0	0	1	0	0	0,2		
All	All	10	9	4	1	2	5,2	All	16	12	5	1	3	7,4	All	16	12	5	1	3	7,4		

Continued. —>

Table 21c: Continued.

Stage	Place in therapy	Regimen	Year					Therapeutic subgroup	Year					Drug	Year							
			2018	2019	2020	2021	2022		Mean of yearly values 2018–2022	2018	2019	2020	2021		2022	Mean of yearly values 2018–2022	2018	2019	2020	2021	2022	Mean of yearly values 2018–2022
IIB	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
	Adjuvant	Anti PD-1	0	2	2	0	6	2,0	Anti PD-1	0	2	2	0	6	2,0	Nivolumab Pembrolizumab	0 0	0 2	1 1	0 0	0 6	0 1,8
		BRAF in MEK inhibitors	0	1	0	0	0	0,2	BRAF inhibitors MEK inhibitors	0 0	1 1	0 0	0 0	0 0	0,2 0,2	Dabrafenib Trametinib	0 0	1 1	0 0	0 0	0 0	0,2 0,2
	First line	Anti PD-1	2	4	2	0	2	2,0	Anti PD-1	2	4	2	0	2	2,0	Nivolumab Pembrolizumab	0 2	1 3	0 2	0 2	0 2	0,2 1,8
		BRAF in MEK inhibitors	2	1	0	0	1	0,8	BRAF inhibitors	2	1	0	0	1	0,8	Dabrafenib Vemurafenib	2 0	1 0	0 0	0 0	1 1	0,8 0,2
									MEK inhibitors	2	1	0	0	1	0,8	Cobimetinib Trametinib	0 2	0 1	0 0	0 0	1 1	0,2 0,8
									Anti CTLA-4 Anti PD-1	1 1	0 0	1 1	0 0	0 0	0,4 0,4	Ipilimumab Nivolumab	1 1	0 0	1 1	0 0	0 0	0,4 0,4
	Combination immunotherapy	1	0	1	0	0	0,4	Anti CTLA-4 Anti PD-1	1 1	0 0	1 1	0 0	0 0	0,4 0,4	Ipilimumab Nivolumab	1 1	0 0	1 1	0 0	0 0	0,4 0,4	
	Second line	Anti PD-1	1	1	0	0	0	0,4	Anti PD-1	1	1	0	0	0	0,4	Nivolumab Pembrolizumab	0 1	1 0	0 0	0 0	0 0	0,2 0,2
		BRAF in MEK inhibitors	0	1	0	0	0	0,2	BRAF inhibitors	0	1	0	0	0	0,2	Dabrafenib Vemurafenib	0 0	1 1	0 0	0 0	0 0	0,2 0,2
									MEK inhibitors	0	1	0	0	0	0,2	Cobimetinib Trametinib	0 0	1 1	0 0	0 0	0 0	0,2 0,2
	Monochemotherapy	1	0	1	0	0	0,4	Alkylating agents	1	0	1	0	0	0,4	Dakarbazine	1	0	1	0	0	0,4	
	Subsequent lines (3+)	BRAF in MEK inhibitors	1	0	0	0	0	0,2	BRAF inhibitors	1	0	0	0	0	0,2	Vemurafenib	1	0	0	0	0	0,2
									MEK inhibitors	1	0	0	0	0	0,2	Cobimetinib	1	0	0	0	0	0,2
All	All	8	10	6	0	9	6,6	All	11	13	7	0	10	8,2	All	11	15	7	0	12	9,0	
IIC	Neoadjuvant	Anti PD-1	0	0	0	0	1	0,2	Anti PD-1	0	0	0	0	1	0,2	Pembrolizumab	0	0	0	0	1	0,2
		Druga kombinacija terapij	0	0	0	1	0	0,2	Anti PD-1	0	0	0	1	0	0,2	Pembrolizumab	0	0	0	1	0	0,2
									BRAF inhibitors	0	0	0	1	0	0,2	Dabrafenib	0	0	0	1	0	0,2
									MEK inhibitors	0	0	0	1	0	0,2	Trametinib	0	0	0	1	0	0,2
	Adjuvant	Anti PD-1	4	1	0	0	6	2,2	Anti PD-1	4	1	0	0	6	2,2	Nivolumab Pembrolizumab	1 3	0 1	0 0	0 6	0 2,0	
		BRAF in MEK inhibitors	1	0	0	0	0	0,2	BRAF inhibitors MEK inhibitors	1 1	0 0	0 0	0 0	0,2 0,2	Dabrafenib Trametinib	1 1	0 0	0 0	0 0	0,2 0,2		
	First line	Anti PD-1	1	2	2	4	2	2,2	Anti PD-1	1	2	2	4	2	2,2	Nivolumab Pembrolizumab	0 1	0 2	0 2	1 3	1 1	0,4 1,8
		BRAF in MEK inhibitors	1	1	0	0	0	0,4	BRAF inhibitors	1	1	0	0	0	0,4	Dabrafenib	1	1	0	0	0	0,4
									MEK inhibitors	1	1	0	0	0	0,4	Trametinib	1	1	0	0	0	0,4
	Monochemotherapy	1	1	0	0	0	0,4	Alkylating agents	1	1	0	0	0	0,4	Dakarbazine	1	1	0	0	0	0,4	
	Second line	Anti PD-1	0	1	0	0	0	0,2	Anti PD-1	0	1	0	0	0	0,2	Nivolumab	0	1	0	0	0	0,2
		Combination immunotherapy	1	0	0	0	0	0,2	Anti CTLA-4	1	0	0	0	0	0,2	Ipilimumab	1	0	0	0	0	0,2
									Anti PD-1	1	0	0	0	0	0,2	Nivolumab	1	0	0	0	0	0,2
	Monochemotherapy	1	0	0	0	0	0,2	Alkylating agents	1	0	0	0	0	0,2	Dakarbazine	1	0	0	0	0	0,2	
Subsequent lines (3+)	Anti PD-1	1	0	0	0	0	0,2	Anti PD-1	1	0	0	0	0	0,2	Pembrolizumab	1	0	0	0	0	0,2	
	BRAF in MEK inhibitors	1	0	0	0	0	0,2	BRAF inhibitors	1	0	0	0	0	0,2	Vemurafenib	1	0	0	0	0	0,2	
								MEK inhibitors	1	0	0	0	0	0,2	Cobimetinib	1	0	0	0	0	0,2	
Combination chemotherapy	1	0	0	0	0	0,2	Platinum analogues Taxanes	1 1	0 0	0 0	0 0	0	0,2 0,2	Carboplatin Paclitaxel	1 1	0 0	0 0	0 0	0	0,2 0,2		
All	All	13	6	2	5	9	7,0	All	17	7	2	7	9	8,4	All	17	7	2	7	9	8,4	
IIIA	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
	Adjuvant	Anti PD-1	2	4	5	4	8	4,6	Anti PD-1	2	4	5	4	8	4,6	Nivolumab Pembrolizumab	1 1	0 4	0 5	0 4	1 7	0,4 4,2
		BRAF in MEK inhibitors	0	6	0	1	1	1,6	BRAF inhibitors MEK inhibitors	0 0	6 6	0 0	1 1	1	1,6 1,6	Dabrafenib Trametinib	0 0	6 6	0 0	1 1	1 1	1,6 1,6
	First line	Anti PD-1	2	0	0	1	0	0,6	Anti PD-1	2	0	0	1	0	0,6	Pembrolizumab	2	0	0	1	0	0,6
		BRAF in MEK inhibitors	0	0	1	0	0	0,2	BRAF inhibitors	0	0	1	0	0	0,2	Dabrafenib	0	0	1	0	0	0,2
									MEK inhibitors	0	0	1	0	0	0,2	Trametinib	0	0	1	0	0	0,2
									Anti CTLA-4 Anti PD-1	0 0	1 1	0 0	0 0	0	0,2 0,2	Ipilimumab Nivolumab	0 0	1 1	0 0	0 0	0	0,2 0,2
Monochemotherapy	0	0	1	0	0	0,2	Alkylating agents	0	0	1	0	0	0,2	Dakarbazine	0	0	1	0	0	0,2		

Continued. —>

Table 21c: Continued.

Stage	Place in therapy	Regimen	Year					Therapeutic subgroup	Year					Drug	Year																															
			2018	2019	2020	2021	2022		Mean of yearly values 2018–2022	2018	2019	2020	2021		2022	Mean of yearly values 2018–2022	2018	2019	2020	2021	2022	Mean of yearly values 2018–2022																								
IIIA	Second line	BRAF in MEK inhibitors	1	0	0	0	0	0,2	BRAF inhibitors	1	0	0	0	0	0,2	Dabrafenib	1	0	0	0	0	0,2	MEK inhibitors	1	0	0	0	0	0,2	Trametinib	1	0	0	0	0	0,2										
	Subsequent lines (3+)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/													
	All	All	5	11	7	6	9	7,6	All	6	18	8	7	10	9,8	All	6	18	8	7	10	9,8																								
IIIB	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/													
	Adjuvant	Anti PD-1	3	5	6	9	12	7,0	Anti PD-1	3	5	6	9	12	7,0	Nivolumab Pembrolizumab	3 0	4 1	1 5	2 7	0 12	2 12	0 5,0	BRAF in MEK inhibitors	1	7	1	1	3	2,6	Dabrafenib	1	7	1	1	3	2,6	Trametinib	1	7	1	1	3	2,6		
		First line	Anti PD-1	3	1	0	1	0	1,0	Anti PD-1	3	1	0	1	0	1,0	Nivolumab Pembrolizumab	1 2	0 1	0 0	0 1	0 0	0 0,8	0,2	BRAF in MEK inhibitors	2	2	0	0	1	1,0	Dabrafenib Vemurafenib	2 0	1 1	0 0	0 0	1 0	0,8	Cobimetinib Trametinib	0 2	1 1	0 0	0 0	1 1	0,2	0,2
	Second line	Anti PD-1	1	0	0	0	1	0,4	Anti PD-1	1	0	0	0	1	0,4	Nivolumab Pembrolizumab	0 1	0 0	0 0	0 0	1 0	0 0,2	MEK inhibitors	0	0	0	1	0	0,2	Dabrafenib	0	0	0	1	0	0,2	Trametinib	0	0	0	1	0	0,2			
		Combination immunotherapy	Anti CTLA-4	0	1	1	0	0	0,4	Anti CTLA-4	0	1	1	0	0	0,4	Ipilimumab	0	1	1	0	0	0,4	Anti PD-1	0	1	1	0	0	0,4	Nivolumab	0	1	1	0	0	0,4									
			Combination chemotherapy	0	0	1	0	0	0,2	Platinum analogues Taxanes	0 0	0 0	1 1	0 0	0 0,2	0,2	Carboplatin Paclitaxel	0 0	0 1	0 0	1 0	0 0	0 0,2																							
		Subsequent lines (3+)	BRAF inhibitors	0	1	0	0	0	0,2	BRAF inhibitors	0	1	0	0	0	0,2	Dabrafenib	0	1	0	0	0	0,2	Platinum analogues	0	1	0	0	0	0,2	Carboplatin	0	1	0	0	0	0,2									
			Combination chemotherapy	0	1	0	0	0	0,2	Taxanes	0	1	0	0	0	0,2	Paclitaxel	0	1	0	0	0	0,2	Monochemotherapy	0	1	0	0	0	0,2	Alkylating agents	0	1	0	0	0	0,2	Dakarbazine	0	1	0	0	0	0,2		
			All	All	11	19	11	12	17	14,0	All	14	30	14	14	21	18,6	All	14	30	14	14	21	18,6																						
		IIIC	Neoadjuvant	Anti PD-1	0	0	0	1	0	0,2	Anti PD-1	0	0	0	1	0	0,2	Pembrolizumab	0	0	0	1	0	0,2	BRAF in MEK inhibitors	0	0	0	1	0	0,2	Dabrafenib	0	0	0	1	0	0,2	Trametinib	0	0	0	1	0	0,2	
				Adjuvant	Anti PD-1	11	19	13	29	15	17,4	Anti PD-1	11	19	13	29	15	17,4	Nivolumab Pembrolizumab	9 2	13 6	4 9	5 24	0 15	6,2 11,2	BRAF in MEK inhibitors	2	9	6	8	1	5,2	Dabrafenib	2	9	6	8	1	5,2	Trametinib	2	9	6	8	1	5,2
			First line	Anti PD-1	8	5	6	3	4	5,2	Anti PD-1	8	5	6	3	4	5,2	Nivolumab Pembrolizumab	1 7	1 4	2 4	0 3	0 4	0 4,4	0,8	BRAF in MEK inhibitors	3	3	3	2	1	2,4	Dabrafenib	3	3	3	2	1	2,4	Trametinib	3	3	3	2	1	2,4
				Combination immunotherapy	Anti CTLA-4	1	1	1	1	1	1,0	Anti CTLA-4	1	1	1	1	1	1,0	Ipilimumab	1	1	1	1	1	1,0	Anti PD-1	1	1	1	1	1	1,0	Nivolumab	1	1	1	1	1	1,0							
	Monochemotherapy				0	2	2	0	0	0,8	Alkylating agents	0	2	2	0	0	0,8	Dakarbazine Temozolomide	0 0	1 1	2 0	0 0	0 0	0 0,2																						
	Second line			Anti PD-1	0	1	0	1	0	0,4	Anti PD-1	0	1	0	1	0	0,4	Nivolumab Pembrolizumab	0 0	0 1	0 0	1 0	0 0	0,2	BRAF in MEK inhibitors	1	2	2	1	1	1,4	Dabrafenib Vemurafenib	1 0	1 1	2 0	1 0	1 0	1,2	0,2							
			Combination immunotherapy	BRAF inhibitors	1	2	2	1	1	1,4	BRAF inhibitors	1	2	2	1	1	1,4	Cobimetinib Trametinib	0 1	1 1	0 2	0 1	0 1	0 1,2	MEK inhibitors	1	2	2	1	1	1,4	0,2														
				Combination chemotherapy	2	2	1	1	1	1,4	Anti CTLA-4	2	2	1	1	1	1,4	Ipilimumab	2	2	1	1	1	1,4	Anti PD-1	2	2	1	1	1	1,4	Nivolumab	2	2	1	1	1	1,4								
			Monochemotherapy	Platinum analogues	0	0	1	0	0	0,2	Platinum analogues	0	0	1	0	0	0,2	Carboplatin	0	0	1	0	0	0,2	Taxanes	0	0	1	0	0	0,2	Paclitaxel	0	0	1	0	0	0,2								
				Alkylating agents	3	3	0	0	0	1,2	Alkylating agents	3	3	0	0	0	1,2	Dakarbazine	3	3	0	0	0	1,2																						

Continued. —>

Table 21c: Continued.

Stage	Place in therapy	Regimen	Year					Therapeutic subgroup	Year					Drug	Year							
			2018	2019	2020	2021	2022		Mean of yearly values 2018–2022	2018	2019	2020	2021		2022	Mean of yearly values 2018–2022	2018	2019	2020	2021	2022	Mean of yearly values 2018–2022
IIIC	Subsequent lines (3+)	Anti PD-1	0	1	0	1	0	0,4	Anti PD-1	0	1	0	1	0	0,4	Pembrolizumab	0	1	0	1	0	0,4
		BRAF in MEK inhibitors	0	1	0	2	0	0,6	BRAF inhibitors	0	1	0	2	0	0,6	Dabrafenib Vemurafenib	0	1	0	1	0	0,4 0,2
									MEK inhibitors	0	1	0	2	0	0,6	Cobimetinib Trametinib	0	0	0	1	0	0,2 0,4
		Combination immunotherapy	0	2	0	0	1	0,6	Anti CTLA-4	0	2	0	0	1	0,6	Ipilimumab	0	2	0	0	1	0,6
									Anti PD-1	0	2	0	0	1	0,6	Nivolumab	0	2	0	0	1	0,6
		Combination chemotherapy	0	2	0	0	0	0,4	Platinum analogues	0	2	0	0	0	0,4	Carboplatin	0	2	0	0	0	0,4
	Monochemotherapy	0	2	1	0	0	0,6	Taxanes	0	2	0	0	0	0,4	Paclitaxel	0	2	0	0	0	0,4	
All	All	31	55	36	51	25	39,6	All	40	77	50	67	31	53,0	All	40	77	50	67	31	53,0	
IIID	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
	Adjuvant	Anti PD-1	1	1	3	1	1	1,4	Anti PD-1	1	1	3	1	1	1,4	Nivolumab Pembrolizumab	1	1	1	1	0	0,8 0,6
		BRAF in MEK inhibitors	0	2	1	4	1	1,6	BRAF inhibitors	0	2	1	4	1	1,6	Dabrafenib	0	2	1	4	1	1,6
	MEK inhibitors								0	2	1	4	1	1,6	Trametinib	0	2	1	4	1	1,6	
	First line	Anti PD-1	0	1	0	1	0	0,4	Anti PD-1	0	1	0	1	0	0,4	Pembrolizumab	0	1	0	1	0	0,4
		BRAF in MEK inhibitors	1	0	0	2	0	0,6	BRAF inhibitors	1	0	0	2	0	0,6	Dabrafenib	1	0	0	2	0	0,6
									MEK inhibitors	1	0	0	2	0	0,6	Trametinib	1	0	0	2	0	0,6
	Combination immunotherapy	0	2	1	0	0	0,6	Anti CTLA-4	0	2	1	0	0	0,6	Ipilimumab	0	2	1	0	0	0,6	
	Second line	Anti PD-1	0	0	0	1	0	0,2	Anti PD-1	0	0	0	1	0	0,2	Pembrolizumab	0	0	0	1	0	0,2
		BRAF in MEK inhibitors	0	1	0	0	0	0,2	BRAF inhibitors	0	1	0	0	0	0,2	Dabrafenib	0	1	0	0	0	0,2
									MEK inhibitors	0	1	0	0	0	0,2	Trametinib	0	1	0	0	0	0,2
		Monochemotherapy	0	0	0	1	0	0,2	Alkylating agents	0	0	0	1	0	0,2	Dakarbazine	0	0	0	1	0	0,2
	Subsequent lines (3+)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
	All	All	2	7	5	10	2	5,2	All	3	12	7	16	3	8,2	All	3	12	7	16	3	8,2
	IV	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Adjuvant		Anti PD-1	0	0	0	0	1	0,2	Anti PD-1	0	0	0	0	1	0,2	Nivolumab	0	0	0	0	1	0,2
First line		Anti PD-1	9	2	3	10	10	6,8	Anti PD-1	9	2	3	10	10	6,8	Nivolumab Pembrolizumab	1	0	0	0	0	0,2 6,6
									BRAF in MEK inhibitors	7	8	2	2	1	4,0	BRAF inhibitors	7	8	2	2	1	4,0
		MEK inhibitors	7	8	2	2	1	4,0								Cobimetinib Trametinib	0	2	1	0	0	0,6 3,4
		Combination immunotherapy	0	0	1	2	1	0,8	Anti CTLA-4	0	0	1	2	1	0,8	Ipilimumab	0	0	1	2	1	0,8
		Combination chemotherapy	1	0	0	0	0	0,2	Anti PD-1	0	0	1	2	1	0,8	Nivolumab	0	0	1	2	1	0,8
									Platinum analogues	1	0	0	0	0	0,2	Carboplatin	1	0	0	0	0	0,2
Taxanes		1	0	0	0	0	0,2	Paclitaxel	1	0	0	0	0	0,2								
Second line		Anti PD-1	3	1	0	0	0	0,8	Anti PD-1	3	1	0	0	0	0,8	Nivolumab Pembrolizumab	0	1	0	0	0	0,2 0,6
		BRAF in MEK inhibitors	0	0	1	1	2	0,8	BRAF inhibitors	0	0	1	1	2	0,8	Dabrafenib	0	0	1	1	2	0,8
									MEK inhibitors	0	0	1	1	2	0,8	Trametinib	0	0	1	1	2	0,8
		Combination immunotherapy	2	2	0	1	0	1,0	Anti CTLA-4	2	2	0	1	0	1,0	Ipilimumab	2	2	0	1	0	1,0
		Combination chemotherapy	2	0	0	0	0	0,4	Anti PD-1	2	2	0	1	0	1,0	Nivolumab	2	2	0	1	0	1,0
									Platinum analogues	2	0	0	0	0	0,4	Carboplatin	2	0	0	0	0	0,4
Taxanes	2	0	0	0	0	0,4	Paclitaxel	2	0	0	0	0	0,4									
Monochemotherapy	3	1	1	2	1	1,6	Alkylating agents	3	1	1	2	1	1,6	Dakarbazine	3	1	1	2	1	1,6		

Continued. —>

Table 21c: Continued.

Stage	Place in therapy	Regimen	Year					Therapeutic subgroup	Year					Drug	Year								
			2018	2019	2020	2021	2022		Mean of yearly values 2018–2022	2018	2019	2020	2021		2022	Mean of yearly values 2018–2022	2018	2019	2020	2021	2022	Mean of yearly values 2018–2022	
IV	Subsequent lines (3+)	Anti PD-1	3	0	0	1	1	1,0	Anti PD-1	3	0	0	1	1	1,0	Nivolumab Pembrolizumab	1 2	0 0	0 0	1 0	1 0	0,6 0,4	
		BRAF in MEK inhibitors	BRAF inhibitors	2	2	0	0	0	0,8	BRAF inhibitors	2	2	0	0	0	0,8	Dabrafenib Vemurafenib	1 1	1 0	0 0	0 0	0,4 0,4	
			MEK inhibitors	2	2	0	0	0	0,8	MEK inhibitors	2	2	0	0	0	0,8	Cobimetinib Trametinib	1 1	1 0	0 0	0 0	0,4 0,4	
		Combination immunotherapy	Anti CTLA-4	1	0	0	1	1	0,6	Anti CTLA-4	1	0	0	1	1	0,6	Ipilimumab	1	0	0	1	1	0,6
			Anti PD-1	1	0	0	1	1	0,6	Anti PD-1	1	0	0	1	1	0,6	Nivolumab	1	0	0	1	1	0,6
		Combination chemotherapy	Nitrosourea analogues	1	0	0	0	0	0,2	Nitrosourea analogues	1	0	0	0	0	0,2	Lomustin	1	0	0	0	0	0,2
			Platinum analogues	4	1	0	0	0	1,0	Platinum analogues	4	1	0	0	0	1,0	Cisplatin Carboplatin	1 3	0 1	0 0	0 0	0 0	0,2 0,8
			Taxanes	3	1	0	0	0	0,8	Taxanes	3	1	0	0	0	0,8	Paclitaxel	3	1	0	0	0	0,8
			Vinca alkaloids	1	0	0	0	0	0,2	Vinca alkaloids	1	0	0	0	0	0,2	Vinblastine	1	0	0	0	0	0,2
		Monochemotherapy	1	0	1	0	0	0,4	Alkylating agents	1	0	1	0	0	0,4	Dakarbazine Temozolomide	1 1	0 0	1 0	0 0	0 0	0,4 0,2	
All	All	38	17	9	20	18	20,4	All	58	30	13	27	23	30,2	All	58	30	13	27	23	30,2		
Mezmano	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
	Adjuvant	Anti PD-1	0	1	5	3	0	1,8	Anti PD-1	0	1	5	3	0	1,8	Nivolumab Pembrolizumab	0 0	0 1	4 1	1 2	0 0	1,0 0,8	
		BRAF in MEK inhibitors	0	0	1	1	1	0,6	BRAF inhibitors MEK inhibitors	0 0	0 0	1 1	1 1	0,6 0,6	Dabrafenib Trametinib	0 0	0 0	1 1	1 1	0 0	0,6 0,6		
	First line	Anti PD-1	4	2	2	4	3	3,0	Anti PD-1	4	2	2	4	3	3,0	Pembrolizumab	4	2	2	4	3	3,0	
		BRAF in MEK inhibitors	BRAF inhibitors	0	1	1	4	0	1,2	BRAF inhibitors	0	1	1	4	0	1,2	Dabrafenib	0	1	1	4	0	1,2
			MEK inhibitors	0	1	1	4	0	1,2	MEK inhibitors	0	1	1	4	0	1,2	Trametinib	0	1	1	4	0	1,2
		Druga kombinacija terapij	Anti CTLA-4	0	0	0	1	0	0,2	Anti CTLA-4	0	0	0	1	0	0,2	Ipilimumab	0	0	0	1	0	0,2
			Anti PD-1	0	0	0	1	0	0,2	Anti PD-1	0	0	0	1	0	0,2	Nivolumab	0	0	0	1	0	0,2
			BRAF inhibitors	0	0	0	1	0	0,2	BRAF inhibitors	0	0	0	1	0	0,2	Dabrafenib	0	0	0	1	0	0,2
			MEK inhibitors	0	0	0	1	0	0,2	MEK inhibitors	0	0	0	1	0	0,2	Trametinib	0	0	0	1	0	0,2
		Combination immunotherapy	0	2	2	2	2	1,6	Anti CTLA-4 Anti PD-1	0 0	2 2	2 2	2 2	1,6 1,6	Ipilimumab Nivolumab	0 0	2 2	2 2	2 2	2 2	1,6 1,6		
		Combination chemotherapy	0	1	0	0	0	0,2	Platinum analogues Taxanes	0 0	1 1	0 0	0 0	0,2 0,2	Carboplatin Paclitaxel	0 0	1 1	0 0	0 0	0 0	0,2 0,2		
		Monochemotherapy	0	2	0	0	0	0,4	Alkylating agents	0	2	0	0	0	0,4	Dakarbazine	0	2	0	0	0	0,4	
	Second line	Anti PD-1	0	1	0	0	0	0,2	Anti PD-1	0	1	0	0	0	0,2	Nivolumab	0	1	0	0	0	0,2	
		BRAF in MEK inhibitors	BRAF inhibitors	1	0	1	2	0	0,8	BRAF inhibitors	1	0	1	2	0	0,8	Dabrafenib	1	0	1	2	0	0,8
			MEK inhibitors	1	0	1	2	0	0,8	MEK inhibitors	1	0	1	2	0	0,8	Trametinib	1	0	1	2	0	0,8
		Combination immunotherapy	0	1	2	3	0	1,2	Anti CTLA-4 Anti PD-1	0 0	1 1	2 2	3 0	1,2 1,2	Ipilimumab Nivolumab	0 0	1 1	2 2	3 0	0 0	1,2 1,2		
		Combination chemotherapy	Platinum analogues	1	0	0	0	0	0,2	Platinum analogues	1	0	0	0	0	0,2	Carboplatin	1	0	0	0	0	0,2
			Taxanes	1	0	0	0	0	0,2	Taxanes	1	0	0	0	0	0,2	Paclitaxel	1	0	0	0	0	0,2
		Monochemotherapy	0	1	1	1	1	0,8	Alkylating agents	0	1	1	1	1	0,8	Dakarbazine	0	1	1	1	1	0,8	
Subsequent lines (3+)	BRAF in MEK inhibitors	BRAF inhibitors	0	0	0	1	0	0,2	BRAF inhibitors	0	0	0	1	0	0,2	Dabrafenib	0	0	0	1	0	0,2	
		MEK inhibitors	0	0	0	1	0	0,2	MEK inhibitors	0	0	0	1	0	0,2	Trametinib	0	0	0	1	0	0,2	
	Combination immunotherapy	Anti CTLA-4	0	0	0	1	0	0,2	Anti CTLA-4	0	0	0	1	0	0,2	Ipilimumab	0	0	0	1	0	0,2	
		Anti PD-1	0	0	0	1	0	0,2	Anti PD-1	0	0	0	1	0	0,2	Nivolumab	0	0	0	1	0	0,2	
	Combination chemotherapy	Nitrosourea analogues	1	0	0	0	0	0,2	Nitrosourea analogues	1	0	0	0	0	0,2	Lomustin	1	0	0	0	0	0,2	
		Platinum analogues	1	1	1	1	0	0,8	Platinum analogues	1	1	1	1	0	0,8	Cisplatin Carboplatin	1 0	0 1	0 1	0 1	0 0	0,2 0,6	
		Taxanes	0	1	1	1	0	0,6	Taxanes	0	1	1	1	0	0,6	Paclitaxel	0	1	1	1	0	0,6	
Vinca alkaloids		1	0	0	0	0	0,2	Vinca alkaloids	1	0	0	0	0	0,2	Vinblastine	1	0	0	0	0	0,2		
All	All	7	13	16	24	7	13,4	All	9	17	22	40	10	19,6	All	9	17	22	40	10	19,6		

Table 21d: Number of systemic treatments by treatment type, medication group and administered medication by BRAF status in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Year	Place in therapy	Regimen	BRAF status			Therapeutic subgroup	BRAF status			Drug	BRAF status		
			Pozitiven	Negativen	Neznano		Pozitiven	Negativen	Neznano		Pozitiven	Negativen	Neznano
2018	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	
	Adjuvant	Anti PD-1	7	11	7	Anti PD-1	7	11	7	Nivolumab	3	7	6
		BRAF in MEK inhibitors	5	0	0	BRAF inhibitors	5	0	0	Pembrolizumab	4	4	1
	First line	Anti PD-1	7	22	3	Anti PD-1	7	22	3	Nivolumab	2	1	0
										Pembrolizumab	5	21	3
		BRAF in MEK inhibitors	21	0	0	BRAF inhibitors	21	0	0	Dabrafenib	20	0	0
						MEK inhibitors	21	0	0	Vemurafenib	1	0	0
		Combination immunotherapy	0	1	1	Anti CTLA-4	0	1	1	Cobimetinib	1	0	0
						Anti PD-1	0	1	1	Trametinib	20	0	0
		Combination chemotherapy	1	0	0	Platinum analogues	1	0	0	Ipilimumab	0	1	1
						Taxanes	1	0	0	Nivolumab	0	1	1
		Monochemotherapy	1	0	1	Alkylating agents	1	0	1	Carboplatin	1	0	0
									Paclitaxel	1	0	0	
	Second line	Anti PD-1	5	0	0	Anti PD-1	5	0	0	Dakarbazinee	1	0	1
		BRAF in MEK inhibitors	4	0	0	BRAF inhibitors	4	0	0	Pembrolizumab	5	0	0
						MEK inhibitors	4	0	0	Dabrafenib	4	0	0
		Combination immunotherapy	5	2	0	Anti CTLA-4	5	2	0	Trametinib	4	0	0
						Anti PD-1	5	2	0	Ipilimumab	5	2	0
		Combination chemotherapy	2	1	0	Platinum analogues	2	1	0	Nivolumab	5	2	0
	Taxanes					2	1	0	Carboplatin	2	1	0	
	Monochemotherapy	2	7	0	Alkylating agents	2	7	0	Paclitaxel	2	1	0	
	Subsequent lines	Anti PD-1	3	1	0	Anti PD-1	3	1	0	Dakarbazinee	1	7	0
										Pembrolizumab	2	1	0
		BRAF in MEK inhibitors	4	0	0	BRAF inhibitors	4	0	0	Temozolomidee	1	0	0
						MEK inhibitors	4	0	0	Nivolumab	2	1	0
		Combination immunotherapy	0	1	0	Anti CTLA-4	0	1	0	Ipilimumab	0	1	0
						Anti PD-1	0	1	0	Nivolumab	0	1	0
		Combination chemotherapy	0	6	0	Nitrosourea analogues	0	2	0	Lomustine	0	2	0
						Platinum analogues	0	6	0	Cisplatin	0	2	0
						Taxanes	0	4	0	Carboplatin	0	4	0
						Vinca alcaloids	0	2	0	Paclitaxel	0	4	0
	Monochemotherapy	1	0	0	Alkylating agents	1	0	0	Vinblastinee	0	2	0	
All	All	68	52	12	All	110	65	13	All	111	65	13	
2019	Neoadjuvant	Combination immunotherapy	1	0	0	Anti CTLA-4	1	0	0	Ipilimumab	1	0	0
	Adjuvant	Anti PD-1	10	25	3	Anti PD-1	10	25	3	Nivolumab	5	15	2
										Pembrolizumab	5	10	1
	BRAF in MEK inhibitors	25	0	0	BRAF inhibitors	25	0	0	Dabrafenib	25	0	0	
					MEK inhibitors	25	0	0	Trametinib	25	0	0	
	First line	Anti PD-1	5	11	4	Anti PD-1	5	11	4	Nivolumab	1	2	0
										Pembrolizumab	4	10	4
		BRAF in MEK inhibitors	19	0	0	BRAF inhibitors	19	0	0	Dabrafenib	16	0	0
						MEK inhibitors	19	0	0	Vemurafenib	3	0	0
		Combination immunotherapy	5	3	0	Anti CTLA-4	5	3	0	Cobimetinib	3	0	0
						Anti PD-1	5	3	0	Trametinib	16	0	0
	Combination chemotherapy	0	1	0	Platinum analogues	0	1	0	Ipilimumab	5	3	0	
					Taxanes	0	1	0	Nivolumab	5	3	0	
Monochemotherapy	0	5	0	Alkylating agents	0	5	0	Carboplatin	0	1	0		
									Paclitaxel	0	1	0	
									Dakarbazinee	0	4	0	
									Temozolomidee	0	1	0	

Continued. →

Table 21d: Continued.

Year	Place in therapy	Regimen	BRAF status			Therapeutic subgroup	BRAF status			Drug	BRAF status		
			Pozitiven	Negativen	Neznano		Pozitiven	Negativen	Neznano		Pozitiven	Negativen	Neznano
2019	Second line	Anti PD-1	5	2	0	Anti PD-1	5	2	0	Nivolumab Pembrolizumab	3 2	2 0	0 0
		BRAF in MEK inhibitors	6	0	0	BRAF inhibitors	6	0	0	Dabrafenib Vemurafenib	5 2	0 0	0 0
						MEK inhibitors	6	0	0	Cobimetinib Trametinib	2 5	0 0	0 0
		Combination immunotherapy	7	0	0	Anti CTLA-4 Anti PD-1	7 7	0 0	0	Ipilimumab Nivolumab	7 7	0 0	0 0
	Monochemotherapy	1	7	0	Alkylating agents	1	7	0	Dakarbazinee	1	7	0	
	Subsequent lines	Anti PD-1	0	1	0	Anti PD-1	0	1	0	Pembrolizumab	0	1	0
		BRAF in MEK inhibitors	3	0	0	BRAF inhibitors	3	0	0	Dabrafenib Vemurafenib	2 1	0 0	0 0
						MEK inhibitors	3	0	0	Cobimetinib Trametinib	1 2	0 0	0 0
		BRAF inhibitors	1	0	0	BRAF inhibitors	1	0	0	Dabrafenib	1	0	0
		Other combination of therapies	0	1	0	Anti PD-1	0	1	0	Pembrolizumab	0	1	0
		Combination immunotherapy	1	1	0	Anti CTLA-4	1	1	0	Ipilimumab	1	1	0
						Anti PD-1	1	1	0	Nivolumab	1	1	0
		Combination chemotherapy	3	2	0	Platinum analogues	3	2	0	Carboplatin	3	2	0
	Taxanes					3	2	0	Paclitaxel	3	2	0	
	Monochemotherapy	3	0	0	Alkylating agents	3	0	0	Dakarbazinee	3	0	0	
	All	All	95	59	7	All	165	67	7	All	167	68	7
2020	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	
	Adjuvant	Anti PD-1	6	23	5	Anti PD-1	6	23	5	Nivolumab Pembrolizumab	0 6	9 14	2 3
		BRAF in MEK inhibitors	9	0	0	BRAF inhibitors	9	0	0	Dabrafenib	9	0	0
	MEK inhibitors					9	0	0	Trametinib	9	0	0	
	First line	Anti PD-1	8	8	2	Anti PD-1	8	8	2	Nivolumab Pembrolizumab	1 7	0 8	1 1
		BRAF in MEK inhibitors	7	1	0	BRAF inhibitors	7	1	0	Dabrafenib Vemurafenib	6 1	0 1	0 0
						MEK inhibitors	7	1	0	Cobimetinib Trametinib	1 6	1 0	0 0
		Combination immunotherapy	3	3	0	Anti CTLA-4 Anti PD-1	3 3	3 3	0	Ipilimumab Nivolumab	3 3	3 3	0 0
	Monochemotherapy	0	5	0	Alkylating agents	0	5	0	Dakarbazinee	0	5	0	
	Second line	Anti PD-1	0	1	0	Anti PD-1	0	1	0	Pembrolizumab	0	1	0
		BRAF in MEK inhibitors	4	0	0	BRAF inhibitors	4	0	0	Dabrafenib	4	0	0
						MEK inhibitors	4	0	0	Trametinib	4	0	0
		Combination immunotherapy	3	1	0	Anti CTLA-4	3	1	0	Ipilimumab	3	1	0
						Anti PD-1	3	1	0	Nivolumab	3	1	0
		Combination chemotherapy	0	2	0	Platinum analogues	0	2	0	Carboplatin	0	2	0
						Taxanes	0	2	0	Paclitaxel	0	2	0
Monochemotherapy	0	3	0	Alkylating agents	0	3	0	Dakarbazinee	0	3	0		
Combination chemotherapy	0	1	0	Platinum analogues	0	1	0	Carboplatin	0	1	0		
				Taxanes	0	1	0	Paclitaxel	0	1	0		
				Alkylating agents	2	0	0	Dakarbazinee	2	0	0		
All	All	42	48	7	All	68	56	7	All	68	56	7	
2021	Neoadjuvant	Anti PD-1	1	1	0	Anti PD-1	1	1	0	Pembrolizumab	1	1	0
		BRAF in MEK inhibitors	2	0	0	BRAF inhibitors	2	0	0	Dabrafenib	2	0	0
						MEK inhibitors	2	0	0	Trametinib	2	0	0
		Other combination of therapies	1	0	0	Anti PD-1	1	0	0	Pembrolizumab	1	0	0
BRAF inhibitors	1					0	0	Dabrafenib	1	0	0		
MEK inhibitors	1	0	0	Trametinib	1	0	0						

Continued. —>

Table 21d: Continued.

Year	Place in therapy	Regimen	BRAF status			Therapeutic subgroup	BRAF status			Drug	BRAF status			
			Pozitiven	Negativen	Neznano		Pozitiven	Negativen	Neznano		Pozitiven	Negativen	Neznano	
2021	Adjuvant	Anti PD-1	28	16	3	Anti PD-1	28	16	3	Nivolumab	4	3	2	
		Pembrolizumab	24	13	1									
	BRAF in MEK inhibitors	BRAF inhibitors	15	0	0	BRAF inhibitors	15	0	0	Dabrafenib	15	0	0	
		MEK inhibitors	15	0	0	MEK inhibitors	15	0	0	Trametinib	15	0	0	
	First line	Anti PD-1	11	12	1	Anti PD-1	11	12	1	Nivolumab	1	0	0	
		Pembrolizumab	10	12	1					Pembrolizumab	10	12	1	
		BRAF in MEK inhibitors	BRAF inhibitors	10	0	0	BRAF inhibitors	10	0	0	Dabrafenib	10	0	0
			MEK inhibitors	10	0	0	MEK inhibitors	10	0	0	Trametinib	10	0	0
		Other combination of therapies	Anti CTLA-4	1	0	0	Anti CTLA-4	1	0	0	Ipilimumab	1	0	0
			Anti PD-1	1	0	0	Anti PD-1	1	0	0	Nivolumab	1	0	0
			BRAF inhibitors	1	0	0	BRAF inhibitors	1	0	0	Dabrafenib	1	0	0
	MEK inhibitors		1	0	0	MEK inhibitors	1	0	0	Trametinib	1	0	0	
	Combination immunotherapy	Anti CTLA-4	5	0	0	Anti CTLA-4	5	0	0	Ipilimumab	5	0	0	
		Anti PD-1	5	0	0	Anti PD-1	5	0	0	Nivolumab	5	0	0	
	Second line	Anti PD-1	2	0	0	Anti PD-1	2	0	0	Nivolumab	1	0	0	
		Pembrolizumab	1	0	0					Pembrolizumab	1	0	0	
		BRAF in MEK inhibitors	BRAF inhibitors	5	0	0	BRAF inhibitors	5	0	0	Dabrafenib	5	0	0
			MEK inhibitors	5	0	0	MEK inhibitors	5	0	0	Trametinib	5	0	0
		Combination immunotherapy	Anti CTLA-4	4	1	0	Anti CTLA-4	4	1	0	Ipilimumab	4	1	0
	Anti PD-1		4	1	0	Anti PD-1	4	1	0	Nivolumab	4	1	0	
	Monochemotherapy	Alkylating agents	1	3	0	Alkylating agents	1	3	0	Dakarbazinee	1	3	0	
	Subsequent lines	Anti PD-1	1	1	0	Anti PD-1	1	1	0	Nivolumab	0	1	0	
		Pembrolizumab	1	0	0					Pembrolizumab	1	0	0	
BRAF in MEK inhibitors		BRAF inhibitors	3	0	0	BRAF inhibitors	3	0	0	Dabrafenib	2	0	0	
		MEK inhibitors	3	0	0	MEK inhibitors	3	0	0	Vemurafenib	1	0	0	
Combination immunotherapy		Cobimetinib	1	0	0					Cobimetinib	1	0	0	
		Trametinib	2	0	0					Trametinib	2	0	0	
Combination immunotherapy		Anti CTLA-4	1	1	0	Anti CTLA-4	1	1	0	Ipilimumab	1	1	0	
	Anti PD-1	1	1	0	Anti PD-1	1	1	0	Nivolumab	1	1	0		
Combination chemotherapy	Platinum analogues	0	1	0	Platinum analogues	0	1	0	Carboplatin	0	1	0		
	Taxanes	0	1	0	Taxanes	0	1	0	Paclitaxel	0	1	0		
All	All	91	36	4	All	141	39	4	All	141	39	4		
2022	Neoadjuvant	Anti PD-1	0	0	2	Anti PD-1	0	0	2	Pembrolizumab	0	0	2	
	Adjuvant	Anti PD-1	19	23	6	Anti PD-1	19	23	6	Nivolumab	0	2	0	
		Pembrolizumab	19	21	9					Pembrolizumab	19	21	9	
	BRAF in MEK inhibitors	BRAF inhibitors	7	0	0	BRAF inhibitors	7	0	0	Dabrafenib	7	0	0	
		MEK inhibitors	7	0	0	MEK inhibitors	7	0	0	Trametinib	7	0	0	
	First line	Anti PD-1	9	11	1	Anti PD-1	9	11	1	Nivolumab	0	1	0	
		Pembrolizumab	9	10	1					Pembrolizumab	9	10	1	
		BRAF in MEK inhibitors	BRAF inhibitors	4	0	0	BRAF inhibitors	4	0	0	Dabrafenib	4	0	0
			MEK inhibitors	4	0	0	MEK inhibitors	4	0	0	Vemurafenib	1	0	0
		Cobimetinib	1	0	0					Cobimetinib	1	0	0	
	Trametinib	4	0	0					Trametinib	4	0	0		
	Combination immunotherapy	Anti CTLA-4	3	2	0	Anti CTLA-4	3	2	0	Ipilimumab	3	2	0	
		Anti PD-1	3	2	0	Anti PD-1	3	2	0	Nivolumab	3	2	0	
	Second line	Anti PD-1	1	0	0	Anti PD-1	1	0	0	Nivolumab	1	0	0	
		BRAF in MEK inhibitors	BRAF inhibitors	3	0	0	BRAF inhibitors	3	0	0	Dabrafenib	3	0	0
			MEK inhibitors	3	0	0	MEK inhibitors	3	0	0	Trametinib	3	0	0
		Combination immunotherapy	Anti CTLA-4	1	0	0	Anti CTLA-4	1	0	0	Ipilimumab	1	0	0
			Anti PD-1	1	0	0	Anti PD-1	1	0	0	Nivolumab	1	0	0
	Monochemotherapy	Alkylating agents	0	2	0	Alkylating agents	0	2	0	Dakarbazinee	0	2	0	
	Subsequent lines	Anti PD-1	0	1	0	Anti PD-1	0	1	0	Nivolumab	0	1	0	
Combination immunotherapy		Anti CTLA-4	2	0	0	Anti CTLA-4	2	0	0	Ipilimumab	2	0	0	
		Anti PD-1	2	0	0	Anti PD-1	2	0	0	Nivolumab	2	0	0	
All	All	49	39	9	All	69	41	9	All	71	41	12		

Continued. —>

Table 21d: Continued.

Year	Place in therapy	Regimen	BRAF status			Therapeutic subgroup	BRAF status			Drug	BRAF status		
			Pozitiven	Negativen	Neznano		Pozitiven	Negativen	Neznano		Pozitiven	Negativen	Neznano
Mean of yearly values 2018–2022	Neoadjuvant	Anti PD-1	0,5	0,5	1,0	Anti PD-1	0,5	0,5	1,0	Pembrolizumab	0,5	0,5	1,0
		BRAF in MEK inhibitors	2,0	0,0	0,0	BRAF inhibitors	2,0	0,0	0,0	Dabrafenib	2,0	0,0	0,0
						MEK inhibitors	2,0	0,0	0,0	Trametinib	2,0	0,0	0,0
						Anti PD-1	1,0	0,0	0,0	Pembrolizumab	1,0	0,0	0,0
		Other combination of therapies	1,0	0,0	0,0	BRAF inhibitors	1,0	0,0	0,0	Dabrafenib	1,0	0,0	0,0
	MEK inhibitors					1,0	0,0	0,0	Trametinib	1,0	0,0	0,0	
	Anti CTLA-4					1,0	0,0	0,0	Ipilimumab	1,0	0,0	0,0	
	Combination immunotherapy	1,0	0,0	0,0	Anti PD-1	1,0	0,0	0,0	Nivolumab	1,0	0,0	0,0	
	Adjuvant	Anti PD-1	14,0	19,6	4,8	Anti PD-1	14,0	19,6	4,8	Nivolumab	2,4	7,2	2,4
		BRAF in MEK inhibitors	12,2	0,0	0,0	BRAF inhibitors	12,2	0,0	0,0	Pembrolizumab	11,6	12,4	3,0
						MEK inhibitors	12,2	0,0	0,0	Dabrafenib	12,2	0,0	0,0
	First line	Anti PD-1	8,0	12,8	2,2	Anti PD-1	8,0	12,8	2,2	Nivolumab	1,0	0,8	0,2
		BRAF in MEK inhibitors	12,2	0,2	0,0	BRAF inhibitors	12,2	0,2	0,0	Pembrolizumab	7,0	12,2	2,0
						MEK inhibitors	12,2	0,2	0,0	Dabrafenib	11,2	0,0	0,0
						Anti CTLA-4	1,0	0,0	0,0	Vemurafenib	1,5	0,3	0,0
		Other combination of therapies	1,0	0,0	0,0	MEK inhibitors	12,2	0,2	0,0	Cobimetinib	1,5	0,3	0,0
						Anti PD-1	1,0	0,0	0,0	Trametinib	11,2	0,0	0,0
						BRAF inhibitors	1,0	0,0	0,0	Ipilimumab	1,0	0,0	0,0
						MEK inhibitors	1,0	0,0	0,0	Nivolumab	1,0	0,0	0,0
		Combination immunotherapy	3,2	1,8	0,2	Anti CTLA-4	3,2	1,8	0,2	Dabrafenib	1,0	0,0	0,0
						Anti PD-1	3,2	1,8	0,2	Trametinib	1,0	0,0	0,0
		Combination chemotherapy	0,5	0,5	0,0	Platinum analogues	0,5	0,5	0,0	Ipilimumab	3,2	1,8	0,2
						Taxanes	0,5	0,5	0,0	Nivolumab	3,2	1,8	0,2
	Monochemotherapy	0,3	3,3	0,3	Alkylating agents	0,3	3,3	0,3	Carboplatin	0,5	0,5	0,0	
								Paclitaxel	0,5	0,5	0,0		
	Second line	Anti PD-1	2,6	0,6	0,0	Anti PD-1	2,6	0,6	0,0	Dakarbazinee	0,3	3,0	0,3
		BRAF in MEK inhibitors	4,4	0,0	0,0	Nivolumab	1,7	0,7	0,0	Temozolomidee	0,0	1,0	0,0
						Pembrolizumab	2,0	0,3	0,0				
						BRAF inhibitors	4,4	0,0	0,0	Dabrafenib	4,2	0,0	0,0
		MEK inhibitors	4,4	0,0	0,0	Vemurafenib	2,0	0,0	0,0	Cobimetinib	2,0	0,0	0,0
						Cobimetinib	4,2	0,0	0,0	Trametinib	4,2	0,0	0,0
		Combination immunotherapy	4,0	0,8	0,0	Anti CTLA-4	4,0	0,8	0,0	Ipilimumab	4,0	0,8	0,0
						Anti PD-1	4,0	0,8	0,0	Nivolumab	4,0	0,8	0,0
	Combination chemotherapy	1,0	1,5	0,0	Platinum analogues	1,0	1,5	0,0	Carboplatin	1,0	1,5	0,0	
					Taxanes	1,0	1,5	0,0	Paclitaxel	1,0	1,5	0,0	
	Monochemotherapy	0,8	4,4	0,0	Alkylating agents	0,8	4,4	0,0	Dakarbazinee	0,6	4,4	0,0	
	Subsequent lines	Anti PD-1	1,0	1,0	0,0	Anti PD-1	1,0	1,0	0,0	Temozolomidee	1,0	0,0	0,0
		BRAF in MEK inhibitors	3,3	0,0	0,0	Nivolumab	0,3	0,7	0,0	Pembrolizumab	1,0	0,7	0,0
						Pembrolizumab	1,7	0,0	0,0	Dabrafenib	1,7	0,0	0,0
						BRAF inhibitors	3,3	0,0	0,0	Vemurafenib	1,7	0,0	0,0
		MEK inhibitors	3,3	0,0	0,0	Cobimetinib	1,7	0,0	0,0	Trametinib	1,7	0,0	0,0
						Trametinib	1,7	0,0	0,0	Dabrafenib	1,0	0,0	0,0
BRAF inhibitors		1,0	0,0	0,0	BRAF inhibitors	1,0	0,0	0,0	Dabrafenib	1,0	0,0	0,0	
Other combination of therapies		0,0	1,0	0,0	Anti PD-1	0,0	1,0	0,0	Pembrolizumab	0,0	1,0	0,0	
					Other protein kinase inhibitors	0,0	1,0	0,0	Lenvatinib	0,0	1,0	0,0	
Combination immunotherapy		1,0	0,8	0,0	Anti CTLA-4	1,0	0,8	0,0	Ipilimumab	1,0	0,8	0,0	
					Anti PD-1	1,0	0,8	0,0	Nivolumab	1,0	0,8	0,0	
Combination chemotherapy		0,8	2,5	0,0	Nitrosourea analogues	0,0	2,0	0,0	Lomustine	0,0	2,0	0,0	
					Platinum analogues	0,8	2,5	0,0	Cisplatin	0,8	2,0	0,0	
	Taxanes				6,7	2,0	2,0	Carboplatin	0,8	2,0	0,0		
	Vinca alkaloids				0,0	2,0	0,0	Paclitaxel	0,3	2,0	0,0		
Monochemotherapy	2,0	0,0	0,0	Alkylating agents	2,0	0,0	0,0	Vinblastinee	0,0	2,0	0,0		
							Dakarbazinee	2,0	0,0	0,0			
								Temozolomidee	1,0	0,0	0,0		
All	All	77,8	51,3	8,5	All	134,3	63,8	10,7	All	136,5	67,0	9,3	

Table 21e: Number of systemic treatments by treatment type, medication group and administered medication by age in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Year	Place in therapy	Regimen	Age group				Therapeutic subgroup	Age group				Drug	Age group														
			0–19	20–49	50–74	75+		0–19	20–49	50–74	75+		0–19	20–49	50–74	75+											
2018	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/										
	Adjuvant	Anti PD-1	0	7	18	0	Anti PD-1	0	7	18	0	Nivolumab	0	2	14	0	Pembrolizumab	0	5	4	0						
		BRAF in MEK inhibitors	0	2	3	0	BRAF inhibitors	0	2	3	0	Dabrafenib	0	2	3	0	MEK inhibitors	0	2	3	0	Trametinib	0	2	3	0	
	First line	Anti PD-1	0	3	21	8	Anti PD-1	0	3	21	8	Nivolumab	0	0	2	1	Pembrolizumab	0	3	19	7						
		BRAF in MEK inhibitors	0	9	12	0	BRAF inhibitors	0	9	12	0	Dabrafenib	0	8	12	0	Vemurafenib	0	1	0	0						
							MEK inhibitors	0	9	12	0	Cobimetinib	0	1	0	0	Trametinib	0	8	12	0						
							Anti CTLA-4	0	1	1	0	Ipilimumab	0	1	1	0	Anti PD-1	0	1	1	0	Nivolumab	0	1	1	0	
		Combination immunotherapy	0	1	1	0	Platinum analogues	0	1	0	0	Carboplatin	0	1	0	0	Taxanes	0	1	0	0	Paclitaxel	0	1	0	0	
		Combination chemotherapy	0	1	0	0	Alkylating agents	0	0	1	1	Dakarbazinee	0	0	1	1	Monochemotherapy	0	0	1	1						
		Monochemotherapy	0	0	1	1	Alkylating agents	0	0	1	1	Dakarbazinee	0	0	1	1											
		Combination chemotherapy	0	1	0	0	Platinum analogues	0	1	0	0	Carboplatin	0	1	0	0	Taxanes	0	1	0	0	Paclitaxel	0	1	0	0	
	Monochemotherapy	0	3	6	0	Alkylating agents	0	3	6	0	Dakarbazinee	0	2	6	0	Temozolomidee	0	1	0	0							
	Second line	Anti PD-1	0	0	5	0	Anti PD-1	0	0	5	0	Pembrolizumab	0	0	5	0											
		BRAF in MEK inhibitors	0	2	1	1	BRAF inhibitors	0	2	1	1	Dabrafenib	0	2	1	1											
							MEK inhibitors	0	2	1	1	Trametinib	0	2	1	1											
							Anti CTLA-4	0	4	3	0	Ipilimumab	0	4	3	0											
		Combination immunotherapy	0	4	3	0	Anti PD-1	0	4	3	0	Nivolumab	0	4	3	0											
		Combination chemotherapy	0	2	1	0	Platinum analogues	0	2	1	0	Carboplatin	0	2	1	0											
		Monochemotherapy	0	3	6	0	Alkylating agents	0	3	6	0	Dakarbazinee	0	2	6	0											
		Subsequent lines	Anti PD-1	0	2	2	0	Anti PD-1	0	2	2	0	Nivolumab	0	0	1	0	Pembrolizumab	0	2	1	0					
			BRAF in MEK inhibitors	0	1	3	0	BRAF inhibitors	0	1	3	0	Dabrafenib	0	0	1	0	Vemurafenib	0	1	2	0					
								MEK inhibitors	0	1	3	0	Cobimetinib	0	1	2	0	Trametinib	0	0	1	0					
	Anti CTLA-4							0	0	1	0	Ipilimumab	0	0	1	0	Anti PD-1	0	0	1	0	Nivolumab	0	0	1	0	
	Combination immunotherapy		0	0	1	0	Nitrosourea analogues	0	1	1	0	Lomustine	0	1	1	0											
	Combination chemotherapy		0	2	4	0	Platinum analogues	0	2	4	0	Cisplatin	0	1	1	0	Carboplatin	0	1	3	0						
							Taxanes	0	1	3	0	Paclitaxel	0	1	3	0											
							Vinca alcaloids	0	1	1	0	Vinblastinee	0	1	1	0											
							Alkylating agents	0	1	0	0	Dakarbazinee	0	1	0	0	Temozolomidee	0	1	0	0						
	Monochemotherapy		0	1	0	0	Alkylating agents	0	1	0	0	Dakarbazinee	0	1	0	0	Temozolomidee	0	1	0	0						
	All		All	0	40	82	10	All	0	65	112	11	All	0	66	112	11										
	2019		Neoadjuvant	Combination immunotherapy	0	0	1	0	Anti CTLA-4	0	0	1	0	Ipilimumab	0	0	1	0	Anti PD-1	0	0	1	0	Nivolumab	0	0	1
		Adjuvant	Anti PD-1	0	12	25	1	Anti PD-1	0	12	25	1	Nivolumab	0	7	14	1	Pembrolizumab	0	5	11	0					
BRAF in MEK inhibitors			0	12	13	0	BRAF inhibitors	0	12	13	0	Dabrafenib	0	12	13	0	MEK inhibitors	0	12	13	0	Trametinib	0	12	13	0	
First line		Anti PD-1	0	2	12	6	Anti PD-1	0	2	12	6	Nivolumab	0	0	3	0	Pembrolizumab	0	2	10	6						
		BRAF in MEK inhibitors	0	4	12	3	BRAF inhibitors	0	4	12	3	Dabrafenib	0	3	11	2	Vemurafenib	0	1	1	1						
							MEK inhibitors	0	4	12	3	Cobimetinib	0	1	1	1	Trametinib	0	3	11	2						
							Anti CTLA-4	0	4	4	0	Ipilimumab	0	4	4	0	Anti PD-1	0	4	4	0	Nivolumab	0	4	4	0	
		Combination immunotherapy	0	4	4	0	Platinum analogues	0	1	0	0	Carboplatin	0	1	0	0	Taxanes	0	1	0	0	Paclitaxel	0	1	0	0	
		Combination chemotherapy	0	1	0	0	Taxanes	0	1	0	0	Paclitaxel	0	1	0	0	Monochemotherapy	0	0	5	0	Alkylating agents	0	0	4	0	
		Monochemotherapy	0	0	5	0	Alkylating agents	0	0	5	0	Dakarbazinee	0	0	4	0	Temozolomidee	0	0	1	0						

Continued. —>

Table 21e: Continued.

Year	Place in therapy	Regimen	Age group				Therapeutic subgroup	Age group				Drug	Age group			
			0-19	20-49	50-74	75+		0-19	20-49	50-74	75+		0-19	20-49	50-74	75+
2019	Second line	Anti PD-1	0	3	4	0	Anti PD-1	0	3	4	0	Nivolumab	0	2	3	0
		BRAF in MEK inhibitors	0	3	3	0	BRAF inhibitors	0	3	3	0	Dabrafenib	0	3	2	0
												Vemurafenib	0	0	2	0
												Cobimetinib	0	0	2	0
	Trametinib	0	3	2	0											
	Combination immunotherapy	0	1	5	1	Anti CTLA-4	0	1	5	1	Ipilimumab	0	1	5	1	
	Anti PD-1	0	1	5	1	Nivolumab	0	1	5	1						
	Monochemotherapy	0	4	4	0	Alkylating agents	0	4	4	0	Dakarbazinee	0	4	4	0	
	Subsequent lines	Anti PD-1	0	1	0	0	Anti PD-1	0	1	0	0	Pembrolizumab	0	1	0	0
		BRAF in MEK inhibitors	0	0	3	0	BRAF inhibitors	0	0	3	0	Dabrafenib	0	0	2	0
												Vemurafenib	0	0	1	0
												Cobimetinib	0	0	1	0
		Trametinib	0	0	2	0										
		BRAF inhibitors	0	1	0	0	BRAF inhibitors	0	1	0	0	Dabrafenib	0	1	0	0
Anti PD-1		0	1	0	0	Pembrolizumab	0	1	0	0						
Other combination of therapies		0	1	0	0	Other protein kinase inhibitors	0	1	0	0	Lenvatinib	0	1	0	0	
Combination immunotherapy	0	2	0	0	Anti CTLA-4	0	2	0	0	Ipilimumab	0	2	0	0		
Anti PD-1	0	2	0	0	Nivolumab	0	2	0	0							
Combination chemotherapy	0	4	1	0	Platinum analogues	0	4	1	0	Carboplatin	0	4	1	0		
Taxanes	0	4	1	0	Paclitaxel	0	4	1	0							
Monochemotherapy	0	2	1	0	Alkylating agents	0	2	1	0	Dakarbazinee	0	2	1	0		
All	All	0	57	93	11	All	0	89	135	15	All	0	89	138	15	
2020	Neoadjuvant	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
	Adjuvant	Anti PD-1	0	6	24	4	Anti PD-1	0	6	24	4	Nivolumab	0	1	10	0
		Pembrolizumab	0	5	14	4										
	BRAF in MEK inhibitors	0	4	4	1	BRAF inhibitors	0	4	4	1	Dabrafenib	0	4	4	1	
											Trametinib	0	4	4	1	
											MEK inhibitors	0	4	4	1	
	Anti PD-1	0	0	10	8	Anti PD-1	0	0	10	8	Nivolumab	0	0	1	1	
	Pembrolizumab	0	0	9	7											
	BRAF in MEK inhibitors	0	2	6	0	BRAF inhibitors	0	2	6	0	Dabrafenib	0	2	4	0	
											Vemurafenib	0	0	2	0	
											Cobimetinib	0	0	2	0	
	Trametinib	0	2	4	0											
	Combination immunotherapy	0	2	4	0	Anti CTLA-4	0	2	4	0	Ipilimumab	0	2	4	0	
	Anti PD-1	0	2	4	0	Nivolumab	0	2	4	0						
	Monochemotherapy	0	1	4	0	Alkylating agents	0	1	4	0	Dakarbazinee	0	1	4	0	
	Second line	Anti PD-1	0	0	1	0	Anti PD-1	0	0	1	0	Pembrolizumab	0	0	1	0
		BRAF in MEK inhibitors	0	0	4	0	BRAF inhibitors	0	0	4	0	Dabrafenib	0	0	4	0
Trametinib												0	0	4	0	
Combination immunotherapy		0	0	4	0	Anti CTLA-4	0	0	4	0	Ipilimumab	0	0	4	0	
											Anti PD-1	0	0	4	0	Nivolumab
Combination chemotherapy		0	0	2	0	Platinum analogues	0	0	2	0	Carboplatin	0	0	2	0	
Taxanes	0	0	2	0	Paclitaxel	0	0	2	0							
Monochemotherapy	0	0	3	0	Alkylating agents	0	0	3	0	Dakarbazinee	0	0	3	0		
Subsequent lines	Combination chemotherapy	0	0	1	0	Platinum analogues	0	0	1	0	Carboplatin	0	0	1	0	
	Taxanes	0	0	1	0	Paclitaxel	0	0	1	0						
	Monochemotherapy	0	0	2	0	Alkylating agents	0	0	2	0	Dakarbazinee	0	0	2	0	
All	All	0	15	69	13	All	0	23	94	14	All	0	23	94	14	

Continued. —>

Table 21e: Continued.

Year	Place in therapy	Regimen	Age group				Therapeutic subgroup	Age group				Drug	Age group				
			0–19	20–49	50–74	75+		0–19	20–49	50–74	75+		0–19	20–49	50–74	75+	
2021	Neoadjuvant	Anti PD-1	0	0	2	0	Anti PD-1	0	0	2	0	Pembrolizumab	0	0	2	0	
		BRAF in MEK inhibitors	0	0	2	0	BRAF inhibitors	0	0	2	0	Dabrafenib	0	0	2	0	
							MEK inhibitors	0	0	2	0	Trametinib	0	0	2	0	
		Other combination of therapies	0	1	0	0	Anti PD-1	0	1	0	0	Pembrolizumab	0	1	0	0	
							BRAF inhibitors	0	1	0	0	Dabrafenib	0	1	0	0	
						MEK inhibitors	0	1	0	0	Trametinib	0	1	0	0		
	Adjuvant	Anti PD-1	0	5	39	3	Anti PD-1	0	5	39	3	Nivolumab	0	0	9	0	
							Pembrolizumab	0	5	30	3	Dabrafenib	0	4	11	0	
		BRAF in MEK inhibitors	0	4	11	0	BRAF inhibitors	0	4	11	0	Trametinib	0	4	11	0	
	First line	Anti PD-1		0	0	20	4	Anti PD-1	0	0	20	4	Nivolumab	0	0	1	0
								Pembrolizumab	0	0	19	4	Dabrafenib	0	1	8	1
		BRAF in MEK inhibitors		0	1	8	1	BRAF inhibitors	0	1	8	1	Dabrafenib	0	1	8	1
								MEK inhibitors	0	1	8	1	Trametinib	0	1	8	1
		Other combination of therapies		0	0	1	0	Anti CTLA-4	0	0	1	0	Ipilimumab	0	0	1	0
								Anti PD-1	0	0	1	0	Nivolumab	0	0	1	0
								BRAF inhibitors	0	0	1	0	Dabrafenib	0	0	1	0
								MEK inhibitors	0	0	1	0	Trametinib	0	0	1	0
		Combination immunotherapy		0	0	5	0	Anti CTLA-4	0	0	5	0	Ipilimumab	0	0	5	0
								Anti PD-1	0	0	5	0	Nivolumab	0	0	5	0
	Second line	Anti PD-1	0	0	1	1	Anti PD-1	0	0	1	1	Nivolumab	0	0	0	1	
							Pembrolizumab	0	0	1	0	Dabrafenib	0	0	5	0	
		BRAF in MEK inhibitors		0	0	5	0	BRAF inhibitors	0	0	5	0	Dabrafenib	0	0	5	0
								MEK inhibitors	0	0	5	0	Trametinib	0	0	5	0
		Combination immunotherapy	0	1	4	0	Anti CTLA-4	0	1	4	0	Ipilimumab	0	1	4	0	
	Monochemotherapy		0	0	4	0	Anti PD-1	0	1	4	0	Nivolumab	0	1	4	0	
							Alkylating agents	0	0	4	0	Dakarbazinee	0	0	4	0	
	Subsequent lines	Anti PD-1	0	0	1	1	Anti PD-1	0	0	1	1	Nivolumab	0	0	1	0	
							Pembrolizumab	0	0	1	0	Dabrafenib	0	0	1	1	
		BRAF in MEK inhibitors		0	0	2	1	BRAF inhibitors	0	0	2	1	Dabrafenib	0	0	1	1
								Vemurafenib	0	0	1	0	Cobimetinib	0	0	1	0
								MEK inhibitors	0	0	2	1	Trametinib	0	0	1	1
		Combination immunotherapy		0	0	2	0	Anti CTLA-4	0	0	2	0	Ipilimumab	0	0	2	0
							Anti PD-1	0	0	2	0	Nivolumab	0	0	2	0	
Combination chemotherapy			0	0	1	0	Platinum analogues	0	0	1	0	Carboplatin	0	0	1	0	
							Taxanes	0	0	1	0	Paclitaxel	0	0	1	0	
All		All	0	12	108	11	All	0	20	151	13	All	0	20	151	13	
2022	Neoadjuvant	Anti PD-1	0	0	1	1	Anti PD-1	0	0	1	1	Pembrolizumab	0	0	1	1	
	Adjuvant	Anti PD-1	1	13	36	1	Anti PD-1	1	13	36	1	Nivolumab	0	0	2	0	
							Pembrolizumab	1	13	34	1	Dabrafenib	0	3	4	0	
	BRAF in MEK inhibitors		0	3	4	0	BRAF inhibitors	0	3	4	0	Dabrafenib	0	3	4	0	
							MEK inhibitors	0	3	4	0	Trametinib	0	3	4	0	
	First line	Anti PD-1	0	3	12	6	Anti PD-1	0	3	12	6	Nivolumab	0	0	1	0	
							Pembrolizumab	0	3	11	6	Dabrafenib	0	0	3	1	
		BRAF in MEK inhibitors		0	0	3	1	BRAF inhibitors	0	0	3	1	Vemurafenib	0	0	1	0
								MEK inhibitors	0	0	3	1	Cobimetinib	0	0	1	0
								Trametinib	0	0	3	1	Trametinib	0	0	3	1
	Combination immunotherapy	0	1	4	0	Anti CTLA-4	0	1	4	0	Ipilimumab	0	1	4	0		
	Second line	Anti PD-1	0	0	1	0	Anti PD-1	0	0	1	0	Nivolumab	0	0	1	0	
		BRAF in MEK inhibitors		0	3	0	0	BRAF inhibitors	0	3	0	0	Dabrafenib	0	3	0	0
								MEK inhibitors	0	3	0	0	Trametinib	0	3	0	0
		Combination immunotherapy		0	0	1	0	Anti CTLA-4	0	0	1	0	Ipilimumab	0	0	1	0
								Anti PD-1	0	0	1	0	Nivolumab	0	0	1	0
		Monochemotherapy	0	0	2	0	Alkylating agents	0	0	2	0	Dakarbazinee	0	0	2	0	
		Subsequent lines	Anti PD-1	0	0	1	0	Anti PD-1	0	0	1	0	Nivolumab	0	0	1	0
	Combination immunotherapy			0	2	0	0	Anti CTLA-4	0	2	0	0	Ipilimumab	0	2	0	0
							Anti PD-1	0	2	0	0	Nivolumab	0	2	0	0	
All	All	1	25	65	9	All	1	34	77	10	All	1	34	79	10		

Continued. —>

Table 21e: Continued.

Year	Place in therapy	Regimen	Age group				Therapeutic subgroup	Age group				Drug	Age group			
			0–19	20–49	50–74	75+		0–19	20–49	50–74	75+		0–19	20–49	50–74	75+
Mean of yearly values 2018–2022	Neoadjuvant	Anti PD-1	0,0	0,0	1,5	0,5	Anti PD-1	0,0	0,0	1,5	0,5	Pembrolizumab	0,0	0,0	1,5	0,5
		BRAF in MEK inhibitors	0,0	0,0	2,0	0,0	BRAF inhibitors	0,0	0,0	2,0	0,0	Dabrafenib	0,0	0,0	2,0	0,0
							MEK inhibitors	0,0	0,0	2,0	0,0	Trametinib	0,0	0,0	2,0	0,0
		Other combination of therapies	0,0	1,0	0,0	0,0	Anti PD-1	0,0	1,0	0,0	0,0	Pembrolizumab	0,0	1,0	0,0	0,0
							BRAF inhibitors	0,0	1,0	0,0	0,0	Dabrafenib	0,0	1,0	0,0	0,0
		Combination immunotherapy	0,0	0,0	1,0	0,0	Anti CTLA-4	0,0	0,0	1,0	0,0	Ipilimumab	0,0	0,0	1,0	0,0
							Anti PD-1	0,0	0,0	1,0	0,0	Nivolumab	0,0	0,0	1,0	0,0
		Adjuvant	Anti PD-1	0,2	8,6	28,4	1,8	Anti PD-1	0,2	8,6	28,4	1,8	Nivolumab	0,0	2,0	9,8
	BRAF in MEK inhibitors		0,0	5,0	7,0	0,2	BRAF inhibitors	0,0	5,0	7,0	0,2	Dabrafenib	0,0	5,0	7,0	0,2
							MEK inhibitors	0,0	5,0	7,0	0,2	Trametinib	0,0	5,0	7,0	0,2
	Pembrolizumab		0,2	6,6	18,6	1,6	Anti PD-1	0,0	0,0	1,0	0,0	Ipilimumab	0,0	0,0	1,0	0,0
		Anti PD-1					0,0	0,0	1,0	0,0	Nivolumab	0,0	0,0	1,0	0,0	
	First line	Anti PD-1	0,0	1,6	15,0	6,4	Anti PD-1	0,0	1,6	15,0	6,4	Nivolumab	0,0	0,0	1,6	0,4
		BRAF in MEK inhibitors	0,0	3,2	8,2	1,0	BRAF inhibitors	0,0	3,2	8,2	1,0	Dabrafenib	0,0	2,8	7,6	0,8
							MEK inhibitors	0,0	3,2	8,2	1,0	Vemurafenib	0,0	0,5	1,0	0,3
		Other combination of therapies	0,0	0,0	1,0	0,0	Anti CTLA-4	0,0	0,0	1,0	0,0	Ipilimumab	0,0	0,0	1,0	0,0
							Anti PD-1	0,0	0,0	1,0	0,0	Nivolumab	0,0	0,0	1,0	0,0
		BRAF inhibitors	0,0	0,0	1,0	0,0	BRAF inhibitors	0,0	0,0	1,0	0,0	Dabrafenib	0,0	0,0	1,0	0,0
							MEK inhibitors	0,0	0,0	1,0	0,0	Trametinib	0,0	0,0	1,0	0,0
		Combination immunotherapy	0,0	1,6	3,6	0,0	Anti CTLA-4	0,0	1,6	3,6	0,0	Ipilimumab	0,0	1,6	3,6	0,0
							Anti PD-1	0,0	1,6	3,6	0,0	Nivolumab	0,0	1,6	3,6	0,0
		Combination chemotherapy	0,0	1,0	0,0	0,0	Platinum analogues	0,0	1,0	0,0	0,0	Carboplatin	0,0	1,0	0,0	0,0
							Taxanes	0,0	1,0	0,0	0,0	Paclitaxel	0,0	1,0	0,0	0,0
		Monochemotherapy	0,0	0,3	3,3	0,3	Alkylating agents	0,0	0,3	3,3	0,3	Dakarbazinee	0,0	0,3	3,0	0,3
	Alkylating agents						0,0	0,3	3,3	0,3	Temozolomidee	0,0	0,0	1,0	0,0	
	Second line	Anti PD-1	0,0	0,6	2,4	0,2	Anti PD-1	0,0	0,6	2,4	0,2	Nivolumab	0,0	0,7	1,3	0,3
		BRAF in MEK inhibitors	0,0	1,6	2,6	0,2	BRAF inhibitors	0,0	1,6	2,6	0,2	Dabrafenib	0,0	1,6	2,4	0,2
							MEK inhibitors	0,0	1,6	2,6	0,2	Vemurafenib	0,0	0,0	2,0	0,0
		Combination immunotherapy	0,0	1,2	3,4	0,2	Anti CTLA-4	0,0	1,2	3,4	0,2	Ipilimumab	0,0	1,2	3,4	0,2
							Anti PD-1	0,0	1,2	3,4	0,2	Nivolumab	0,0	1,2	3,4	0,2
		Combination chemotherapy	0,0	1,0	1,5	0,0	Platinum analogues	0,0	1,0	1,5	0,0	Carboplatin	0,0	1,0	1,5	0,0
							Taxanes	0,0	1,0	1,5	0,0	Paclitaxel	0,0	1,0	1,5	0,0
		Monochemotherapy	0,0	1,4	3,8	0,0	Alkylating agents	0,0	1,4	3,8	0,0	Dakarbazinee	0,0	1,2	3,8	0,0
	Alkylating agents						0,0	1,4	3,8	0,0	Temozolomidee	0,0	1,0	0,0	0,0	
	Subsequent lines	Anti PD-1	0,0	0,8	1,0	0,3	Anti PD-1	0,0	0,8	1,0	0,3	Nivolumab	0,0	0,0	1,0	0,0
		BRAF in MEK inhibitors	0,0	0,3	2,7	0,3	BRAF inhibitors	0,0	0,3	2,7	0,3	Dabrafenib	0,0	0,0	1,3	0,3
							MEK inhibitors	0,0	0,3	2,7	0,3	Vemurafenib	0,0	0,3	1,3	0,0
		BRAF inhibitors	0,0	1,0	0,0	0,0	BRAF inhibitors	0,0	1,0	0,0	0,0	Dabrafenib	0,0	1,0	0,0	0,0
							Anti PD-1	0,0	1,0	0,0	0,0	Pembrolizumab	0,0	1,0	0,0	0,0
		Other combination of therapies	0,0	1,0	0,0	0,0	Other protein kinase inhibitors	0,0	1,0	0,0	0,0	Lenvatinib	0,0	1,0	0,0	0,0
							Anti CTLA-4	0,0	1,0	0,8	0,0	Ipilimumab	0,0	1,0	0,8	0,0
		Combination immunotherapy	0,0	1,0	0,8	0,0	Anti PD-1	0,0	1,0	0,8	0,0	Nivolumab	0,0	1,0	0,8	0,0
Anti PD-1							0,0	1,0	0,8	0,0	Nivolumab	0,0	1,0	0,8	0,0	
Combination chemotherapy		0,0	1,5	1,8	0,0	Nitrosourea analogues	0,0	1,0	1,0	0,0	Lomustine	0,0	1,0	1,0	0,0	
						Platinum analogues	0,0	1,5	1,8	0,0	Cisplatin	0,0	1,0	1,0	0,0	
						Taxanes	0,0	1,3	1,5	0,0	Carboplatin	0,0	1,3	1,5	0,0	
	Vinca alcaloids					0,0	1,0	1,0	0,0	Paclitaxel	0,0	0,8	1,8	0,3		
Monochemotherapy	0,0	1,0	1,0	0,0	Alkylating agents	0,0	1,0	1,0	0,0	Vinblastinee	0,0	1,0	1,0	0,0		
					Alkylating agents	0,0	1,0	1,0	0,0	Dakarbazinee	0,0	1,0	1,0	0,0		
Temozolomidee	0,0	1,0	0,0	0,0	Alkylating agents	0,0	1,0	1,0	0,0	Temozolomidee	0,0	1,0	0,0	0,0		
					Alkylating agents	0,0	1,0	1,0	0,0	Temozolomidee	0,0	1,0	0,0	0,0		
All	All	All	0,0	1,4	3,8	0,5	All	0,0	1,3	3,0	0,3	All	0,0	1,0	2,4	0,2

# Assessment of Response to Treatment

Table 22a: Review of performing assessment of response to systemic treatment in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), Slovenia 2018–2022.

Response assessment	Year											
	2018		2019		2020		2021		2022		2018–2022	
	Number	%	Number	%								
All	134	20.8	164	25.5	99	15.4	138	21.5	108	16.8	643	100.0
Done	66	19.9	72	21.8	58	17.5	83	25.1	52	15.7	331	100.0
Not done	68	21.8	92	29.5	41	13.1	55	17.6	56	17.9	312	100.0

Table 22b: Assessment of response to treatment in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by systemic treatment regimen, Slovenia 2018–2022.

Place in therapy	Number of lines	Regimen	Number of treatments (type)	Systemic treatment not completed	Complete response (CR)	Treatment of progressive disease (PD)	Partial response (PR)	Stable disease (SD)	Unknown
Neoadjuvant	8	Anti PD-1	4	0	0	1	0	0	3
		BRAF and MEK inhibitors	2	0	1	0	0	0	1
		Other combination of therapies	1	0	0	0	0	0	1
		Combination immunotherapy	1	0	0	0	0	0	1
Adjuvant	258	Anti PD-1	196	15	30	12	8	22	109
		BRAF and MEK inhibitors	62	2	12	2	2	8	36
First line	217	Anti PD-1	114	6	15	24	17	15	37
		BRAF and MEK inhibitors	61	1	2	10	11	7	30
		Other combination of therapies	1	0	0	0	1	0	0
		Combination immunotherapy	26	1	4	5	3	1	12
		Combination chemotherapy	2	0	0	0	0	0	2
		Monochemotherapy	13	0	0	3	0	0	10
Second line	92	Anti PD-1	16	2	1	1	1	4	7
		BRAF and MEK inhibitors	22	2	0	3	4	3	10
		Combination immunotherapy	24	0	2	9	0	2	11
		Combination chemotherapy	5	0	0	3	0	0	2
		Monochemotherapy	25	1	0	10	3	0	11
Subsequent lines (3+)	46	Anti PD-1	8	1	0	5	0	0	2
		BRAF and MEK inhibitors	10	0	0	2	2	0	6
		BRAF inhibitors	1	0	0	1	0	0	0
		Combination chemotherapy	1	1	0	0	0	0	0
		Combination immunotherapy	7	0	0	1	1	1	4
		BRAF inhibitors	13	0	0	1	3	0	9
		Monochemotherapy	6	0	0	0	0	1	5

# Adverse events

Table 23: Adverse events\* of systemic treatment in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80), by treatment type, Slovenia 2018–2022.

Line	No. of lines	Type of treatment	No. of treatments (type)	None	Blood and lymphatic system	Cardiac	Ear and labyrinth	Endocrine	Eye	Gastrointestinal	General	Hepatobiliary	Infections	Injury	Musculoskeletal and connective tissue	Nervous system	Psychiatric	Respirator and thoracic	Pneumonitis	Skin and subcutaneous tissue	Metabolism and nutrition	Renal and urinary	Vascular	Unknown	All	
Neoadjuvant	8	Anti PD-1	4	1	0	0	0	2	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	7
		BRAF and MEK inhibitors	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
		Other combination of therapies	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
		Combination immunotherapy	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
		All	8	1	0	0	0	3	1	0	2	1	0	2	0	0	0	0	0	1	1	0	0	0	0	12
Adjuvant	258	Anti PD-1	196	64	0	0	4	35	1	35	53	10	3	11	15	13	3	4	4	45	5	0	4	0	309	
		BRAF and MEK inhibitors	62	9	2	3	2	1	1	13	38	9	0	3	0	6	3	1	1	16	0	0	2	0	110	
		All	258	73	2	3	6	36	2	48	91	19	3	14	15	19	6	5	5	61	5	0	6	0	419	
First line	217	Anti PD-1	114	36	4	1	1	13	0	21	20	4	1	7	8	4	2	2	5	35	1	1	0	6	172	
		BRAF and MEK inhibitors	61	29	3	0	2	0	1	10	22	1	0	3	2	0	0	0	0	6	2	1	0	0	82	
		Other combination of therapies	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
		Combination immunotherapy	26	3	1	1	2	3	1	10	6	3	0	6	0	2	0	1	5	12	1	3	1	0	61	
		Combination chemotherapy	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
		Monochemotherapy	13	7	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	0	1	13	
		All	217	77	8	2	5	17	2	42	52	8	1	16	10	6	2	3	10	54	4	5	1	7	332	
Second line	92	Anti PD-1	16	8	0	0	1	0	1	2	1	0	0	0	2	1	0	0	2	3	0	0	0	0	21	
		BRAF and MEK inhibitors	22	6	0	0	0	1	2	6	12	1	0	5	0	1	0	1	0	5	1	0	0	0	41	
		Combination immunotherapy	24	10	0	0	0	2	0	6	4	2	0	1	0	1	1	0	2	4	0	0	0	0	33	
		Combination chemotherapy	5	3	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	7	
		Monochemotherapy	25	13	1	0	0	0	0	4	4	0	0	1	0	1	0	2	0	2	1	0	0	1	30	
		All	92	40	1	0	1	3	3	19	23	3	0	7	3	4	1	3	4	14	2	0	0	1	132	
		Subsequent lines (3+)	46	Anti PD-1	8	4	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	1
BRAF and MEK inhibitors	10			5	1	0	0	0	1	1	1	1	0	0	0	2	0	1	0	1	0	0	0	0	14	
BRAF inhibitors	1			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Other combination of therapies	1			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
Combination immunotherapy	7			2	0	1	0	0	0	2	2	1	0	2	1	0	0	0	0	1	0	0	0	0	12	
Combination chemotherapy	13			5	1	1	1	0	0	3	6	0	0	0	1	0	0	1	0	1	0	0	1	0	21	
Monochemotherapy	6			5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	7	
All	46			22	2	2	1	0	1	7	12	3	0	2	2	2	0	2	0	4	0	0	1	2	65	

\* According to CTCAE (Common Terminology Criteria for Adverse Events).

# Conclusion of Systemic Treatment

Table 24: Reasons for systemic treatment discontinuation in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by treatment type, Slovenia 2018–2022.

Place in therapy	No. of lines	Regimen	No. of treatments (type)	ST not yet completed	Yes, the patient received the complete planned ST	Discontinuation of ST because of recurrence	Discontinuation of ST because of adverse effects	Discontinuation of ST because complete response was reached	Discontinuation of ST because of patient decision	Discontinuation of ST because of patient death	Discontinuation of ST for other reasons
All	621	All	621	79	168	178	107	2	6	36	45
Neoadjuvant	8	Anti PD-1	4	0	3	0	1	0	0	0	0
		BRAF and MEK inhibitors	2	0	0	0	0	0	0	1	1
		Other combination of therapies	1	0	0	0	0	0	0	0	1
		Combination immunotherapy	1	0	0	0	1	0	0	0	0
		All	8	0	3	0	2	0	0	1	2
Adjuvant	256	Anti PD-1	195	26	100	18	40	1	2	1	7
		BRAF and MEK inhibitors	61	2	37	3	16	0	1	0	2
		All	256	28	137	21	56	1	3	1	9
First line	218	Anti PD-1	115	25	18	39	15	0	2	9	7
		BRAF and MEK inhibitors	62	5	0	38	6	0	1	6	6
		Other combination of therapies	1	0	0	0	0	0	0	1	0
		Combination immunotherapy	26	3	1	8	10	1	0	2	1
		Combination chemotherapy	2	0	0	1	0	0	0	0	1
		Monochemotherapy	12	0	1	5	2	0	0	1	3
		All	218	33	20	91	33	1	3	19	18
Second line	93	Anti PD-1	16	4	3	2	3	0	0	3	1
		BRAF and MEK inhibitors	22	5	0	12	3	0	0	0	2
		Combination immunotherapy	24	3	0	9	5	0	0	5	2
		Combination chemotherapy	5	0	0	2	0	0	0	1	2
		Monochemotherapy	26	3	0	19	0	0	0	2	2
		All	93	15	3	44	11	0	0	11	9
Subsequent lines (3+)	46	Anti PD-1	8	1	1	4	1	0	0	0	1
		BRAF and MEK inhibitors	10	0	1	7	1	0	0	0	1
		BRAF inhibitors	1	0	0	1	0	0	0	0	0
		Other combination of therapies	1	1	0	0	0	0	0	0	0
		Combination immunotherapy	7	0	2	3	0	0	0	1	1
		Combination chemotherapy	13	0	1	5	3	0	0	1	3
		Monochemotherapy	6	1	0	2	0	0	0	2	1
		All	46	3	5	22	5	0	0	4	7

# Disease Recurrence

Table 25: First recurrence of disease in patients with invasive skin melanoma (C43, C51, C60, C63, C77–C80) by primary disease site, recurrence type and time from start of primary systemic treatment and disease progression, Slovenia 2018–2022.

Year	ICD code	Primary site	All recurrences	Time to recurrence						Type of recurrence				
				Less than 1 month	1 to 6 months	6 to 12 months	More than 1 year	More than 2 years	Time not calculated*	Local	In transit	In transit and regional	Regional	Systemic
2018	C43, C51, C60, C63, C77–C80	Invasive skin melanoma	100	3	6	6	5	5	75	12	1	11	16	60
	C43, C51, C60, C63	Primary invasive skin melanoma	96	3	4	6	5	5	73	12	1	11	16	56
	C77–C80	Melanoma of secondary or unspecified origin	4	0	2	0	0	0	2	0	0	0	0	4
2019	C43, C51, C60, C63, C77–C80	Invasive skin melanoma	106	3	14	3	11	3	72	10	2	13	20	61
	C43, C51, C60, C63	Primary invasive skin melanoma	100	3	11	3	11	3	69	10	2	13	19	56
	C77–C80	Melanoma of secondary or unspecified origin	6	0	3	0	0	0	3	0	0	0	1	5
2020	C43, C51, C60, C63, C77–C80	Invasive skin melanoma	81	0	9	4	5	3	60	9	1	8	17	46
	C43, C51, C60, C63	Primary invasive skin melanoma	75	0	7	4	5	2	57	9	1	8	17	40
	C77–C80	Melanoma of secondary or unspecified origin	6	0	2	0	0	1	3	0	0	0	0	6
2021	C43, C51, C60, C63, C77–C80	Invazivni kožni melanom	78	8	10	8	8	0	44	6	2	10	16	44
	C43, C51, C60, C63	Primary invasive skin melanoma	67	5	6	6	7	0	43	6	2	10	16	33
	C77–C80	Melanoma of secondary or unspecified origin	11	3	4	2	1	0	1	0	0	0	0	11
2022	C43, C51, C60, C63, C77–C80	Invasive skin melanoma	64	1	10	3	3	–	47	12	0	8	10	34
	C43, C51, C60, C63	Primary invasive skin melanoma	59	1	10	2	2	–	44	12	0	8	10	29
	C77–C80	Melanoma of secondary or unspecified origin	5	0	0	1	1	–	3	0	0	0	0	5
2018 to 2022	C43, C51, C60, C63, C77–C80	Invasive skin melanoma	429	15	49	24	32	11	298	49	6	50	79	245
	C43, C51, C60, C63	Primary invasive skin melanoma	397	12	38	21	30	10	286	49	6	50	78	214
	C77–C80	Melanoma of secondary or unspecified origin	32	3	11	3	2	1	12	0	0	0	1	31

\* No systemic therapy before first recurrence.

# Compliance with Guidelines

Table 26: Adherence to clinical practice guidelines in diagnostics and primary treatment of patients with skin melanoma (C43, C51, C60, C63, C77–C80, D03) by stage (excluding autopsy-only registered cases), Slovenia 2018–2022.

Stage 0													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		319		348		334		358		513		1872	
Mean (age)		59.8		61.3		61.9		63.3		61.0		61.5	
Median (age)		61		64		65		65		62		63	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)***		267	83.7	303	87.1	296	88.6	321	89.7	467	91.0	1654	88.4
Nodular melanoma (8721)		0	-	0	-	0	-	0	-	0	-	0	-
Lentigo maligna (8742)		52	16.3	45	12.9	38	11.4	37	10.3	46	9.0	218	11.6
Superficial spreading melanoma (8743)***		0	-	0	-	0	-	0	-	0	-	0	-
Other histological types (8722, 8723, 8730, 8740, 8741, 8744, 8745, 8761, 8770-8772, 8780)		0	-	0	-	0	-	0	-	0	-	0	-
All (8720–8780)		319	100.0	348	100.0	334	100.0	358	100.0	513	100.0	1872	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	301	94.4	345	99.1	333	99.7	355	99.2	505	98.4	1839	98.2
	PET-CT	0	-	0	-	0	-	0	-	0	-	0	-
	CT	0	-	0	-	0	-	0	-	0	-	0	-
	MRI	0	-	0	-	0	-	0	-	0	-	0	-
	US	1	-	0	-	0	-	3	-	7	0.4	11	0.6
	X-ray	0	-	1	-	1	-	1	-	6	0.3	9	0.5
	Unknown	17	5.3	2	-	0	-	0	-	0	-	19	1.0
Surgical treatment		Number	%	Number	%								
Excision	Yes	312	97.8	343	98.6	331	99.1	354	98.9	510	99.4	1850	98.8
	No	7	2.2	5	1.4	3	-	4	-	3	-	22	1.2
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 2mm	111	35.6	151	44.0	157	47.4	142	40.1	215	42.2	776	41.9
	2 - 5mm	157	50.3	144	42.0	128	38.7	156	44.1	223	43.7	808	43.7
	≥ 5mm	16	5.1	13	3.8	7	2.1	13	3.7	18	3.5	67	3.6
	Unknown	28	9.0	35	10.2	39	11.8	43	12.1	54	10.6	199	10.8
Deep surgical margin	< 2mm	1	-	3	-	12	3.6	11	3.1	7	1.4	34	1.8
	2 - 5mm	16	5.1	34	9.9	30	9.1	48	13.6	47	9.2	175	9.5
	≥ 5mm	17	5.4	23	6.7	13	3.9	30	8.5	28	5.5	111	6.0
	Unknown	278	89.1	283	82.5	276	83.4	265	74.9	428	83.9	1530	82.7
Re-excision if diagnostic excision margin < 5mm	Yes	59	18.9	85	24.8	111	33.6	257	73.0	432	86.2	944	51.4
	No	253	81.1	258	75.2	219	66.4	95	27.0	69	13.8	894	48.6
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Re-excision if diagnostic excision margin < 5mm and within 3 months after diagnosis	Yes	-	-	-	-	-	-	245	95.3	404	93.5	-	-
	No	-	-	-	-	-	-	12	4.7	28	6.5	-	-

Continued. —>

Table 26: Continued.

Stage IA													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		297		309		337		311		499		1753	
Mean (age)		60.2		59.5		59.5		59.3		59.6		59.6	
Median (age)		62		62		59		59		60		60	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		32	10.8	29	9.4	66	19.6	76	24.4	58	11.6	261	14.9
Nodular melanoma (8721)		4	1.3	2	0.6	4	1.2	6	1.9	12	2.4	28	1.6
Lentigo maligna (8742)		23	7.7	9	2.9	10	3.0	7	2.3	11	2.2	60	3.4
Superficial spreading melanoma (8743)		231	77.8	262	84.8	248	73.6	217	69.8	411	82.4	1369	78.1
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770-8772,8780)		7	2.4	7	2.3	9	2.7	5	1.6	7	1.4	35	2.0
All (8720–8780)		297	100.0	309	100.0	337	100.0	311	100.0	499	100.0	1753	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	134	45.1	268	86.7	281	83.4	255	82.0	432	86.6	1370	78.2
	PET-CT	2	-	4	-	1	-	3	-	2	-	12	0.7
	CT	0	-	0	-	1	-	2	-	0	-	3	-
	MRI	0	-	0	-	0	-	0	-	0	-	0	-
	US	16	5.4	13	4.2	19	5.6	14	4.5	19	3.8	81	4.6
	X-ray	26	8.8	35	11.3	50	14.8	48	15.4	61	12.2	220	12.5
	Unknown	129	43.4	0	-	1	-	0	-	0	-	130	7.4
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	5	1.6	11	3.3	0	-	0	-	16	0.9
	Cytologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	Histologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	No metastases	25	8.4	33	10.7	37	11.0	63	20.3	65	13.0	223	12.7
	Unknown	272	91.6	271	87.7	289	85.8	248	79.7	434	87.0	1514	86.4
Surgical treatment		Number	%	Number	%								
Excision	Yes	296	99.7	309	100.0	335	99.4	311	100.0	497	99.6	1748	99.7
	No	1	-	0	-	2	-	0	-	2	-	5	0.3
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	<10mm	283	95.6	304	98.4	314	93.7	303	97.4	483	97.2	1687	96.5
	10mm and more	2	-	1	-	5	1.5	0	-	7	1.4	15	0.9
	Unknown	11	3.7	4	-	16	4.8	8	2.6	7	1.4	46	2.6
Deep surgical margin	<10mm	215	72.6	261	84.5	310	92.5	285	91.6	395	79.5	1466	83.9
	10mm and more	12	4.1	6	1.9	5	1.5	8	2.6	13	2.6	44	2.5
	Unknown	69	23.3	42	13.6	20	6.0	18	5.8	89	17.9	238	13.6
Re-excision if diagnostic excision margin <10mm	Yes	95	32.1	127	41.1	171	51.0	269	87.1	448	91.6	1110	63.9
	No	201	67.9	182	58.9	164	49.0	40	12.9	41	8.4	628	36.1
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Re-excision if diagnostic excision margin <10mm and within 3 months after diagnosis	Yes	-	-	-	-	-	-	243	90.3	409	91.3	-	-
	No	-	-	-	-	-	-	26	9.7	39	8.7	-	-

Continued. —>

Table 26: Continued.

Stage IB													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		83		67		73		86		106		415	
Mean (age)		59.6		58.8		61.9		61.1		60.4		60.4	
Median (age)		62		60		66		63.5		62		63	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		10	12.0	12	17.9	16	21.9	13	15.1	11	10.4	62	14.9
Nodular melanoma (8721)		10	12.0	4	6.0	4	5.5	3	3.5	6	5.7	27	6.5
Lentigo maligna (8742)		4	4.8	3	4.5	3	4.1	1	1.2	2	1.9	13	3.1
Superficial spreading melanoma (8743)		57	68.7	44	65.7	48	65.8	59	68.6	82	77.4	290	69.9
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770-8772,8780)		2	2.4	4	6.0	2	2.7	10	11.6	5	4.7	23	5.5
All (8720–8780)		83	100.0	67	100.0	73	100.0	86	100.0	106	100.0	415	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	3	-	8	11.9	11	15.1	3	3.5	14	13.2	39	9.4
	PET-CT	1	-	5	7.5	0	-	8	9.3	5	4.7	19	4.6
	CT	1	-	1	-	2	-	2	-	4	-	10	2.4
	MRI	0	-	0	-	0	-	0	-	0	-	0	-
	US	20	24.1	19	28.4	14	19.2	21	24.4	14	13.2	88	21.2
	X-ray	73	88.0	53	79.1	61	83.6	82	95.3	90	84.9	359	86.5
	Unknown	3	-	1	-	0	-	0	-	0	-	4	-
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	5	7.5	16	21.9	0	-	0	-	21	5.1
	Cytologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	Histologically confirmed	0	-	1	-	1	-	0	-	0	-	2	-
	No metastases	68	81.9	55	82.1	48	65.8	75	87.2	80	75.5	326	78.6
	Unknown	15	18.1	6	9.0	8	11.0	11	12.8	26	24.5	66	15.9
BRAF status determination	Negative	1	-	1	-	0	-	1	-	9	8.5	12	2.9
	Positive	2	-	2	-	2	-	4	-	5	4.7	15	3.6
	Unknown	80	96.4	64	95.5	71	97.3	81	94.2	92	86.8	388	93.5
	Testing unsuccessful	0	-	0	-	0	-	0	-	0	-	0	-
Surgical treatment		Number	%	Number	%								
Excision	Yes	82	98.8	67	100.0	73	100.0	86	100.0	106	100.0	414	99.8
	No	1	-	0	-	0	-	0	-	0	-	1	-
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 10mm	78	95.1	62	92.5	68	93.2	82	95.3	102	96.2	392	94.7
	10–20mm	2	-	1	-	1	-	1	-	0	-	5	1.2
	≥ 20mm	0	-	0	-	0	-	0	-	2	-	2	-
	Unknown	2	-	4	-	4	-	3	-	2	-	15	3.6
Deep surgical margin	< 10mm	62	75.6	57	85.1	65	89.0	77	89.5	88	83.0	349	84.3
	10–20mm	9	11.0	3	-	5	6.8	5	5.8	7	6.6	29	7.0
	≥ 20mm	0	-	0	-	3	-	0	-	0	-	0	-
	Unknown	11	13.4	7	10.4	0	-	4	-	11	10.4	36	8.7
Re-excision if diagnostic excision margin < 10mm	Yes	69	85.2	63	94.0	69	97.2	80	95.2	97	96.0	378	93.6
	No	12	14.8	4	-	2	-	4	-	4	-	26	6.4
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy (SNB)	Yes	68	81.9	59	88.1	65	89.0	74	86.0	86	81.1	352	84.8
	No	15	18.1	8	11.9	8	11.0	12	14.0	10	9.4	53	12.8
	Not carried out*	0	-	0	-	0	-	0	-	10	9.4	10	2.4
Positive lymph nodes at SNB	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	68	100.0	59	100.0	65	100.0	74	100.0	86	100.0	352	100.0
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 26: Continued.

Stage IB													
		2018		2019		2020**		2021		2022		2018–2022	
Surgical treatment		Number	%	Number	%								
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	0	-	0	-	0	-	0	-	0	-
	0,3 – 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
	> 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
SNB completed within 3 months after diagnosis (authorization of pathological report of excision biopsy)	Yes	-	-	-	-	-	-	73	98.6	81	94.2	-	-
	No	-	-	-	-	-	-	1	1.4	5	5.8	-	-
Lymphadenectomy	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	83	100.0	67	100.0	73	100.0	86	100.0	106	100.0	415	100.0
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Lymphadenectomy completed within 4 months after diagnosis (authorization of pathological report or positive cytology or positive SNB)	Yes	-	-	-	-	-	-	0	-	0	-	-	-
	No	-	-	-	-	-	-	0	-	0	-	-	-
Adjuvant systemic treatment		Number	%	Number	%								
Adjuvant systemic treatment	Yes	0	-	1	-	0	-	0	-	0	-	1	-
	No	83	100.0	66	98.5	73	100.0	86	100.0	105	99.1	413	99.5
	Not carried out*	0	-	0	-	0	-	0	-	1	-	1	-
Immunotherapy with interferon α2b		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
BRAF in MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
Ipilimumab		0	-	0	-	0	-	0	-	0	-	0	-
Nivolumab		0	-	1	-	0	-	0	-	0	-	1	-
Pembrolizumab		0	-	0	-	0	-	0	-	0	-	0	-
Began systemic treatment within 8 weeks after last surgery	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	0	-	1	-	0	-	0	-	0	-	1	-
Stage IIA													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		39		67		54		40		62		262	
Mean (age)		66.0		64.6		66.2		68.2		65.9		66.0	
Median (age)		66		67		71		69.5		65.5		68	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		2	5.1	15	22.4	10	18.5	5	12.5	9	14.5	41	15.6
Nodular melanoma (8721)		8	20.5	12	17.9	12	22.2	13	32.5	20	32.3	65	24.8
Lentigo maligna (8742)		1	2.6	3	4.5	2	3.7	1	2.5	0	0.0	7	2.7
Superficial spreading melanoma (8743)		25	64.1	32	47.8	25	46.3	20	50.0	29	46.8	131	50.0
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770–8772,8780)		3	7.7	5	7.5	5	9.3	1	2.5	4	6.5	18	6.9
All (8720–8780)		39	100.0	67	100.0	54	100.0	40	100.0	62	100.0	262	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	3	-	11	16.4	6	11.1	5	12.5	7	11.3	32	12.2
	PET-CT	0	-	0	-	1	-	3	-	0	-	4	-
	CT	2	-	0	-	1	-	1	-	3	-	7	2.7
	MRI	0	-	0	-	0	-	0	-	2	-	2	-
	US	15	38.5	23	34.3	15	27.8	9	22.5	17	27.4	79	30.2
	X-ray	28	71.8	55	82.1	45	83.3	33	82.5	51	82.3	212	80.9
	Unknown	2	-	1	-	1	-	0	-	0	-	4	1.5

Continued. —&gt;

Table 26: Continued.

Stage IIA													
		2018		2019		2020**		2021		2022		2018–2022	
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	3	-	9	16.7	0	-	0	-	12	4.6
	Cytologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	Histologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	No metastases	26	66.7	49	73.1	33	61.1	33	82.5	43	69.4	184	70.2
	Unknown	13	33.3	15	22.4	12	22.2	7	17.5	19	30.6	66	25.2
BRAF status determination	Negative	4	-	7	10.4	3	-	2	-	7	11.3	23	8.8
	Positive	3	-	2	-	3	-	2	-	4	-	14	5.3
	Unknown	32	82.1	58	86.6	48	88.9	36	90.0	51	82.3	225	85.9
	Testing unsuccessful	0	-	0	-	0	-	0	-	0	-	0	-
Surgical treatment		Number	%	Number	%								
Excision	Yes	39	100.0	67	100.0	53	98.1	40	100.0	62	100.0	261	99.6
	No	0	-	0	-	1	-	0	-	0	-	1	-
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 20mm	38	97.4	62	92.5	49	92.5	37	92.5	58	93.5	244	93.5
	20mm and more	0	-	0	-	0	-	0	-	1	-	1	-
	Unknown	1	-	5	7.5	4	-	3	-	3	-	16	6.1
Deep surgical margin	< 20mm	33	84.6	59	88.1	50	94.3	38	95.0	52	83.9	232	88.9
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	6	15.4	8	11.9	3	-	2	-	10	16.1	29	11.1
Re-excision if diagnostic excision margin < 20mm	Yes	30	76.9	58	86.6	48	90.6	35	89.7	56	100.0	227	89.4
	No	9	23.1	9	13.4	5	9.4	4	-	0	-	27	10.6
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy (SNB)	Yes	26	66.7	52	77.6	41	75.9	33	82.5	45	72.6	197	75.2
	No	12	30.8	15	22.4	13	24.1	5	12.5	12	19.4	57	21.8
	Not carried out*	1	-	0	-	0	-	2	-	5	8.1	8	3.1
Positive lymph nodes at SNB	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	26	100.0	52	100.0	41	100.0	33	100.0	45	100	197	100.0
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	0	-	0	-	0	-	0	-	0	-
	0,3 – 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
	> 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
SNB completed within 3 months after diagnosis (authorization of pathological report of excision biopsy)	Yes	-	-	-	-	-	-	31	93.9	42	93.3	-	-
	No	-	-	-	-	-	-	2	-	3	-	-	-
Lymphadenectomy	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	39	100.0	67	100.0	54	100.0	40	100.0	62	100.0	262	100.0
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Lymphadenectomy completed within 4 months after diagnosis (authorization of pathological report or positive cytology or positive SNB)	Yes	-	-	-	-	-	-	0	-	0	-	-	-
	No	-	-	-	-	-	-	0	-	0	-	-	-
Adjuvant systemic treatment		Number	%	Number	%								
Adjuvant systemic treatment	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	39	100.0	67	100.0	54	100.0	40	100.0	60	96.8	260	99.2
	Not carried out*	0	-	0	-	0	-	0	-	2	-	2	-
Immunotherapy with interferon α2b		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
BRAF in MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
Ipilimumab		0	-	0	-	0	-	0	-	0	-	0	-

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Table 26: Continued.

Stage IIA													
		2018		2019		2020**		2021		2022		2018–2022	
Nivolumab		0	-	0	-	0	-	0	-	0	-	0	-
Pembrolizumab		0	-	0	-	0	-	0	-	0	-	0	-
Began systemic treatment within 8 weeks after last surgery	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	0	-	0	-	0	-	0	-	0	-	0	-
Stage IIB													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		40		45		38		26		50		199	
Mean (age)		69.7		67.3		69.6		70.7		71.5		69.7	
Median (age)		71.5		70		68.5		75		73		72	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		4	-	8	17.8	5	13.2	6	23.1	3	-	26	13.1
Nodular melanoma (8721)		18	45.0	17	37.8	10	26.3	14	53.8	29	58.0	88	44.2
Lentigo maligna (8742)		0	-	2	-	0	-	1	-	1	-	4	-
Superficial spreading melanoma (8743)		16	40.0	13	28.9	20	52.6	4	-	15	30.0	68	34.2
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770–8772,8780)		2	-	5	11.1	3	-	1	-	2	-	13	6.5
All (8720–8780)		40	100.0	45	100.0	38	100.0	26	100.0	50	100.0	199	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	1	-	10	22.2	5	13.2	3	-	8	16.0	27	13.6
	PET-CT	4	-	4	-	6	15.8	7	26.9	5	10.0	26	13.1
	CT	2	-	0	-	5	13.2	3	-	2	-	12	6.0
	MRI	0	-	0	-	1	-	0	-	0	-	1	-
	US	14	35.0	13	28.9	17	44.7	8	30.8	24	48.0	76	38.2
	X-ray	33	82.5	35	77.8	30	78.9	19	73.1	38	76.0	155	77.9
	Unknown	5	12.5	0	-	0	-	0	-	0	-	5	2.5
Mikroskopska potrditev regionalnih zasevkov	Metastases not confirmed	0	-	4	-	6	15.8	0	-	0	-	10	5.0
	Cytologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	Histologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	No metastases	29	72.5	34	75.6	19	50.0	16	61.5	28	56.0	126	63.3
	Unknown	11	27.5	7	15.6	13	34.2	10	38.5	22	44.0	63	31.7
BRAF status determination	Negative	2	-	7	15.6	6	15.8	1	-	5	10.0	21	10.6
	Positive	2	-	5	11.1	0	-	2	-	8	16.0	17	8.5
	Unknown	36	90.0	33	73.3	32	84.2	23	88.5	37	74.0	161	80.9
	Testing unsuccessful	0	-	0	-	0	-	0	-	0	-	0	-
Surgical treatment		Number	%	Number	%								
Excision	Yes	40	100.0	45	100.0	38	100.0	26	100.0	50	100.0	199	100
	No	0	-	0	-	0	-	0	-	0	-	0	-
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 20mm	36	90.0	40	88.9	36	94.7	25	96.2	48	96.0	185	93.0
	20mm and more	0	-	0	-	0	-	0	-	1	-	1	-
	Unknown	4	-	5	11.1	2	-	1	-	1	-	13	6.5
Deep surgical margin	< 20mm	33	82.5	38	84.4	35	92.1	25	96.2	41	82.0	172	86.4
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	7	17.5	7	15.6	3	7.9	1	-	9	18.0	27	13.6
Re-excision if diagnostic excision margin < 20mm	Yes	32	80.0	38	84.4	31	81.6	18	72.0	37	92.5	156	83.0
	No	8	20.0	7	15.6	7	18.4	7	28.0	3	-	32	17.0
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —&gt;

Table 26: Continued.

Stage IIB													
		2018		2019		2020**		2021		2022		2018–2022	
Surgical treatment		Number	%	Number	%								
Sentinel lymph node biopsy (SNB)	Yes	29	72.5	39	86.7	24	63.2	16	61.5	29	58.0	137	68.8
	No	10	25.0	6	13.3	13	34.2	9	34.6	12	24.0	50	25.1
	Not carried out*	1	-	0	-	1	-	1	-	9	18.0	12	6.0
Positive lymph nodes at SNB	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	29	100.0	39	100.0	24	100.0	16	100.0	29	100.0	137	100.0
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	0	-	0	-	0	-	0	-	0	-
	0,3 – 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
	> 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
SNB completed within 3 months after diagnosis (authorization of pathological report of excision biopsy)	Yes	-	-	-	-	-	-	15	93.8	26	89.7	-	-
	No	-	-	-	-	-	-	1	-	3	-	-	-
Lymphadenectomy	Yes	0	-	0	-	1	-	0	-	0	-	1	-
	No	40	100.0	45	100.0	37	97.4	26	100.0	50	100.0	198	99.5
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Lymphadenectomy completed within 4 months after diagnosis (authorization of pathological report or positive cytology or positive SNB)	Yes	-	-	-	-	-	-	0	-	0	-	-	-
	No	-	-	-	-	-	-	0	-	0	-	-	-
Adjuvant systemic treatment		Number	%	Number	%								
Adjuvant systemic treatment	Yes	0	-	0	-	0	-	0	-	6	12.0	6	3.0
	No	40	100.0	45	100.0	38	100.0	26	100.0	44	88.0	193	97.0
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Immunotherapy with interferon α2b		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
BRAF in MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
Ipilimumab		0	-	0	-	0	-	0	-	0	-	0	-
Nivolumab		0	-	0	-	0	-	0	-	0	-	0	-
Pembrolizumab		0	-	0	-	0	-	0	-	6	100.0	6	100.0
Began systemic treatment within 8 weeks after last surgery	Yes	0	-	0	-	0	-	0	-	6	100.0	6	100.0
	No	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 26: Continued.

Stage IIC													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		44		39		42		31		54		210	
Mean (age)		73.3		75.4		75.8		76.1		76.1		75.3	
Median (age)		78.5		77		81		81		77		78.5	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		11	25.0	6	15.4	8	19.0	6	19.4	5	9.3	36	17.1
Nodular melanoma (8721)		19	43.2	22	56.4	23	54.8	18	58.1	30	55.6	112	53.3
Lentigo maligna (8742)		1	-	0	-	0	-	0	-	0	-	1	-
Superficial spreading melanoma (8743)		13	29.5	10	25.6	11	26.2	5	16.1	16	29.6	55	26.2
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770-8772,8780)		0	-	1	-	0	-	2	-	3	-	6	2.9
All (8720–8780)		44	100.0	39	100.0	42	100.0	31	100.0	54	100.0	210	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	4	-	12	30.8	10	23.8	5	16.1	11	20.4	42	20.0
	PET-CT	11	25.0	4	-	2	-	3	-	8	14.8	28	13.3
	CT	2	-	0	-	6	14.3	2	-	4	-	14	6.7
	MRI	0	-	0	-	0	-	0	-	2	-	2	-
	US	17	38.6	16	41.0	16	38.1	17	54.8	22	40.7	88	41.9
	X-ray	37	84.1	24	61.5	29	69.0	23	74.2	33	61.1	146	69.5
	Unknown	1	-	0	-	0	-	0	-	0	-	1	-
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	5	12.8	4	-	0	-	0	-	9	4.3
	Cytologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	Histologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	No metastases	26	59.1	15	38.5	21	50.0	9	29.0	21	38.9	92	43.8
	Unknown	18	40.9	19	48.7	17	40.5	22	71.0	33	61.1	109	51.9
BRAF status determination	Negative	4	-	2	-	3	-	1	-	11	20.4	21	10.0
	Positive	4	-	2	-	6	14.3	6	19.4	4	-	22	10.5
	Unknown	36	81.8	35	89.7	33	78.6	24	77.4	39	72.2	167	79.5
	Testing unsuccessful	0	-	0	-	0	-	0	-	0	-	0	-
Surgical treatment		Number	%	Number	%								
Excision	Yes	44	100.0	38	97.4	42	100.0	31	100.0	54	100.0	209	99.5
	No	0	-	1	-	0	-	0	-	0	-	1	-
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 20mm	39	88.6	37	97.4	41	97.6	28	90.3	52	96.3	197	94.3
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	5	11.4	1	-	1	-	3	-	2	-	12	5.7
Deep surgical margin	< 20mm	39	88.6	36	94.7	36	85.7	28	90.3	51	94.4	190	90.9
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	5	11.4	2	-	6	14.3	3	-	3	-	19	9.1
Re-excision if diagnostic excision margin < 20mm	Yes	31	70.5	26	70.3	28	68.3	16	59.3	33	86.8	134	71.7
	No	13	29.5	11	29.7	13	31.7	11	40.7	5	13.2	53	28.3
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy (SNB)	Yes	26	59.1	15	38.5	23	54.8	8	25.8	21	38.9	93	44.3
	No	18	40.9	23	59.0	19	45.2	20	64.5	22	40.7	102	48.6
	Not carried out*	0	-	1	-	0	-	3	-	11	20.4	15	7.1
Positive lymph nodes at SNB	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	26	100.0	15	100.0	23	100.0	8	100.0	21	100.0	93	100.0
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	0	-	0	-	0	-	0	-	0	-
	0,3 – 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
	> 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —&gt;

Table 26: Continued.

Stage IIC													
		2018		2019		2020**		2021		2022		2018–2022	
Surgical treatment		Number	%	Number	%								
SNB completed within 3 months after diagnosis (authorization of pathological report of excision biopsy)	Yes	-	-	-	-	-	-	8	100.0	19	90.5	-	-
	No	-	-	-	-	-	-	0	-	2	-	-	-
Lymphadenectomy	Yes	0	-	1	-	1	-	0	-	0	-	2	-
	No	44	100.0	38	97.4	41	97.6	31	100.0	54	100.0	208	99.0
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Lymphadenectomy completed within 4 months after diagnosis (authorization of pathological report or positive cytology or positive SNB)	Yes	-	-	-	-	-	-	0	-	0	-	-	-
	No	-	-	-	-	-	-	0	-	0	-	-	-
Adjuvant systemic treatment		Number	%	Number	%								
Adjuvant systemic treatment	Yes	0	-	0	-	0	-	0	-	5	9.3	5	2.4
	No	43	97.7	38	97.4	42	100.0	31	100.0	45	83.3	199	94.8
	Not carried out*	1	-	1	-	0	-	0	-	4	-	6	2.9
Immunotherapy with interferon α2b		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
BRAF in MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
Ipilimumab		0	-	0	-	0	-	0	-	0	-	0	-
Nivolumab		0	-	0	-	0	-	0	-	0	-	0	-
Pembrolizumab		0	-	0	-	0	-	0	-	5	100.0	5	100.0
Began systemic treatment within 8 weeks after last surgery	Yes	0	-	0	-	0	-	0	-	1	-	1	-
	No	0	-	0	-	0	-	0	-	4	-	4	-
Stage IIIA													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		9		12		9		10		9		49	
Mean (age)		57.9		51.3		58.4		56.7		48.4		54.4	
Median (age)		62		54.5		60		58		46		56	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		2	22.2	4	33.3	1	11.1	3	30.0	2	22.2	12	24.5
Nodular melanoma (8721)		2	22.2	1	8.3	1	11.1	1	10.0	1	11.1	6	12.2
Lentigo maligna (8742)		0	0.0	1	8.3	0	0.0	0	0.0	0	0.0	1	2.0
Superficial spreading melanoma (8743)		5	55.6	5	41.7	6	66.7	6	60.0	6	66.7	28	57.1
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770-8772,8780)		0	0.0	1	8.3	1	11.1	0	0.0	0	0.0	2	4.1
All (8720–8780)		9	100.0	12	100.0	9	100.0	10	100.0	9	100.0	49	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	1	-	0	-	0	-	0	-	0	-	1	-
	PET-CT	2	-	5	41.7	5	55.6	7	70.0	6	66.7	25	51.0
	CT	1	-	3	-	1	-	2	-	1	-	8	16.3
	MRI	1	-	0	-	2	-	0	-	0	-	3	-
	US	3	-	6	50.0	2	-	2	-	4	-	17	34.7
	X-ray	8	88.9	12	100.0	7	77.8	10	100.0	8	88.9	45	91.8
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	1	-	0	-	1	-	1	-	3	-
	Cytologically confirmed	0	-	0	-	0	-	1	-	0	-	1	-
	Histologically confirmed	9	100.0	11	91.7	9	100.0	8	80.0	8	88.9	45	91.8
	No metastases	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 26: Continued.

Stage IIIA													
		2018		2019		2020**		2021		2022		2018–2022	
		Number	%	Number	%								
Diagnostic treatment													
BRAF status determination	Negative	2	-	2	-	4	-	3	-	3	-	14	28.6
	Positive	2	-	7	58.3	1	-	6	60.0	3	-	19	38.8
	Unknown	5	55.6	3	-	4	-	1	-	1	-	14	28.6
	Testing unsuccessful	0	-	0	-	0	-	0	-	2	-	2	-
Surgical treatment													
Excision	Yes	7	77.8	12	100.0	8	88.9	9	90.0	8	88.9	44	89.8
	No	2	-	0	-	1	-	1	-	1	-	5	10.2
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 20mm	7	100.0	12	100.0	8	100.0	9	100.0	8	100.0	44	100.0
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Deep surgical margin	< 20mm	7	100.0	9	75.0	6	75.0	8	88.9	7	87.5	37	84.1
	20mm and more	0	-	0	-	1	-	0	-	0	-	1	-
	Unknown	0	-	3	-	1	-	1	-	1	-	6	13.6
Re-excision if diagnostic excision margin < 20mm	Yes	6	85.7	12	100.0	6	75.0	9	100.0	8	100.0	41	93.2
	No	1	-	0	-	2	-	0	-	0	-	3	-
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy (SNB)	Yes	8	88.9	11	91.7	8	88.9	9	90.0	7	77.8	43	87.8
	No	1	-	1	-	1	-	1	-	2	-	6	12.2
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Positive lymph nodes at SNB	Yes	8	100.0	11	100.0	8	100.0	9	100.0	7	100.0	43	100.0
	No	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Diameter of the largest positive lymph node at SNB	< 0,3mm	1	-	2	-	2	-	0	-	2	-	7	16.3
	0,3 – 1,0mm	1	-	3	-	2	-	2	-	4	-	12	27.9
	> 1,0mm	6	75.0	6	54.5	4	-	7	77.8	1	-	24	55.8
Lymphadenectomy	Yes	7	77.8	5	41.7	4	-	2	-	2	-	20	40.8
	No	2	-	7	58.3	5	55.6	8	80.0	7	77.8	29	59.2
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Lymphadenectomy completed within 4 months after diagnosis (authorization of pathological report or positive cytology or positive SNB)	Yes	-	-	-	-	-	-	1	-	1	-	-	-
	No	-	-	-	-	-	-	1	-	1	-	-	-
Adjuvant systemic treatment													
Adjuvant systemic treatment	Yes	2	-	9	75.0	5	55.6	5	50.0	8	88.9	29	59.2
	No	5	55.6	3	-	2	-	5	50.0	1	-	16	32.7
	Not carried out*	2	-	0	-	2	-	0	-	0	-	4	-
Immunotherapy with interferon α2b	0	-	0	-	0	-	0	-	0	-	0	-	
BRAF inhibitors	0	-	0	-	0	-	0	-	0	-	0	-	
MEK inhibitors	0	-	0	-	0	-	0	-	0	-	0	-	
BRAF in MEK inhibitors	0	-	6	66.7	0	-	1	-	1	-	8	27.6	
Ipilimumab	0	-	0	-	0	-	0	-	0	-	0	-	
Nivolumab	1	-	0	-	0	-	0	-	1	-	2	-	
Pembrolizumab	1	-	3	-	5	100.0	4	-	6	75.0	19	65.5	
Began systemic treatment within 8 weeks after last surgery	Yes	2	-	7	77.8	5	100.0	2	-	6	75.0	22	75.9
	No	0	-	2	-	0	-	3	-	2	-	7	24.1

Continued. —&gt;

Table 26: Continued.

Stage IIIB													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		23		20		19		21		23		106	
Mean (age)		69.5		54.1		64.6		64.9		63.4		63.5	
Median (age)		70		53.5		63		61		64		62	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		4	-	6	30.0	4	-	5	23.8	4	-	23	21.7
Nodular melanoma (8721)		4	-	2	-	1	-	5	23.8	9	39.1	21	19.8
Lentigo maligna (8742)		0	-	0	-	1	-	0	-	0	-	1	-
Superficial spreading melanoma (8743)		13	56.5	11	55.0	13	68.4	9	42.9	9	39.1	55	51.9
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770–8772,8780)		2	-	1	-	0	-	2	-	1	-	6	5.7
All (8720–8780)		23	100.0	20	100.0	19	100.0	21	100.0	23	100.0	106	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	3	-	1	-	1	-	1	-	0	-	6	-
	PET-CT	11	47.8	11	55.0	11	57.9	15	71.4	16	69.6	64	60.4
	CT	4	-	0	-	3	-	9	42.9	6	26.1	22	20.8
	MRI	0	-	0	-	0	-	0	-	0	-	0	-
	US	8	34.8	13	65.0	7	36.8	9	42.9	7	30.4	44	41.5
	X-ray	20	87.0	16	80.0	16	84.2	19	90.5	21	91.3	92	86.8
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	0	-	0	-	3	-	1	-	4	-
	Cytologically confirmed	0	-	1	-	0	-	0	-	0	-	1	-
	Histologically confirmed	21	91.3	17	85.0	12	63.2	15	71.4	20	87.0	85	80.2
	No metastases	1	-	1	-	4	-	1	-	0	-	7	6.6
	Unknown	1	-	1	-	3	-	2	-	2	-	9	8.5
BRAF status determination	Negative	5	21.7	3	-	8	42.1	4	-	8	34.8	28	26.4
	Positive	5	21.7	10	50.0	5	26.3	8	38.1	8	34.8	36	34.0
	Unknown	13	56.5	7	35.0	6	31.6	8	38.1	6	26.1	40	37.7
	Testing unsuccessful	0	-	0	-	0	-	1	-	1	-	2	-
Surgical treatment		Number	%	Number	%								
Excision	Yes	19	82.6	15	75.0	17	89.5	19	90.5	22	95.7	92	86.8
	No	4	-	5	25.0	2	-	2	-	1	-	14	13.2
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 20mm	19	100.0	15	100.0	16	94.1	19	100.0	20	90.9	89	96.7
	20mm and more	0	-	0	-	0	-	0	-	1	-	1	-
	Unknown	0	-	0	-	1	-	0	-	1	-	2	-
Deep surgical margin	< 20mm	17	89.5	14	93.3	16	94.1	16	84.2	17	77.3	80	87.0
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	2	-	1	-	1	-	3	-	5	22.7	12	13.0
Re-excision if diagnostic excision margin < 20mm	Yes	16	84.2	15	100.0	15	88.2	17	89.5	20	90.9	83	90.2
	No	3	-	0	-	2	-	2	-	2	-	9	9.8
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy (SNB)	Yes	14	60.9	14	70.0	16	84.2	17	81.0	19	82.6	80	75.5
	No	9	39.1	6	30.0	3	-	4	-	4	-	26	24.5
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Positive lymph nodes at SNB	Yes	13	92.9	11	78.6	12	75.0	13	76.5	15	78.9	64	80.0
	No	1	-	3	-	4	-	4	-	4	-	16	20.0
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 26: Continued.

Stage IIIB													
		2018		2019		2020**		2021		2022		2018–2022	
Surgical treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	2	-	0	-	2	-	3	-	7	10.9
	0,3 – 1,0mm	7	53.8	4	-	3	-	6	46.2	2	-	22	34.4
	> 1,0mm	6	46.2	5	45.5	9	75.0	5	38.5	10	66.7	35	54.7
Lymphadenectomy	Yes	12	52.2	9	45.0	2	-	4	-	1	-	28	26.4
	No	11	47.8	11	55.0	17	89.5	17	81.0	22	95.7	78	73.6
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
ILP	Yes	1	-	0	-	0	-	0	-	0	-	1	-
	No	22	95.7	20	100.0	19	100.0	21	100.0	23	100.0	105	99.1
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Surgery (lymphadenectomy, excision, ILP) within 4 weeks after diagnosis (authorization of pathological report of excision biopsy)	Yes	-	-	-	-	-	-	19	90.5	22	95.7	-	-
	No	-	-	-	-	-	-	0	-	0	-	-	-
Adjuvant RT treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Radiotherapy	Yes	4	-	3	-	1	-	0	-	1	-	9	8.5
	No	19	82.6	17	85.0	18	94.7	21	100.0	22	95.7	97	91.5
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Radiotherapy type	Primary	0	-	0	-	0	-	0	-	0	-	0	-
	Postoperative	4	-	3	-	1	-	0	-	0	-	8	88.9
	Palliative	0	-	0	-	0	-	0	-	1	-	1	-
Began radiotherapy within 6 weeks after diagnosis (authorization of pathological report of excision biopsy)	Yes	-	-	-	-	-	-	0	-	1	-	-	-
	No	-	-	-	-	-	-	0	-	0	-	-	-
Adjuvant systemic treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adjuvant systemic treatment	Yes	4	-	8	40.0	7	36.8	10	47.6	14	60.9	43	40.6
	No	18	78.3	12	60.0	12	63.2	9	42.9	6	26.1	57	53.8
	Not carried out*	1	-	0	-	0	-	2	-	3	-	6	5.7
Immunotherapy with interferon α2b		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
BRAF in MEK inhibitors		1	-	6	75.0	1	-	1	-	2	-	11	25.6
Ipilimumab		0	-	0	-	0	-	0	-	0	-	0	-
Nivolumab		3	-	2	-	1	-	2	-	0	-	8	18.6
Pembrolizumab		0	-	0	-	5	71.4	7	70.0	12	85.7	24	55.8
Began systemic treatment within 8 weeks after last surgery	Yes	2	-	6	75.0	7	100.0	9	90.0	8	57.1	32	74.4
	No	2	-	2	-	0	-	1	-	6	42.9	11	25.6

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Table 26: Continued.

Stage IIIC													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		48		53		44		62		44		251	
Mean (age)		68.5		66.8		67.3		68.7		70.5		68.3	
Median (age)		72.5		68		71		70		71		70	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		15	31.3	11	20.8	10	22.7	16	25.8	10	22.7	62	24.7
Nodular melanoma (8721)		15	31.3	18	34.0	18	40.9	32	51.6	17	38.6	100	39.8
Lentigo maligna (8742)		2	-	0	-	0	-	0	-	0	-	2	-
Superficial spreading melanoma (8743)		15	31.3	21	39.6	12	27.3	14	22.6	13	29.5	75	29.9
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770–8772,8780)		1	-	3	-	4	-	0	-	4	-	12	4.8
All (8720–8780)		48	100.0	53	100.0	44	100.0	62	100.0	44	100.0	251	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	1	-	2	-	3	-	1	-	3	-	10	4.0
	PET-CT	26	54.2	31	58.5	33	75.0	34	54.8	29	65.9	153	61.0
	CT	7	14.6	7	13.2	9	20.5	31	50.0	12	27.3	66	26.3
	MRI	0	-	0	-	2	-	5	8.1	1	-	8	3.2
	US	23	47.9	31	58.5	25	56.8	34	54.8	23	52.3	136	54.2
	X-ray	39	81.3	44	83.0	34	77.3	47	75.8	33	75.0	197	78.5
	Unknown	2	-	0	-	0	-	0	-	0	-	2	-
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	3	-	5	11.4	8	12.9	5	11.4	21	8.4
	Cytologically confirmed	0	-	1	-	2	-	4	-	3	-	10	4.0
	Histologically confirmed	41	85.4	42	79.2	33	75.0	44	71.0	32	72.7	192	76.5
	No metastases	3	-	3	-	1	-	3	-	0	-	10	4.0
	Unknown	4	-	4	-	3	-	3	-	4	-	18	7.2
BRAF status determination	Negative	7	14.6	14	26.4	17	38.6	16	25.8	22	50.0	76	30.3
	Positive	10	20.8	18	34.0	16	36.4	30	48.4	14	31.8	88	35.1
	Unknown	31	64.6	21	39.6	11	25.0	16	25.8	8	18.2	87	34.7
	Testing unsuccessful	0	-	0	-	0	-	0	-	0	-	0	-
Surgical treatment		Number	%	Number	%								
Excision	Yes	45	93.8	49	92.5	39	88.6	56	90.3	38	86.4	227	90.4
	No	3	-	4	-	5	11.4	6	9.7	6	13.6	24	9.6
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 20mm	41	91.1	43	87.8	34	87.2	52	92.9	33	86.8	203	89.4
	20mm and more	1	-	1	-	0	-	0	-	2	-	4	-
	Unknown	3	-	5	10.2	5	12.8	4	-	3	-	20	8.8
Deep surgical margin	< 20mm	38	84.4	40	81.6	32	82.1	49	87.5	31	81.6	190	83.7
	20mm and more	2	-	0	-	0	-	0	-	0	-	2	-
	Unknown	5	11.1	9	18.4	7	17.9	7	12.5	7	18.4	35	15.4
Re-excision if diagnostic excision margin < 20mm	Yes	29	65.9	41	83.7	28	71.8	45	81.8	29	76.3	172	76.4
	No	15	34.1	8	16.3	11	28.2	10	18.2	9	23.7	53	23.6
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy (SNB)	Yes	29	60.4	32	60.4	26	59.1	38	61.3	25	56.8	150	59.8
	No	19	39.6	21	39.6	18	40.9	23	37.1	16	36.4	97	38.6
	Not carried out*	0	-	0	-	0	-	1	-	3	-	4	-
Positive lymph nodes at SNB	Yes	24	82.8	26	81.3	21	80.8	32	84.2	23	92.0	126	84.0
	No	5	17.2	6	18.8	5	19.2	6	15.8	2	8.0	24	16.0
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 26: Continued.

Stage IIIC													
		2018		2019		2020**		2021		2022		2018–2022	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
<b>Surgical treatment</b>													
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	1	-	1	-	2	-	3	-	7	5.6
	0,3 – 1,0mm	4	-	4	-	7	33.3	7	21.9	8	34.8	30	23.8
	> 1,0mm	20	83.3	21	80.8	13	61.9	23	71.9	12	52.2	89	70.6
Lymphadenectomy	Yes	30	62.5	29	54.7	17	38.6	21	33.9	11	25.0	108	43.0
	No	18	37.5	24	45.3	25	56.8	41	66.1	30	68.2	138	55.0
	Not carried out*	0	-	0	-	2	-	0	-	3	-	5	2.0
ILP	Yes	1	-	1	-	0	-	0	-	0	-	2	-
	No	47	97.9	52	98.1	44	100.0	62	100.0	44	100.0	249	99.2
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Surgery (lymphadenectomy, excision, ILP) within 4 weeks after diagnosis (authorization of pathological report of excision biopsy)	Yes	-	-	-	-	-	-	56	90.3	38	86.4	-	-
	No	-	-	-	-	-	-	0	0.0	0	0.0	-	-
<b>Radiotherapeutic treatment</b>													
Radiotherapy	Yes	13	27.1	20	37.7	13	29.5	12	19.4	9	20.5	67	26.7
	No	35	72.9	33	62.3	29	65.9	50	80.6	34	77.3	181	72.1
	Not carried out*	0	-	0	-	2	-	0	-	1	-	3	-
Radiotherapy type	Primary	0	-	0	-	0	-	0	-	1	-	1	-
	Postoperative	12	92.3	20	100.0	12	92.3	12	100.0	7	77.8	63	94.0
	Palliative	1	-	0	-	1	-	0	-	1	-	3	-
<b>Adjuvant systemic treatment</b>													
Adjuvant systemic treatment	Yes	13	27.1	28	52.8	18	40.9	33	53.2	15	34.1	107	42.6
	No	34	70.8	25	47.2	23	52.3	24	38.7	23	52.3	129	51.4
	Not carried out*	1	-	0	-	3	-	5	8.1	6	13.6	15	6.0
Immunotherapy with interferon α2b													
BRAf inhibitors													
MEK inhibitors													
BRAf in MEK inhibitors													
Ipilimumab													
Nivolumab													
Pembrolizumab													
Began systemic treatment within 8 weeks after last surgery	Yes	12	92.3	21	75.0	14	77.8	23	69.7	6	40.0	76	71.0
	No	1	-	7	25.0	4	-	10	30.3	9	60.0	31	29.0

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Table 26: Continued.

Stage IIID													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		6		9		6		12		4		37	
Mean (age)		80.0		65.8		73.0		68.1		61.8		69.6	
Median (age)		78.5		69		78		68		60		70	
Histological type (ICD-O-3 code)		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Malignant melanoma, NOS (8720)		0	-	2	-	0	-	1	-	0	-	3	-
Nodular melanoma (8721)		5	83.3	5	55.6	4	66.7	6	50.0	3	75.0	23	62.2
Lentigo maligna (8742)		0	-	0	-	0	-	1	-	0	-	1	-
Superficial spreading melanoma (8743)		1	-	2	-	1	-	4	-	1	-	9	24.3
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770–8772,8780)		0	-	0	-	1	-	0	-	0	-	1	-
All (8720–8780)		6	100.0	9	100.0	6	100.0	12	100.0	4	-	37	100.0
Diagnostic treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Diagnostic staging	No	0	-	0	-	0	-	0	-	0	-	0	-
	PET-CT	4	-	6	66.7	4	-	12	100.0	3	-	29	78.4
	CT	0	-	3	-	2	-	4	-	2	-	11	29.7
	MRI	0	-	0	-	0	-	0	-	0	-	0	-
	US	2	-	5	55.6	2	-	9	75.0	2	-	20	54.1
	X-ray	6	100.0	8	88.9	5	83.3	11	91.7	4	-	34	91.9
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	Cytologically confirmed	0	-	0	-	0	-	0	-	0	-	0	-
	Histologically confirmed	6	100.0	9	100.0	6	100.0	12	100.0	4	-	37	100.0
	No metastases	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
BRAF status determination	Negative	0	-	2	-	2	-	3	-	2	-	9	24.3
	Positive	2	-	2	-	3	-	7	58.3	2	-	16	43.2
	Unknown	4	-	5	55.6	1	-	2	-	0	-	12	32.4
	Testing unsuccessful	0	-	0	-	0	-	0	-	0	-	0	-
Surgical treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Excision	Yes	6	100.0	9	100.0	6	100.0	12	100.0	4	-	37	100.0
	No	0	-	0	-	0	-	0	-	0	-	0	-
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 20mm	6	100.0	8	88.9	4	-	9	75.0	4	-	31	83.8
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	0	-	1	-	2	-	3	-	0	-	6	16.2
Deep surgical margin	< 20mm	6	100.0	7	77.8	3	-	9	75.0	4	-	29	78.4
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	0	-	2	-	3	-	3	-	0	-	8	21.6
Re-excision if diagnostic excision margin < 20mm	Yes	4	-	7	77.8	5	83.3	9	75.0	1	-	26	70.3
	No	2	-	2	-	1	-	3	-	3	-	11	29.7
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy	Yes	1	-	1	-	2	-	2	16.7	0	-	6	16.2
	No	5	83.3	8	88.9	4	-	10	83.3	4	-	31	83.8
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Positive lymph nodes at SNB	Yes	1	-	1	-	2	-	2	-	0	-	6	100.0
	No	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 26: Continued.

Stage IIID													
		2018		2019		2020**		2021		2022		2018–2022	
Surgical treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	0	-	0	-	0	-	0	-	0	-
	0,3 – 1,0mm	0	-	0	-	1	-	0	-	0	-	1	-
	> 1,0mm	1	-	1	-	1	-	2	-	0	-	5	83.3
Lymphadenectomy	Yes	6	100.0	9	100.0	4	-	12	100.0	3	-	34	91.9
	No	0	-	0	-	1	-	0	-	1	-	2	-
	Not carried out*	0	-	0	-	1	-	0	-	0	-	1	-
ILP	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	6	100.0	9	100.0	6	100.0	12	100.0	4	-	37	100.0
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Surgery (lymphadenectomy, excision, ILP) within 4 weeks after diagnosis (authorization of pathological report of excision biopsy)	Yes	-	-	-	-	-	-	12	100.0	4	-	-	-
	No	-	-	-	-	-	-	0	-	0	-	-	-
Radiotherapeutic treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Radiotherapy	Yes	4	-	8	88.9	2	-	8	66.7	1	-	23	62.2
	No	2	-	1	-	4	-	3	-	3	-	13	35.1
	Not carried out*	0	-	0	-	0	-	1	-	0	-	1	-
Radiotherapy type	Primary	0	-	0	-	0	-	0	-	0	-	0	-
	Postoperative	4	-	8	100.0	2	-	8	100.0	1	-	23	100.0
	Palliative	0	-	0	-	0	-	0	-	0	-	0	-
Adjuvant systemic treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adjuvant systemic treatment	Yes	1	-	3	-	4	-	4	-	2	-	14	37.8
	No	5	83.3	5	55.6	1	-	7	58.3	2	-	20	54.1
	Not carried out*	0	-	1	-	1	-	1	-	0	-	3	-
Immunotherapy with interferon α2b		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
BRAF in MEK inhibitors		0	-	2	-	1	-	3	-	1	-	7	50.0
Ipilimumab		0	-	0	-	0	-	0	-	0	-	0	-
Nivolumab		1	-	1	-	1	-	1	-	0	-	4	-
Pembrolizumab		0	-	0	-	2	-	0	-	1	-	3	-
Began systemic treatment within 8 weeks after last surgery	Yes	1	-	2	-	4	-	2	-	1	-	10	71.4
	No	0	-	1	-	0	-	2	-	1	-	4	-

Continued. —&gt;

Table 26: Continued.

Stage IV													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		21		17		13		23		19		93	
Mean (age)		61.2		70.4		66.1		69.3		68.2		67.0	
Median (age)		65		72		71		65		69		68	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		10	47.6	10	58.8	9	69.2	10	43.5	4	21.1	43	46.2
Nodular melanoma (8721)		8	38.1	5	29.4	1	-	7	30.4	10	52.6	31	33.3
Lentigo maligna (8742)		0	-	0	-	0	-	0	-	0	-	0	-
Superficial spreading melanoma (8743)		1	-	2	-	3	-	4	-	4	-	14	15.1
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770-8772,8780)		2	-	0	-	0	-	2	-	1	-	5	5.4
All (8720–8780)		21	100.0	17	100.0	13	100.0	23	100.0	19	100.0	93	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	1	-	1	-	1	-	1	-	0	-	4	-
	PET-CT	17	81.0	12	70.6	8	61.5	16	69.6	11	57.9	64	68.8
	CT	11	52.4	6	35.3	7	53.8	10	43.5	14	73.7	48	51.6
	MRI	2	-	3	-	2	-	2	-	4	-	13	14.0
	US	6	28.6	6	35.3	6	46.2	16	69.6	10	52.6	44	47.3
	X-ray	7	33.3	11	64.7	8	61.5	17	73.9	13	68.4	56	60.2
	Unknown	0	-	0	-	0	-	1	-	0	-	1	-
Microscopic confirmation of regional metastases	Metastases not confirmed	0	-	1	-	0	-	0	-	2	-	3	-
	Cytologically confirmed	9	42.9	3	-	3	-	10	43.5	6	31.6	31	33.3
	Histologically confirmed	4	-	4	-	3	-	8	34.8	3	-	22	23.7
	No metastases	1	-	0	-	1	-	0	-	2	-	4	-
	Unknown	7	33.3	9	52.9	6	46.2	5	21.7	6	31.6	33	35.5
BRAF status determination	Negative	10	47.6	3	-	4	-	11	47.8	5	26.3	33	35.5
	Positive	8	38.1	8	47.1	5	38.5	7	30.4	8	42.1	36	38.7
	Unknown	3	-	6	35.3	4	-	5	21.7	6	31.6	24	25.8
	Testing unsuccessful	0	-	0	-	0	-	0	-	0	-	0	-
Surgical treatment		Number	%	Number	%								
Excision	Yes	11	52.4	9	52.9	9	69.2	18	78.3	16	84.2	63	67.7
	No	10	47.6	8	47.1	4	-	5	21.7	3	-	30	32.3
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Side surgical margin	< 20mm	10	90.9	7	77.8	8	88.9	13	72.2	16	100.0	54	85.7
	20mm and more	1	-	0	-	0	-	2	-	0	-	3	-
	Unknown	0	-	2	-	1	-	3	-	0	-	6	9.5
Deep surgical margin	< 20mm	8	72.7	7	77.8	8	88.9	11	61.1	16	100.0	50	79.4
	20mm and more	0	-	0	-	0	-	0	-	0	-	0	-
	Unknown	3	-	2	-	1	-	7	38.9	0	-	13	20.6
Re-excision if diagnostic excision margin < 20mm	Yes	3	-	1	-	4	-	3	-	5	31.3	16	25.8
	No	8	72.7	8	88.9	5	55.6	14	82.4	11	68.8	46	74.2
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy (SNB)	Yes	3	-	0	-	3	-	6	26.1	3	-	15	16.1
	No	18	85.7	17	100.0	10	76.9	17	73.9	16	84.2	78	83.9
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Positive lymph nodes at SNB	Yes	3	-	0	-	2	-	5	83.3	2	-	12	80.0
	No	0	-	0	-	1	-	1	-	1	-	3	-
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 26: Continued.

Stage IV													
		2018		2019		2020**		2021		2022		2018–2022	
		Number	%	Number	%								
<b>Surgical treatment</b>													
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	0	-	0	-	0	-	0	-	0	-
	0,3 – 1,0mm	0	-	0	-	0	-	1	-	0	-	1	-
	> 1,0mm	3	-	0	-	2	-	4	-	2	-	11	91.7
Lymphadenectomy	Yes	4	-	4	-	1	-	1	-	2	-	12	12.9
	No	17	81.0	12	70.6	11	84.6	20	87.0	17	89.5	77	82.8
	Not carried out*	0	-	1	-	1	-	2	-	0	-	4	-
ILP	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	21	100.0	17	100.0	13	100.0	23	100.0	19	100.0	93	100.0
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
<b>Radiotherapeutic treatment</b>													
Radiotherapy	Yes	6	28.6	4	-	2	-	3	-	4	-	19	20.4
	No	15	71.4	13	76.5	11	84.6	20	87.0	15	78.9	74	79.6
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Radiotherapy type	Primary	2	-	0	-	0	-	0	-	0	-	2	-
	Postoperative	3	-	3	-	1	-	1	-	1	-	9	47.4
	Palliative	1	-	1	-	1	-	2	-	3	-	8	42.1
<b>Systemic treatment</b>													
Systemic treatment	Yes	15	71.4	9	52.9	6	46.2	13	56.5	11	57.9	54	58.1
	No	6	28.6	7	41.2	6	46.2	4	17.4	7	36.8	30	32.3
	Not carried out*	0	-	1	-	1	-	6	26.1	1	-	9	9.7
Monochemotherapy		0	-	0	-	0	-	0	-	0	-	0	-
Combination chemotherapy		1	-	0	-	0	-	0	-	0	-	1	-
Chemoimmunotherapy		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
BRAF in MEK inhibitors		6	40.0	7	77.8	2	-	2	-	1	-	18	33.3
Combination immunotherapy		0	-	0	-	1	-	2	-	1	-	4	-
Anti PD-1		8	53.3	2	-	3	-	9	69.2	9	81.8	31	57.4

Continued. —&gt;

Table 26: Continued.

Stage unknown or unspecified													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		11		15		28		22		18		94	
Mean (age)		72.8		65.9		72.8		61.0		72.0		68.8	
Median (age)		76		72		75		62.5		71.5		70.5	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		11	100.0	15	100.0	23	82.1	20	90.9	14	77.8	83	88.3
Nodular melanoma (8721)		0	-	0	-	1	-	0	-	0	-	1	-
Lentigo maligna (8742)		0	-	0	-	0	-	1	-	0	-	1	-
Superficial spreading melanoma (8743)		0	-	0	-	1	-	0	-	2	-	3	-
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770-8772,8780)		0	-	0	-	3	-	1	-	2	-	6	6.4
All (8720–8780)		11	100.0	15	100.0	28	100.0	22	100.0	18	100.0	94	100.0
Diagnostic treatment		Number	%	Number	%								
Diagnostic staging	No	2	-	2	-	4	-	2	-	2	-	12	12.8
	PET-CT	5	45.5	7	46.7	12	42.9	9	40.9	10	55.6	43	45.7
	CT	6	54.5	7	46.7	15	53.6	17	77.3	11	61.1	56	59.6
	MRI	2	-	6	40.0	5	17.9	4	-	5	27.8	22	23.4
	US	3	-	7	46.7	13	46.4	14	63.6	12	66.7	49	52.1
	X-ray	3	-	5	33.3	12	42.9	12	54.5	11	61.1	43	45.7
	Unknown	0	-	0	-	0	-	1	-	0	-	1	-
Microscopic confirmation of regional metastases	Metastases not confirmed	1	-	2	-	1	-	0	-	0	-	4	-
	Cytologically confirmed	2	-	0	-	0	-	0	-	0	-	2	-
	Histologically confirmed	1	-	1	-	3	-	1	-	0	-	6	6.4
	No metastases	1	-	0	-	2	-	2	-	2	-	7	7.4
	Unknown	6	54.5	12	80.0	22	78.6	19	86.4	16	88.9	75	79.8
BRAF status determination	Negative	3	-	6	40.0	6	21.4	6	27.3	7	38.9	28	29.8
	Positive	2	-	2	-	5	17.9	9	40.9	1	-	19	20.2
	Unknown	6	54.5	7	46.7	17	60.7	7	31.8	10	55.6	47	50.0
	Testing unsuccessful	0	-	0	-	0	-	0	-	0	-	0	-
Surgical treatment		Number	%	Number	%								
Excision	Yes	1	-	2	-	4	-	2	-	2	-	11	11.7
	No	10	90.9	13	86.7	24	85.7	20	90.9	16	88.9	83	88.3
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Re-excision	Yes	1	-	0	-	2	-	2	-	2	-	7	63.6
	No	0	-	2	-	2	-	0	-	0	-	4	-
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Sentinel lymph node biopsy (SNB)	Yes	1	-	0	-	3	-	3	-	1	-	8	8.5
	No	10	90.9	15	100.0	25	89.3	19	86.4	16	88.9	85	90.4
	Not carried out*	0	-	0	-	0	-	0	-	1	-	1	-
Positive lymph nodes at SNB	Yes	0	-	0	-	0	-	0	-	0	-	0	-
	No	1	-	0	-	3	-	3	-	1	-	8	100.0
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 26: Continued.

Stage unknown or unspecified													
		2018		2019		2020**		2021		2022		2018–2022	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Surgical treatment													
Diameter of the largest positive lymph node at SNB	< 0,3mm	0	-	0	-	0	-	0	-	0	-	0	-
	0,3 – 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
	> 1,0mm	0	-	0	-	0	-	0	-	0	-	0	-
Lymphadenectomy	Yes	1	-	1	-	3	-	1	-	4	-	10	10.6
	No	10	90.9	14	93.3	25	89.3	21	95.5	14	77.8	84	89.4
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
ILP	Yes	0	-	1	-	0	-	0	-	0	-	1	-
	No	11	100.0	14	93.3	28	100.0	22	100.0	18	100.0	93	98.9
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Radiotherapeutic treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Radiotherapy	Yes	1	-	4	-	9	32.1	3	-	8	44.4	25	26.6
	No	10	90.9	11	73.3	19	67.9	19	86.4	7	38.9	66	70.2
	Not carried out*	0	-	0	-	0	-	0	-	3	-	3	-
Radiotherapy type	Primary	0	-	1	-	1	-	0	-	2	-	4	-
	Postoperative	1	-	2	-	5	55.6	2	-	5	62.5	15	60.0
	Palliative	0	-	1	-	3	-	1	-	1	-	6	24.0
Systemic treatment		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Systemic treatment	Yes	2	-	5	33.3	8	28.6	12	54.5	5	27.8	32	34.0
	No	9	81.8	10	66.7	19	67.9	10	45.5	11	61.1	59	62.8
	Not carried out*	0	-	0	-	1	-	0	-	2	-	3	-
Monochemotherapy		0	-	0	-	0	-	0	-	0	-	0	-
Combination chemotherapy		0	-	1	-	0	-	0	-	0	-	1	-
Chemoimmunotherapy		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
MEK inhibitors		0	-	0	-	0	-	0	-	0	-	0	-
BRAF in MEK inhibitors		0	-	0	-	2	-	5	41.7	1	-	8	25.0
Combination immunotherapy		0	-	1	-	1	-	2	-	2	-	6	18.8
Anti PD-1		2	-	3	-	5	62.5	5	41.7	2	-	17	53.1

\* Patient declined treatment, present contraindications to treatment, poor general condition of the patient, death of the patient, unknown.

\*\* New treatment guidelines.

\*\*\* The histological types were recorded in 2023, which is why the numbers differ from previous reports.

Table 27: Treatment of recurrence in patients with skin melanoma (C43, C51, C60, C63, C77–C80, D03) by year of diagnosis (for progresses of main lesions up to and including Dec 31 2023), Slovenia 2018–2022.

Treatment of recurrence													
		2018		2019		2020**		2021		2022		2018–2022	
Number of new cases (main lesions)		100		106		81		78		64		429	
Mean (age)		66,0		64,8		71,6		69,0		71,2		68,1	
Median (age)		67		68		73		68		74		70	
Histological type (ICD-O-3 code)		Number	%	Number	%								
Malignant melanoma, NOS (8720)		26	26,0	30	28,3	21	25,9	25	32,1	14	21,9	116	27,0
Nodular melanoma (8721)		33	33,0	30	28,3	22	27,2	23	29,5	25	39,1	133	31,0
Lentigo maligna (8742)		3	3,0	5	4,7	1	1,2	3	3,8	0	0,0	12	2,8
Superficial spreading melanoma (8743)		35	35,0	40	37,7	30	37,0	23	29,5	19	29,7	147	34,3
Other histological types (8722,8723,8730,8740,8741,8744,8745,8761,8770-8772,8780)		3	-	1	-	7	8,6	4	-	6	9,4	21	4,9
All (8720–8780)		100	100,0	106	100,0	81	100,0	78	100,0	64	100,0	429	100,0
Stage at diagnosis		Number	%	Number	%								
0		0	-	0	-	0	-	0	-	0	-	0	-
IA		4	-	6	5,7	3	-	3	-	0	-	16	3,7
IB		4	-	4	-	1	-	2	-	2	-	13	3,0
IIA		9	9,0	15	14,2	8	9,9	1	-	4	-	37	8,6
IIB		10	10,0	13	12,3	10	12,3	2	-	8	12,5	43	10,0
IIC		13	13,0	13	12,3	13	16,0	11	14,1	15	23,4	65	15,2
IIIA		3	-	3	-	3	-	1	-	1	-	11	2,6
IIIB		11	11,0	7	6,6	2	2,5	3	3,8	4	6,3	27	6,3
IIIC		25	25,0	24	22,6	23	28,4	23	29,5	14	21,9	109	25,4
IIID		4	-	7	6,6	4	-	9	11,5	2	-	26	6,1
IV		12	12,0	7	6,6	6	7,4	10	12,8	8	12,5	43	10,0
Stage unknown or unspecified		5	5,0	7	6,6	8	9,9	13	16,7	6	9,4	39	9,1
First recurrence		Number	%	Number	%								
Type of disease recurrence	Local	11	11,0	13	12,3	8	9,9	10	12,8	9	14,1	51	65,4
	In transit	13	13,0	10	9,4	9	11,1	6	7,7	11	17,2	49	62,8
	In transit and regional	1	-	2	-	1	-	2	-	0	-	6	7,7
	Regional	16	16,0	20	18,9	17	21,0	16	20,5	10	15,6	79	101,3
	Systemic	59	59,0	61	57,5	46	56,8	44	56,4	34	53,1	244	312,8
Surgical treatment at first recurrence		Number	%	Number	%								
Sentinel lymph node biopsy (SNB)	Yes	1	-	1	-	1	-	1	-	0	-	4	-
	No	99	99,0	105	99,1	80	98,8	77	98,7	64	100,0	425	99,1
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-
Positive lymph nodes at SNB	Yes	0	-	1	-	0	-	1	-	0	-	2	-
	No	1	-	0	-	1	-	0	-	0	-	2	-
	Unknown	0	-	0	-	0	-	0	-	0	-	0	-
Lymphadenectomy	Yes	15	15,0	17	16,0	8	9,9	7	9,0	6	9,4	53	12,4
	No	85	85,0	89	84,0	72	88,9	70	89,7	58	90,6	374	87,2
	Not carried out*	0	-	0	-	1	-	1	-	0	-	2	-
ILP	Yes	1	-	1	-	0	-	0	-	0	-	2	-
	No	99	99,0	105	99,1	81	100,0	78	100,0	64	100,0	427	99,5
	Not carried out*	0	-	0	-	0	-	0	-	0	-	0	-

Continued. —>

Table 27: Continued.

Treatment of recurrence													
		2018		2019		2020**		2021		2022		2018–2022	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Radiotherapeutic treatment at first recurrence													
Radiotherapy	Yes	25	25,0	25	23,6	14	17,3	10	12,8	16	25,0	90	21,0
	No	73	73,0	80	75,5	67	82,7	68	87,2	48	75,0	336	78,3
	Not carried out*	2	-	1	-	0	-	0	-	0	-	3	-
Radiotherapy type	Primary	0	-	0,0	-	0	-	0	-	0	-	0	-
	Postoperative	12	48,0	13	52,0	5	35,7	6	60,0	7	43,8	43	47,8
	Palliative	13	52,0	12	48,0	9	64,3	4	40,0	9	56,3	47	52,2
Systemic treatment at first recurrence													
Systemic treatment at first recurrence	Yes	32	32,0	30	28,3	32	39,5	22	28,2	22	34,4	138	32,2
	No	35	35,0	42	39,6	28	34,6	36	46,2	19	29,7	160	37,3
	Not carried out*	33	33,0	34	32,1	21	25,9	20	25,6	23	35,9	131	30,5
Monochemotherapy		4	-	4	-	7	8,6	1	-	2	-	18	4,2
Combination chemotherapy		96	96,0	102	96,2	74	91,4	77	98,7	62	96,9	411	95,8
Chemoimmunotherapy		0	-	0	-	0	-	0	-	0	-	0	-
BRAF inhibitors		2	-	1	-	0	-	0	-	0	-	3	-
BRAF in MEK inhibitors		98	98,0	105	99,1	81	100,0	78	100,0	64	100,0	426	99,3
Combination immunotherapy		0	-	0	-	0	-	0	-	0	-	0	-
Anti PD-1		0	-	0	-	0	-	0	-	0	-	0	-

\* Patient declined treatment, present contraindications to treatment, poor general condition of the patient, death of the patient, unknown.

\*\* New treatment guidelines.

# Quality Indicators

Table 28a: Quality indicators for skin melanoma, Slovenia 2018–2022.

Quality indicator		Target value	Year					2018–2022	
			2018	2019	2020*	2021	2022		
1. Excision	1a	Diagnosis with excision biopsy (EB)	95%	96.0	96.4	95.8	96.2	97.7	96.4
	1b	EB was performed by a surgeon or a dermatologist	95%	99.2	98.8	98.8	99.4	99.1	99.1
2. Standardised histopathology report	2a	Histopathology report was issued within three months after sample removal	95%				97.0	95.8	/
	2b	Histopathology report includes complete data	95%	43.2	52.1	76.1	80.3	74.0	65.2
3. Re-excision	3a	Re-excision of primary scar at T1 or higher stage	95%						
	3b	Same surgeon as for excision	95%						
	3c	Within three months from diagnosis	95%						
4. Sentinel lymph node biopsy (SNB)	4a	SNB at T1b stage or higher	80%	76.9	79.4	78.4	77.0	70.6	76.5
	4b	SNB was performed by a surgical oncologist	95%	100.0	99.1	98.6	98.5	99.6	99.2
	4c	Within three months from diagnosis	95%				96.6	93.2	/
	4d	Standardised histopathology report SNB has complete data	95%	94.3	94.5	95.3	92.9	95.1	94.4
5. Multidisciplinary council	5	Multidisciplinary council for all patients with stage III or IV	95%			67.9	72.6	89.3	
6. Lymphadenectomy	6a	Lymphadenectomy at stage III	85%	70.9	64.9				/
			45%*			44.9	46.7	28.8	/
	6b	Lymphadenectomy was performed by a surgical oncologist	95%	100.0	100.0	96.3	97.4	100.0	98.7
	6c	Within four weeks after finding date	95%				33.3	18.8	/
7. Diagnostic staging	7	Diagnostic staging for stage III and IV (PET-CT or CT)	95%	66.4	70.2	81.2	93.3	90.3	80.3
8. BRAF status	8	BRAF status identified at stages III and IV	75%	49.1	62.3	68.3	73.9	78.8	66.5
9. Adjuvant radiotherapy (RT)	9	Proportion of high-risk patients that received adjuvant RT	80%	60.0	87.5				/
			60%*			70.6	80.0	60.0	/
10. Radiotherapy	10	Proportion of completed radiation treatments	80%	93.5	97.4	96.5	95.3	93.5	95.2
11. Adjuvant systemic therapy**	11	Proportion of patients that received adjuvant systemic therapy	60%*	22.7	46.6	36.5	42.2	40.8	37.8
12. Systemic therapy	12	Proportion of patients that received systemic treatment at stage IV (1. line)	60%	66.7	50.0	30.4	48.3	50.0	49.1
13. Systemic treatment complications	13	Follow-up of systemic treatment complications	85%	100.0	98.0	96.7	100.0	100.0	98.9
14. Completed systemic treatment	14	Proportion of prematurely terminated systemic treatments***	<15%	20.7	20.9	12.2	13.2	9.0	15.2
15. Clinical research	15	Participation of patients in clinical research	15%	6.3	4.0	5.7	12.8	18.7	9.5

\* New clinical guidelines are issued.

\*\* Major changes in systemic treatments (new treatment or drug; abandoning of treatment or drug usage) in the period 2018–2022.

\*\*\* The proportion of prematurely terminated systemic treatments does not include treatments terminated prematurely due to side effects. In the period 2018–2022, the share of these was 19% on average.

■ Target value is achieved or surpassed
 ■ Target value is not achieved
 □ Conditions for evaluating the quality indicator have changed or are not yet established

Table 28b: Calculation methodology of quality indicators for skin melanoma, Slovenija 2018–2022.

Quality indicator		Indicator calculation
1. Excision	1a	Diagnosis with excision biopsy (EB) <b>Numerator:</b> Number of new cases of skin melanoma where diagnostic EB was performed <b>Denominator:</b> All new cases of skin melanoma
	1b	EB was performed by a surgeon or a dermatologist <b>Numerator:</b> Number of new cases of skin melanoma where diagnostic EB was performed by a surgeon or a dermatologist <b>Denominator:</b> All new cases of skin melanoma where diagnostic EB was performed
2. Standardised histopathology report	2a	Histopathology report was issued within three months after sample removal <b>Numerator:</b> Number of new cases of skin melanoma where diagnostic EB was performed and the histopathology report was issued within three months after sample removal (date of report authorisation) <b>Denominator:</b> All new cases of skin melanoma where diagnostic EB was performed
	2b	Histopathology report includes complete data <b>Numerator:</b> Number of new cases of primary invasive skin melanoma where diagnostic EB was performed and histopathology report includes all the prognostically relevant data <b>Denominator:</b> All new cases of primary invasive skin melanoma where diagnostic EB was performed

Continued. —>

Table 28b: Continued.

Quality indicator		Indicator calculation
3. Re-excision	3a	Re-excision of primary scar at T1 or higher stage <b>Numerator:</b> Number of new cases of skin melanoma with stage IA or higher where diagnostic EB and re-excision of primary scar were performed or the side and deep surgical margins at EB were 10mm or larger for stages IA and IB or 20mm or larger for higher stages <b>Denominator:</b> All new cases of stage IA or higher skin melanoma, where diagnostic EB was performed
	3b	Same surgeon as for excision <b>Numerator:</b> Number of new cases of stage IA skin melanoma where re-excision of primary scar was performed by the same surgeon that performed the diagnostic EB <b>Denominator:</b> All new cases of stage IA skin melanoma where re-excision of primary scar was performed
	3c	Within three months from finding date <b>Numerator:</b> Number of new cases of stage IA skin melanoma where re-excision of primary scar was performed within three months from the date of authorisation of the EB pathology report <b>Denominator:</b> All new cases of stage IA skin melanoma diagnostic EB was performed with a side or deep surgical margin smaller than 10mm
4. Sentinel lymph node biopsy (SNB)	4a	SNB at T1b stage or higher <b>Numerator:</b> Number of new cases of skin melanoma with stages IB-IIC or IIC where SNB was performed and with stages IIIA, IIIB, IIID or IB with SNB positive lymph nodes <b>Denominator:</b> All new cases of skin melanoma with stages IB-IIC or IIC where diagnostic EB was performed (excluding cases where lymphadenectomy was performed without previous SNB) and stages IIIA, IIIB, IIID and IV with SNB positive lymph nodes
	4b	SNB was performed by a surgical oncologist <b>Numerator:</b> Number of new cases of skin melanoma with stage IB or higher where SB was performed at the IOL <b>Denominator:</b> All new cases of skin melanoma with stage IB or higher where SB was performed
	4c	Within three months from diagnosis <b>Numerator:</b> Number of new cases of skin melanoma with stage IB or higher where SB was performed within three months from the date of the authorisation of the EB pathology report <b>Denominator:</b> All new cases of skin melanoma with stage IB or higher where SB was performed
	4d	Standardised histopathology report SNB has complete data <b>Numerator:</b> Number of cases of skin melanoma where SB was performed and the histopathology SNB report has complete data <b>Denominator:</b> All cases of skin melanoma where SB was performed
5. Multidisciplinary council	5	Multidisciplinary council for all patients with stage III or IV <b>Numerator:</b> Number of new cases of skin melanoma with stage III or IV with a multidisciplinary council (before surgical treatment (excluding excision, re-excision and SNB), systemic treatment or radiotherapy) <b>Denominator:</b> All new cases of skin melanoma with stage III or IV
6. Lymphadenectomy	6a	Lymphadenectomy at stage III <b>Numerator:</b> Number of new cases of stage III skin melanoma where lymphadenectomy was performed or SNB was performed and there were zero positive lymph nodes <b>Denominator:</b> All new cases of stage III skin melanoma
	6b	Lymphadenectomy was performed by a surgical oncologist <b>Numerator:</b> Number of new cases of stage III skin where lymphadenectomy was performed at the Institute of Oncology Ljubljana <b>Denominator:</b> All new cases of stage III skin melanoma where lymphadenectomy was performed
	6c	Within four weeks after finding date <b>Numerator:</b> Number of new cases of stage III skin melanoma where lymphadenectomy was performed within four weeks after the diagnosis of metastasis in a lymph node (date of report authorisation or positive cytology or positive SNB) <b>Denominator:</b> Number of new cases of stage III skin melanoma where lymphadenectomy was performed after the diagnosis of metastasis in a lymph node (date of report authorisation or positive cytology or positive SNB) Note: cases with neoadjuvant systemic treatment are excluded from the indicator
7. Diagnostic staging	7	Diagnostic staging for stage III and IV (PET-CT or CT) <b>Numerator:</b> Number of new cases of skin melanoma with stage III or IV where diagnostic staging (PET-CT or CT) was performed <b>Denominator:</b> All new cases of skin melanoma with stage III or IV
8. BRAF status	8	BRAF status identified at stages III and IV <b>Numerator:</b> Number of new cases of skin melanoma with stage III or IV with BRAF status identified <b>Denominator:</b> All new cases of skin melanoma with stage III or IV
9. Adjuvant radiotherapy (RT)	9	Proportion of high-risk patients that received adjuvant RT <b>Numerator:</b> Number of new cases of skin melanoma with stage IIIA, IIIB, IIIC, IIID or with stage IV and lymphadenectomy was performed at first treatment with high risk*, where adjuvant RT was performed <b>Denominator:</b> Number of new cases of skin melanoma with stage IIIA, IIIB, IIIC, IIID or with stage IV and lymphadenectomy was performed at first treatment with high risk* *Superficial parotidectomy and neck dissection, number of positive lymph nodes >=1, functional neck dissection level II to V or functional neck dissection level I to V or posterolateral neck dissection – number of positive lymph nodes >= 2, axillary lymphadenectomy – number of positive lymph nodes >=3, inguinal lymphadenectomy and/or inguino-iliac lymphadenectomy – number of positive lymph nodes >=3, functional neck dissection level II to V or functional neck dissection level I to V or axillary lymphadenectomy – diameter of largest metastasis >=30mm, inguinal lymphadenectomy or inguino-iliac lymphadenectomy – diameter of largest metastasis >=40mm, lymphadenectomy – extracapsular extension present, lymphadenectomy – tumour in adipose or connective tissue outside of lymph nodes or blood vessels
10. Radiotherapy	10	Proportion of completed radiation treatments <b>Numerator:</b> Number of RT treatments where intended RT was completed <b>Denominator:</b> All RT treatments
11. Adjuvant systemic therapy	11	Proportion of patients that received adjuvant systemic therapy <b>Numerator:</b> Number of new cases of skin melanoma with stage IIB, IIC in III with adjuvant systemic treatment (excluding cases where SNB was performed and the number of positive lymph nodes was zero, but including cases where SNB was and the number of positive lymph nodes was zero and there was disease recurrence and treatment with lymphadenectomy) <b>Denominator:</b> Number of new cases of skin melanoma with stage IIB, IIC in III (excluding cases where SNB was performed and the number of positive lymph nodes was zero, but including cases where SNB was and the number of positive lymph nodes was zero and there was disease recurrence and treatment with lymphadenectomy)
12. Systemic therapy	12	Proportion of patients that received systemic treatment at stage IV (1. line) <b>Numerator:</b> Number of new cases of stage IV skin melanoma that received systemic treatment (1. line) <b>Denominator:</b> All new cases of stage IV skin melanoma
13. Systemic treatment complications	13	Follow-up of systemic treatment complications <b>Numerator:</b> Number of systemic treatment therapies for which systemic treatment side effects were recorded <b>Denominator:</b> All systemic treatment therapies
14. Completed systemic treatment	14	Proportion of prematurely terminated systemic treatments <b>Numerator:</b> Number of prematurely terminated systemic treatments <b>Denominator:</b> All systemic treatments
15. Clinical research	15	Participation of patients in clinical research <b>Numerator:</b> Number of patients with stages II, III and IV, that were included in clinical research <b>Denominator:</b> Number of patients with stages II, III and IV



