

Guidelines

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<u>NATIONAL REGISTRY OF DISEASES</u> <u>Cancer Registration Guidelines</u>	Document No:	NRDO-G001.01b
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ABBREVIATIONS

ICD O-3	International Classification of Diseases for Oncology, 3 rd edition, 2000.
ICD 9	International Classification of Diseases 9 th Revision.
NCC	National Cancer Centre
FTP	File Transfer Protocol (Secured Electronic Data Transmission)
HIDS	Hospital Inpatient Discharge Summary.
PGP	Pretty Good Privacy (Software for encrypting email)
NRDO	National Registry of Diseases Office
SEER	Surveillance, Epidemiology and End Results
IARC	International Agency for Research on Cancer
UKACR	United Kingdom Association of Cancer Registries

REFERENCES

1. International Classification of Diseases for Oncology, 3rd edition, 2000.
2. International Classification of Diseases 9th Revision. Clinical Modification, Sixth Edition, 2006
3. American Joint Committee on Cancer (AJCC) Cancer staging 6th edition, 2002.

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PART I. INTRODUCTION

Notification of cancer is mandatory under the National Registry of Diseases Act 2007. All cases of cancers diagnosed or treated in Singapore have to be reported.

These guidelines have been developed to assist managers of healthcare institutions and medical practitioners to better understand the responsibilities in providing cancer notifications to the National Registry of Diseases Office.

PART II. DEFINITION

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. Reportable cases are:

- a) malignant neoplasms such as carcinoma, sarcoma, melanoma, lymphoma and leukaemia
- b) in-situ neoplasms
- c) neoplasms with borderline or uncertain malignant potential
- d) all tumours (malignant, in-situ, borderline and benign) of the brain and other parts of central nervous system including pituitary gland, craniopharyngeal duct and pineal gland.

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PART III. REPORTING CANCER

Reporting of cancers can be achieved through submitting soft or hard copies of:

1. Cancer notification form set out at the Registry's Internet website at <http://www.ndro.gov.sg>
2. Pathology reports/listings
3. Haematology listing
4. Cancer case listings from treatment centre such as: NCC, Radiotherapy/Oncology centre, Nuclear Medicine, Gamma Knife centre.
5. HIDS

If the healthcare institutions can provide data to NRDO through combinations of pathology reports / listings, HIDS and other cancer case listings then it is not necessary for the healthcare institutions to submit data using the cancer notification form. Based on the current operations, restructured hospitals are under this category. However, restructured hospitals need to notify cancers using the cancer notification forms/E-Notification for small group of patients whose names do not appear in any of the above listings. This includes patients who do not undergo surgery or biopsy, patients who are treated conservatively or patients who are managed at outpatients.

Managers of private clinics/establishments that would like to leverage on the above mentioned listings as forms of notifications to the registry are required to make arrangements with the relevant laboratories/offices that are under separate management to submit such listings to the registry. The managers of the private clinics/establishments, however, remain legally responsible for any failure to notify.

Cancer can be reported with the following Minimal mandatory data items:

1. Name
2. Identification Number (NRIC/ Passport No/ Foreign Identification No / Hospital Registration No.)
3. Date of Birth
4. Name of notifying Hospital / Clinic /Department
5. Date of diagnosis
6. Primary site of cancer

However every effort should be made to complete the cancer notification form. Upon receipt of the cancer notification if additional information is required, the registry coordinator will contact the managers or designated staff of the healthcare institutions to arrange the data collection.

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Part IV. PATHWAYS AND TIMELINE FOR REPORTING CANCER CASES

Table 1 shows the pathways and timeline for reporting cancer cases. It is important to send listings and notifications of cancer cases not later than the timeline as stated so that NRDO can produce trend reports timely.

Managers of healthcare institutions who notify cancer cases through submission of hard or electronic copies of cancer notification forms are requested to notify cancer cases as soon as they are diagnosed and not later than 3 months from date of diagnosis, even if the diagnosis is based on clinical findings. For cancer cases that undergo treatment later than **three months** from the date of diagnosis, the cancer notification should be submitted first and the information on treatment can be sent at a later date.

TABLE 1: Pathways and Timeline of cancer reporting

Pathways of cancer reporting	Mode of data transmission	Timeline
<p>Cancer Notification (on-line notification)</p> <p>Cancer Notification Forms - Hardcopy can be printed on line @ www.nrdo.gov.sg or requested from the National Registries of Diseases Office (NRDO) Tel : 64353068 /7 /6 Email : hpb_servicenrdo@hpb.gov.sg</p>	<p>E- Notification @ www.hpp.moh.gov.sg</p> <p>Hardcopy by Registered mail / by hand (including courier service) to:</p> <p>Singapore Cancer Registry National Registries of Diseases Office Health Promotion Board Level 5, 3 Second Hospital Avenue Singapore 168937</p> <p>N.B. Please DO NOT submit the form via email or fax.</p>	<p>As soon as cancer is diagnosed and not later than 3 months from date of diagnosis.</p>
<p>Pathology Reports / Listings</p>	<p>Preferably FTP or PGP or encrypted electronic storage device e.g. thumb drive</p> <p>Hardcopies – by hand (including courier service)</p>	<p>Monthly</p>

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Pathways of cancer reporting	Mode of data transmission	Timeline
Haematology Listing	Preferably FTP or PGP or encrypted electronic storage device e.g. thumb drive Hardcopies – by hand (including courier service)	Quarterly
NCC Listings	FTP	Monthly
Radiotherapy / Oncology Listings	Preferably FTP or PGP or encrypted electronic storage device e.g. thumb drive Hardcopies – by hand (including courier service)	Monthly
Nuclear Medicine Gamma Knife centre Listings	Preferably FTP or PGP or encrypted electronic storage device e.g. thumb drive Hardcopies – by hand (including courier service)	Quarterly
Hospital Inpatients Discharge Summary (HIDS) Listings	FTP or PGP or encrypted electronic storage device e.g. thumb drive	Monthly

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Data items	Definition
Ethnic Group	To tick - Chinese / Malay / Indian / Eurasian /Others People from India & India subcontinent e.g. Sikhs, Sri Lankan, Bangladeshis, and Pakistanis are to be classified as 'Indians'. To indicate as "Others" for groups not classified as Chinese / Malay / Indian / Eurasian
Residential Status	To tick accordingly 1- Singapore citizen 2- Singapore Permanent Resident 3- Malaysia 4- Indonesia 8- Others
Country of Birth	Patient's country of birth 1. Singapore 2. Malaysia 3. China 4. Indonesia 5. India 8. Others
II - Hospital / Clinic	
Notifying Hospital / Center	The Hospital / Center / Clinic that notify the diagnosis of cancer.
Department/ Clinic	The Department / Clinic where the patient was diagnosed with cancer or received treatment.
Doctor / Consultant in Charge	Record the name of the Doctor / Consultant who is the primary physician or the doctor in-charge of patient's treatment.
Hospital / Clinic Responsible for Subsequent Treatment / Follow-up	<ul style="list-style-type: none"> • indicate 'SAME' if follow-up is at notifying "Department / Clinic". • name the follow-up treatment centre if follow up is at different department / clinic.

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III – Diagnosis	
Date of Diagnosis (ddmmyyy)	To enter the earliest date when the cancer was confirmed based on one of the following: a) The pathological investigation which confirms the disease. b) The clinical investigation that confirms the presence of the disease (e.g. Mammogram, Ultrasound, CT scan, MRI, haematological investigation, clinical assessment). c) The cancer was confirmed based on physical examination and clinical presentation. d) Date of death is defaulted as the date of diagnosis. (New cases identified, based on data from death certificate.)
Basis of Diagnosis 1- Death Certificate only 2- Clinical only 3- Clinical Investigation 4- Specific Tumour Markers 5- Cytology 6 - Metastasis 7- Primary Tumor	<ul style="list-style-type: none"> • The most reliable basis for confirming the diagnosis of cancer is a positive Histology. • Therefore, investigations such as Cytology / Metastasis / Primary Tumour, take precedence over all the other sources (codes 1- 4) to confirm the malignancy. • Code 5 – 7, is the more definitive basis of diagnosis (Pathology Laboratory report No must be entered)
Primary Site	Site where the cancer originate. Indicate Laterality for paired organs.
Histological Diagnosis	This is diagnosis stated in the pathology / haematology reports.

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Data items	Definition
Histological Grade / Differentiation	To provide Histological Grade / Differentiation recorded on pathology report such as: Grade 1 / well differentiated Grade 2 / moderately differentiated Grade 3 / poorly differentiated Grade 4 /undifferentiated NOS (not otherwise specified) For lymphoma/leukaemia T – cell B-cell Null cell NK cell NOS (not otherwise specified)
Screen detected :	Yes – A cancer detected during a routine or opportunistic screening in an asymptomatic individual. No – not screen detected Not available – information not available
IV – Present status (applicable for notification with Cancer Notification form only)	
Alive / Death	Tick accordingly
Date/ Time / Place of Death	Record the relevant information.

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Data items	Definition												
V – Clinical Staging and Treatment													
T, N, M Stage Grouping & Classification	<p>To provide the extent of disease/stage grouping according to AJCC Cancer Staging Manual 6th edition.</p> <p>Timeline for Staging: the stage of the disease is evaluated within four months from date of diagnosis or through the first course of surgery (immediately after surgery), whichever is longer.</p> <ol style="list-style-type: none"> 1. T - denotes the size / extension / depth of invasion of the primary tumor. 2. N - nodal involvement (regional lymph nodes) 3. M – metastasis in distant organs / lymph nodes. <p>Stage grouping - is assigned with Roman numerals (I, II, III, IV) based on the combination of the TNM categories.</p> <p>Staging system / Classification: Examples:</p> <table border="1"> <thead> <tr> <th>Primary site / Histology</th> <th>Classification</th> </tr> </thead> <tbody> <tr> <td>Solid tumours</td> <td>TNM staging (AJCC 6th edition)</td> </tr> <tr> <td>Lymphoma</td> <td>Ann Arbor</td> </tr> <tr> <td>Myeloma</td> <td>Durie-Salmon / ISS</td> </tr> <tr> <td>Gynaecological site</td> <td>FIGO</td> </tr> <tr> <td>Thymus</td> <td>Masaoka</td> </tr> </tbody> </table> <p>P/S: The staging system will be updated in accordance to standards set by International agencies for research and cancer registration.</p>	Primary site / Histology	Classification	Solid tumours	TNM staging (AJCC 6 th edition)	Lymphoma	Ann Arbor	Myeloma	Durie-Salmon / ISS	Gynaecological site	FIGO	Thymus	Masaoka
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Data items	Definition																																																																																
Tumour size	Tumour size is recorded in centimeters (cm). Data is captured from either: a) measurement taken at clinical assessment before the commencement of neo-adjuvant therapy (which is the first treatment) OR b) measurement at time of surgery / from pathological report if surgery is the first treatment administered.																																																																																
Treatment Treatment (check one or more as applicable) 1 <input type="checkbox"/> No Treatment 2 <input type="checkbox"/> Surgery Date of Initiation <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td><i>d</i></td><td><i>d</i></td><td><i>m</i></td><td><i>m</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td></tr></table> 3 <input type="checkbox"/> Radiotherapy Date of Initiation <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td><i>d</i></td><td><i>d</i></td><td><i>m</i></td><td><i>m</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td></tr></table> 4 <input type="checkbox"/> Chemotherapy Date of Initiation <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td><i>d</i></td><td><i>d</i></td><td><i>m</i></td><td><i>m</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td></tr></table> 5 <input type="checkbox"/> Hormones Date of Initiation <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td><i>d</i></td><td><i>d</i></td><td><i>m</i></td><td><i>m</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td></tr></table> 6 <input type="checkbox"/> Biological/Other Therapy Date of Initiation <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td><i>d</i></td><td><i>d</i></td><td><i>m</i></td><td><i>m</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td><td><i>y</i></td></tr></table>									<i>d</i>	<i>d</i>	<i>m</i>	<i>m</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>									<i>d</i>	<i>d</i>	<i>m</i>	<i>m</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>									<i>d</i>	<i>d</i>	<i>m</i>	<i>m</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>									<i>d</i>	<i>d</i>	<i>m</i>	<i>m</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>									<i>d</i>	<i>d</i>	<i>m</i>	<i>m</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>	To tick according to first treatment care plan. First treatment plan means all types of treatment (neo-adjuvant and adjuvant treatment) given to patient over the six months period from the date of diagnosis. 1- No Treatment - conservative management / supportive care. 2- Surgery for primary site is definitive surgical treatment which modifies, control, remove or destroy proliferating cancer tissue. (Not applicable to surgery for metastatic site). 3- Date of First session of Radiation therapy 4- Date of First session of first cycle Chemotherapy 5- Hormonal therapy 6- Biological / Other therapy - specify the type of treatment and date of first initiation.
<i>d</i>	<i>d</i>	<i>m</i>	<i>m</i>	<i>y</i>	<i>y</i>	<i>y</i>	<i>y</i>																																																																										
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VI. Risk Factor Smoking	Based on status at the time of diagnosis. Tick accordingly: 1. Current Smoker 2. Ex-Smoker 3. Never 4. Missing																																																																																

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PART VI. DATA ITEMS ON LISTINGS

i) Pathology Reports/Listings

Cases diagnosed with histology with morphology codes ranging from M8000- M9989 with the five digit (behaviour code) ending as "1" / "2" or "3" are reportable.

Benign tumours of the Brain and other parts of the Central nervous System diagnosed from 1st January 2008 are also reportable cases.

1	Name Of Patient
2	Patient NRIC/Passport/FIN/Hospital No.
3	Date of Birth
4	Gender
5	Ethnic group
6	Date of Specimen Received
7	Nature of Specimen (includes laterality where applicable)
8	Tumour Size
9	Histological Diagnosis
10	Pathological staging
11	Comments
12	Addendum Report
13	Laboratory No.
14	Hospital/Department/Clinic which requests the investigation
15	Name of Doctor In-Charge of patient
16	Name of Laboratory that performs the test

ii) Haematology Listing

1	Name Of Patient
2	Patient NRIC/Passport/FIN/Hospital No.
3	Date of Birth
4	Gender
5	Ethnic group
6	Date of Specimen Received
7	Nature of Specimen
8	Diagnosis (includes phenotype)
9	Comments (include addendum report)
10	Laboratory No.
11	Hospital/Department/Clinic
12	Name of Doctor In-Charge of patient

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iii) NCC Listing

All cases coded with the **ICD 9 CODES (listed in Appendix 1)** are reportable;

1	Name Of Patient
2	Patient NRIC/Passport/FIN/Hospital No.
3	Date of Birth
4	Gender
5	Ethnic group/Race
6	Nationality/Resident Status/Country of Birth
7	Date of Diagnosis
8	Basis of Diagnosis
9	Topography (Primary site)
10	Laterality for Paired Organs
11	Morphology (Histological Diagnosis)
12	Histological Grade
13	TNM codes
14	Stage grouping
15	Stage Classification
16	Treatments & Dates of first initiation

Listing from Hospital Inpatient Discharge Summary:

All cases coded with the **ICD 9 CODES (listed in Appendix 1)** are reportable;

iv) HIDS

1	Name Of Patient
2	Patient NRIC/Passport/FIN/Hospital No.
3	Date of Birth
4	Gender
5	Ethnic group
6	Nationality/Resident Status
7	Date of Admission
8	Diagnosis (ICD codes)
9	Hospital/Department/Clinic

v) Listing from Treatment centre –

E.g. department of Radiation/Oncology/Nuclear Medicine/Gamma Knife

1	Name Of Patient
2	Patient NRIC/Passport/FIN/Hospital No.
3	Date of Birth
4	Gender
5	Ethnic group
6	Date of Diagnosis
7	Diagnosis / Primary Site
8	Hospital/Department (where cancer was first diagnosed)
9	TNM
10	Stage Grouping
11	Stage Classification
12	Treatments & Dates of first initiation
13	Name of Doctor In-Charge (Physician who refers patient for treatment)

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APPENDIX I – ICD-9 CODES

Cases with the following ICD-9 codes are reportable:

ICD 9 CODES	DESCRIPTION
140.0 -208.9	Malignant neoplasm (primary and secondary), this includes skin cancers, such as basal cell carcinoma, squamous cell carcinoma, malignant melanoma.
225.0 -225.9	Benign neoplasm of brain and other parts of nervous system such as glioma, ependymoma
227.3 -227.4	Benign neoplasm of Pituitary gland, Craniopharyngeal duct and Pineal gland
230.0-234.9	Carcinoma in situ
235.0 - 238.7	Neoplasm of uncertain behavior; borderline malignancy; low malignant potential; uncertain malignant potential Includes : 238.4 Polycythemia vera (9950)
273.2	Heavy chain disease (alpha, Gamma and Franklin's disease)
273.3	Waldenstrom's Macroglobulinemia
284.9 - 285.0	284.9 Refractory Anemia (9980) 285.0 Sideroblastic Anemia (9982)
288.3	Hypereosinophilic syndrome (9964); Chronic eosinophilic leukemia
289.8	Acute myelofibrosis (9931)

P/S: These codes will be updated accordingly to other equivalent codes of cancer of the International Classification of diseases.