Supplementary Methods 1:

*Study design*

Medications are registered according to the Anatomical Therapeutic Chemical (ATC) hierarchical classification. ADRs are registered following the Medical Dictionary for Regulatory Activities (MedDRA) v21.1 terminology. ADRs are classified into the hierarchical System Organ Class (SOC) classification and the transversal Standardized MedDRA Queries (SMQ) system. Thus, ADRs of interest can be identified through each of these means. Standardized MedDRA Queries (SMQ) are validated sets of MedDRA terms that were developed to enhance the detection of several ADRs of special interest in pharmacovigilance databases.

*Variables*

Antineoplastic and immunomodulating agents were identified using the ATC class L.

*Setting and participants*

Liable antipsychotics were identified using the ATC class N05A

*Descriptive study in VigiBase®*

Lymphoma cases were identified with the broad Malignant Lymphoma SMQ, and leukaemia cases were identified with the Leukaemia High Level Group Term (HLGT, SOC classification).

Acute lymphocytic and myeloid leukaemias were identified with the High Level Terms (HLT) Leukaemias acute lymphocytic and Leukaemias acute myeloid.

Chronic lymphocytic and myeloid leukaemia were identified with the HLTs Leukaemias chronic lymphocytic and Leukaemias chronic T-cell, and HLT Leukaemias chronic myeloid.

Hodgkin’s disease were identified with the HLGT Lymphomas Hodgkin’s disease

Non-Hodgkin’s lymphomas were identified with the HLGTs Lymphomas non-Hodgkin’s B-cell, Lymphomas non-Hodgkin’s T-cell and Lymphomas non-Hodgkin’s unspecified histology.

*Litterature search*

The draft search strategy combined 2 search domains with “clozapine” AND “lymphoma” OR “leukemia” OR “leukaemia” OR “Myelodysplastic syndrome” OR “Hodgkin” OR “Hematologic malignancy” OR “hematologic malignancies” OR “cancer” or “tumor”. The reference lists of the included articles were also screened to further retrieve articles of potential interest. Any original article, letter to the editor or abstract that reported the cases of lymphoma or leukaemia with the use of clozapine in monotherapy or combination therapy were eligible for our analysis. We collected patient characteristics (age, sex), clozapine daily dose, and time to onset from clozapine initiation.

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| **Supplementary Methods 2 : N05A Antipsychotics Anatomical Therapeutic Chemical (ATC) classification** |

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| **Code** | **Name** |
| N05AA | **Phenothiazines with aliphatic side-chain** |
| N05AA01 | Chlorpromazine |
| N05AA02 | Levomepromazine |
| N05AA03 | Promazine |
| N05AA04 | Acepromazine |
| N05AA05 | Triflupromazine |
| N05AA06 | Cyamemazine |
| N05AA07 | Chlorproethazine |
| N05AB | **Phenothiazines with piperazine structure** |
| N05AB01 | Dixyrazine |
| N05AB02 | Fluphenazine |
| N05AB03 | Perphenazine |
| N05AB04 | Prochlorperazine |
| N05AB05 | Thiopropazate |
| N05AB06 | Trifluoperazine |
| N05AB07 | Acetophenazine |
| N05AB08 | Thioproperazine |
| N05AB09 | Butaperazine |
| N05AB10 | Perazine |
| N05AC | **Phenothiazines with piperidine structure** |
| N05AC01 | Periciazine |
| N05AC02 | Thioridazine |
| N05AC03 | Mesoridazine |
| N05AC04 | Pipotiazine |
| N05AD | **Butyrophenone derivatives** |
| N05AD01 | Haloperidol |
| N05AD02 | Trifluperidol |
| N05AD03 | Melperone |
| N05AD04 | Moperone |
| N05AD05 | Pipamperone |
| N05AD06 | Bromperidol |
| N05AD07 | Benperidol |
| N05AD08 | Droperidol |
| N05AD09 | Fluanisone |
| N05AE | **Indole derivatives** |
| N05AE01 | Oxypertine |
| N05AE02 | Molindone |
| N05AE03 | Sertindole |
| N05AE04 | Ziprasidone |
| N05AE05 | Lurasidone |
| N05AF | **Thioxanthene derivatives** |
| N05AF01 | Flupentixol |
| N05AF02 | Clopenthixol |
| N05AF03 | Chlorprothixene |
| N05AF04 | Tiotixene |
| N05AF05 | Zuclopenthixol |
| N05AG | **Diphenylbutylpiperidine derivatives** |
| N05AG01 | Fluspirilene |
| N05AG02 | Pimozide |
| N05AG03 | Penfluridol |
| N05AH | **Diazepines, oxazepines, thiazepines and oxepines** |
| N05AH01 | Loxapine |
| N05AH02 | Clozapine |
| N05AH03 | Olanzapine |
| N05AH04 | Quetiapine |
| N05AH05 | Asenapine |
| N05AH06 | Clotiapine |
| N05AL | **Benzamides** |
| N05AL01 | Sulpiride |
| N05AL02 | Sultopride |
| N05AL03 | Tiapride |
| N05AL04 | Remoxipride |
| N05AL05 | Amisulpride |
| N05AL06 | Veralipride |
| N05AL07 | Levosulpiride |
| N05AN | **Lithium** |
| N05AN01 | Lithium |
| N05AX | **Other antipsychotics** |
| N05AX07 | Prothipendyl |
| N05AX08 | Risperidone |
| N05AX10 | Mosapramine |
| N05AX11 | Zotepine |
| N05AX12 | Aripiprazole |
| N05AX13 | Paliperidone |
| N05AX14 | Iloperidone |
| N05AX15 | Cariprazine |
| N05AX16 | Brexpiprazole |
| N05AX17 | Pimavanserin |

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| **Supplementary Methods 3 : Preferred Terms included in Standardized MedDRA Queries** (**SMQs) and High Level Group Term (HLGT) in MedDRA v21.1** | | |
| **Malignant lymphoma SMQ (broad)** | **Leukaemias HLGT** | **Myelodysplastic syndrome SMQ (broad)** |
| Adult T-cell lymphoma/leukaemia | 5q minus syndrome | 5q minus syndrome |
| Adult T-cell lymphoma/leukaemia recurrent | Acute bilineal leukaemia | Bone marrow infiltration |
| Adult T-cell lymphoma/leukaemia refractory | Acute biphenotypic leukaemia | Chronic myelomonocytic leukaemia |
| Adult T-cell lymphoma/leukaemia stage I | Acute leukaemia | Chronic myelomonocytic leukaemia (in remission) |
| Adult T-cell lymphoma/leukaemia stage II | Acute leukaemia in remission | Granulocytes maturation arrest |
| Adult T-cell lymphoma/leukaemia stage III | Acute lymphocytic leukaemia | Myelodysplastic syndrome |
| Adult T-cell lymphoma/leukaemia stage IV | Acute lymphocytic leukaemia (in remission) | Myelodysplastic syndrome transformation |
| Anaplastic large cell lymphoma T- and null-cell types | Acute lymphocytic leukaemia recurrent | Myelodysplastic syndrome unclassifiable |
| Anaplastic large cell lymphoma T- and null-cell types recurrent | Acute lymphocytic leukaemia refractory | Myeloid maturation arrest |
| Anaplastic large cell lymphoma T- and null-cell types refractory | Acute megakaryocytic leukaemia | Myeloid metaplasia |
| Anaplastic large cell lymphoma T- and null-cell types stage I | Acute megakaryocytic leukaemia (in remission) | Platelet maturation arrest |
| Anaplastic large cell lymphoma T- and null-cell types stage II | Acute monocytic leukaemia | Platelet production decreased |
| Anaplastic large cell lymphoma T- and null-cell types stage III | Acute monocytic leukaemia (in remission) | Proerythroblast count increased |
| Anaplastic large cell lymphoma T- and null-cell types stage IV | Acute myeloid leukaemia | Refractory anaemia with an excess of blasts |
| Anaplastic large-cell lymphoma | Acute myeloid leukaemia (in remission) | Refractory anaemia with ringed sideroblasts |
| Angiocentric lymphoma | Acute myeloid leukaemia recurrent | Refractory cytopenia with multilineage dysplasia |
| Angiocentric lymphoma recurrent | Acute myeloid leukaemia refractory | Refractory cytopenia with unilineage dysplasia |
| Angiocentric lymphoma refractory | Acute myelomonocytic leukaemia | Allogenic bone marrow transplantation therapy |
| Angiocentric lymphoma stage I | Acute promyelocytic leukaemia | Aplastic anaemia |
| Angiocentric lymphoma stage II | Acute undifferentiated leukaemia | Bicytopenia |
| Angiocentric lymphoma stage III | Aleukaemic leukaemia | Blast cell count increased |
| Angiocentric lymphoma stage IV | B precursor type acute leukaemia | Blast cell proliferation |
| Angioimmunoblastic T-cell lymphoma | B-cell type acute leukaemia | Blast cells present |
| Angioimmunoblastic T-cell lymphoma recurrent | Blast cell crisis | Bone marrow disorder |
| Angioimmunoblastic T-cell lymphoma refractory | Blast crisis in myelogenous leukaemia | Bone marrow failure |
| Angioimmunoblastic T-cell lymphoma stage I | Burkitt's leukaemia | Bone marrow metamyelocyte count increased |
| Angioimmunoblastic T-cell lymphoma stage II | Central nervous system leukaemia | Bone marrow myelogram abnormal |
| Angioimmunoblastic T-cell lymphoma stage III | Chloroma | Bone marrow reticulin fibrosis |
| Angioimmunoblastic T-cell lymphoma stage IV | Chloroma (in remission) | Bone marrow transplant |
| B-cell lymphoma | Chronic eosinophilic leukaemia | Cytopenia |
| B-cell lymphoma recurrent | Chronic leukaemia | Differential white blood cell count abnormal |
| B-cell lymphoma refractory | Chronic leukaemia in remission | Erythroblast count increased |
| B-cell lymphoma stage I | Chronic lymphocytic leukaemia | Erythroblast morphology abnormal |
| B-cell lymphoma stage II | Chronic lymphocytic leukaemia (in remission) | Hypoplastic anaemia |
| B-cell lymphoma stage III | Chronic lymphocytic leukaemia recurrent | Leukoerythroblastic anaemia |
| B-cell lymphoma stage IV | Chronic lymphocytic leukaemia refractory | Leukoerythroblastosis |
| B-cell prolymphocytic leukaemia | Chronic lymphocytic leukaemia stage 0 | Marrow hyperplasia |
| B-cell small lymphocytic lymphoma | Chronic lymphocytic leukaemia stage 1 | Mean platelet volume abnormal |
| B-cell small lymphocytic lymphoma recurrent | Chronic lymphocytic leukaemia stage 2 | Mean platelet volume decreased |
| B-cell small lymphocytic lymphoma refractory | Chronic lymphocytic leukaemia stage 3 | Megakaryocytes abnormal |
| B-cell small lymphocytic lymphoma stage I | Chronic lymphocytic leukaemia stage 4 | Megaloblasts increased |
| B-cell small lymphocytic lymphoma stage II | Chronic lymphocytic leukaemia transformation | Metamyelocyte count increased |
| B-cell small lymphocytic lymphoma stage III | Chronic myeloid leukaemia | Metamyelocyte percentage increased |
| B-cell small lymphocytic lymphoma stage IV | Chronic myeloid leukaemia (in remission) | Mismatched donor bone marrow transplantation therapy |
| B-cell unclassifiable lymphoma high grade | Chronic myeloid leukaemia recurrent | Monoblast count increased |
| B-cell unclassifiable lymphoma low grade | Chronic myeloid leukaemia transformation | Mononuclear cell count abnormal |
| Burkitt's lymphoma | **Chronic myelomonocytic leukaemia** | Myeloblast count increased |
| Burkitt's lymphoma recurrent | **Chronic myelomonocytic leukaemia (in remission)** | Myeloblast percentage increased |
| Burkitt's lymphoma refractory | Eosinophilic leukaemia | Myeloblast present |
| Burkitt's lymphoma stage I | Erythraemic myelosis (in remission) | Myelocyte count increased |
| Burkitt's lymphoma stage II | Erythroleukaemia | Myelocyte percentage increased |
| Burkitt's lymphoma stage III | Hairy cell leukaemia | Myelocytosis |
| Burkitt's lymphoma stage IV | Hairy cell leukaemia recurrent | Packed red blood cell transfusion |
| Central nervous system lymphoma | Juvenile chronic myelomonocytic leukaemia | Pancytopenia |
| Composite lymphoma | Large granular lymphocytosis | Panmyelopathy |
| Cutaneous lymphoma | Leukaemia | Promyelocyte count increased |
| Diffuse large B-cell lymphoma | Leukaemia basophilic | Red blood cell morphology abnormal |
| Diffuse large B-cell lymphoma recurrent | Leukaemia cutis | Red blood cell siderocytes present |
| Diffuse large B-cell lymphoma refractory | Leukaemia granulocytic | Red cell distribution width abnormal |
| Diffuse large B-cell lymphoma stage I | Leukaemia in remission | Sideroblastic anaemia |
| Diffuse large B-cell lymphoma stage II | Leukaemia monocytic | Unrelated donor bone marrow transplantation therapy |
| Diffuse large B-cell lymphoma stage III | Leukaemia recurrent | White blood cell analysis abnormal |
| Diffuse large B-cell lymphoma stage IV | Leukaemic cardiac infiltration |
| Disseminated large cell lymphoma | Leukaemic infiltration |
| Double hit lymphoma | Leukaemic infiltration extramedullary |
| Enteropathy-associated T-cell lymphoma | Leukaemic infiltration gingiva |
| Epstein Barr virus positive mucocutaneous ulcer | Leukaemic infiltration hepatic |
| Epstein-Barr virus associated lymphoma | Leukaemic infiltration ovary |
| Epstein-Barr virus associated lymphoproliferative disorder | Leukaemic infiltration pulmonary |
| Extranodal marginal zone B-cell lymphoma (BALT type) | Leukaemic infiltration renal |
| Extranodal marginal zone B-cell lymphoma (MALT type) | Leukaemic retinopathy |
| Extranodal marginal zone B-cell lymphoma (MALT type) recurrent | Lymphocytic leukaemia |
| Extranodal marginal zone B-cell lymphoma (MALT type) refractory | Lymphoid leukaemia (in remission) |
| Extranodal marginal zone B-cell lymphoma (MALT type) stage I | Mastocytic leukaemia |
| Extranodal marginal zone B-cell lymphoma (MALT type) stage II | Mature B-cell type acute leukaemia |
| Extranodal marginal zone B-cell lymphoma (MALT type) stage III | Monocytic leukaemia in remission |
| Extranodal marginal zone B-cell lymphoma (MALT type) stage IV | Myelodysplastic syndrome |
| Follicle centre lymphoma diffuse small cell lymphoma | Myelodysplastic syndrome transformation |
| Follicle centre lymphoma diffuse small cell lymphoma recurrent | Myelodysplastic syndrome unclassifiable |
| Follicle centre lymphoma diffuse small cell lymphoma refractory | Myeloid leukaemia |
| Follicle centre lymphoma diffuse small cell lymphoma stage I | Myeloid leukaemia in remission |
| Follicle centre lymphoma diffuse small cell lymphoma stage II | Natural killer-cell leukaemia |
| Follicle centre lymphoma diffuse small cell lymphoma stage III | Neonatal leukaemia |
| Follicle centre lymphoma diffuse small cell lymphoma stage IV | Prolymphocytic leukaemia |
| Follicle centre lymphoma, follicular grade I, II, III | Refractory anaemia with an excess of blasts |
| Follicle centre lymphoma, follicular grade I, II, III recurrent | Refractory anaemia with ringed sideroblasts |
| Follicle centre lymphoma, follicular grade I, II, III refractory | Refractory cytopenia with multilineage dysplasia |
| Follicle centre lymphoma, follicular grade I, II, III stage I | Refractory cytopenia with unilineage dysplasia |
| Follicle centre lymphoma, follicular grade I, II, III stage II | T-cell chronic lymphocytic leukaemia |
| Follicle centre lymphoma, follicular grade I, II, III stage III | T-cell prolymphocytic leukaemia |
| Follicle centre lymphoma, follicular grade I, II, III stage IV | T-cell type acute leukaemia |
| Gastrointestinal lymphoma | Transformation to acute myeloid leukaemia |
| Hepatosplenic T-cell lymphoma | Trisomy 12 |
| High grade B-cell lymphoma Burkitt-like lymphoma |
| High grade B-cell lymphoma Burkitt-like lymphoma recurrent |
| High grade B-cell lymphoma Burkitt-like lymphoma refractory |
| High grade B-cell lymphoma Burkitt-like lymphoma stage I |
| High grade B-cell lymphoma Burkitt-like lymphoma stage II |
| High grade B-cell lymphoma Burkitt-like lymphoma stage III |
| High grade B-cell lymphoma Burkitt-like lymphoma stage IV |
| High-grade B-cell lymphoma |
| Hodgkin's disease |
| Hodgkin's disease lymphocyte depletion stage I site unspecified |
| Hodgkin's disease lymphocyte depletion stage I subdiaphragm |
| Hodgkin's disease lymphocyte depletion stage I supradiaphragm |
| Hodgkin's disease lymphocyte depletion stage II site unspecified |
| Hodgkin's disease lymphocyte depletion stage II subdiaphragm |
| Hodgkin's disease lymphocyte depletion stage II supradiaphragm |
| Hodgkin's disease lymphocyte depletion type recurrent |
| Hodgkin's disease lymphocyte depletion type refractory |
| Hodgkin's disease lymphocyte depletion type stage III |
| Hodgkin's disease lymphocyte depletion type stage IV |
| Hodgkin's disease lymphocyte depletion type stage unspecified |
| Hodgkin's disease lymphocyte predominance stage I site unspec |
| Hodgkin's disease lymphocyte predominance stage I subdiaphragm |
| Hodgkin's disease lymphocyte predominance stage I supradiaphragm |
| Hodgkin's disease lymphocyte predominance stage II site unspec |
| Hodgkin's disease lymphocyte predominance stage II subdiaphragm |
| Hodgkin's disease lymphocyte predominance stage II supradiaphragm |
| Hodgkin's disease lymphocyte predominance type recurrent |
| Hodgkin's disease lymphocyte predominance type refractory |
| Hodgkin's disease lymphocyte predominance type stage III |
| Hodgkin's disease lymphocyte predominance type stage IV |
| Hodgkin's disease lymphocyte predominance type stage unspecified |
| Hodgkin's disease mixed cellularity recurrent |
| Hodgkin's disease mixed cellularity refractory |
| Hodgkin's disease mixed cellularity stage I site unspecified |
| Hodgkin's disease mixed cellularity stage I subdiaphragmatic |
| Hodgkin's disease mixed cellularity stage I supradiaphragmatic |
| Hodgkin's disease mixed cellularity stage II subdiaphragmatic |
| Hodgkin's disease mixed cellularity stage II supradiaphragmatic |
| Hodgkin's disease mixed cellularity stage III |
| Hodgkin's disease mixed cellularity stage IV |
| Hodgkin's disease mixed cellularity stage unspecified |
| Hodgkin's disease nodular sclerosis |
| Hodgkin's disease nodular sclerosis recurrent |
| Hodgkin's disease nodular sclerosis refractory |
| Hodgkin's disease nodular sclerosis stage I |
| Hodgkin's disease nodular sclerosis stage II |
| Hodgkin's disease nodular sclerosis stage III |
| Hodgkin's disease nodular sclerosis stage IV |
| Hodgkin's disease recurrent |
| Hodgkin's disease refractory |
| Hodgkin's disease stage I |
| Hodgkin's disease stage II |
| Hodgkin's disease stage III |
| Hodgkin's disease stage IV |
| Hodgkin's disease unclassifiable |
| Immunoblastic lymphoma |
| Intestinal T-cell lymphoma recurrent |
| Intestinal T-cell lymphoma refractory |
| Intestinal T-cell lymphoma stage I |
| Intestinal T-cell lymphoma stage II |
| Intestinal T-cell lymphoma stage III |
| Intestinal T-cell lymphoma stage IV |
| Leukaemic lymphoma |
| Lymphocytic lymphoma |
| Lymphoma |
| Lymphoma AIDS related |
| Lymphoma operation |
| Lymphoma transformation |
| Lymphoplasmacytoid lymphoma/immunocytoma |
| Lymphoplasmacytoid lymphoma/immunocytoma recurrent |
| Lymphoplasmacytoid lymphoma/immunocytoma refractory |
| Lymphoplasmacytoid lymphoma/immunocytoma stage I |
| Lymphoplasmacytoid lymphoma/immunocytoma stage II |
| Lymphoplasmacytoid lymphoma/immunocytoma stage III |
| Lymphoplasmacytoid lymphoma/immunocytoma stage IV |
| Malignant lymphoid neoplasm |
| Malignant lymphoma unclassifiable high grade |
| Malignant lymphoma unclassifiable low grade |
| Mantle cell lymphoma |
| Mantle cell lymphoma recurrent |
| Mantle cell lymphoma refractory |
| Mantle cell lymphoma stage I |
| Mantle cell lymphoma stage II |
| Mantle cell lymphoma stage III |
| Mantle cell lymphoma stage IV |
| Marginal zone lymphoma |
| Marginal zone lymphoma recurrent |
| Marginal zone lymphoma refractory |
| Marginal zone lymphoma stage I |
| Marginal zone lymphoma stage II |
| Marginal zone lymphoma stage III |
| Marginal zone lymphoma stage IV |
| Metastatic lymphoma |
| Mycosis fungoides |
| Mycosis fungoides recurrent |
| Mycosis fungoides refractory |
| Mycosis fungoides stage I |
| Mycosis fungoides stage II |
| Mycosis fungoides stage III |
| Mycosis fungoides stage IV |
| Natural killer-cell lymphoblastic lymphoma |
| Nodal marginal zone B-cell lymphoma |
| Nodal marginal zone B-cell lymphoma recurrent |
| Nodal marginal zone B-cell lymphoma refractory |
| Nodal marginal zone B-cell lymphoma stage I |
| Nodal marginal zone B-cell lymphoma stage II |
| Nodal marginal zone B-cell lymphoma stage III |
| Nodal marginal zone B-cell lymphoma stage IV |
| Nodular lymphocyte predominant Hodgkin lymphoma |
| Non-Hodgkin's lymphoma |
| Non-Hodgkin's lymphoma metastatic |
| Non-Hodgkin's lymphoma recurrent |
| Non-Hodgkin's lymphoma refractory |
| Non-Hodgkin's lymphoma stage I |
| Non-Hodgkin's lymphoma stage II |
| Non-Hodgkin's lymphoma stage III |
| Non-Hodgkin's lymphoma stage IV |
| Non-Hodgkin's lymphoma transformed recurrent |
| Non-Hodgkin's lymphoma unspecified histology aggressive |
| Non-Hodgkin's lymphoma unspecified histology aggressive recurrent |
| Non-Hodgkin's lymphoma unspecified histology aggressive refractory |
| Non-Hodgkin's lymphoma unspecified histology aggressive stage I |
| Non-Hodgkin's lymphoma unspecified histology aggressive stage II |
| Non-Hodgkin's lymphoma unspecified histology aggressive stage III |
| Non-Hodgkin's lymphoma unspecified histology aggressive stage IV |
| Non-Hodgkin's lymphoma unspecified histology indolent |
| Non-Hodgkin's lymphoma unspecified histology indolent stage I |
| Non-Hodgkin's lymphoma unspecified histology indolent stage II |
| Non-Hodgkin's lymphoma unspecified histology indolent stage III |
| Non-Hodgkin's lymphoma unspecified histology indolent stage IV |
| Ocular lymphoma |
| Peripheral T-cell lymphoma unspecified |
| Peripheral T-cell lymphoma unspecified recurrent |
| Peripheral T-cell lymphoma unspecified refractory |
| Peripheral T-cell lymphoma unspecified stage I |
| Peripheral T-cell lymphoma unspecified stage II |
| Peripheral T-cell lymphoma unspecified stage III |
| Peripheral T-cell lymphoma unspecified stage IV |
| Plasmablastic lymphoma |
| Post transplant lymphoproliferative disorder |
| Precursor B-lymphoblastic lymphoma |
| Precursor B-lymphoblastic lymphoma recurrent |
| Precursor B-lymphoblastic lymphoma refractory |
| Precursor B-lymphoblastic lymphoma stage I |
| Precursor B-lymphoblastic lymphoma stage II |
| Precursor B-lymphoblastic lymphoma stage III |
| Precursor B-lymphoblastic lymphoma stage IV |
| Precursor T-lymphoblastic lymphoma/leukaemia |
| Precursor T-lymphoblastic lymphoma/leukaemia recurrent |
| Precursor T-lymphoblastic lymphoma/leukaemia refractory |
| Precursor T-lymphoblastic lymphoma/leukaemia stage I |
| Precursor T-lymphoblastic lymphoma/leukaemia stage II |
| Precursor T-lymphoblastic lymphoma/leukaemia stage III |
| Precursor T-lymphoblastic lymphoma/leukaemia stage IV |
| Primary breast lymphoma |
| Primary cardiac lymphoma |
| Primary effusion lymphoma |
| Primary gastrointestinal follicular lymphoma |
| Primary mediastinal large B-cell lymphoma |
| Primary mediastinal large B-cell lymphoma recurrent |
| Primary mediastinal large B-cell lymphoma refractory |
| Primary mediastinal large B-cell lymphoma stage I |
| Primary mediastinal large B-cell lymphoma stage II |
| Primary mediastinal large B-cell lymphoma stage III |
| Primary mediastinal large B-cell lymphoma stage IV |
| Richter's syndrome |
| Sezary cells increased |
| Splenic marginal zone lymphoma |
| Splenic marginal zone lymphoma recurrent |
| Splenic marginal zone lymphoma refractory |
| Splenic marginal zone lymphoma stage I |
| Splenic marginal zone lymphoma stage II |
| Splenic marginal zone lymphoma stage III |
| Splenic marginal zone lymphoma stage IV |
| T-cell lymphoma |
| T-cell lymphoma recurrent |
| T-cell lymphoma refractory |
| T-cell lymphoma stage I |
| T-cell lymphoma stage II |
| T-cell lymphoma stage III |
| T-cell lymphoma stage IV |
| T-cell unclassifiable lymphoma high grade |
| T-cell unclassifiable lymphoma low grade |
| Thyroid B-cell lymphoma |
| Triple hit lymphoma |
| Waldenstrom's macroglobulinaemia |
| Waldenstrom's macroglobulinaemia recurrent |
| Waldenstrom's macroglobulinaemia refractory |
| Waldenstrom's macroglobulinaemia stage I |
| Waldenstrom's macroglobulinaemia stage II |
| Waldenstrom's macroglobulinaemia stage III |
| Waldenstrom's macroglobulinaemia stage IV |
| Anaplastic lymphoma kinase gene and nucleophosmin gene fusion overexpression |
| Aspiration bone marrow abnormal |
| Biopsy bone marrow abnormal |
| Biopsy lymph gland abnormal |
| Biopsy spleen abnormal |
| Blastic plasmacytoid dendritic cell neoplasia |
| Bone marrow infiltration |
| CSF lymphocyte count abnormal |
| CSF lymphocyte count increased |
| Lymphocyte morphology abnormal |
| Lymphoid tissue operation |
| Myeloblast present |
| Myeloid metaplasia |
| Radiotherapy to lymph nodes |
| Scan bone marrow abnormal |
| Spleen scan abnormal |

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| **Supplementary Methods 4 : L01AA Alkylating agents Anatomical Therapeutic Chemical (ATC) classification** | |
| **Code** | **Name** |
| L01AA | **Nitrogen mustard analogues** |
| L01AA01 | Cyclophosphamide |
| L01AA02 | Chlorambucil |
| L01AA03 | Melphalan |
| L01AA05 | Chlormethine |
| L01AA06 | Ifosfamide |
| L01AA07 | Trofosfamide |
| L01AA08 | Prednimustine |
| L01AA09 | Bendamustine |
| L01AB | **Alkyl sulfonates** |
| L01AB01 | Busulfan |
| L01AB02 | Treosulfan |
| L01AB03 | Mannosulfan |
| L01AC | **Ethylene imines** |
| L01AC01 | Thiotepa |
| L01AC02 | Triaziquone |
| L01AC03 | Carboquone |
| L01AD | **Nitrosoureas** |
| L01AD01 | Carmustine |
| L01AD02 | Lomustine |
| L01AD03 | Semustine |
| L01AD04 | Streptozocin |
| L01AD05 | Fotemustine |
| L01AD06 | Nimustine |
| L01AD07 | Ranimustine |
| L01AD08 | Uramustine |
| L01AG | **Epoxides** |
| N05AG01 | Etoglucid |
| L01AX | **Other alkylating agents** |
| L01AX01 | Mitobronitol |
| L01AX02 | Pipobroman |
| L01AX03 | Temozolomide |
| L01AX04 | Dacarbazine |

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| **Supplementary Methods 5 : Preferred Terms included in acute leukaemias High Level Terms (HLTs) in MedDRA v21.1** | |
| **Leukaemias acute lymphocytic HLT** | **Leukaemias acute myeloid HLT** |
| Acute lymphocytic leukaemia | Acute megakaryocytic leukaemia |
| Acute lymphocytic leukaemia (in remission) | Acute megakaryocytic leukaemia (in remission) |
| Acute lymphocytic leukaemia recurrent | Acute monocytic leukaemia |
| Acute lymphocytic leukaemia refractory | Acute monocytic leukaemia (in remission) |
| B precursor type acute leukaemia | Acute myeloid leukaemia |
| B-cell type acute leukaemia | Acute myeloid leukaemia (in remission) |
| Burkitt's leukaemia | Acute myeloid leukaemia recurrent |
| Mature B-cell type acute leukaemia | Acute myeloid leukaemia refractory |
| T-cell type acute leukaemia | Acute myelomonocytic leukaemia |
|  | Acute promyelocytic leukaemia |
|  | Erythraemic myelosis (in remission) |
|  | Erythroleukaemia |
|  | Transformation to acute myeloid leukaemia |

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| **Supplementary Methods 6 : Preferred Terms included in chronic leukaemias High Level Terms (HLTs) in MedDRA v21.1** | | |
| **Leukaemias chronic lymphocytic HLT** | **Leukaemias chronic T-cell HLT** | **Leukaemias chronic myeloid HLT** |
| Chronic lymphocytic leukaemia | Large granular lymphocytosis | Chronic eosinophilic leukaemia |
| Chronic lymphocytic leukaemia (in remission) | Natural killer-cell leukaemia | Chronic myeloid leukaemia |
| Chronic lymphocytic leukaemia recurrent | T-cell chronic lymphocytic leukaemia | Chronic myeloid leukaemia (in remission) |
| Chronic lymphocytic leukaemia refractory | T-cell prolymphocytic leukaemia | Chronic myeloid leukaemia recurrent |
| Chronic lymphocytic leukaemia stage 0 |  | Chronic myeloid leukaemia transformation |
| Chronic lymphocytic leukaemia stage 1 |  | Juvenile chronic myelomonocytic leukaemia |
| Chronic lymphocytic leukaemia stage 2 |
| Chronic lymphocytic leukaemia stage 3 |
| Chronic lymphocytic leukaemia stage 4 |
| Chronic lymphocytic leukaemia transformation |
| Hairy cell leukaemia |
| Hairy cell leukaemia recurrent |
| Prolymphocytic leukaemia |
| Trisomy 12 |

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| **Supplementary Methods 7 : Preferred Terms included in Lymphomas Hodgkin’s disease High Level Group Term (HLGT) in MedDRA v21.1** |
| Hodgkin's disease |
| Hodgkin's disease lymphocyte depletion stage I site unspecified |
| Hodgkin's disease lymphocyte depletion stage I subdiaphragm |
| Hodgkin's disease lymphocyte depletion stage I supradiaphragm |
| Hodgkin's disease lymphocyte depletion stage II site unspecified |
| Hodgkin's disease lymphocyte depletion stage II subdiaphragm |
| Hodgkin's disease lymphocyte depletion stage II supradiaphragm |
| Hodgkin's disease lymphocyte depletion type recurrent |
| Hodgkin's disease lymphocyte depletion type refractory |
| Hodgkin's disease lymphocyte depletion type stage III |
| Hodgkin's disease lymphocyte depletion type stage IV |
| Hodgkin's disease lymphocyte depletion type stage unspecified |
| Hodgkin's disease lymphocyte predominance stage I site unspec |
| Hodgkin's disease lymphocyte predominance stage I subdiaphragm |
| Hodgkin's disease lymphocyte predominance stage I supradiaphragm |
| Hodgkin's disease lymphocyte predominance stage II site unspec |
| Hodgkin's disease lymphocyte predominance stage II subdiaphragm |
| Hodgkin's disease lymphocyte predominance stage II supradiaphragm |
| Hodgkin's disease lymphocyte predominance type recurrent |
| Hodgkin's disease lymphocyte predominance type refractory |
| Hodgkin's disease lymphocyte predominance type stage III |
| Hodgkin's disease lymphocyte predominance type stage IV |
| Hodgkin's disease lymphocyte predominance type stage unspecified |
| Hodgkin's disease mixed cellularity recurrent |
| Hodgkin's disease mixed cellularity refractory |
| Hodgkin's disease mixed cellularity stage I site unspecified |
| Hodgkin's disease mixed cellularity stage I subdiaphragmatic |
| Hodgkin's disease mixed cellularity stage I supradiaphragmatic |
| Hodgkin's disease mixed cellularity stage II subdiaphragmatic |
| Hodgkin's disease mixed cellularity stage II supradiaphragmatic |
| Hodgkin's disease mixed cellularity stage III |
| Hodgkin's disease mixed cellularity stage IV |
| Hodgkin's disease mixed cellularity stage unspecified |
| Hodgkin's disease nodular sclerosis |
| Hodgkin's disease nodular sclerosis recurrent |
| Hodgkin's disease nodular sclerosis refractory |
| Hodgkin's disease nodular sclerosis stage I |
| Hodgkin's disease nodular sclerosis stage II |
| Hodgkin's disease nodular sclerosis stage III |
| Hodgkin's disease nodular sclerosis stage IV |
| Hodgkin's disease recurrent |
| Hodgkin's disease refractory |
| Hodgkin's disease stage I |
| Hodgkin's disease stage II |
| Hodgkin's disease stage III |
| Hodgkin's disease stage IV |
| Hodgkin's disease unclassifiable |
| Nodular lymphocyte predominant Hodgkin lymphoma |

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| **Supplementary Methods 8 : Preferred Terms included in non-Hodgkin lymphomas High Level Group Terms (HLGTs) in MedDRA v21.1** | | |
| **Lymphomas non-Hodgkin’s B-cell HLGT** | **Lymphomas non-Hodgkin’s T-cell HLGT** | **Lymphomas non-Hodgkin’s unspecified histology HLGT** |
| B-cell lymphoma | Adult T-cell lymphoma/leukaemia | Cutaneous lymphoma |
| B-cell lymphoma recurrent | Adult T-cell lymphoma/leukaemia recurrent | Gastrointestinal lymphoma |
| B-cell lymphoma refractory | Adult T-cell lymphoma/leukaemia refractory | Immunoblastic lymphoma |
| B-cell lymphoma stage I | Adult T-cell lymphoma/leukaemia stage I | Leukaemic lymphoma |
| B-cell lymphoma stage II | Adult T-cell lymphoma/leukaemia stage II | Non-Hodgkin's lymphoma |
| B-cell lymphoma stage III | Adult T-cell lymphoma/leukaemia stage III | Non-Hodgkin's lymphoma metastatic |
| B-cell lymphoma stage IV | Adult T-cell lymphoma/leukaemia stage IV | Non-Hodgkin's lymphoma recurrent |
| B-cell prolymphocytic leukaemia | Anaplastic large cell lymphoma T- and null-cell types | Non-Hodgkin's lymphoma refractory |
| B-cell small lymphocytic lymphoma | Anaplastic large cell lymphoma T- and null-cell types recurrent | Non-Hodgkin's lymphoma stage I |
| B-cell small lymphocytic lymphoma recurrent | Anaplastic large cell lymphoma T- and null-cell types refractory | Non-Hodgkin's lymphoma stage II |
| B-cell small lymphocytic lymphoma refractory | Anaplastic large cell lymphoma T- and null-cell types stage I | Non-Hodgkin's lymphoma stage III |
| B-cell small lymphocytic lymphoma stage I | Anaplastic large cell lymphoma T- and null-cell types stage II | Non-Hodgkin's lymphoma stage IV |
| B-cell small lymphocytic lymphoma stage II | Anaplastic large cell lymphoma T- and null-cell types stage III | Non-Hodgkin's lymphoma transformed recurrent |
| B-cell small lymphocytic lymphoma stage III | Anaplastic large cell lymphoma T- and null-cell types stage IV | Non-Hodgkin's lymphoma unspecified histology aggressive |
| B-cell small lymphocytic lymphoma stage IV | Angiocentric lymphoma | Non-Hodgkin's lymphoma unspecified histology aggressive recurrent |
| B-cell unclassifiable lymphoma high grade | Angiocentric lymphoma recurrent | Non-Hodgkin's lymphoma unspecified histology aggressive refractory |
| B-cell unclassifiable lymphoma low grade | Angiocentric lymphoma refractory | Non-Hodgkin's lymphoma unspecified histology aggressive stage I |
| Bing-Neel syndrome | Angiocentric lymphoma stage I | Non-Hodgkin's lymphoma unspecified histology aggressive stage II |
| Burkitt's lymphoma | Angiocentric lymphoma stage II | Non-Hodgkin's lymphoma unspecified histology aggressive stage III |
| Burkitt's lymphoma recurrent | Angiocentric lymphoma stage III | Non-Hodgkin's lymphoma unspecified histology aggressive stage IV |
| Burkitt's lymphoma refractory | Angiocentric lymphoma stage IV | Non-Hodgkin's lymphoma unspecified histology indolent |
| Burkitt's lymphoma stage I | Angioimmunoblastic T-cell lymphoma | Non-Hodgkin's lymphoma unspecified histology indolent stage I |
| Burkitt's lymphoma stage II | Angioimmunoblastic T-cell lymphoma recurrent | Non-Hodgkin's lymphoma unspecified histology indolent stage II |
| Burkitt's lymphoma stage III | Angioimmunoblastic T-cell lymphoma refractory | Non-Hodgkin's lymphoma unspecified histology indolent stage III |
| Burkitt's lymphoma stage IV | Angioimmunoblastic T-cell lymphoma stage I | Non-Hodgkin's lymphoma unspecified histology indolent stage IV |
| Diffuse large B-cell lymphoma | Angioimmunoblastic T-cell lymphoma stage II | Plasmablastic lymphoma |
| Diffuse large B-cell lymphoma recurrent | Angioimmunoblastic T-cell lymphoma stage III |
| Diffuse large B-cell lymphoma refractory | Angioimmunoblastic T-cell lymphoma stage IV |
| Diffuse large B-cell lymphoma stage I | Enteropathy-associated T-cell lymphoma |
| Diffuse large B-cell lymphoma stage II | Hepatosplenic T-cell lymphoma |
| Diffuse large B-cell lymphoma stage III | Intestinal T-cell lymphoma recurrent |
| Diffuse large B-cell lymphoma stage IV | Intestinal T-cell lymphoma refractory |
| Double hit lymphoma | Intestinal T-cell lymphoma stage I |
| Epstein-Barr virus associated lymphoma | Intestinal T-cell lymphoma stage II |
| Extranodal marginal zone B-cell lymphoma (BALT type) | Intestinal T-cell lymphoma stage III |
| Extranodal marginal zone B-cell lymphoma (MALT type) | Intestinal T-cell lymphoma stage IV |
| Extranodal marginal zone B-cell lymphoma (MALT type) recurrent | Mycosis fungoides |
| Extranodal marginal zone B-cell lymphoma (MALT type) refractory | Mycosis fungoides recurrent |
| Extranodal marginal zone B-cell lymphoma (MALT type) stage I | Mycosis fungoides refractory |
| Extranodal marginal zone B-cell lymphoma (MALT type) stage II | Mycosis fungoides stage I |
| Extranodal marginal zone B-cell lymphoma (MALT type) stage III | Mycosis fungoides stage II |
| Extranodal marginal zone B-cell lymphoma (MALT type) stage IV | Mycosis fungoides stage III |
| Follicle centre lymphoma diffuse small cell lymphoma | Mycosis fungoides stage IV |
| Follicle centre lymphoma diffuse small cell lymphoma recurrent | Natural killer-cell lymphoblastic lymphoma |
| Follicle centre lymphoma diffuse small cell lymphoma refractory | Peripheral T-cell lymphoma unspecified |
| Follicle centre lymphoma diffuse small cell lymphoma stage I | Peripheral T-cell lymphoma unspecified recurrent |
| Follicle centre lymphoma diffuse small cell lymphoma stage II | Peripheral T-cell lymphoma unspecified refractory |
| Follicle centre lymphoma diffuse small cell lymphoma stage III | Peripheral T-cell lymphoma unspecified stage I |
| Follicle centre lymphoma diffuse small cell lymphoma stage IV | Peripheral T-cell lymphoma unspecified stage II |
| Follicle centre lymphoma, follicular grade I, II, III | Peripheral T-cell lymphoma unspecified stage III |
| Follicle centre lymphoma, follicular grade I, II, III recurrent | Peripheral T-cell lymphoma unspecified stage IV |
| Follicle centre lymphoma, follicular grade I, II, III refractory | Precursor T-lymphoblastic lymphoma/leukaemia |
| Follicle centre lymphoma, follicular grade I, II, III stage I | Precursor T-lymphoblastic lymphoma/leukaemia recurrent |
| Follicle centre lymphoma, follicular grade I, II, III stage II | Precursor T-lymphoblastic lymphoma/leukaemia refractory |
| Follicle centre lymphoma, follicular grade I, II, III stage III | Precursor T-lymphoblastic lymphoma/leukaemia stage I |
| Follicle centre lymphoma, follicular grade I, II, III stage IV | Precursor T-lymphoblastic lymphoma/leukaemia stage II |
| High grade B-cell lymphoma Burkitt-like lymphoma | Precursor T-lymphoblastic lymphoma/leukaemia stage III |
| High grade B-cell lymphoma Burkitt-like lymphoma recurrent | Precursor T-lymphoblastic lymphoma/leukaemia stage IV |
| High grade B-cell lymphoma Burkitt-like lymphoma refractory | T-cell lymphoma |
| High grade B-cell lymphoma Burkitt-like lymphoma stage I | T-cell lymphoma recurrent |
| High grade B-cell lymphoma Burkitt-like lymphoma stage II | T-cell lymphoma refractory |
| High grade B-cell lymphoma Burkitt-like lymphoma stage III | T-cell lymphoma stage I |
| High grade B-cell lymphoma Burkitt-like lymphoma stage IV | T-cell lymphoma stage II |
| High-grade B-cell lymphoma | T-cell lymphoma stage III |
| Lymphoplasmacytoid lymphoma/immunocytoma | T-cell lymphoma stage IV |
| Lymphoplasmacytoid lymphoma/immunocytoma recurrent | T-cell unclassifiable lymphoma high grade |
| Lymphoplasmacytoid lymphoma/immunocytoma refractory | T-cell unclassifiable lymphoma low grade |
| Lymphoplasmacytoid lymphoma/immunocytoma stage I |
| Lymphoplasmacytoid lymphoma/immunocytoma stage II |
| Lymphoplasmacytoid lymphoma/immunocytoma stage III |
| Lymphoplasmacytoid lymphoma/immunocytoma stage IV |
| Mantle cell lymphoma |
| Mantle cell lymphoma recurrent |
| Mantle cell lymphoma refractory |
| Mantle cell lymphoma stage I |
| Mantle cell lymphoma stage II |
| Mantle cell lymphoma stage III |
| Mantle cell lymphoma stage IV |
| Marginal zone lymphoma |
| Marginal zone lymphoma recurrent |
| Marginal zone lymphoma refractory |
| Marginal zone lymphoma stage I |
| Marginal zone lymphoma stage II |
| Marginal zone lymphoma stage III |
| Marginal zone lymphoma stage IV |
| Nodal marginal zone B-cell lymphoma |
| Nodal marginal zone B-cell lymphoma recurrent |
| Nodal marginal zone B-cell lymphoma refractory |
| Nodal marginal zone B-cell lymphoma stage I |
| Nodal marginal zone B-cell lymphoma stage II |
| Nodal marginal zone B-cell lymphoma stage III |
| Nodal marginal zone B-cell lymphoma stage IV |
| Ocular lymphoma |
| Precursor B-lymphoblastic lymphoma |
| Precursor B-lymphoblastic lymphoma recurrent |
| Precursor B-lymphoblastic lymphoma refractory |
| Precursor B-lymphoblastic lymphoma stage I |
| Precursor B-lymphoblastic lymphoma stage II |
| Precursor B-lymphoblastic lymphoma stage III |
| Precursor B-lymphoblastic lymphoma stage IV |
| Primary effusion lymphoma |
| Primary gastrointestinal follicular lymphoma |
| Primary mediastinal large B-cell lymphoma |
| Primary mediastinal large B-cell lymphoma recurrent |
| Primary mediastinal large B-cell lymphoma refractory |
| Primary mediastinal large B-cell lymphoma stage I |
| Primary mediastinal large B-cell lymphoma stage II |
| Primary mediastinal large B-cell lymphoma stage III |
| Primary mediastinal large B-cell lymphoma stage IV |
| Richter's syndrome |
| Splenic marginal zone lymphoma |
| Splenic marginal zone lymphoma recurrent |
| Splenic marginal zone lymphoma refractory |
| Splenic marginal zone lymphoma stage I |
| Splenic marginal zone lymphoma stage II |
| Splenic marginal zone lymphoma stage III |
| Splenic marginal zone lymphoma stage IV |
| Thyroid B-cell lymphoma |
| Triple hit lymphoma |
| Waldenstrom's macroglobulinaemia |
| Waldenstrom's macroglobulinaemia recurrent |
| Waldenstrom's macroglobulinaemia refractory |
| Waldenstrom's macroglobulinaemia stage I |
| Waldenstrom's macroglobulinaemia stage II |
| Waldenstrom's macroglobulinaemia stage III |
| Waldenstrom's macroglobulinaemia stage IV |