Appendix 1

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WHEREAS, the NLM's UMLS project has produced the UMLS Metathesaurus, a machine-readable vocabulary knowledge source, that is useful in a variety of settings;

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Appendix 1

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Questions Regarding Additional Permissions or License Agreements: Questions about uses not covered by this Agreement, or other inquiries about individual sources, should be directed to the source contact.
**CCC2_5_2018** - SabaCare, Inc.; Clinical Care Classification (CCC) System; 2.5; January 10, 2018; ENG;

**CATEGORY 1 RESTRICTIONS APPLY**

Contact: Dr. Virginia K. Saba; CEO & President; SabaCare, Inc.; Arlington, VA; United States; 703-521-6132; 703-521-3866; vsaba@att.net; https://www.sabacare.com;

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**CCPSS99** - Canonical Clinical Problem Statement System; Version 1.0; June 23, 1999; ENG; Contact: sbrown@vumclib.mc.vanderbilt.edu;

**CATEGORY 3 RESTRICTIONS APPLY**

Permission will be freely given for any uses and applications containing CCPSS which are not for sale - i.e. those used internally or given to others without charge.

Contact: Steven Brown, M.D.; Associate Professor, Biomedical Informatics; Eskind Biomedical Library, Vanderbilt University Medical Center; 2209 Garland Ave; Room 442; Nashville, TN; United States; 37232-8340; (615) 321-6335; sbrown@vumclib.mc.vanderbilt.edu;

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**CCS2005** - Agency for Healthcare Research and Quality (AHRQ); Clinical Classifications Software (CCS); April 2005; Rockville, MD; https://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp; ENG; Phone: 301-594-1364;

Contact: Anne Elixhauser, Ph.D.; Senior Research Scientist; Agency for Healthcare Research and Quality; 540 Gaither Road; Rockville, MD; United States; 20850; (301) 427-1411, 1-800-358-9295; (301) 594-1430; AElixhau@AHRQ.gov;

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**CCSR_ICD10CM_2023** (updated) - Healthcare Cost and Utilization Project (HCUP); Clinical Classifications Software Refined for ICD-10-CM; November 2022; Rockville, MD; ENG;

Contact: Agency for Healthcare Research and Quality; 5600 Fishers Lane; Mail Stop 07N94A; Rockville, MD; United States; 20857; 1-866-290-HCUP; (301) 594-1430; hcup@ahrq.gov; https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp;

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**CCSR_ICD10PCS_2023** (updated) - Healthcare Cost and Utilization Project (HCUP); Clinical Classifications Software Refined for ICD-10-PCS; November 2022; Rockville, MD; ENG;

Contact: Agency for Healthcare Research and Quality; 5600 Fishers Lane; Mail Stop 07N94A; Rockville, MD; United States; 20857; 1-866-290-HCUP; (301) 594-1430; hcup@ahrq.gov; https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp;

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**CDCREC_1.2** - CDC, National Center for Health Statistics; Race & Ethnicity - CDC; Atlanta, GA; December 27, 2017; ENG;

Contact: CDC, National Center for Health Statistics; 1600 Clifton Road; Mailstop: E-62; Atlanta, GA; United States; 30333; https://www.cdc.gov/phin/resources/vocabulary/index.html;
CDT2023 - Code on Dental Procedures and Nomenclature; 2023; Chicago, IL; American Dental Association;

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For CDT the following special notice must be displayed:
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Contact: Debbie Labinger; Manager, Special Accounts Senior Manager, Special Accounts and Licensing Program; American Dental Association; 211 East Chicago Ave.; Chicago, IL; United States; 60611-2678; 312-440-7742; LabingerD@ada.org; https://www.ada.org/publications/CDT;

CHV2011_02 - Consumer Health Vocabulary; 2011; USA; ENG;

Contact: Qing Zeng, PhD; Biomedical Informatics Department, University of Utah; 26 South 2000 East Room 5775 HSEB; Salt Lake City, UT, USA; 84112; q.t.zeng@utah.edu;

COSTAR_89-95 - Computer-Stored Ambulatory Records (COSTAR); Boston, MA; Massachusetts General Hospital; 1989-1995; ENG;

The UMLS Metathesaurus includes terms that were used frequently at 3 COSTAR sites in the years indicated and supplied to NLM by Massachusetts General Hospital.

Contact: G. Octo Barnett, M.D.; Laboratory of Computer Science Massachusetts General Hospital; 50 Staniford Street, 5th Floor; Boston, MA; United States; 02114; (617) 726-3939; (617) 726-8481; e-mail: Barnett.Octo@mgh.harvard.edu;

CPM2003 - Medical Entities Dictionary (CPM); New York (NY); Columbia Presbyterian Medical Center; 2003; ENG;

**CATEGORY 2 RESTRICTIONS APPLY**

The UMLS Metathesaurus includes a relatively small number of terms created at Columbia Presbyterian Medical Center for the MED, which also includes terms obtained from the UMLS Metathesaurus and other sources.

Contact: George Hripcsak, M.D.; Professor and Chair; Department of Biomedical Informatics, Vanderbilt Clinic VC-5; Columbia University; 622 W. 168th Street; New York; New York; USA; 10032; (212) 305-5780; (212) 305-3302; kripcsak@columbia.edu;

CPT2023 (updated) - Current Procedural Terminology (CPT); American Medical Association; 2023; Chicago, IL;

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Contact: ;;American Medical Association;330 N. Wabash, Suite 39300;;Chicago;IL;United States;60611;(800) 621-8335;;Intellectual.PropertyServices@ama-assn.org;https://www.ama-assn.org/practice-management/cpt-current-procedural-terminology;

Read more information about this source

CPT01SP - ;;Current Procedural Terminology (CPT), Spanish Translation;;4th ed;Chicago (IL);American Medical Association;2000;;https://www.ama-assn.org;ESP;;

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Contact: Dorith Brown;;CPT Intellectual Property Services,American Medical Association;515 N. State Street;Chicago;IL;United States;60610;(312) 464-5762;;

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CSP2006 - ;;Computer Retrieval of Information on Scientific Projects (CRISP);;;;;Bethesda (MD);National Institutes of Health, Division of Research Grants, Research Documentation Section;2006;;;;;

Contact: Dorrette Finch;Director;Division of Research Documentation, ORA, OER, National Institutes of Health;6701 Rockledge Drive;Bethesda;MD;20892-7983;;dw33v@nih.gov;

Read more information about this source

CST95 - ;;Coding Symbols for Thesaurus of Adverse Reaction Terms (COSTART);;;;;5th ed;Rockville (MD);U.S. Food and Drug Administration, Center for Drug Evaluation and Research;1995;;;;

COSTART has been superseded by the Medical Dictionary for Regulatory Activities (MedDRA) Terminology.

Contact: ;;National Technical Information Service ;;;;;;;;;;https://www.ntis.gov/fcpc/cpn5580.htm

Read more information about this source

CVX_2023_01_25 (updated) - ;;National Center for Immunization and Respiratory Diseases;CVX Code Set;;;;;Atlanta, GA;January 25, 2023;;;;

Contact: CDC, National Center for Immunization and Respiratory Diseases Immunization Information System Support Branch - Informatics;1600 Clifton Road;Mailstop: E-62;Atlanta;GA;United States;30333;;iisinfo@cdc.gov;https://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=cvx;

Read more information about this source
DXP94 - D;DXplain (An expert diagnosis program);Boston (MA);Massachusetts General Hospital;1994;G. Octo Barnett, M.D.;Laboratory of Computer Science, Massachusetts General Hospital;50 Staniford Street;5th Floor;Boston;MA;02114;(617) 726-3939;(617) 726-8481;Barnett.Octo@mgh.harvard.edu

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FMA4_15 - Jose Leonardo V. Mejino Jr., M.D., Cornelius Rosse, M.D., DSc;Foundation Model of Anatomy;v4.15.0;Department of Biological Structure, University of Washington;April 2019;

Contact: Jose L. V Mejino Jr. MD;Senior Scientist, Project Director and Curator of FMA;Department of Biological Structure, University of Washington;1959 NE Pacific Street;Box 357420;Seattle;WA;United States;98195;206-543-7118;206-543-1524;fma@sig.biostr.washington.edu;https://si.washington.edu/projects/fma

Read more information about this source

GO2022_05_16 - Gene Ontology;Gene Ontology Consortium;May 16, 2022;


Read more information about this source

GS_2023_02_08 (updated) - Gold Standard Drug Database;302 Knights Run Ave, Suite 800, Tampa, FL 33602;Gold Standard;

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Contact: RxNorm Customer Service;U.S. National Library of Medicine;8600 Rockville Pike;Bethesda;MD;United States;20894;(888) FIND-NLM;rxnorminfo@nlm.nih.gov;https://www.nlm.nih.gov/research/umls/rxnorm/

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HCDT2023 (updated) - HCPCS Version of Current Dental Terminology;Baltimore, MD;Centers for Medicare & Medicaid Services;2023;

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Contact: Cynthia Hake;CMS HCPCS Workgroup Chair;Centers for Medicare & Medicaid Services (CMS);7500 Security Boulevard;Baltimore;MD;United States;21244;1-410-786-3404;hcpcs@cms.hhs.gov;https://www.cms.gov/Medicare/Coding/MedHCPCSGenInfo/index.html

Read more information about this source

HCPCS2023 (updated) - Healthcare Common Procedure Coding System (HCPCS);Baltimore, MD;Centers for Medicare & Medicaid Services;2023;

The American Medical Association's CPT® codes in HCPCS have a Source Abbreviation of HCPT04. The American Dental Association's CDT codes in HCPCS have a Source Abbreviation of HCDT4.

Contact: Cynthia Hake;CMS HCPCS Workgroup Chair;Centers for Medicare & Medicaid Services (CMS);7500 Security Boulevard;Baltimore;MD;United States;21244;1-410-786-3404;hcpcs@cms.hhs.gov;https://www.cms.gov/Medicare/Coding/MedHCPCSGenInfo/index.html

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Contact: Cynthia Hake; CMS HCPCS Workgroup Chair; Centers for Medicare & Medicaid Services (CMS); 7500 Security Boulevard; Baltimore, MD; United States; 21244; 1-410-786-3404; hpcsc@cms.hhs.gov; https://www.cms.gov/Medicare/Coding/MedHCPCSGenInfo/index.html;

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HGNC2022_04 - Gray KA, Yates B, Seal RL, Wright MW, Bruford EA; HGNC Database; The HUGO Gene Nomenclature Database; European Bioinformatics Institute Wellcome Trust Genome Campus; April 20, 2022; United Kingdom.

Contact: Elspeth Bruford, PhD; Group Co-ordinator; HUGO Gene Nomenclature Committee (HGNC); European Bioinformatics Institute (EMBL-EBI); Wellcome Trust Genome Campus; Hinxton; Cambridge; United Kingdom; CB10 1SD; +44 (0) 1223 494 468; hgnc@genenames.org; https://www.genenames.org/;

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HL7V2.5_2003_08_30 - Mark McDougall, Executive Director, Health Level Seven; 3300 Washtenaw Avenue, Suite 227, Ann Arbor, MI 48104-4250; Health Level Seven Vocabulary (HL7); Ann Arbor (MI); 1998-2002; www.HL7.ORG;

Contact: Health Level Seven; 3300 Washtenaw Avenue, Suite 227, Ann Arbor, MI; 48104-4250; (734)677-7777; (734)677-6622; HQ@HL7.ORG;

Read more information about this source

HL7V3.0_2022_11 (updated) - Health Level Seven (HL7) Vocabulary; Ann Arbor, MI; November 4, 2022; https://www.hl7.org/;

Contact: Health Level Seven International; 3300 Washtenaw Avenue; Suite 227; Ann Arbor; MI; USA; 48104-4250; (734)677-7777; (734)677-6622; HQ@HL7.ORG;

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HLREL_1998 - Dr. Henk Lamberts; University of Amsterdam; ICPC2E-ICD10 relationships from (HLREL); 1998;

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Contact: Henk Lamberts; University of Amsterdam; H.Lamberts@AMC.UVA.NL;

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HPO2022_10_05 (updated) - The Human Phenotype Ontology (HPO); The Human Phenotype Ontology Consortium; October 5, 2022;

Contact: Dr. Peter N. Robinson; Professor of Computational Biology; The Jackson Laboratory for Genomic Medicine; 10 Discovery Drive; Farmington, CT; 06032; 860.837.2095 t, 860.990.3130 m; peter.robinson@jax.org; https://hpo.jax.org/app/contact;

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NLM has generated fully specified titles for ICD-9-CM codes in cases in which the official ICD-9-CM titles consist of extensions to higher levels in the ICD-9-CM hierarchy. The fully specified names were produced with reasonable care, but have not yet been reviewed and approved by the producers of ICD-9-CM.

Contact: Patricia Brooks; Contact for Procedures; Health Care Financing Administration; Centers for Medicare & Medicaid Services; 7500 Security Boulevard; Baltimore; MD; 21244; pbrooks@hcfa.gov; https://www.cms.gov/Medicare/Coding/ICD10/index.html;

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Contact: Contact for Diseases: Donna Pickett, National Center for Health Statistics; e-mail: dfp4@cdc.gov; Contact for Procedures: Patricia Brooks, Health Care Financing Administration; e-mail: pbrooks@hcfa.gov;

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Contact: Nenad Kostanjsek; Technical Officer, Classification, Terminology and Standards (CTS), Department of Health Statistics and Informatics (HSI); World Health Organization; 20, Avenue Appia; CH-1211 Geneva 27; Switzerland; +41.22.791.3242; +41.22.791.4894; kostanjsekn@who.int; https://www.who.int/classification/icf

Read more information about this source

ICF-CY_2008 - World Health Organization; International Classification of Functioning, Disability and Health for Children and Youth; Geneva, Switzerland; World Health Organization; 2008; https://www.who.int/classification/icf

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ICNP_2022 (updated) - International Council of Nurses; International Classification for Nursing Practice (ICNP); Geneva, Switzerland; International Council of Nurses; 2022;

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Contact: Asta Steinunn Thoroddsen; icnp@icn.ch; https://www.icn.ch/what-we-do/projects/ehealth-icnp

Read more information about this source

ICPC93 - The International Classification of Primary Care (ICPC); Denmark; World Organisation of Family Doctors; 1993;

This year, the Metathesaurus has also included translations of ICPC93 in the following languages:

- Basque (ICPCBAQ_1993),
- Danish (ICPCDAN_1993),
- Dutch (ICPCDUT_1993),
- Finnish (ICPCFIN_1993),
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Contact: R. Brian Haynes, M.D., Ph.D.; Clinical Epidemiology & Biostatistics and Medicine, Faculty of Health Sciences, McMaster University; 1200 Main Street; Room 2C10B; West Hamilton; Ontario; Canada; L8N 3Z5; (905) 525-9140; bhaynes@mcmaster.ca;

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Contact: David Lareau;Chief Executive Officer;Medicomp Systems;14500 Avion Parkway, Suite 175;;;;Chantilly;VA;United States;20151;703-803-8080;703-803-8235;info@medicomp.com;https://www.medicomp.com;

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Contact: Dr. Ana Cristina Espindola Campos;;TCS AFI BIREME PAHO WHO;Centro Latinoamericano y del Caribe de Informacion en Ciencias de la Salud;Rua Vergueiro, 1759 - 12. andar;Sao Paulo;SP;Brasil;04101-000;camposan@paho.org;;;

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Contact: Charlotte Rodwell; Partnerships, Business Development and Strategic Communications; Inserm US14 - Orphanet; Plateforme Maladies Rares; 96 rue Didiot; Paris; France; 75014; +33 (0) 156538150; data.orphanet@inserm.fr; www.orpha.net, www.orphadata.com

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Contact: Judy Ozbolt; Vanderbilt School of Nursing 400-C Godchaux Hall; Nashville, TN; 37240-0008; (615) 343-3291; judy.ozbolt@mcmail.vanderbilt.edu

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Contact: Scott Antall; American Pharmaceutical Association - Academy of Pharmaceutical Research and Science; 2215 Constitution Avenue NW; Washington, DC; 20037-2985; ssa@mail.aphanet.org;

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Contact: Quick Medical Reference, First Databank; 1111 Bayhill Drive; San Bruno; CA; 94066;

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https://umlsinfo.nlm.nih.gov/RxNorm.html

Contact: RxNorm Customer Service; U.S. National Library of Medicine; 8600 Rockville Pike; Bethesda; MD; United States; 20894; (888) FIND-NLM; rxnorminfo@nlm.nih.gov; https://www.nlm.nih.gov/research/umls/rxnorm/

**SCTSPA_2022_10_31** (updated) - SNOMED International; SNOMED CT Spanish Edition; Spanish Language Edition; London, United Kingdom; October 31, 2022;

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Contact: UMLS Support, National Library of Medicine; e-mail: NLM SNOMED CT Support

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Contact: NLM is a Charter Member of SNOMED International on behalf of the U.S.; National Library of Medicine; 8600 Rockville Pike; Bethesda; MD; United States; 20894; 1-888-FIND-NLM (1-888-346-3656); https://support.nlm.nih.gov/support/create-case/;
Association of Health Data Organizations (NAHDO); December, 2020

Contact: Barbara Rudolph; National Association of Health Data Organizations (NAHDO); Barbara.Rudolph@wisc.edu; https://www.nahdo.org/node/1043

Read more information about this source

SPN2003 - Standard Product Nomenclature (SPN); Rockville, (MD); U.S. Food and Drug Administration; 2003

Contact: custserv@nlm.nih.gov

Read more information about this source

SRC - UMLS Metathesaurus Source Terminologies; Bethesda, MD; National Library of Medicine

Contact: custserv@nlm.nih.gov

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TKMT2011 - Traditional Korean Medical Terms; 2011; Korea; KOR

Contact: Jinhoon Kim; Researcher/O.M.D.; Information Research Center, TKM Information Research Division, Korea Institute of Oriental Medicine; 483 Expo-ro, Yuseong-gu; Daejeon; Korea; 305-811; +82-42-868-9565, +82-10-2237-2378; +82-42-861-9421; kjh970203@kiom.re.kr

Read more information about this source

ULT93 - Ultrasound Structured Attribute Reporting (UltraSTAR); Boston (MA); Brigham & Womens Hospital; 1993

CATEGORY 3 RESTRICTIONS APPLY

Contact: Robert Greenes, M.D., Ph.D.; Brigham & Womens Hospital; Department of Radiology; 75 Francis Street; Boston; MA; 02115; (617) 732-6281; greenes@harvard.edu

Read more information about this source

UMD2023 (updated) - Universal Medical Device Nomenclature System; 2023; Plymouth Meeting, PA

CATEGORY 1 RESTRICTIONS APPLY

Contact: Christina Minner; Manager, UMDNS; ECRI; 5200 Butler Pike; Plymouth Meeting; Pennsylvania; United States; 19462-1298; umdns@ecri.org; https://www.ecri.org/solutions/umdns

Read more information about this source

USP_2023_02_13 (updated) - USP Compendial Nomenclature; February, 2023; United States Pharmacopeia; February, 2023

Contact: Jeffrey Shick; Director Translational Informatics; United States Pharmacopeia; 12601 Twinbrook Parkway; Rockville; MD; US; 20852-1790; 1-800-227-8772; HealthcareQuality@usp.org; https://www.usp.org/health-quality-safety

Read more information about this source
**USPMG_2020** - USP Medicare Model Guidelines; Version 8; United States Pharmacopeia; February 1, 2020;

Contact: Jami S. Earnest, PharmD; Senior Scientific Liaison; United States Pharmacopeia; 12601 Twinbrook Parkway; Rockville, MD; US; 20852-1790; 1-800-227-8772; ModelGuidelines@usp.org; https://www.usp.org/health-quality-safety/usp-medicare-model-guidelines;

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**UWDA173** - Jose Mejino, M.D.; University of Washington Digital Anatomist, (UWDA); Version 1.7.3; Seattle (WA); University of Washington; March, 2003;

Contact: Jose Mejino, M.D.; University of Washington Digital Anatomist Symbolic Knowledge Base, University of Washington Digital Anatomist Information System, Structural Informatics Group; Department of Biological Structure; Seattle; WA; 98195; onard@biostr.washington.edu;

[Read more information about this source](#)

**VANDF_2023_01_31** (updated) - Veterans Health Administration National Drug File; January 01, 2023; Washington, DC; U.S. Department of Veterans Affairs;

*NOTE:* Now a CATEGORY 0.

Contact: Michael Lincoln, M.D.; U.S. Department of Veterans Affairs, Veterans Health Administration; Washington, DC; United States; michael.lincoln@med.va.gov; https://www.pbm.va.gov/default.aspx

[Read more information about this source](#)

**WHO97** - WHO Adverse Drug Reaction Terminology (WHOART); Uppsala (Sweden); WHO Collaborating Centre for International Drug Monitoring; 1997;

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The Metathesaurus includes translations of WHO97 in:

- French (WHOFRE_1997),
- German (WHOGER_1997),
- Portuguese (WHOPOR_1997), and
- Spanish (WHOSPA_1997).

Contact: WHO Collaborating Centre for International Drug Monitoring; Stora Target 3; S-753 20; Uppsala; Sweden; +46-18-656080;

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**WHOFRE_1997** - WHO Adverse Drug Reaction Terminology (WHOART). French Translation; Uppsala (Sweden); WHO Collaborating Centre for International Drug Monitoring; 1997;

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2.5.4 terminate automatically upon termination of this License Agreement;

2.5.5 provide that the End User may apply directly to the Licensor upon receiving notice that the sub-license will terminate in accordance with clause 2.5.4, and that the Licensor may in such circumstances (but shall not be obliged to):

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\(\text{b}\) give the End User an assurance or undertaking that for a limited period the Licensor will not seek to prevent the End User from using the Licensee Products; and

2.5.6 permit the Licensee to disclose the terms of the sub-license to the Licensor in accordance with clauses 7 and 8.

2.6 If the Licensee becomes aware of any material error or change or correction needed in the International Release, the Licensee agrees to advise the Licensor promptly of such error, change or correction by following the Licensor's procedures
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3.1 The Licensee may not create any Standards-Based Extension or any Standards Based Derivative unless it has first been issued with a Namespace Identifier by or on behalf of the Licensor.

3.2 The Licensee may request that the Licensor issue it with a Namespace Identifier, and the Licensor shall not unreasonably refuse to do so taking into account amongst other things quality assurance, governance processes, Standards and Regulations.

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3.5 The Licensee shall, if requested by the Licensor, transfer to the Licensor or a Member nominated by the Licensor all of its Intellectual Property Rights in such Standards-Based Extensions (or parts thereof) as the Licensor may specify.

3.6 The Licensee may, by written notice, request the Licensor to modify the SNOMED CT Core. Upon receipt of such written notice, the Licensor shall consult with the Licensee and shall give due consideration as to whether the proposed modification should be made based on the Licensor's editorial guidelines and policies. Following due consideration of the matter, including consideration of any information presented by the Licensee, the Licensor shall inform the Licensee whether the proposed modification shall be made and if the Licensor agrees that the proposed modification should be made, the Licensor shall give a non-binding indication of when, reasonably and in good faith, it anticipates that the
proposed modification will be made. If the Licensee would like the content of the proposed modification to be developed more quickly than the Licensor has indicated, the Licensee may itself undertake or procure the undertaking of the development of the content of the proposed modification (outside of any existing Licensor's support services contract). On receipt of the developed content of the proposed modification, the Licensor will then give due consideration as to whether the developed content meets the Licensor's quality assurance, other governance processes, Standards and Regulations. If the developed content meets the Licensor's quality assurance, other governance processes, Standards and Regulations then the Licensor shall incorporate the modification into the SNOMED CT Core according to its schedule which will give due consideration as to when the proposed modification shall be incorporated into the SNOMED CT Core, taking into account other proposals for the modification of the SNOMED CT Core and the work required to include the proposed modification in the SNOMED CT Core.

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5.1 This License Agreement shall commence on the date on which it comes into effect in accordance with the notice at the beginning of this License Agreement, and shall continue until terminated in accordance with this clause 5.

5.2 Either party may terminate this License Agreement if the other party commits a material breach of any of its obligations under this License Agreement (which, in the case of the Licensee, shall include, without limitation, any failure to pay License Fees when due under clause 7) in accordance with the following procedure:

5.2.1 the party seeking to terminate the License Agreement (the "Terminating Party") shall serve an escalation notice (the "Escalation Notice") on the other party (the "Defaulting Party") requiring the Defaulting Party to nominate a member of its senior management team to meet with a member of the Terminating Party's senior management team to seek to resolve in good faith the matter giving rise to the service of the escalation notice.

5.2.2 The representatives of the parties identified in accordance with clause 5.2.1 shall meet in good faith to seek to resolve the matter. If they are unable to resolve the matter within 45 days of the date of the Escalation Notice the Terminating Party may serve a formal breach notice (the "Breach Notice") on the Defaulting Party requiring it to remedy the breach within 90 days.

5.2.3 If the Defaulting Party does not remedy the breach within 90 days of the date of the Breach Notice the Terminating Party may terminate the License Agreement by giving 180 days' written notice to the Defaulting Party (the "Termination Notice").

5.3 Neither party may terminate this License Agreement except in accordance with this clause 5.

5.4 The Licensee may terminate this License Agreement by giving up to twelve (12) months' prior written notice to the Licensor.

5.5 Upon termination of this License Agreement in accordance with this clause 5, all licenses granted under this License Agreement shall automatically and immediately be revoked, except as provided in clause 5.13.

5.6 The Licensee shall, by no later than forty five (45) days after termination of this License Agreement for any reason, remove all copies of the International Release from its computer systems and destroy all copies of electronic, paper copy and other media containing or representing any part of the International Release, except for any copies of the International Release used solely for purposes of the Licensee exercising its rights under clause 5.13. The Licensee shall, if requested by the Licensor, certify in writing to the Licensor that the Licensee has complied with its obligations under this clause 5.6.

5.7 The Licensee shall, as soon as reasonably practicable following either party giving a Termination Notice for any reason, and in any event by no later than ninety (90) days after such Termination Notice is given, give written notice of such termination to each End User that the Licensee reasonably believes to be a current user of a Licensee Product and to each Member in each Member Territory in which the Licensee has distributed or licensed any Licensee Product.

5.8 The Licensee may not grant any new sub-license under clause 2.1.5 after either party has given notice under clauses 5.2 or 5.4.

5.9 The Licensor shall be entitled to publicize the termination of this License Agreement to such persons (including
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5.10 Clauses 5.6, 5.7, 5.8, 5.9, 5.11, 5.12, 5.13, 7, 8 and 10 to 14 inclusive shall survive termination of this License Agreement.

5.11 The Licensee shall, by no later than thirty (30) days after termination of this License Agreement for any reason, submit a statement of account in accordance with clause 7.3 in respect of all periods that have not previously been covered by a statement of account under that clause.

5.12 Any termination of this License Agreement, for any reason, is without prejudice to the accrued liabilities of each party as at the date of termination (including, without limitation, any liability of the Licensee to pay License Fees that has accrued as at the date of termination), or to the Licensee's obligation to pay License Fees arising from the statement of account submitted under clause 5.11.

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7.4 The Licensee shall provide the Licensor with such information as the Licensor may reasonably request for the purpose
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7.5 The Licensor shall, following receipt of a statement of account from the Licensee under clause 7.3, submit an invoice
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12.2 Neither the Licensor nor any Member shall be liable to the Licensee or any other person for any failure by the Licensor or the Member (as the case may be) to maintain or distribute any Extension (or part thereof) or Derivative transferred to the Licensor or the Member (as the case may be) in accordance with clauses 3.4 or 3.5.

12.3 The liability of the Licensor arising in any year under or in connection with this License Agreement, whether in contract, tort (including negligence), misrepresentation, breach of statutory duty or otherwise, shall not in any event exceed the License Fees paid by the Licensee in respect of that year.

12.4 Nothing in this License Agreement excludes or limits the liability of either party for:

12.4.1 fraud (including fraudulent misrepresentation);

12.4.2 death or personal injury caused by the negligence of that party;
12.4.3 any breach of its obligations implied by section 12 of the Sale of Goods Act 1979; or

12.4.4 any other liability that by law cannot validly be excluded or limited (but only to the extent that the liability cannot validly be excluded or limited).

13. ASSIGNMENT

13.1 The Licensee may not assign, novate or otherwise transfer any of its rights or obligations under this License Agreement to any person without the prior written consent of the Licensor, not to be unreasonably withheld.

13.2 The Licensor may transfer all of its rights and obligations under this License Agreement to any person to whom the Licensor transfers the Intellectual Property Rights in respect of which the licenses under this License Agreement are granted.

14. GENERAL PROVISIONS

14.1 This License Agreement contains the entire agreement between the parties relating to the subject matter of this License Agreement, supersedes all previous agreements between the Parties relating to that subject matter and sets out the entirety of the Licensee's rights in respect of the International Release.

14.2 Each party acknowledges that, in entering into this License Agreement, it has not relied on any representation, warranty, collateral contract or other assurance made by or on behalf of the other party before the date of this License Agreement.

14.3 Except as provided in clause 6.3, this License Agreement may not be varied except in writing signed by both parties and expressed to vary this License Agreement.

14.4 Nothing in this License Agreement shall give either party the ability to act or incur obligations or liability on behalf of the other party or constitutes a joint venture, agency, partnership or employment relationship between the parties.

14.5 If any term of this License Agreement is or becomes illegal, invalid or unenforceable in any jurisdiction, that shall not affect the legality, validity or enforceability in that jurisdiction of any other term of this License Agreement, or the legality, validity or enforceability in any other jurisdiction of that or any other term of this License Agreement.

14.6 The Licensee agrees that the Licensor may appoint third parties to process personal data provided by the Licensee to the Licensor under or in connection with this License Agreement (including without limitation payment details provided in connection with the payment of License Fees). In connection with any such appointment, personal data provided by the Licensee may be transferred to, and processed in, a country outside the United Kingdom. The laws governing the processing of personal data may be less stringent in such a country than in the United Kingdom and the country in which the Licensee is based.

15. GOVERNING LAW AND JURISDICTION

15.1 This License Agreement shall be governed by, and construed in accordance with, English law.

15.2 The English courts shall have exclusive jurisdiction to settle any dispute arising out of or in connection with this License Agreement (including a dispute regarding its existence, validity or termination).

15.3 Clause 15.2 is for the benefit of the Licensor only. As a result, the Licensor shall not be prevented from taking proceedings relating to any dispute in any other courts with jurisdiction. To the extent permitted by law, the Licensor may take concurrent proceedings in any number of jurisdictions.

Appendix A

Defined Terms

In this License Agreement, the following defined terms have the following meanings:
<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliate</td>
<td>an affiliate of the Licensor in accordance with the Licensor's Articles of Association;</td>
</tr>
<tr>
<td>Cross-Map</td>
<td>a work consisting of (i) SNOMED CT Content and (ii) content of another nomenclature, classification or knowledge structure, together with a set of relationships between (i) and (ii);</td>
</tr>
<tr>
<td>Data Processing System</td>
<td>a computer system that is used to analyze or create records or other data that is encoded using SNOMED CT;</td>
</tr>
<tr>
<td>Derivative</td>
<td>a work consisting of</td>
</tr>
<tr>
<td></td>
<td>a. SNOMED CT Content, from the SNOMED CT CORE or an Extension; together with</td>
</tr>
<tr>
<td></td>
<td>b. either (i) additional properties and/ or information about such SNOMED CT content; and/ or (ii) any set of relationships between that SNOMED CT Content and content of other nomenclature, classification or knowledge structure, and includes a Cross-Map and a Sub-Set;</td>
</tr>
<tr>
<td>End User</td>
<td>a third party user of a Licensee Product;</td>
</tr>
<tr>
<td>Extension</td>
<td>a work consisting of SNOMED CT Content alone that is supplementary to the SNOMED CT Core and that depends on the SNOMED CT Core;</td>
</tr>
<tr>
<td>Hospital</td>
<td>a health care body or organisation providing secondary and/ or tertiary care;</td>
</tr>
<tr>
<td>Intellectual Property Rights</td>
<td>patents, trade marks, service marks, copyright (including rights in computer software), moral rights, database rights, rights in designs, trade secrets, know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect in any jurisdiction;</td>
</tr>
<tr>
<td>International Release</td>
<td>the release produced and distributed by or on behalf of the Licensor, consisting of the SNOMED CT Core, the Specifications and the Licensor's Derivatives and other documents and software;</td>
</tr>
<tr>
<td>License Fees</td>
<td>the license fees set out in Appendix B (License Fees in Non-Member Territories);</td>
</tr>
<tr>
<td>Licensee Products</td>
<td>products distributed or licensed by the Licensee that (1) include or interoperate with the International Release (or any part of it) and/ or any Extensions or Derivatives created by the Licensee under this License</td>
</tr>
</tbody>
</table>
Agreement, or (2) read or write records or other data that is encoded using
SNOMED CT;

Member
a member of the Licensor;

Member Territory
a territory that is represented by a Member (as published by the Licensor
from time to time);

Namespace Identifier
a code or that part of a code that identifies the organization responsible for
creating and maintaining a Standards-Based Extension or a Standards-Based
Derivative and is used as an element of SNOMED CT Identifiers;

National Release
in respect of each Member, the release produced and distributed by the
Member, consisting of the International Release, the Member's Extensions,
the Member's Derivatives and other documents and software;

Non-Member Territory
a territory that is not a Member Territory;

Practice
a. a single department of a Hospital (subject to paragraph 2.2 of
Appendix B); order
b. any health care body or organisation that provides principally primary
care, including without limitation a pharmacy, an optician's facility, a
physiotherapy centre, a general medical practice or a family medical
practice;

Qualifying Research Project
a discrete research project that meets all of the following criteria:

a. it is supported by a formal proposal that has been peer reviewed;
b. it has been ethically approved in accordance with the prevailing
legislation, regulations and guidelines in effect in the relevant territory;
c. it is conducted within a definite timeframe;
d. the results of the research are offered for publication in peer-reviewed
public journals and are provided to the Licensor free of charge prior to
publication;

Regulations
regulations made by the Licensor;

Relationship
a relationship, of a kind defined by the Licensor in Specifications, between
concepts (which may be, without limitation, a hierarchical or an associative
relationship) or between a concept and a description;

SNOMED CT
the concept-based work of clinical nomenclature and classification with
multiple hierarchies and semantic definitions known as SNOMED Clinical
Terms (SNOMED CT);

SNOMED CT Content
terminological content, consisting of concepts, descriptions and Relationships,
Appendix B

License Fees in Non-Member Territories

1. Introduction

1.1 This Appendix B sets out the license fees payable by the Licensee in respect of its activities in Non-Member Territories.

1.2 The license fees set out in this Appendix B do not apply in respect of the Licensee's activities in any Non-Member Territory if that Non-Member Territory is a Sponsored Territory or was a Sponsored Territory at the time when the Licensee's activities in that Non-Member Territory were carried out.

1.3 The Licensor may, in its sole discretion, waive the Licensee's obligation to pay any or all of the license fees set out in this Appendix B if the Licensor considers that the Licensee's activities in any Non-Member Territory are in support of charitable or humanitarian causes in that Non-Member Territory. Any waiver by the Licensor under this paragraph 1.3 may be revoked by the Licensor at any time, shall be without prejudice to any of the Licensor's other rights and remedies under this License Agreement and shall not relieve the Licensee of any of its other obligations under this License Agreement.

1.4 Beginning in 2015, license fees payable by the Licensee in respect of its activities in Non-Member Territories for each financial year shall be adjusted by the same percentage as the General Assembly of the Licensor agrees to adjust the
Aggregate Annual Fee (as defined in the Licensor's Articles of Association) relative to the Aggregate Annual Fee in the previous year.

1.5 For purposes of this Appendix B, but subject to paragraph 1.6, if a Hospital or a Practice is located on multiple physical sites, each such site shall be treated as a separate Hospital or Practice (as the case may be), and license fees shall be payable in respect of each such separate Hospital or Practice.

1.6 The Licensor may, in its sole discretion, agree to treat multiple sites on which a Hospital or a Practice is located as a single site for purposes of this Appendix B.

1.7 Notwithstanding anything else in this Appendix B, the deployment, distribution or licensing of any software that operates on a mobile device of any kind (including without limitation a mobile phone or tablet device), or any software or service that is accessed via the internet and enables users to extract or download any substantial portion of SNOMED CT, shall be treated as falling within paragraph 4 of this Appendix B (and not within paragraph 2).

1.8 The Licensee's obligation to pay license fees in respect of any deployment of the International Release or any Licensee Product is not dependent on that deployment of the International Release or Licensee Product being used in a live or production environment. The Licensor may, in its sole discretion, waive the Licensee's obligation to pay any or all of the license fees set out in this Appendix B in respect of any deployment of the International Release or Licensee Product in a non-production environment (such as a development or test environment).

1.9 In any case where the Licensee is exempt from the requirement to pay license fees by reason of a Licensee Product or a Data Processing System being used exclusively in connection with a Qualifying Research Project, the Licensee shall report to the Licensor on the progress of that Qualifying Research Project in such manner as the Licensor may reasonably require. The Licensor may revoke the Licensee's exemption for Qualifying Research Projects provided in this Appendix B if the Licensee fails to comply with this paragraph 1.9.

2. Data Processing Systems

2.1 The Licensee shall pay the following fees in respect of each Hospital or Practice in a Non-Member Territory in or to which the Licensee:

- deploys the International Release (or any part of it) or any Licensee Product that contains the International Release (or any part of it) in a Data Processing System, unless that Data Processing System is used exclusively in connection with a Qualifying Research Project; or

- deploys, distributes or licenses a Licensee Product that is or includes a Data Processing System, unless that Licensee Product is used exclusively in connection with a Qualifying Research Project.

<table>
<thead>
<tr>
<th>Fee Band</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital in Band A Territory</td>
<td>US$ 1,954 per annum baseline fee adjusted as per paragraph 1.4</td>
</tr>
<tr>
<td>Hospital in Band B Territory</td>
<td>US$ 1,303 per annum baseline fee adjusted as per paragraph 1.4</td>
</tr>
<tr>
<td>Hospital in Band C Territory</td>
<td>US$ 652 per annum baseline fee adjusted as per paragraph 1.4</td>
</tr>
<tr>
<td>Practice in Band A, B or C Territory</td>
<td>US$ 652 per annum baseline fee adjusted as per paragraph 1.4</td>
</tr>
<tr>
<td>Hospital or Practice in Low Income Band</td>
<td>US $0 per annum baseline fee, adjusted as per paragraph 1.4</td>
</tr>
<tr>
<td>Hospital or Practice in other territory</td>
<td>As per paragraph 5.2.</td>
</tr>
</tbody>
</table>

2.2 The total fees payable by the Licensee in respect of a number of Practices that are departments of a single Hospital shall not exceed the fee applicable to the Hospital itself. For purposes of this Appendix B, a Practice is treated as a department of a Hospital only if: it is located on the premises of that Hospital; and it is served by the same catering, cleaning, and security services as the Hospital.
it is funded solely by that Hospital. In any case where either or both of the conditions in the preceding sentence are not met in respect of any Practice, fees shall be payable in respect of that Practice in addition to any fees that are payable in respect of any Hospital.

3. [Not Used]

4. Other Activities

4.1 The Licensee shall notify the Licensor in writing before deploying the International Release (or any part of it) or deploying, distributing or licensing any Licensee Product (in each case, other than exclusively in connection with Qualifying Research Projects) in, for use in, or to any person situated in, any Non-Member Territory in a manner that does not fall within paragraph 2 of this Appendix B, explaining the Licensee's proposed activities.

4.2 Upon receiving notice from the Licensee under this paragraph 4, the Licensor may request, and the Licensee shall provide, such additional information in relation to the Licensee's proposed activities as the Licensor considers reasonably necessary to determine an appropriate license and reasonable fee in respect of the Licensee's proposed activities.

4.3 The Licensee shall be liable to pay such license fees as the Licensor may determine in accordance with this paragraph 4.

5. Non-Member Territory Bandings

5.1 The allocation of a Non-Member Territory into Band A, Band B, Band C, or Low Income Band shall be as determined by the Licensor (based on the Non-Member Territory's relative Gross National Income (GNI) or other measure adopted by the Licensor) and published by the Licensor on its web site.

5.2 The Licensee shall notify the Licensor in writing before carrying out any activity of a kind described in paragraph 2 of this Appendix B in a Non-Member Territory that has not been allocated by the Licensor under paragraph 5.1. Upon receiving notice from the Licensee under this paragraph 5.2, the Licensor shall allocate the Non-Member Territory as described in paragraph 5.1.