



MedDRA

Medical Dictionary
for Regulatory Activities

What is MedDRA and How is it Used?



MedDRA

MedDRA was developed under the auspices of the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH). The activities of the MedDRA Maintenance and Support Services Organization (MSSO) are overseen by an ICH MedDRA Management Committee, which is composed of the ICH parties, the Medicines and Healthcare products Regulatory Agency (MHRA) of the UK, Health Canada, and the WHO (as Observer).



Disclaimer & Copyright Notice

- This presentation is protected by copyright and may, with the exception of the MedDRA and ICH logos, be used, reproduced, incorporated into other works, adapted, modified, translated or distributed under a public license provided that ICH's copyright in the presentation is acknowledged at all times. In case of any adaption, modification or translation of the presentation, reasonable steps must be taken to clearly label, demarcate or otherwise identify that changes were made to or based on the original presentation. Any impression that the adaption, modification or translation of the original presentation is endorsed or sponsored by the ICH must be avoided.
- The presentation is provided "as is" without warranty of any kind. In no event shall the ICH or the authors of the original presentation be liable for any claim, damages or other liability arising from the use of the presentation.
- The above-mentioned permissions do not apply to content supplied by third parties. Therefore, for documents where the copyright vests in a third party, permission for reproduction must be obtained from this copyright holder.



MedDRA

Course Overview

- Present background information about MedDRA and its governance
- Review MedDRA's, scope, structure, and characteristics
- Describe the maintenance of MedDRA
- Describe MedDRA tools (browsers, MVAT)
- Discuss principles of coding with MedDRA
- Introduce the MedDRA Points to Consider documents
- Describe Standardised MedDRA Queries (SMQs)
- Conclude with a question and answer session



MedDRA

MedDRA Background



MedDRA

What is MedDRA?

Med = Medical

D = Dictionary for

R = Regulatory

A = Activities



MedDRA

MedDRA Definition

MedDRA is a clinically-validated international medical terminology used by regulatory authorities and the regulated biopharmaceutical industry. The terminology is used through the entire regulatory process, from pre-marketing to post-marketing, and for data entry, retrieval, evaluation, and presentation.



MedDRA

MedDRA's Purpose

- Facilitate the exchange of clinical information through standardization
- Important tool for product evaluation, monitoring, communication, electronic records exchange, and oversight
- Supports coding (data entry) and retrieval and analysis of clinical information about human medical products including pharmaceuticals, biologics, vaccines, and drug-device combination products



Governance Structure for MedDRA

- ICH MedDRA Management Committee appointed by the ICH Assembly to provide oversight of MedDRA related activities and the Maintenance and Support Services Organization (MSSO)



Management Committee and MSSO Relationship

- ICH owns MedDRA
- ICH MedDRA Management Committee
 - Contracts with MSSO to maintain it
 - Has oversight of all operations of the MSSO
 - ✓ Meets regularly with MSSO
 - ✓ Sets subscription rates
 - ✓ Approves developmental plans and services
 - Membership includes ICH regulatory authorities and industry associations





MedDRA

MedDRA and the MSSO



MSSO

International support and development of terminology
“Custodians”, not owners, of the terminology



Governance

Governed by a Management Committee (industry, regulators, multi-national, other interested parties)



Educational offerings

Foster use of MedDRA through communications and educational offerings



JMO

Partner organization for Japanese-language MedDRA

Where MedDRA is Used



Regulatory Authority and Industry Databases
Individual Case Safety Reports and Safety Summaries

Clinical Study Reports

Investigators' Brochures

Core Company Safety Information

Marketing Applications

Publications

Prescribing Information

Advertising



MedDRA

MedDRA's Scope, Structure, and Characteristics





MedDRA

Scope of MedDRA

OUT

Frequency
qualifiers

Not a drug
dictionary

IN

Patient demographic
terms

Medical conditions
Indications
Investigations (tests, results)
Medical and surgical procedures
Medical, social, family history
Medication errors
Product quality issues
Device-related issues
Product use issues
Pharmacogenetic terms
Toxicologic issues
Standardized queries

Numerical values for
results

Clinical trial study
design terms

Severity descriptors

Not an equipment, device,
diagnostic product dictionary



MedDRA Structure

System Organ Class (SOC)

27

High Level Group Term
(HLGT)

337

High Level Term (HLT)

1737

Preferred Term (PT)

25412

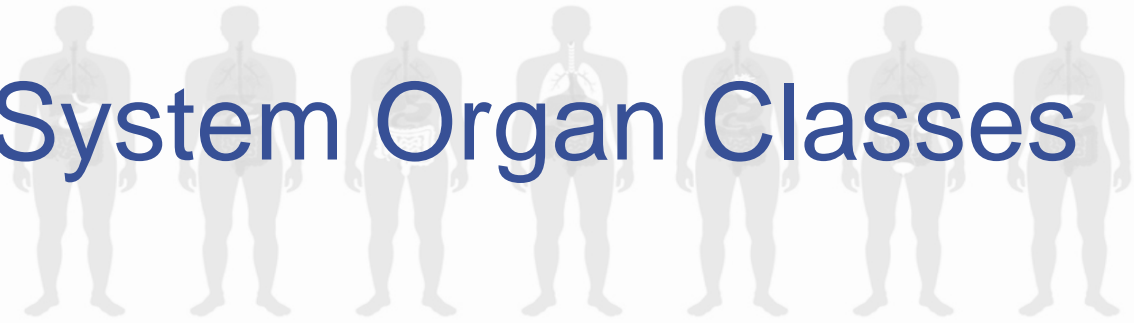
Lowest Level Term (LLT)

85091



MedDRA

System Organ Classes

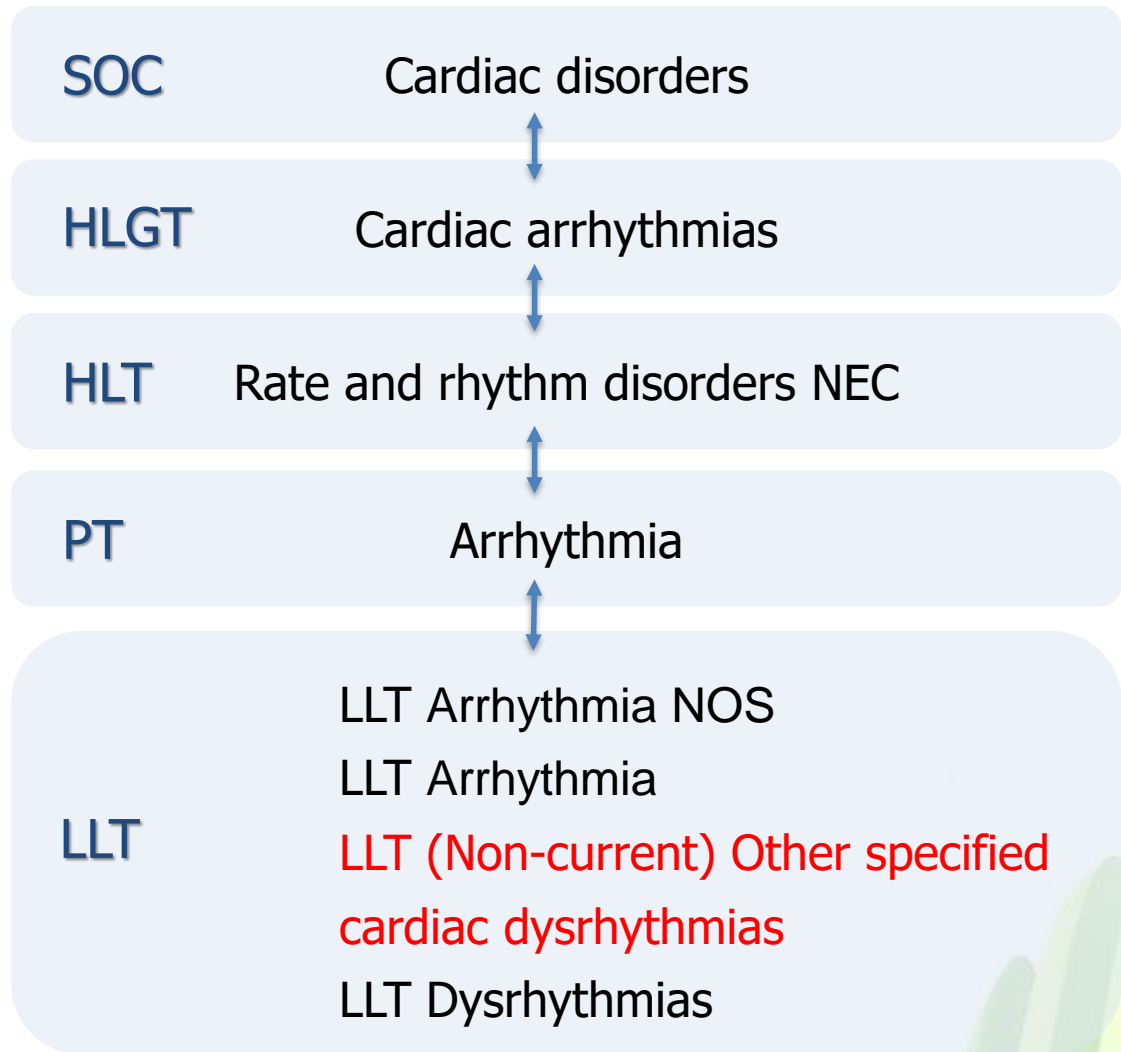


- Blood and lymphatic system disorders
- Cardiac disorders
- Congenital, familial and genetic disorders
- Ear and labyrinth disorders
- Endocrine disorders
- Eye disorders
- Gastrointestinal disorders
- General disorders and administration site conditions
- Hepatobiliary disorders
- Immune system disorders
- Infections and infestations
- Injury, poisoning and procedural complications
- Investigations
- Metabolism and nutrition disorders

- Musculoskeletal and connective tissue disorders
- Neoplasms benign, malignant and unspecified (incl cysts and polyps)
- Nervous system disorders
- Pregnancy, puerperium and perinatal conditions
- Product issues
- Psychiatric disorders
- Renal and urinary disorders
- Reproductive system and breast disorders
- Respiratory, thoracic and mediastinal disorders
- Skin and subcutaneous tissue disorders
- Social circumstances
- Surgical and medical procedures
- Vascular disorders



The Five Levels of MedDRA



Note:
Not all
HLGTs, HLTs,
PTs or LLTs
shown



MedDRA

Non-Current Terms



- Flagged at the LLT level in MedDRA
- Not recommended for continued use
- Retained to preserve historical data for retrieval and analysis
- Terms that are vague, ambiguous, out-dated, truncated, or misspelled
- Terms derived from other terminologies that do not fit MedDRA rules



MedDRA

MedDRA Codes

PT Anaemia

[10002034]

- Each MedDRA term is assigned an 8-digit numeric code
 - Non-expressive
 - Assigned sequentially
- Codes can fulfill a data field in various electronic submission types (e.g., E2B)



MedDRA

Current and Planned MedDRA Translations





A Multi-Axial Terminology

Multi-axial = the representation of a medical concept in multiple SOC's

- ✓ Allows grouping by different classifications
- ✓ Allows retrieval and presentation via different data sets

All PTs assigned a primary SOC

- ✓ Determines which SOC will represent a PT during cumulative data outputs
- ✓ Prevents "double counting"
- ✓ Supports standardized data presentation
- ✓ Pre-defined allocations should not be changed by users

A Multi-Axial Terminology (cont)

SOC = Respiratory, thoracic and
mediastinal disorders
(Secondary SOC)



HLGT = Respiratory tract
infections



HLT = Viral upper respiratory
tract infections

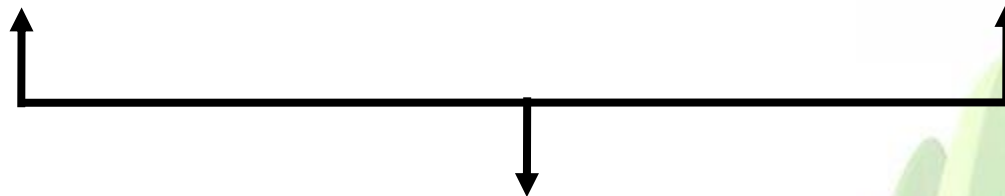
SOC = Infections and
infestations
(Primary SOC)



HLGT = Viral infectious
disorders



HLT = Influenza viral
infections



PT = Influenza



MedDRA

MedDRA Maintenance





MedDRA

MedDRA Maintenance

- Users can send change requests (CRs) to MSSO for consideration
 - Organizations allowed 100 CRs/month
 - Rigorous medical review by MSSO physicians
 - For simple changes (PT and LLT levels), response within 7-10 working days
 - Complex changes (above PT level) posted for comments mid-year
- Two MedDRA updates/year
 - 1 March X.0 (Complex release)
 - 1 September X.1 (Simple release)



MedDRA


WebCR

- Web-based tool for Change Requests (CR)
 - URL: <https://mssotools.com/webcr/>
 - Via the Change Request Information page
- Ability to submit CRs online
 - Requests must be in English
- Immediate confirmation
- Review unsubmitted CRs online
- Ability to query CR history back to v5.1



MedDRA

Submitting Changes



WebCR
MedDRA Change Request

Freeze Date for MedDRA Version
25.1
1 June 2022 17:00 U.S. EDT

[MedDRA Documentation](#)
[MedDRA Privacy Statement](#)

Login to WebCR

MedDRA ID:


Password:

Welcome to the MedDRA User Change Request Data Entry Web site.
You may submit your MedDRA Change Request to the MSSO here.
If you have problems logging in, please contact the MSSO Help Desk at:
MSSOHelp@meddra.org or 1-877-258-8280

- Online change request submission tool guides user to enter all needed information
- Instructional video on use of WebCR on “Training” page of MedDRA website

Submitting Changes (cont)

Add a New PT

Proposed PT (Required) 

Second degree chemical burns of skin

Primary HLT (Optional)

Chemical injuries


Primary SOC (Optional)

Injury, poisoning and procedural complications


Secondary HLT (Optional)

Dermatitis ascribed to specific agent

Secondary SOC (Optional)


Skin and subcutaneous tissue disorders 

Justification statement is required

Justification 

Please consider including the gradation of chemical burns similar to the gradation of thermal burns under HLT Thermal burns to assist with coding and analysis.

Attach supporting document (Optional)

Attachment
C:\Users\s804733\Desktop\SupportingInforma 

- Sample entry for a new PT in WebCR
- Justification and supporting documentation is important to help MSSO understand the need



MedDRA

Proactive MedDRA Maintenance

- What is the proactive approach?
 - Corrections/improvements made internally by the MSSO
 - General changes suggested by users
- Submitting ideas
 - Send to MSSO Help Desk. Justification is helpful.
 - Example: Review placement of bruise and contusion terms to facilitate coding and analysis
- Evaluation of proposals
 - Final disposition is not time limited; MSSO may take time to review
 - Proactive approach does not replace usual CR process



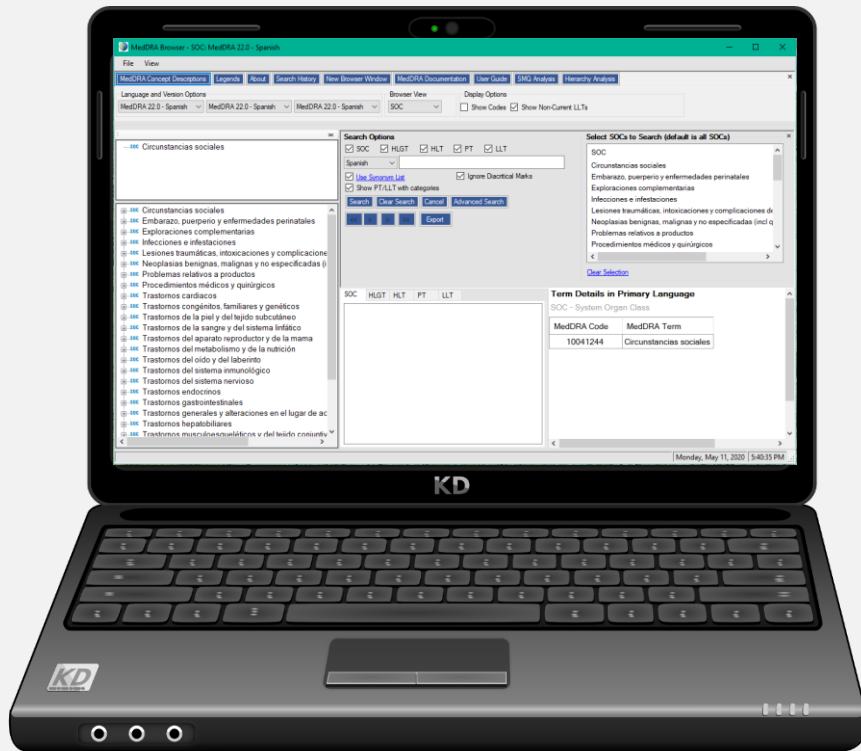
MedDRA

MedDRA Tools





MSSO's MedDRA Browsers



MedDRA Desktop Browser (MDB)

Download MDB and release files from MedDRA website

MedDRA Web-Based Browser (WBB)

<https://tools.meddra.org/wbb/>



Mobile MedDRA Browser

<https://mmb.meddra.org>



MSSO's MedDRA Browsers (cont)

- Features

- Each require MedDRA ID and password
- View/search MedDRA and SMQs
- Support for all MedDRA languages
- Language specific interface
- Ability to export search results and Research Bin to local file system (MDB and WBB only)



MDB and WBB Special Features

- Preview upcoming (supplemental) changes in next release*

**Supplemental view not available on MDB*



- View primary **and** secondary link information
- Upload terms to run against SMQs
- Advanced search options (e.g., NOT, OR)

MedDRA Browser - SOC: MedDRA 25.0 - English

File View

MedDRA Concept Descriptions | Legends | About | Search History | New Browser Window | MedDRA Documentation | User Guide | SMQ Analysis | Hierarchy Analysis

Language and Version Options
 MedDRA 25.0 - English | MedDRA 25.0 - English | MedDRA 25.0 - English

Browser View: SOC | Display Options: Show Codes Show Non-Current LLTs

Search Options

SOC HLGT HLT PT LLT

English | covid-19

Use Synonym List Ignore Diacritical Marks

Show PT/LLT with categories

Search | Clear Search | Cancel | Advanced Search

Search Results: << < > >> Export

Total Search Results: 69
Details: PT (11) LLT (58)

Select SOCs to Search (default is all SOCs)

SOC

- Blood and lymphatic system disorders
- Cardiac disorders
- Congenital, familial and genetic disorders
- Ear and labyrinth disorders
- Endocrine disorders
- Eye disorders
- Gastrointestinal disorders
- General disorders and administration site conditions
- Hepatobiliary disorders

[Clear Selection](#)

Term Details in Primary Language

LLT - Lowest Level Term

MedDRA Code	MedDRA Term	Currency
10084657	COVID-19 aggravated	Y

SMQ

SMQ Code	SMQ Name	Scope	Status	Category	W
20000231	Infective pneumonia	Broad	Active	A	0

Search Results - 57

- Asymptomatic COVID-19
- Breakthrough COVID-19
- Community-related COVID-19 exposure
- Congenital COVID-19
- COVID-19 aggravated
- COVID-19 antibody test
- COVID-19 antibody test negative
- COVID-19 antibody test positive
- COVID-19 antigen test

Search Results - 57

- Asymptomatic COVID-19
- Breakthrough COVID-19
- Community-related COVID-19 exposure
- Congenital COVID-19
- COVID-19 aggravated
- COVID-19 antibody test
- COVID-19 antibody test negative
- COVID-19 antibody test positive
- COVID-19 antigen test



MedDRA Version Analysis Tool (MVAT)

- Web-based (<https://tools.meddra.org/mvat>)
- Free to all users
- Features
 - Version Report Generator (produces exportable report comparing any two versions)
 - Data Impact Report (identifies changes to a specific set of MedDRA terms or codes uploaded to MVAT)
 - Search Term Change (identifies changes to a single MedDRA term or code)



MedDRA Version Analysis Tool (MVAT) (cont)

- User interface and report output available in all MedDRA languages
- Ability to run reports on supplemental changes
- Option to run reports on secondary SOC changes



MedDRA Version Analysis Tool

MedDRA Version Analysis Tool (MVAT)

Version Report Description

Select Different Versions to Compare

Language: English

Starting Version: MedDRA 24.1 English

Ending Version: MedDRA 25.0 English

Include Secondary SOC Information

Select SOCs to filter (default is all SOCs):

- Blood and lymphatic system disorders
- Cardiac disorders
- Congenital, familial and genetic disorders
- Ear and labyrinth disorders
- Endocrine disorders
- Eye disorders
- Gastrointestinal disorders
- General disorders and administration site conditions
- Hepatobiliary disorders
- Immune system disorders
- Infections and infestations
- Injury, poisoning and procedural complications

Clear Selection

Note: The starting MedDRA version must be older than the ending MedDRA version

Run Version Report [\(As an MSSO employee, you could view site usage statistics\)](#)

Preferred Language: English

Release/Supplemental View: Release

MVAT Home

Search Term Change

Data Impact Report

Logout



MedDRA

MVAT Demonstration (Optional)





MedDRA

Coding with MedDRA





What are Coding for Conventions?

- Written guides and sets of principles for using MedDRA that help achieve consistency in coding and data retrieval
- Conventions harmonize exchange of MedDRA coded data worldwide
- Common topics
 - Misspellings, abbreviations and acronyms
 - Combination terms and “due to” concepts
 - “Always query” terms, e.g., “Chest pain”





MedDRA

Why Do We Need Coding Conventions?

- Differences in medical aptitude of coders
- Consistency concerns (many more “choices” in MedDRA vs. older terminologies)
- Even with autoencoder, may still need manual coding





MedDRA Support Documentation

- ICH provides a guidance document for MedDRA coding called the MedDRA Term Selection: Points to Consider (PtC) document



MedDRA Term Selection: Points to Consider (MTS:PTC)

MedDRA® TERM SELECTION: POINTS TO CONSIDER

ICH-Endorsed Guide for MedDRA Users

Release 4.22

March 2022

Disclaimer and Copyright Notice

This document is protected by copyright and may, with the exception of the MedDRA and ICH logos, be used, reproduced, incorporated into other works, adapted, modified, translated or distributed under a public license provided that ICH's copyright in the document is acknowledged at all times. In case of any adaptation, modification or translation of the document, reasonable steps must be taken to clearly label, demarcate or otherwise identify that changes were made to or based on the original document. Any impression that the adaptation, modification or translation of the original document is endorsed or sponsored by the ICH must be avoided.

The document is provided "as is" without warranty of any kind. In no event shall the ICH or the authors of the original document be liable for any claim, damages or other liability arising from the use of the document.

The above-mentioned permissions do not apply to content supplied by third parties. Therefore, for documents where the copyright vests in a third party, permission for reproduction must be obtained from this copyright holder.

MedDRA® trademark is registered by ICH

- Provides term selection advice for industry and regulatory purposes
- Objective is to promote accurate and consistent term selection to facilitate common understanding of shared data
- Recommended to be used as basis for individual organization's own coding conventions



MedDRA Term Selection: PTC (cont)

- Developed by a working group of the ICH Management Committee
- Updated annually in March
- Complete versions available in
 - English, Japanese, Chinese, Korean, Spanish, and Russian
- Condensed versions available for other MedDRA languages
- Available on MedDRA and JMO websites





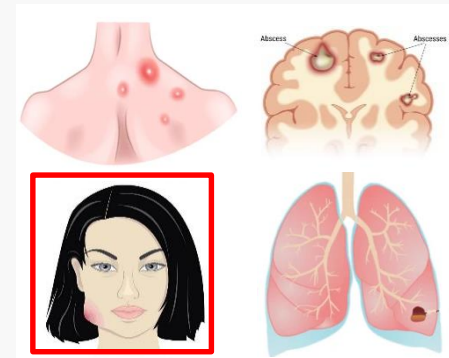
- Always Select a Lowest Level Term
Select Only Current LLTs

- ✓ Select the Lowest Level Term that most accurately reflects the reported verbatim information

"Abscess on face"

→ Do not simply select LLT *Abscess*

→ Select a term with greater specificity **LLT *Facial abscess***



- ✓ Select current LLTs only
 - Non-current terms for legacy conversion/historical purposes



Select Terms for All Reported Information

- Select terms for every AR/AE reported, regardless of causal association
- Select terms for device-related events, product quality issues, medication errors, medical and social history, investigations and indications as appropriate



MedDRA

Coding: Translating into MedDRA

Reported Information	MedDRA Coding Term (LLT)
Throbbing above temple Aching all over head Pulsing pain in head Really bad headache Headache	Headache
Infection in lungs	Lung infection
Patient took Drug A instead of Drug B and experienced hypertension	Wrong drug administered Hypertension



- Diagnoses and Provisional Diagnoses with or without Signs and Symptoms
- Death and Other Patient Outcomes
- Suicide and Self-Harm
- Conflicting/Ambiguous/Vague Information
- Combination Terms
- Age vs. Event Specificity
- Body Site vs. Event Specificity
- Location-Specific vs. Microorganism-Specific Infection
- Modification of Pre-existing Conditions
- Exposures During Pregnancy and Breast Feeding
- Congenital Terms
- Neoplasms
- Medical and Surgical Procedures
- Investigations



Term Selection Points

Section 3

- Medication Errors, Accidental Exposures and Occupational Exposures
- Misuse, Abuse and Addiction
- Transmission of Infectious Agent via Product
- Overdose, Toxicity and Poisoning
- Device-related Terms
- Drug Interactions
- No Adverse Effect and "Normal" Terms
- Unexpected Therapeutic Effect
- Modification of Effect
- Social Circumstances
- Medical and Social History
- Indication for Product Use
- Off Label Use
- Product Quality Issues

PtC Documents

PtC Category	PtC Document	Purpose	Languages	Release Cycle
Term Selection	MedDRA Term Selection: Points to Consider	Promote accurate and consistent coding with MedDRA	English, Japanese, Chinese, Russian, Korean, and Spanish	Updated annually with the March release of MedDRA
	MedDRA Term Selection: Points to Consider Condensed Version	Shorter version focusing on general coding principles to promote accurate and consistent use of MedDRA worldwide	All MedDRA languages (except English, Japanese, and other languages with an available translation of the full MTS:PTC document)	Update as needed
Data Retrieval and Presentation	MedDRA Data Retrieval and Presentation: Points to Consider	Demonstrate how data retrieval options impact the accuracy and consistency of data output	English, Japanese, Chinese, Russian, Korean, and Spanish	Updated annually with the March release of MedDRA
	MedDRA Data Retrieval and Presentation: Points to Consider Condensed Version	Shorter version focusing on general retrieval and analysis principles to promote accurate and consistent use of MedDRA worldwide	All MedDRA languages (except English, Japanese, and other languages with an available translation of the full DRP:PTC document)	Update as needed



PtC Documents (cont)

PtC Category	PtC Document	Purpose	Languages	Release Cycle
General	MedDRA Points to Consider Companion Document	More detailed information, examples, and guidance on specific topics of regulatory importance. Intended as a “living” document with updates based on users’ needs. First edition covered data quality and medication errors. Updated in July 2020 (Release 1.1). Release 2.0 in October 2020 included a section on product quality issues.	English and Japanese	Updated as needed





MedDRA

Coding Demonstration with MedDRA Browser (Optional)





MedDRA

Standardised MedDRA Queries





Standardised MedDRA Queries (SMQs)

Groupings of terms from one or more MedDRA SOCs related to medical condition or area of interest

- Terms relate to
 - ✓ Signs/symptoms,
 - ✓ Diagnoses,
 - ✓ Syndromes,
 - ✓ Physical findings,
 - ✓ Laboratory and other test data, etc.
- Intended to aid in case identification



MedDRA Term Inclusion

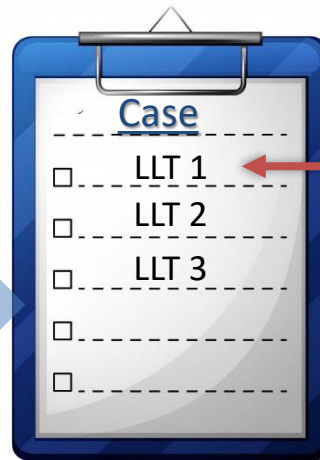
- SMQs are constructed at MedDRA PT level
- LLTs that are subordinate to an included PT are also included

System Organ Class (SOC)	27
High Level Group Term (HLGT)	337
High Level Term (HLT)	1737
Preferred Term (PT)	25412
	Lowest Level Term (LLT)



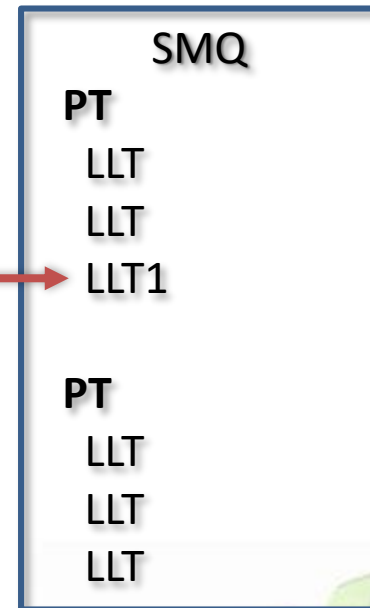
How to “Run” SMQs

Clinical Trial Database
Safety Database



“Hit”

Query





MedDRA Data Retrieval and Presentation: Points to Consider (DRP:PTC)

MedDRA® DATA RETRIEVAL AND PRESENTATION: POINTS TO CONSIDER ICH-Endorsed Guide for MedDRA Users on Data Output

Release 3.22

March 2022

Disclaimer and Copyright Notice

This document is protected by copyright and may, with the exception of the MedDRA and ICH logos, be used, reproduced, incorporated into other works, adapted, modified, translated or distributed under a public license provided that

ICH's copyright in the document is acknowledged at all times. In case of any adaptation, modification or translation of the document, reasonable steps must be taken to clearly label, demarcate or otherwise identify that changes were made to or based on the original document. Any impression that the adaptation, modification or translation of the original document is endorsed or sponsored by the ICH must be avoided.

The document is provided "as is" without warranty of any kind. In no event shall the ICH or the authors of the original document be liable for any claim, damages or other liability arising from the use of the document.

The above-mentioned permissions do not apply to content supplied by third parties. Therefore, for documents where the copyright vests in a third party, permission for reproduction must be obtained from this copyright holder.

MedDRA® trademark is registered by ICH

- Provides data retrieval and presentation options for industry or regulatory purposes
- Most effective when used in conjunction with MedDRA Term Selection: PTC document
- Recommended to be used as basis for individual organization's own data retrieval conventions

SMQs in Production - Examples

As of Version 25.0, a total of 110 level 1 SMQs in production

- Agranulocytosis
- Anaphylactic reaction
- Central nervous system vascular disorders
- Convulsions
- COVID-19
- Depression and suicide/self-injury
- Hepatic disorders
- Hypersensitivity
- Ischaemic heart disease
- Lack of efficacy/effect
- Medication errors
- Osteonecrosis
- Peripheral neuropathy
- Pregnancy and neonatal topics
- Pseudomembranous colitis
- Rhabdomyolysis/myopathy
- Severe cutaneous adverse reactions
- Shock
- Systemic lupus erythematosus



MedDRA

SMQ Benefits and Limitations



Benefits

- Application across multiple therapeutic areas
- Validated reusable search logic
- Standardized communication of safety information
- Consistent data retrieval
- Maintenance by MSSO/JMO



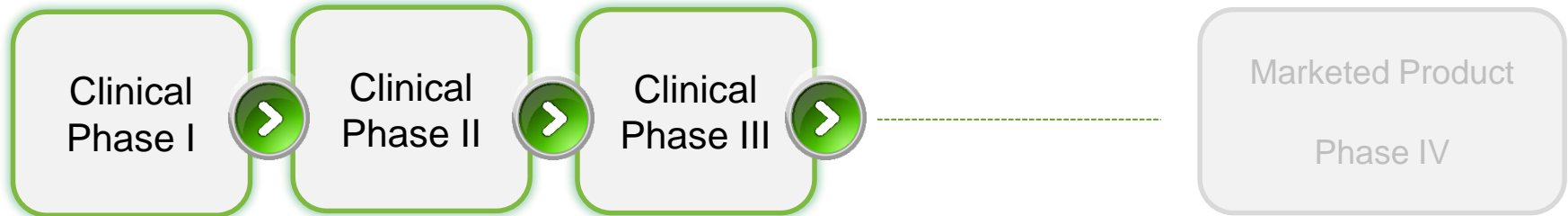
Limitations

- Do not cover all medical topics or safety issues
- Will evolve and undergo further refinement even though they have been tested during development



MedDRA

SMQ Applications



- **Clinical trials**

- Where safety profile is not fully established, use multiple SMQs on routine basis as screening tool
- Selected SMQs to evaluate previously identified issue (pre-clinical data or class effect)



MedDRA

SMQ Applications (cont)



- **Post-marketing**

- Selected SMQs to retrieve cases for suspected or known safety issue
- Signal detection (multiple SMQs employed)
- Single case alerts
- Periodic reporting (aggregate cases for safety and other issues, e.g., lack of efficacy)



MedDRA

Summary

- ✓ Presented background information about MedDRA
- ✓ Reviewed MedDRA's scope, structure, and characteristics
- ✓ Described the maintenance of MedDRA
- ✓ Described MedDRA tools (browsers, MVAT)
- ✓ Discussed coding with MedDRA
- ✓ Discussed the MedDRA Points to Consider documents
- ✓ Described Standardised MedDRA Queries (SMQs)



- Website
 - www.meddra.org
- Email
 - msohelp@meddra.org
- Frequently Asked Questions
 - www.meddra.org/faq
- MedDRA Browsers
 - <https://www.meddra.org/meddra-desktop-browsers> (Desktop Browser)
 - <https://tools.meddra.org/wbb/> (Web-Based Browser)
 - <https://mmb.meddra.org> (Mobile Browser)



MedDRA

MSSO Contacts (cont)

- Change Request Submission
 - <https://www.meddra.org/how-to-use/change-requests>
- Training Schedule
 - <https://www.meddra.org/training/schedule>
- MedDRA Support Documentation
 - <https://www.meddra.org/how-to-use/support-documentation>



MedDRA

Question and Answer Session

