



MedDRA Overview



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).



MedDRA

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MedDRA

Course Overview

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

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MedDRA Background

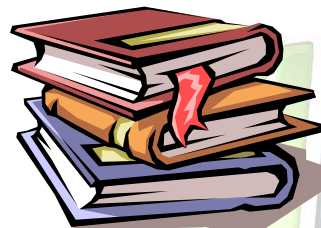
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What is MedDRA?

Med = Medical
D = Dictionary for
R = Regulatory
A = Activities



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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

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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.

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MedDRA

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)

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MedDRA

Management Committee/MSSO Relationship

- ICH MedDRA Management Committee
 - Owns MedDRA
 - 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

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MedDRA

MedDRA and the MSSO

- International support and development of terminology
- Foster use of MedDRA through communications and educational offerings
- “Custodians”, not owners, of the terminology
- JMO (partner organization for Japanese-language MedDRA)
- Governed by a Management Committee (industry, regulators, multi-national, other interested parties)

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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


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MedDRA's Scope, Structure, and Characteristics

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Scope of MedDRA

OUT
IN

- Not a drug dictionary
- Frequency qualifiers
- Patient demographic terms
- Numerical values for results
- Clinical trial study design terms
- Severity descriptors
- Not an equipment, device, diagnostic product dictionary

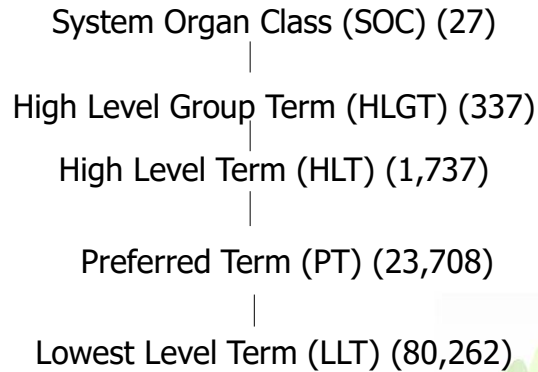
Medical conditions
Indications
Investigations (tests, results)
Medical and surgical procedures
Medical, social, family history
Medication errors
Product quality issues
Device-related issues
Product use issues
Pharmacogenetic terms
Toxicologic issues
Standardized queries

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MedDRA

MedDRA Structure



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MedDRA Version 22.0

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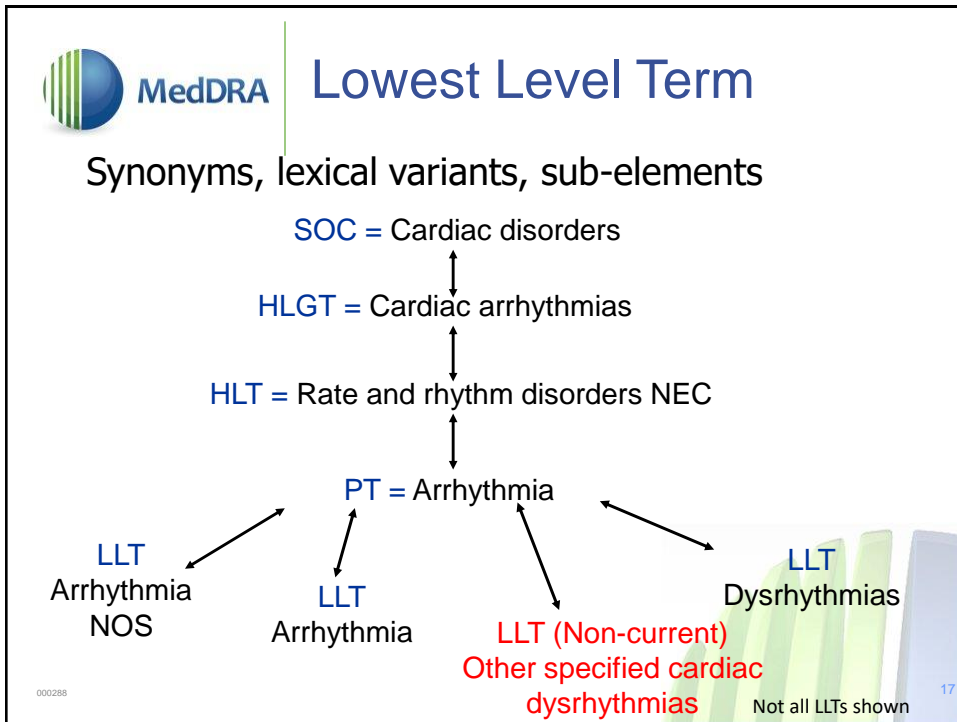
MedDRA

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

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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, outdated, truncated, or misspelled
- Terms derived from other terminologies that do not fit MedDRA rules

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MedDRA

MedDRA Codes

- Each MedDRA term assigned an 8-digit numeric code starting with "1"
- The code is non-expressive
- Codes can fulfill a data field in various electronic submission types (e.g., E2B)
- New terms are assigned sequentially

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MedDRA

Codes and Languages



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MedDRA

A Multi-Axial Terminology

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

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MedDRA

A Multi-Axial Terminology (cont)

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

HLGT = Respiratory tract
infections

HLT = Viral upper respiratory
tract infections

PT = Influenza

SOC = Infections and
infestations
(Primary SOC)

HLGT = Viral infectious
disorders

HLT = Influenza viral
infections

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MedDRA Maintenance



MedDRA Maintenance

- Users can send change requests (CRs) to MSSO for consideration
 - Organizations allowed 100 CRs/month
 - 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)



- 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

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 A screenshot of the WebCR login page. The page header includes the MedDRA logo and "WebCR MedDRA Change Request" with a link to "MedDRA Documentation". Below the header is a "Login to WebCR" section with a form containing "MedDRA ID:" (with the value "DRichardson") and "Password:" (with masked characters). A "Login" button is below the password field. To the right of the form is a welcome message: "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". At the bottom right of the page is the text "Copyright © 2017 All Rights Reserved".

- Online change request submission tool
- Guides the user to enter all needed information

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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\sa804733\Desktop\SupportingInforma Browse...

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

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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

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MedDRA Tools

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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/>
- Features
 - Both 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

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MedDRA

MedDRA Desktop Browser (MDB) and Web-Based Browser (WBB) Update

- New functionality for users
 - Preview upcoming (supplemental) changes in next release*
 - View primary **and** secondary link information
 - Upload terms to run against SMQs
 - Advanced search options (e.g., NOT, OR)

*Supplemental view not available on MDB

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MedDRA

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)
- User interface and report output available in all MedDRA languages

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MedDRA Version Analysis Tool

MedDRA Version Analysis Tool (MVAT)

Select Different Versions to Compare

Language: English

Starting Version: MedDRA 21.1 English

Ending Version: MedDRA 22.0 English

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
- Investigations

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

Run Version Report

MVAT Home
Search Term Change
Data Impact Report
Logout

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Coding with MedDRA

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MedDRA

Always Select a Lowest Level Term Select Only Current LLTs

- Lowest Level Term that most accurately reflects the reported verbatim information should be selected
- Degree of specificity may be challenging
 - Example: "*Abscess on face*" → select "*Facial abscess*," not simply "*Abscess*"
- Select current LLTs only
 - Non-current terms for legacy conversion/historical purposes

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MedDRA

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

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MedDRA Browser SOC View

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MedDRA Points to Consider Documents



ICH M1 Points to Consider Working Group (PtC WG)



November 2017, Geneva, Switzerland

- Regulators and industry from EU, US, and Japan
- Health Canada, Canada
- MFDS, Republic of Korea
- ANVISA, Brazil
- NMPA, China
- MSSO
- JMO
- WHO (Observer)

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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 and Japanese	Updated with each MedDRA release
	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 and Japanese)	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 and Japanese	Updated with each MedDRA release
	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 and Japanese)	Update as needed
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 frequent updates based on users' needs. First edition covers data quality and medication errors.	English and Japanese	Updated as needed

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

**MedDRA® TERM SELECTION:
POINTS TO CONSIDER**
ICH-Endorsed Guide for MedDRA Users


Release 4.17
Based on MedDRA Version 22.0

1 March 2019

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

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MedDRA Term Selection: PTC (cont)

- Developed by a working group of the ICH Management Committee
- Updated twice yearly with each MedDRA release
- Available on MedDRA and JMO websites
 - English and Japanese
 - Word ("clean" and "redlined"), PDF, HTML formats
 - "Redlined" document identifies changes made from previous to current release of document

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MedDRA

What are Coding Conventions?

- Written guidelines for coding with MedDRA in your organization
- Support accuracy and consistency
- Common topics
 - Misspellings, abbreviations and acronyms
 - Combination terms and “due to” concepts
 - “Always query” terms, e.g., “Chest pain”
- Should be consistent with the MedDRA Term Selection: Points to Consider document

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Why Do We Need Coding Conventions?

- Differences in medical aptitude of coders
- Consistency concerns (many more “choices” to manually code terms in MedDRA compared to older terminologies)
- Even with an autoencoder, may still need manual coding

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MedDRA

Term Selection Points

- 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 Information
- Modification of Pre-existing Conditions
- Exposures During Pregnancy and Breast Feeding
- Congenital Terms
- Neoplasms
- Medical and Surgical Procedures
- Investigations

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MedDRA

Term Selection Points (cont)

- 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

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MedDRA

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 3.17
Based on MedDRA Version 22.0

1 March 2019

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- 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

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Standardised MedDRA Queries (SMQs)

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MedDRA

Standardised MedDRA Queries (SMQs)

- Collaboration between CIOMS (Council for International Organizations of Medical Sciences) and ICH (MSSO)
- 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

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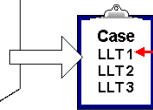
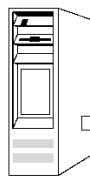
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How to “Run” SMQs (cont)

Clinical Trial Database
Safety Database



"Hit"

Query

SMQ
PT
LLT
LLT
LLT 1
PT
LLT
LLT
LLT

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SMQs in Production - Examples

- As of Version 22.0, a total of 104 level 1 SMQs in production
 - Agranulocytosis
 - Anaphylactic reaction
 - Cerebrovascular disorders
 - Convulsions
 - 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
 - Systemic lupus erythematosus

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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

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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)
- 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)

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MedDRA

MedDRA Browser SMQ View

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MedDRA

Summary

In this course, we:

- 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)

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MedDRA

MSSO Contacts

- Website
 - www.meddra.org
- Email
 - msohelp@meddra.org
- Frequently Asked Questions
 - www.meddra.org/faq

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Question and Answer Session

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