

Quantify OS Clinical Outcomes Database



Summary Information

The Quantify Thrombosis in Orthopedic Surgery (TOS) Clinical Outcomes Database contains bleeding and VTE endpoint data from clinical trials investigating pharmaceutical interventions for preventing peri-operative thrombosis after orthopedic surgery of hip, knee, or both.

Table 1. Summary information

Parameter	Description		
format	Excel or KEEP format		
indications	surgery		
references	105		
trials	108		
trial.arms	334		
patients	11,0063		
data.rows	3,354		
compounds	acenocoumarol, apixaban, ardeparin, aspirin, bemiparin, betrixaban, certoparin, dabigatran, dalteparin, danaparoid, darexaban, desirudin, edoxaban, enoxaparin, fondaparinux, heparin, isis 416858, ly517717, nadroparin, no treatment, pd0348292, placebo, razaxaban, reviparin, rivaroxaban, semuloparin, sr123781a, tak442, tinzaparin, warfarin, ximelagatran		
key efficacy endpoints	dvt, dvt distal, dvt distal all, dvt distal only, dvt proximal, dvt symptomatic, pe, pe fatal, pe non-fatal, vte, vte major, vte symptomatic		
key safety endpoints	bleeding major, bleeding minor, bleeding non-major, bleeding relevant, bleeding total, death		

Features and benefits

Key Features

- **Comprehensive:** includes information for marketed drugs; data sources include journal publications, conference posters, regulatory reviews, etc
- **Ease of tracking:** all clinical trial publications are listed in a separate source database and linked to unique clinical trial names
- **Flexibility:** the database design allows for quick updates as well as expansions to include additional indications/drugs/endpoints/trials

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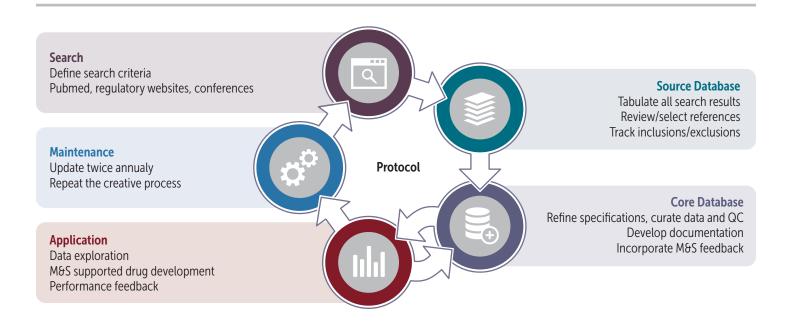
- **Model-friendliness:** designed and reviewed by experienced modelers to ensure highest quality and usability for modeling and simulation to support drug development strategies
- **Customizability:** can be augmented with clinical trial data proprietary to the client (this information goes into a separate proprietary database and will be owned by the client)

Why use our databases:

- Designed and managed by experienced modelers
- Provides most relevant data to support clients' needs for quantitative decision making
- Contains up-to-date and high quality data so that it is always readily available to provide timely analysis required to support critical clinical trial decisions
- Supported by additional services such as modeling and simulation consulting services and custom curation services (by our partner, GVK Bio)

Organization and Structure

This product consists of two databases, the OS source database and the OS clinical outcomes database. The source database is a database that maintains the sources of information in the literature. The clinical outcomes database contains the information on trial, treatment and patients characteristics and efficacy results of the trials identified for inclusion in the database.



Overview of the OS Source Database

The primary data sources were controlled clinical trials published in the medical literature. 105 references were identified and documented in the source database. The detailed reference information is recorded. Additional data, including data not published in journals, were obtained from FDA Summary Basis of Approval.

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Outcome Fields

The clinical outcomes database contains information from 108 trials, representing 334 unique treatment arms and about 110,063 patients. There are a total of 3,354 rows in the database. The table below provides an overview of the available data for randomized treatments, ie, treatments that were started at time of randomization and not present as background therapy. The table shows the number of treatment arms and the number of patients for each study drug.

Table 2. Number of trials, treatment arms and patients by drug

randomized.drug	trials	arms	patients
acenocoumarol	1	1	342
apixaban	4	9	6768
ardeparin	2	5	1324
aspirin	1	1	110
bemiparin	2	2	339
betrixaban	1	2	172
certoparin	1	2	341
dabigatran	7	23	8742
dalteparin	8	10	2086
danaparoid	3	3	503
darexaban	5	17	3044
desirudin	3	5	2110
edoxaban	6	13	2053
enoxaparin	70	79	36118
fondaparinux	7	15	7041
heparin	17	17	3343
heparin+dhe	3	3	296
isis 416858	1	2	225
ly517717	1	6	417
nadroparin	5	5	804
no treatment	2	2	101
pd0348292	1	7	992
placebo	15	15	1453
razaxaban	1	4	506
reviparin	3	5	1296
rivaroxaban	8	25	7468
semuloparin	4	8	2807
sr123781a	1	5	854
tak442	1	6	885
tinzaparin	4	5	1316
warfarin	13	13	6848
ximelagatran	5	9	4430
ximelagatran+melagatran	5	10	4929
TOTAL	108	334	110063

The following endpoints are recorded in the database. The number of patients and time course of the endpoints were recorded.

Table 3. Number of trials, treatment arms and patients by endpoint

endpoint	trials	arms	patients
bleeding major	90	291	101244
bleeding minor	67	227	81382
bleeding non-major	34	129	52246
bleeding relevant	15	46	24329
bleeding total	53	176	57948
death	61	181	61104
dvt	88	258	88957
dvt distal	6	24	4565
dvt distal all	21	64	23973
dvt distal only	76	224	80614
dvt proximal	89	276	90579
dvt symptomatic	28	87	37678
pe	87	268	86105
pe fatal	13	32	21057
pe non-fatal	18	46	33265
vte	83	272	92591
vte major	59	197	71791
vte symptomatic	20	71	33636
TOTAL	108	334	110063

About Certara

Certara is a leading provider of decision support technology and consulting services for optimizing drug development and improving health outcomes. Certara's solutions, which span the drug development and patient care lifecycle, help increase the probability of regulatory and commercial success by using the most scientifically advanced modeling and simulation technologies and regulatory strategies. Its clients include hundreds of global biopharmaceutical companies, leading academic institutions and key regulatory agencies.

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