

# Package ‘DrugUtilisation’

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**Title** Summarise Patient-Level Drug Utilisation in Data Mapped to the OMOP Common Data Model

**Version** 0.6.0

**Description** Summarise patient-level drug utilisation cohorts using data mapped to the Observational Medical Outcomes Partnership (OMOP) common data model. New users and prevalent users cohorts can be generated and their characteristics, indication and drug use summarised.

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---

addDailyDose	<i>add daily dose information to a drug_exposure table</i>
--------------	--

---

### Description

add daily dose information to a drug\_exposure table

### Usage

```
addDailyDose(
  drugExposure,
  cdm = attr(drugExposure, "cdm_reference"),
  ingredientConceptId
)
```

**Arguments**

drugExposure     drugExposure it must contain drug\_concept\_id, quantity, drug\_exposure\_start\_date and drug\_exposure\_end\_date as columns

cdm                A cdm reference

ingredientConceptId     ingredientConceptId for which to filter the drugs of interest

**Value**

same input table

**Examples**

```
library(DrugUtilisation)
library(dplyr)

cdm <- mockDrugUtilisation()

cdm[["drug_exposure"]] %>%
  filter(drug_concept_id == 2905077) %>%
  addDailyDose(ingredientConceptId = 1125315)
```

---

addDrugUse

*Add new columns with drug use related information*

---

**Description**

Add new columns with drug use related information

**Usage**

```
addDrugUse(
  cohort,
  cdm = lifecycle::deprecated(),
  ingredientConceptId,
  conceptSet = NULL,
  duration = TRUE,
  quantity = TRUE,
  dose = TRUE,
  gapEra = 0,
  eraJoinMode = "zero",
  overlapMode = "sum",
  sameIndexMode = "sum",
  imputeDuration = "none",
```

```

    imputeDailyDose = "none",
    durationRange = c(1, Inf),
    dailyDoseRange = c(0, Inf)
)

```

### Arguments

cohort	Cohort in the cdm
cdm	deprecated
ingredientConceptId	Ingredient OMOP concept that we are interested for the study. It is a compulsory input, no default value is provided.
conceptSet	List of concepts to be included. If NULL all the descendants of ingredient concept id will be used.
duration	Whether to add duration related columns.
quantity	Whether to add quantity related columns.
dose	Whether to add dose related columns.
gapEra	Number of days between two continuous exposures to be considered in the same era.
eraJoinMode	How two different continuous exposures are joined in an era. There are four options: "zero" the exposures are joined considering that the period between both continuous exposures the subject is treated with a daily dose of zero. The time between both exposures contributes to the total exposed time. "join" the exposures are joined considering that the period between both continuous exposures the subject is treated with a daily dose of zero. The time between both exposures does not contribute to the total exposed time. "previous" the exposures are joined considering that the period between both continuous exposures the subject is treated with the daily dose of the previous subexposure. The time between both exposures contributes to the total exposed time. "subsequent" the exposures are joined considering that the period between both continuous exposures the subject is treated with the daily dose of the subsequent subexposure. The time between both exposures contributes to the total exposed time.
overlapMode	How the overlapping between two exposures that do not start on the same day is solved inside a subexposure. There are five possible options: "previous" the considered daily_dose is the one of the earliest exposure. "subsequent" the considered daily_dose is the one of the new exposure that starts in that subexposure. "minimum" the considered daily_dose is the minimum of all of the exposures in the subexposure. "maximum" the considered daily_dose is the maximum of all of the exposures in the subexposure. "sum" the considered daily_dose is the sum of all the exposures present in the subexposure.
sameIndexMode	How the overlapping between two exposures that start on the same day is solved inside a subexposure. There are three possible options: "minimum" the considered daily_dose is the minimum of all of the exposures in the subexposure. "maximum" the considered daily_dose is the maximum of all of the exposures in the subexposure. "sum" the considered daily_dose is the sum of all the exposures present in the subexposure.

**imputeDuration** Whether/how the duration should be imputed "none", "median", "mean", "mode" or a number  
**imputeDailyDose** Whether/how the daily\_dose should be imputed "none", "median", "mean", "mode" or a number  
**durationRange** Range between the duration must be comprised. It should be a numeric vector of length two, with no NAs and the first value should be equal or smaller than the second one. It must not be NULL if imputeDuration is not "none". If NULL no restrictions are applied.  
**dailyDoseRange** Range between the daily\_dose must be comprised. It should be a numeric vector of length two, with no NAs and the first value should be equal or smaller than the second one. It must not be NULL if imputeDailyDose is not "none". If NULL no restrictions are applied.

### Value

The same cohort with the added columns.

### Examples

```

library(DrugUtilisation)
library(CodelistGenerator)

cdm <- mockDrugUtilisation()
cdm <- generateDrugUtilisationCohortSet(
  cdm, "dus_cohort", getDrugIngredientCodes(cdm, name = "acetaminophen")
)
cdm[["dus_cohort"]] %>%
  addDrugUse(ingredientConceptId = 1125315)
  
```

---

<code>addIndication</code>	<i>Get indication for a target cohort</i>
----------------------------	---

---

### Description

Get indication for a target cohort

### Usage

```

addIndication(
  x,
  cdm = lifecycle::deprecated(),
  indicationCohortName,
  indicationGap = 0,
  unknownIndicationTable = NULL,
  indicationDate = "cohort_start_date"
)
  
```

**Arguments**

**x** Table in the cdm  
**cdm** A cdm reference created using CDMConnector  
**indicationCohortName** Name of indication cohort table  
**indicationGap** Gap between the event and the indication  
**unknownIndicationTable** Tables to search unknown indications  
**indicationDate** Date of the indication

**Value**

Same cohort adding the indications

**Examples**

```

library(DrugUtilisation)
library(CodelistGenerator)

cdm <- mockDrugUtilisation()

indications <- list("headache" = 378253, "asthma" = 317009)
cdm <- generateConceptCohortSet(
  cdm, indications, "indication_cohorts"
)

acetaminophen <- getDrugIngredientCodes(cdm, "acetaminophen")
cdm <- generateDrugUtilisationCohortSet(cdm, "drug_cohort", acetaminophen)

cdm[["drug_cohort"]] %>%
  addIndication(
    indicationCohortName = "indication_cohorts",
    indicationGap = c(0, 30, 365)
  )

```

---

addRoute *add route column to a table containing drug\_exposure information*

---

**Description**

add route column to a table containing drug\_exposure information

**Usage**

```
addRoute(drugTable, cdm = attr(drugTable, "cdm_reference"))
```

**Arguments**

drugTable	Table in the cdm that must contain drug_concept_id
cdm	'cdm' object created with CDMConnector::cdm_from_con(). It must contain 'concept_relationship' table.

**Value**

It adds route to the current table

**Examples**

```
library(DrugUtilisation)
library(dplyr)

cdm <- mockDrugUtilisation()

cdm[["drug_exposure"]] %>%
  addRoute()
```

---

 benchmarkDUS

---

*Run benchmark of drug utilisation cohort generation*


---

**Description**

Run benchmark of drug utilisation cohort generation

**Usage**

```
benchmarkDUS(
  cdm,
  numberOfCohort = 1:4,
  indicationCohortName = "cohort1",
  ingredientId = 1125315,
  drugExposureName = "drug_exposure"
)
```

**Arguments**

cdm	A CDM reference object
numberOfCohort	Number of cohort to generate for benchmarking. An integer or a vector of integers
indicationCohortName	Name of indication cohort table

`ingredientId` Ingredient OMOP concept that we are interested for the study. It is a compulsory input, no default value is provided.

`drugExposureName` Name of `drug_exposure` table in `cdm`, the table must contain `drug_concept_id`, `quantity`, `drug_exposure_start_date` and `drug_exposure_end_date` as columns

**Value**

a tibble with time taken for different analyses

**Examples**

```
cdm <- DrugUtilisation::mockDrugUtilisation()
timings <- DrugUtilisation::benchmarkDUS(cdm)
```

---

<code>dailyDoseCoverage</code>	<i>Check coverage of daily dose computation in a sample of the cdm for selected concept sets and ingredient</i>
--------------------------------	---

---

**Description**

Check coverage of daily dose computation in a sample of the `cdm` for selected concept sets and ingredient

**Usage**

```
dailyDoseCoverage(cdm, ingredientConceptId)
```

**Arguments**

`cdm` A `cdm` reference created using `CDMConnector`

`ingredientConceptId` Code indicating the ingredient of interest

**Value**

The function returns information of the coverage of `computeDailyDose.R` for the selected ingredients and concept sets



## Examples

```
library(DrugUtilisation)

cdm <- mockDrugUtilisation()

dailyDoseCoverage(cdm, 1125315)
```

---

generateAtcCohortSet *Generates a cohort of the drug use of ATC name(s) of interest.*

---

## Description

Generates a cohort of the drug use of ATC name(s) of interest.

## Usage

```
generateAtcCohortSet(
  cdm,
  name,
  atcName = NULL,
  durationRange = c(1, Inf),
  imputeDuration = "none",
  gapEra = 0,
  priorUseWashout = 0,
  priorObservation = 0,
  cohortDateRange = as.Date(c(NA, NA)),
  limit = "all",
  level = c("ATC 1st"),
  doseForm = NULL
)
```

## Arguments

cdm	A cdm_reference object.
name	Name of the GeneratedCohortSet
atcName	Names of ATC of interest.
durationRange	Range between the duration must be comprised. It should be a numeric vector of length two, with no NAs and the first value should be equal or smaller than the second one. It is only required if imputeDuration = TRUE. If NULL no restrictions are applied.
imputeDuration	Whether/how the duration should be imputed "none", "median", "mean", "mode", or it can be a count

gapEra	Number of days between two continuous exposures to be considered in the same era.
priorUseWashout	Prior days without exposure.
priorObservation	Minimum number of days of prior observation required for the incident eras to be considered.
cohortDateRange	Range for cohort_start_date and cohort_end_date
limit	Choice on how to summarise the exposures. There are two options: "all" we summarise the output will be a summary of the exposed eras of each individual. Each individual can contribute multiple times. "first" we only consider the first observable era of each individual that fulfills the criteria provided in previous parameters. In this case each individual can not contribute with multiple rows.
level	ATC level. Can be one or more of "ATC 1st", "ATC 2nd", "ATC 3rd", "ATC 4th", and "ATC 5th"
doseForm	Only descendants codes with the specified dose form will be returned. If NULL, descendant codes will be returned regardless of dose form.

**Value**

The function returns the 'cdm' object with the created cohorts as references of the object.

**Examples**

```
library(DrugUtilisation)
cdm <- mockDrugUtilisation()
cdm <- generateAtcCohortSet(cdm, name = "test")
cdm
cdm$test
settings(cdm$test)
```

---

generateDrugUtilisationCohortSet

*Generates a cohort of the drug use of a certain list of concepts.*

---

**Description**

Generates a cohort of the drug use of a certain list of concepts.

**Usage**

```

generateDrugUtilisationCohortSet(
  cdm,
  name,
  conceptSet,
  durationRange = c(1, Inf),
  imputeDuration = "none",
  gapEra = 0,
  priorUseWashout = 0,
  priorObservation = 0,
  cohortDateRange = as.Date(c(NA, NA)),
  limit = "all"
)

```

**Arguments**

cdm	A cdm_reference object.
name	Name of the GeneratedCohortSet
conceptSet	Named list of concept sets.
durationRange	Range between the duration must be comprised. It should be a numeric vector of length two, with no NAs and the first value should be equal or smaller than the second one. It is only required if imputeDuration = TRUE. If NULL no restrictions are applied.
imputeDuration	Whether/how the duration should be imputed "none", "median", "mean", "mode", or it can be a count
gapEra	Number of days between two continuous exposures to be considered in the same era.
priorUseWashout	Prior days without exposure.
priorObservation	Minimum number of days of prior observation required for the incident eras to be considered.
cohortDateRange	Range for cohort_start_date and cohort_end_date
limit	Choice on how to summarise the exposures. There are two options: "all" we summarise the output will be a summary of the exposed eras of each individual. Each individual can contribute multiple times. "first" we only consider the first observable era of each individual that fulfills the criteria provided in previous parameters. In this case each individual can not contribute with multiple rows.

**Value**

The function returns the 'cdm' object with the created tables as references of the object.

## Examples

```
library(CodelistGenerator)
library(CDMConnector)
library(DrugUtilisation)

cdm <- mockDrugUtilisation()

druglist <- getDrugIngredientCodes(cdm, c("acetaminophen", "metformin"))

cdm <- generateDrugUtilisationCohortSet(
  cdm = cdm,
  name = "drug_cohorts",
  conceptSet = druglist,
  priorObservation = 365
)

cdm[["drug_cohorts"]]

settings(cdm[["drug_cohorts"]])

cohortCount(cdm[["drug_cohorts"]])

attrition(cdm[["drug_cohorts"]])
```

---

generateIngredientCohortSet

*Generates a cohort of the drug use of ingredient name(s) of interest.*

---

## Description

Generates a cohort of the drug use of ingredient name(s) of interest.

## Usage

```
generateIngredientCohortSet(
  cdm,
  name,
  ingredient = NULL,
  durationRange = c(1, Inf),
  imputeDuration = "none",
  gapEra = 0,
  priorUseWashout = 0,
  priorObservation = 0,
  cohortDateRange = as.Date(c(NA, NA)),
  limit = "all",
```

```

    doseForm = NULL,
    ingredientRange = c(1, Inf)
  )

```

### Arguments

cdm	A cdm_reference object.
name	Name of the GeneratedCohortSet
ingredient	Accepts both vectors and named lists of ingredient names. For a vector input, e.g., c("acetaminophen", "codeine"), it generates a cohort table with descendant concept codes for each ingredient, assigning unique cohort_definition_id. For a named list input, e.g., list( "test_1" = c("simvastatin", "acetaminophen"), "test_2" = "metformin"), it produces a cohort table based on the structure of the input, where each name leads to a combined set of descendant concept codes for the specified ingredients, creating distinct cohort_definition_id for each named group.
durationRange	Range between the duration must be comprised. It should be a numeric vector of length two, with no NAs and the first value should be equal or smaller than the second one. It is only required if imputeDuration = TRUE. If NULL no restrictions are applied.
imputeDuration	Whether/how the duration should be imputed "none", "median", "mean", "mode", or it can be a count
gapEra	Number of days between two continuous exposures to be considered in the same era.
priorUseWashout	Prior days without exposure.
priorObservation	Minimum number of days of prior observation required for the incident eras to be considered.
cohortDateRange	Range for cohort_start_date and cohort_end_date
limit	Choice on how to summarise the exposures. There are two options: "all" we summarise the output will be a summary of the exposed eras of each individual. Each individual can contribute multiple times. "first" we only consider the first observable era of each individual that fulfills the criteria provided in previous parameters. In this case each individual can not contribute with multiple rows.
doseForm	Only descendants codes with the specified dose form will be returned. If NULL, descendant codes will be returned regardless of dose form.
ingredientRange	Used to restrict descendant codes to those associated with a specific number of ingredients. Must be a vector of length two with the first element the minimum number of ingredients allowed and the second the maximum. A value of c(2, 2) would restrict to only concepts associated with two ingredients.

### Value

The function returns the 'cdm' object with the created cohorts as references of the object.

**Examples**

```
library(DrugUtilisation)
cdm <- mockDrugUtilisation()
cdm <- generateIngredientCohortSet(
  cdm = cdm,
  ingredient = "acetaminophen",
  name = "test"
)
cdm
```

---

indicationToStrata	<i>Create new variables summarising the data of indication that can be used as stratification columns</i>
--------------------	---

---

**Description**

Create new variables summarising the data of indication that can be used as stratification columns

**Usage**

```
indicationToStrata(
  cohort,
  indicationVariables = indicationColumns(cohort),
  keep = FALSE
)
```

**Arguments**

cohort	A cohort in the cdm
indicationVariables	Indication variables that we want to join
keep	Whether to keep the prior indication variables or not

**Value**

description The cohort with the new variable

**Examples**

```
library(DrugUtilisation)

cdm <- mockDrugUtilisation()
cdm[["cohort1"]] <- cdm[["cohort1"]] %>%
  addIndication(indicationCohortName = "cohort2") %>%
```

```
indicationToStrata()
```

---

```
mockDrugUtilisation It creates a mock database for testing drugutilisation package
```

---

## Description

It creates a mock database for testing drugutilisation package

## Usage

```
mockDrugUtilisation(
  connectionDetails = list(con = DBI::dbConnect(duckdb::duckdb(), ":memory:"),
    writeSchema = "main"),
  numberIndividuals = 10,
  seed = 1,
  concept = NULL,
  concept_ancestor = NULL,
  drug_strength = NULL,
  person = NULL,
  observation_period = NULL,
  drug_exposure = NULL,
  condition_occurrence = NULL,
  observation = NULL,
  concept_relationship = NULL,
  extraTables = list(),
  ...
)
```

## Arguments

connectionDetails	Details of the connection
numberIndividuals	Number of individuals in the mock cdm
seed	Seed for the random numbers
concept	A concept tibble, if NULL a mock one is created
concept_ancestor	A concept_ancestor tibble, if NULL a mock one is created
drug_strength	A drug_strength tibble, if NULL a mock one is created
person	A person tibble, if NULL a mock one is created
observation_period	A observation_period tibble, if NULL a mock one is created

drug\_exposure A drug\_exposure tibble, if NULL a mock one is created  
 condition\_occurrence A condition\_occurrence tibble, if NULL a mock one is created  
 observation A observation tibble, if NULL a mock one is created  
 concept\_relationship A concept\_relationship tibble, if NULL a mock one is created.  
 extraTables Extra tibbles to be instantiated that are not cohorts or cdm tables  
 ... Cohorts can be added to the cdm reference, cohort1 and cohort2 will be created if not provided

**Value**

A cdm reference with the mock tables

**Examples**

```

library(DrugUtilisation)

cdm <- mockDrugUtilisation()

cdm

```

---

patternsWithFormula *Patterns valid to compute daily dose with the associated formula.*

---

**Description**

Patterns valid to compute daily dose with the associated formula.

**Usage**

```
patternsWithFormula
```

**Format**

A data frame with eight variables: pattern\_id, amount, amount\_unit, numerator, numerator\_unit, denominator, denominator\_unit, formula\_name and formula.



---

patternTable	<i>Function to create a tibble with the patterns from current drug strength table</i>
--------------	---

---

**Description**

Function to create a tibble with the patterns from current drug strength table

**Usage**

```
patternTable(cdm)
```

**Arguments**

cdm                    'cdm' object created with CDMConnector::cdm\_from\_con(). It must contain 'drug\_strength' and 'concept' tables.

**Value**

The function creates a tibble with the different patterns found in the table, plus a column of potentially valid and invalid combinations.

**Examples**

```
library(DrugUtilisation)
cdm <- mockDrugUtilisation()
patternTable(cdm)
```

---

readConceptList	<i>Get concept ids from a provided path to json files</i>
-----------------	---

---

**Description**

Get concept ids from a provided path to json files

**Usage**

```
readConceptList(path, cdm)
```

**Arguments**

path                    path to a file or folder containing jsons to be read  
cdm                    A cdm reference created with CDMConnector

**Value**

list of concept\_ids and respective concept\_ids of interest

**Examples**

```
library(DrugUtilisation)

cdm <- mockDrugUtilisation()

codelist <- readConceptList(
  path = system.file("concepts",package="DrugUtilisation"), cdm = cdm
)
```

---

stratifyByUnit      *Function to stratify a conceptSet by unit*

---

**Description**

Function to stratify a conceptSet by unit

**Usage**

```
stratifyByUnit(conceptSet, cdm, ingredientConceptId)
```

**Arguments**

conceptSet	List of concept sets
cdm	cdm reference
ingredientConceptId	ConceptId that refers to an ingredient

**Value**

The conceptSet stratified by unit

**Examples**

```
library(DrugUtilisation)
library(CodelistGenerator)

cdm <- mockDrugUtilisation()

codelist <- getDrugIngredientCodes(cdm, "acetaminophen")
```

```

codelistStratified <- stratifyByUnit(codelist, cdm, 1125315)

codelistStratified

```

---

summariseDrugUse	<i>This function is used to summarise the dose table over multiple cohorts.</i>
------------------	---

---

## Description

This function is used to summarise the dose table over multiple cohorts.

## Usage

```

summariseDrugUse(
  cohort,
  cdm = lifecycle::deprecated(),
  strata = list(),
  drugUseEstimates = c("min", "q05", "q25", "median", "q75", "q95", "max", "mean", "sd",
    "count_missing", "percentage_missing"),
  minCellCount = lifecycle::deprecated()
)

```

## Arguments

cohort	Cohort with drug use variables and strata
cdm	cdm_reference generated by CDMConnector
strata	Stratification list
drugUseEstimates	Estimates that we want for the columns
minCellCount	Below this number counts will be suppressed

## Value

A summary of the drug use stratified by cohort\_name and strata\_name

## Examples

```

library(DrugUtilisation)
library(PatientProfiles)
library(CodeListGenerator)

cdm <- mockDrugUtilisation()
cdm <- generateDrugUtilisationCohortSet(
  cdm, "dus_cohort", getDrugIngredientCodes(cdm, "acetaminophen")
)

```

```

)
cdm[["dus_cohort"]] <- cdm[["dus_cohort"]] %>%
  addDrugUse(ingredientConceptId = 1125315)
result <- summariseDrugUse(cdm[["dus_cohort"]])
print(result)

cdm[["dus_cohort"]] <- cdm[["dus_cohort"]] %>%
  addSex() %>%
  addAge(ageGroup = list("<40" = c(0, 30), ">40" = c(40, 150)))

summariseDrugUse(
  cdm[["dus_cohort"]], strata = list(
    "age_group" = "age_group", "sex" = "sex",
    "age_group and sex" = c("age_group", "sex")
  )
)

```

---

summariseIndication    *This function is used to summarise the indication table over multiple cohorts.*

---

## Description

This function is used to summarise the indication table over multiple cohorts.

## Usage

```

summariseIndication(
  cohort,
  cdm = lifecycle::deprecated(),
  strata = list(),
  minCellCount = lifecycle::deprecated()
)

```

## Arguments

cohort	Cohort with indications and strata
cdm	cdm_reference created by CDMConnector
strata	Stratification list
minCellCount	Minimum counts that a group can have. Cohorts with less counts than this value are obscured.

## Value

A Tibble with 4 columns: cohort\_definition\_id, variable, estimate and value. There will be one row for each cohort, variable and cohort combination.

**Examples**

```

library(DrugUtilisation)
library(PatientProfiles)
library(CodelistGenerator)

cdm <- mockDrugUtilisation()
indications <- list("headache" = 378253, "asthma" = 317009)
cdm <- generateConceptCohortSet(cdm, indications, "indication_cohorts")
acetaminophen <- getDrugIngredientCodes(cdm, "acetaminophen")
cdm <- generateDrugUtilisationCohortSet(cdm, "drug_cohort", acetaminophen)
cdm[["drug_cohort"]] <- cdm[["drug_cohort"]] %>%
  addIndication(
    indicationCohortName = "indication_cohorts",
    indicationGap = c(0, 30, 365)
  )

summariseIndication(cdm[["drug_cohort"]])

cdm[["drug_cohort"]] <- cdm[["drug_cohort"]] %>%
  addAge(ageGroup = list("<40" = c(0, 39), ">=40" = c(40, 150))) %>%
  addSex()

summariseIndication(
  cdm[["drug_cohort"]], strata = list(
    "age_group" = "age_group", "age_group and sex" = c("age_group", "sex")
  )
)

```

---

```
summariseTreatmentFromCohort
```

*This function is used to summarise the dose table over multiple cohorts.*

---

**Description**

This function is used to summarise the dose table over multiple cohorts.

**Usage**

```

summariseTreatmentFromCohort(
  cohort,
  strata = list(),
  window,
  treatmentCohortName,
  treatmentCohortId = NULL,
  combination = FALSE,

```

```

    minCellCount = 5
  )

```

### Arguments

cohort	Cohort with drug use variables and strata.
strata	Stratification list.
window	Window where to summarise the treatments.
treatmentCohortName	Name of a cohort in the cdm that contains the interest treatments.
treatmentCohortId	Cohort definition id of interest from treatmentCohortName.
combination	Whether to include combination treatments.
minCellCount	Below this number counts will be suppressed.

### Value

A summary of the drug use stratified by cohort\_name and strata\_name

### Examples

```

library(DrugUtilisation)
library(PatientProfiles)
library(CodelistGenerator)

cdm <- mockDrugUtilisation()
cdm <- generateDrugUtilisationCohortSet(
  cdm, "dus_cohort", getDrugIngredientCodes(cdm, "acetaminophen")
)
cdm[["dus_cohort"]] <- cdm[["dus_cohort"]] %>%
  addDrugUse(ingredientConceptId = 1125315)
result <- summariseDrugUse(cdm[["dus_cohort"]])
print(result)

cdm[["dus_cohort"]] <- cdm[["dus_cohort"]] %>%
  addSex() %>%
  addAge(ageGroup = list("<40" = c(0, 30), ">40" = c(40, 150)))

summariseDrugUse(
  cdm[["dus_cohort"]], strata = list(
    "age_group" = "age_group", "sex" = "sex",
    "age_group and sex" = c("age_group", "sex")
  )
)

```

---

```
summariseTreatmentFromConceptSet
```

*This function is used to summarise the dose table over multiple cohorts.*

---

### Description

This function is used to summarise the dose table over multiple cohorts.

### Usage

```
summariseTreatmentFromConceptSet(  
  cohort,  
  strata = list(),  
  window,  
  treatmentConceptSet,  
  combination = FALSE,  
  minCellCount = 5  
)
```

### Arguments

cohort	Cohort with drug use variables and strata.
strata	Stratification list.
window	Window where to summarise the treatments.
treatmentConceptSet	Concept set list to summarise.
combination	Whether to include combination treatments.
minCellCount	Below this number counts will be suppressed.

### Value

A summary of the drug use stratified by cohort\_name and strata\_name

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