**D23:** Find drugs by class and route of administration

This query is designed to return a list of drug concept IDs that belong to a drug class and require a certain route of administration. For example, it can be used to find all steroid drugs used intravaginally. The query ties together:

* Concept ancestor data to link drug concepts to therapeutic class
* RxNorm concept relationship 4 - ‘Has dose form (RxNorm)
* Dose form to route of administration list

The results are combined to present a list of drugs from a specific therapeutic class with a specific route of administration. Permissible routes are:

* Inhaled
* Intrathecal
* Nasal
* Ophthalmic
* Oral
* Unknown (cannot be defined from the dose form)
* Otic
* Parenteral
* Rectal
* Topical
* Urethral
* Vaginal

**Sample query:**

SELECT C.concept\_id drug\_concept\_id,

C.concept\_name drug\_concept\_name,

C.concept\_code drug\_concept\_code

FROM concept C,

concept\_ancestor CA,

concept\_relationship CRF,

concept F,

route

WHERE

CA.ancestor\_concept\_id = 4318008

AND C.concept\_id = CA.descendant\_concept\_id

AND C.vocabulary\_id = 'RxNorm'

AND C.standard\_concept = 'S'

AND CRF.concept\_id\_1 = C.concept\_id

AND CRF.relationship\_ID = 'RxNorm has dose form'

AND CRF.concept\_id\_2 = F.concept\_id

AND F.concept\_id = route.concept\_id

AND sysdate BETWEEN CRF.valid\_start\_date AND CRF.valid\_end\_date

AND POSITION(LOWER(REPLACE(REPLACE(route.route\_of\_administration, ' ', ''), '-', '')) IN LOWER(REPLACE(REPLACE('vaginal' , ' ', ''), '-', ''))) > 0

**Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Example** | **Mandatory** | **Notes** |
| Therapeutic class Concept ID | 4318008 | Yes | Concept ID for mechanism of action “Corticosteroid Hormone Receptor Agonists”. Valid drug classes can be obtained using query [D02](http://vocabqueries.omop.org/drug-queries/d2) |
| Dose Form String | 'vaginal' | Yes | Route of administration string. |
| As of date | Sysdate | No | Valid record as of specific date. Current date – sysdate is a default |

**Output:**

|  |  |
| --- | --- |
| **Field** | **Description** |
| Drug\_Concept\_ID | Concept ID of drug with specified therapeutic class and dose form |
| Drug\_Name | Name of drug with specified therapeutic class and dose form |
| Drug\_Concept\_Code | Source code of drug |

**Sample output record:**

|  |  |
| --- | --- |
| **Field** | **Value** |
| Drug\_Concept\_ID | 40230686 |
| Drug\_Name | hydrocortisone acetate 10 MG/ML Vaginal Cream |
| Drug\_Concept\_Code | 1039349 |