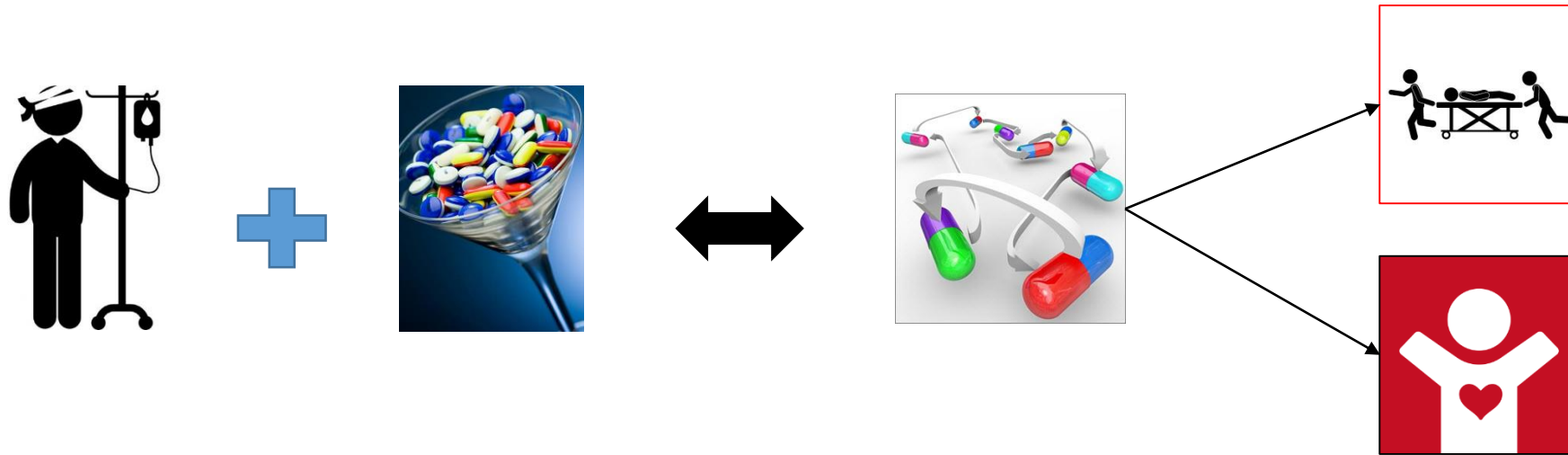


# Detección y análisis de interacciones farmacológicas entre enero – junio 2016

Diego Salazar Barreto, BPharm, MSc

2016-II

# ¿Interacciones farmacológicas?



Alteración en la actividad de un **fármaco** por la presencia de otro.

Efectos negativos en la **seguridad** y **eficacia** del tratamiento.

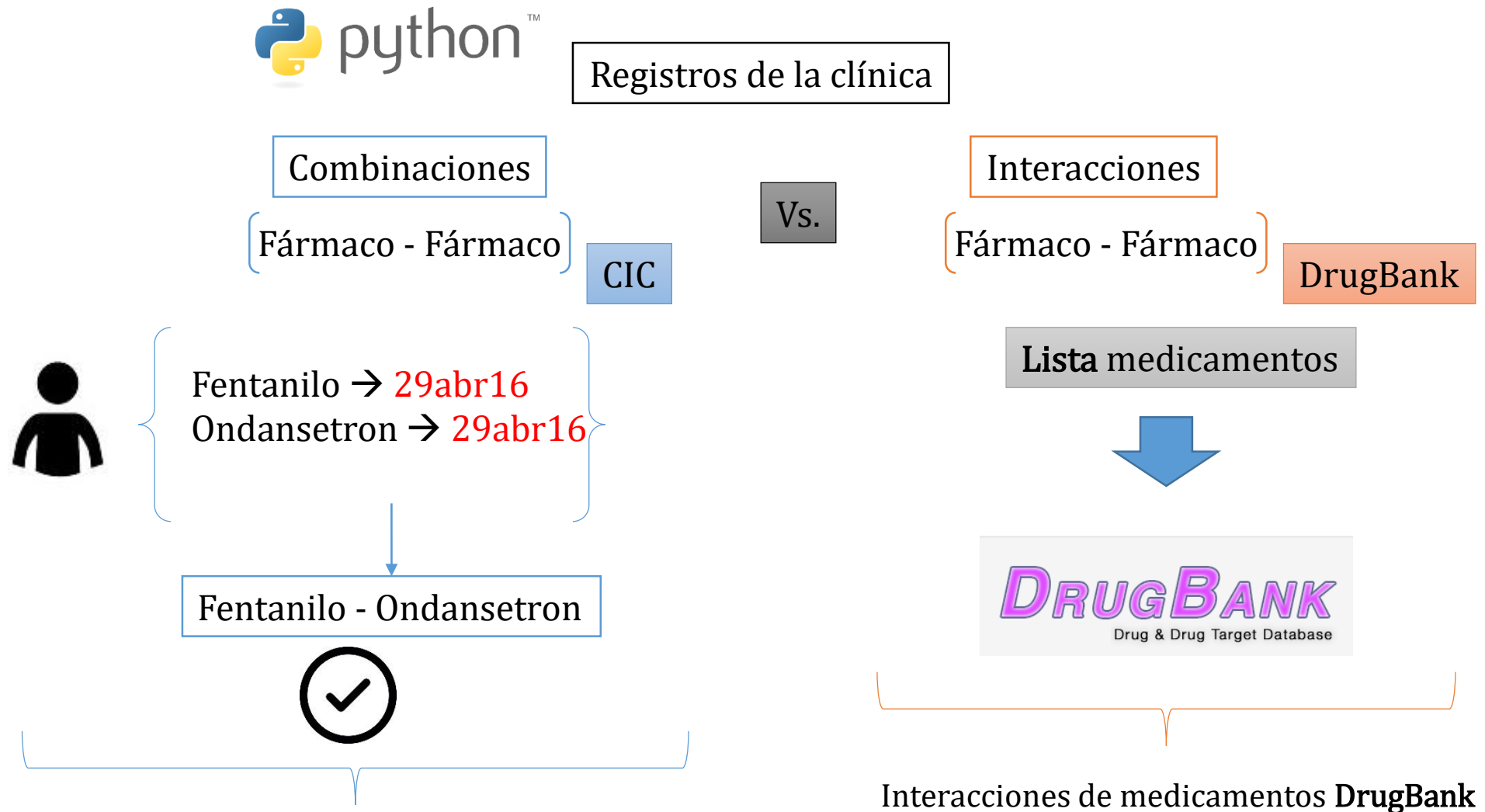
**DRUGBANK**  
Drug & Drug Target Database

Lexicomp®

De las combinaciones medicamentosas prescritas en seis meses, ¿Cuáles clasifican como **interacciones farmacológicas**?

¿Cómo detectar combinaciones  
y posibles interacciones?

# ¿Cómo detectar combinaciones y posibles interacciones?



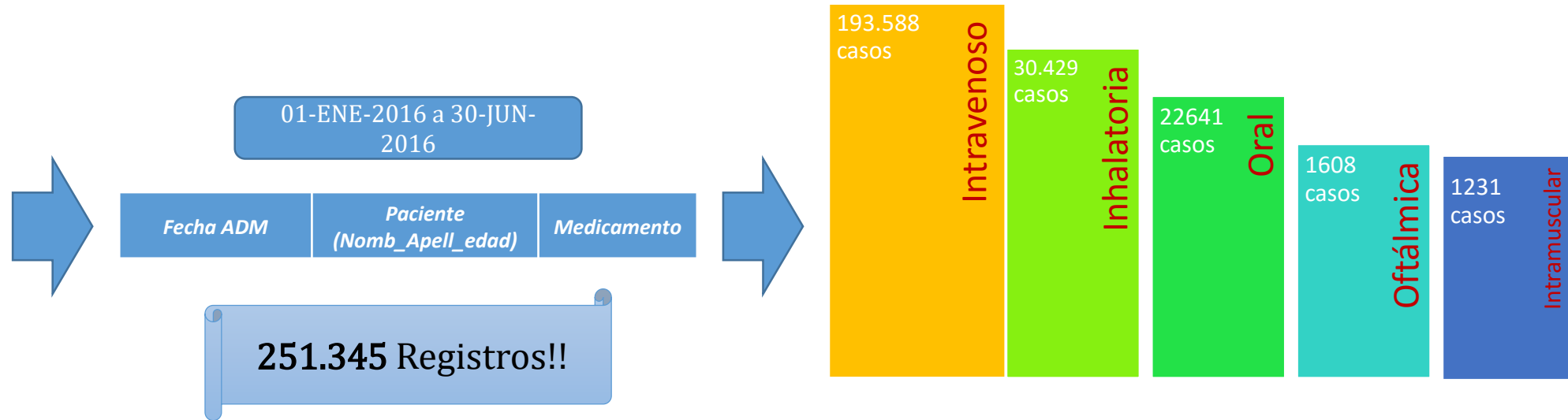
Combinaciones de medicamentos usados en **CIC** durante seis meses

Análisis exploratorio: ¿a que nos enfrentamos con los registros clínicos?

# Análisis exploratorio



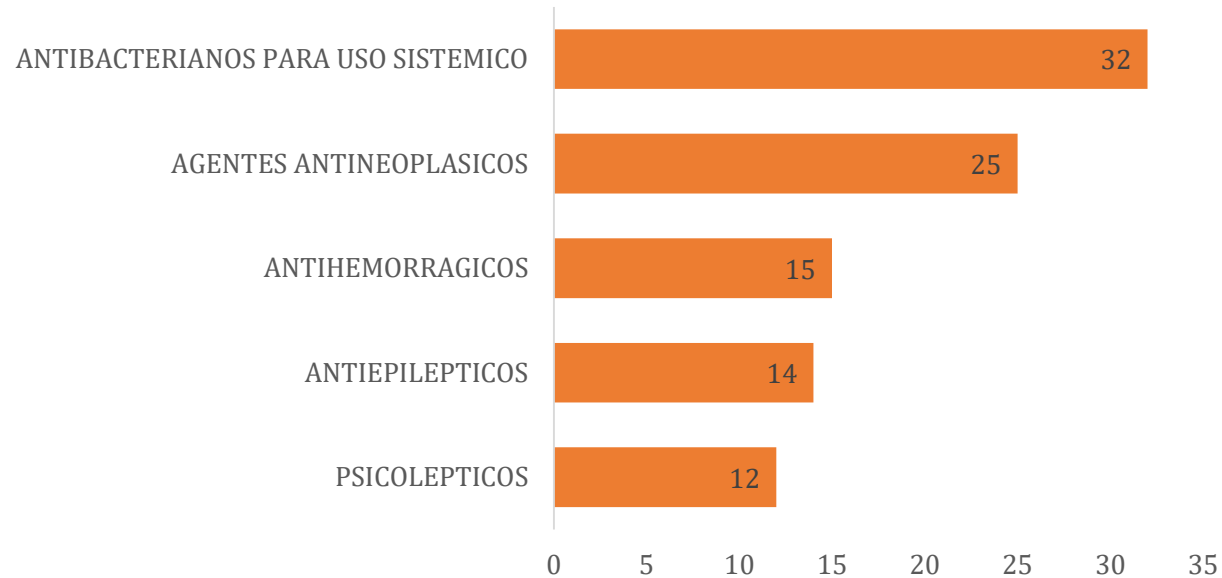
Tomaron los registros de medicamentos administrados (STATUS: ADM)



Las vías de administración mas empleadas son aquellas que alcanzan *torrente sanguineo* .

# 504 medicamentos

## Clasificación por grupo terapéutico (G.T.):

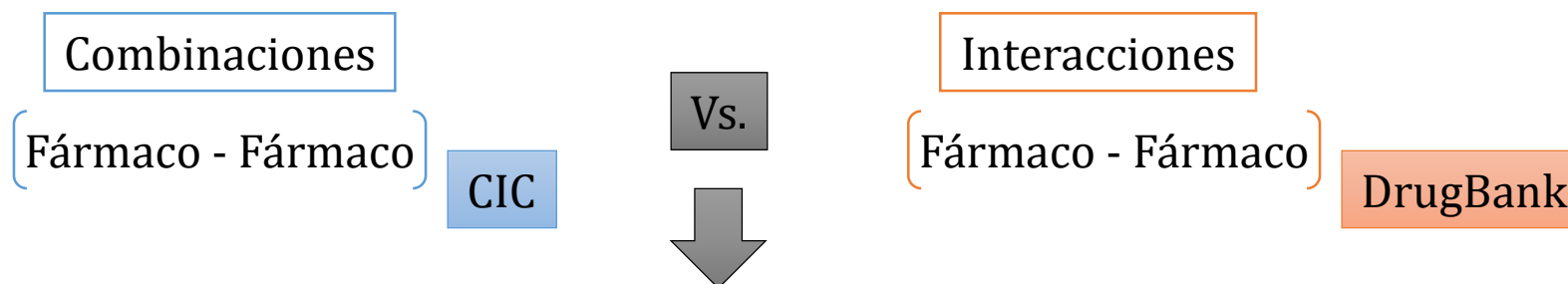


La agrupación por **G.T.** permitió observar que se cuentan con medicamentos de alta probabilidad de *interacción* .



# Análisis de resultados: Interacciones farmacológicas

# Detección de interacciones usando DrugBank



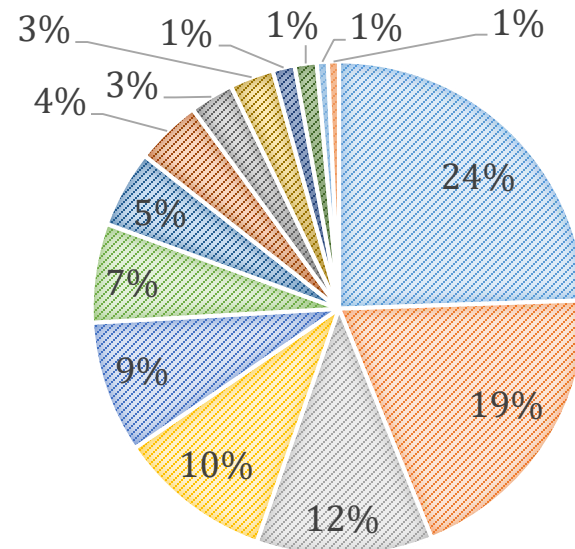
PHENYTOIN_CLONAZEPAM	the serum concentration of phenytoin can be increased when it is combined with clonazepam.
CLONAZEPAM_PHENYTOIN	the serum concentration of phenytoin can be increased when it is combined with clonazepam.
PHENYTOIN_AMLODIPINE	the serum concentration of phenytoin can be increased when it is combined with amlodipine.
AMLODIPINE_PHENYTOIN	the serum concentration of phenytoin can be increased when it is combined with amlodipine.
VALPROIC ACID_PHENYTOIN	the serum concentration of phenytoin can be decreased when it is combined with valproic acid.
PHENYTOIN_VALPROIC ACID	the serum concentration of phenytoin can be decreased when it is combined with valproic acid.
PHENYTOIN_CARBAHAZEPINE	the serum concentration of phenytoin can be decreased when it is combined with carbamazepine.
CARBAHAZEPINE_PHENYTOIN	the serum concentration of phenytoin can be decreased when it is combined with carbamazepine.
VALPROIC ACID_PHENOBARBITAL	the serum concentration of phenytoin can be decreased when it is combined with valproic acid.
PHENOBARBITAL_VALPROIC ACID	the serum concentration of phenytoin can be decreased when it is combined with valproic acid.
VALPROIC ACID_OXCARBAZEPINE	the serum concentration of oxcarbazepine can be decreased when it is combined with valproic acid.
OXCARBAZEPINE_VALPROIC ACID	the serum concentration of oxcarbazepine can be decreased when it is combined with valproic acid.
OMEPRAZOLE_FLUCONAZOLE	the serum concentration of omeprazole can be increased when it is combined with fluconazole.
FLUCONAZOLE_OMEPRAZOLE	the serum concentration of omeprazole can be increased when it is combined with fluconazole.
PHENYTOIN_OMEPRAZOLE	the serum concentration of omeprazole can be decreased when it is combined with phenytoin.
OMEPRAZOLE_PHENYTOIN	the serum concentration of omeprazole can be decreased when it is combined with phenytoin.

**335 interacciones únicas durante seis meses.**

# Análisis exploratorio de las interacciones farmacológicas.

# Clasificación por Grupo anatomico.

- |   |   |
|---|---|
| ■ N: Nervous system                             | ■ J: General antiinfectives for systemic use        |
| ■ A: Alimentary tract and metabolism            | ■ C: Cardiovascular system                          |
| ■ L: Antineoplastic and immunomodulating agents | ■ R: Respiratory system                             |
| ■ M: Musculo-skeletal system                    | ■ B: Blood and blood forming organs                 |
| ■ D: Dermatologicals                            | ■ H: Systemic hormonal prep, excluding sex hormones |
| ■ G: Genito urinary system and sex hormones     | ■ S: Sensory organs                                 |
| ■ P: Antiparasitic products                     | ■ V: Various  |



# ¿Quién interactúa con quien?

¿Qué mecanismos responden a las interacciones mas ocurrentes?

# Relación de interacción por grupos

