

# Oral vs IM Administration

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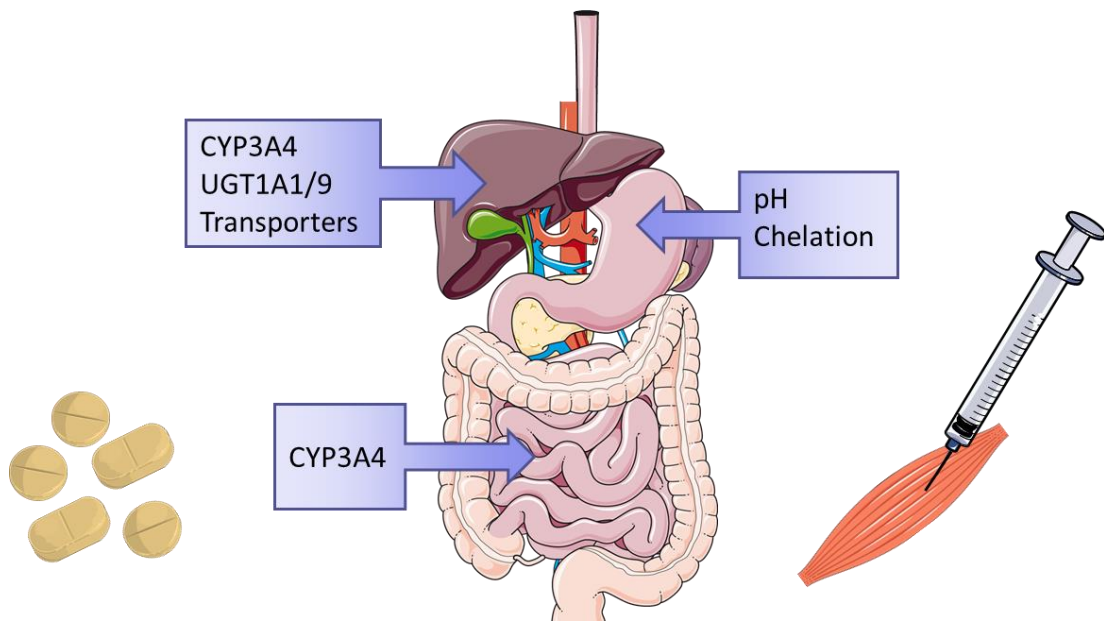
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## Drug-drug interactions after oral and intramuscular administration of cabotegravir and rilpivirine

- Intramuscular administration avoids drug-drug interactions at the gastrointestinal level.
- Drug-drug interactions can still occur with intramuscular administration.
- Intramuscular administration does not mitigate the magnitude of interactions with inducers.

### Mechanisms of drug-drug interactions with cabotegravir and rilpivirine



Adapted from: www.smart.servier.com

|                          | <i>Oral administration</i>   | <i>Intramuscular administration</i>  |
|--------------------------|--|--|
| <b>Stomach/intestine</b> | <ul style="list-style-type: none"> <li>• Change in gastric pH</li> <li>• Chelation with divalent cations</li> <li>• Inhibition/induction of CYP3A4 and transporters</li> </ul> | <ul style="list-style-type: none"> <li>• Bypassed</li> </ul>   |
| <b>Liver</b>             | <ul style="list-style-type: none"> <li>• Inhibition/induction of CYP3A4, UGT1A1/9, transporters</li> </ul>   | <ul style="list-style-type: none"> <li>• Inhibition/induction of CYP3A4, UGT1A1/9, transporters</li> </ul> |

### Examples of drugs interacting with oral, but not intramuscular, administration

|   |   |
|---|---|
| <p><b><i>Cabotegravir</i></b></p> <ul style="list-style-type: none"> <li>Antacids</li> <li>Calcium</li> <li>Iron</li> <li>Magnesium</li> <li>Multivitamins containing divalent cations</li> <li>Orlistat</li> <li>Strontium ranelate</li> </ul> | <p><b><i>Rilpivirine</i></b></p> <ul style="list-style-type: none"> <li>Antacids</li> <li>Famotidine</li> <li>Lansoprazole</li> <li>Liraglutide</li> <li>Omeprazole</li> <li>Orlistat</li> <li>Pantoprazole</li> <li>Rabeprazole</li> <li>Ranitidine</li> </ul> |
|---|---|

Adapted from: Hodge D et al, Clin Pharmacokinet, 2021.