Northwest Portland Area Indian Health Board
Indian Leadership for Indian Health

Common HCV DAA Drug Interactions

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Conflict of Interest Disclosure Statement

No relevant conflict of interest

1. Describe the interaction potential between DAA therapies and common medications
2. Recognize when DAA therapies and diabetic medications are most likely to result in hypoglycemia

Major Drug-Drug Interactions for all Direct Acting Antivirals

- **Carbamazepine**
- **Oxcarbazepine**
- **Phenytoin**
- **Phenobarbital**
- **Rifampin**
- Expected to ↓ concentrations

- DO NOT USE WITH ANY HCV THERAPY!

Managing Patients on Acid Suppressive Therapy and HCV Medications

- If on a PPI and sofosbuvir/velpatasvir or glecaprevir/pibrentasvir:
  - Discontinue use, if acid suppressive therapy needed, consider an H2 blocker.
  - If patients are using antacids (including calcium supplements or any kind of binder), these must be separated from HCV therapy by 3-4 hours
- **If a patient cannot stop PPI, use glecaprevir/pibrentasvir**

Statins and HCV Therapy

- Interactions vary by DAA and statin
- General guidance: Hold statin while on HCV therapy

HCV DAAs Drug Interactions with Lipid Lowering Agents

● Do Not Coadminister ■ Potential Interaction ▲ Potential Weak Interaction ◆ No Interaction Expected

Results Key

	G/P	SOF/VEL
Atorvastatin	●	■
Fenofibrate	◆	◆
Fish oils	◆	◆
Fluvastatin	■	■
Gemfibrozil	■	◆
Lovastatin	●	■
Pitavastatin	■	■
Pravastatin	■	◆
Rosuvastatin	■	■
Simvastatin	●	■

Other DDI Concerns

- Glecaprevir/pibrentasvir and ethinyl estradiol (hormone replacement or hormonal contraceptive)
  - ALT elevations observed
  - Contraindicated
- Avoid amiodarone
  - Amiodarone with sofosbuvir and other DAA: Serious symptomatic bradycardia
  - Avoid using amiodarone with any HCV therapy

HCV DAAs and Diabetic Medications

- FDA Adverse Event Reporting System (FAERS) October 1 2012-March 31, 2020
- Among patients with HCV and diabetes, cumulative frequency of hypoglycemic adverse drug events (ADRs):
  - With DAA therapy 21.85/1000
  - With other medications 13.50/1000

Zhou Y et al. Clin Endocrinol. 2022 May;96(5):690-697

Not All Diabetic Meds Pose Same Level of Risk

- Insulins and sulfonylureas associated with increased risk
  - Glyburide, glipizide, glimepiride, tolbutamide, tolazamide
- Not associated with increased risk:
  - Biguanides
    - Metformin
  - Dipeptidyl peptidase IV (DPP-4) inhibitors “gliptans”
    - Sitagliptan, saxagliptin, linagliptin, alogliptin
  - Glucagon-1 receptor agonists (GLP-1RAs)
    - Dulaglutide, liraglutide, exenatide, lixisenatide

Why Use Liverpool DDI Resource?
Case Example: HCV DAAs and Rifaximin

- Per Lexicomp:
  - Concomitant use of rifaximin with glecaprevir/pibrentasvir or velpatasvir (sofosbuvir/velpatasvir) may increase rifaximin levels
- Per Liverpool
  - Potential weak interaction:
    - Concomitant use of rifaximin with glecaprevir/pibrentasvir or sofosbuvir/velpatasvir may increase rifaximin levels
    - Concomitant use of rifaximin with velpatasvir “unlikely to be of clinical significance”

Key Points

- Avoid concomitant use of DAAs and phenytoin, phenobarbital, oxcarbazepine, carbamazepine or rifampin
- Avoid or minimize concomitant use of acid suppressive therapy with DAAs
- Hold statins during DAA therapy if possible
  - If needed, dose reduction of statin is option
- Diabetic medications associated with hypoglycemia as an adverse effect (insulin, sulfonylureas) are most likely to result in hypoglycemia when used in patients undergoing HCV treatment
  - Monitor blood glucose and adjust diabetic therapy as clinically indicated
  - Pre-emptive dose adjustments of diabetic medications not necessary

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End of Presentation

Questions?

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