NUCLEOSIDE/NUCLEOTIDE REVERSE TRANSCRIPTASE INHIBITORS (NRTIs)

Class adverse effects: Lactic acidosis with hyperlipidemia

Abacavir (Ziagen, ABC)  
Dosage form: Capsule, tablet, oral suspension (240 mL bottle)  
Neonates/Infants: Not approved in children < 3 yrs

Pediatric dose: 0 to 11 months (2.5 mg/kg/dose po bid max 150 mg bid)  
12 to 15 months (5 mg/kg/dose po bid max 150 mg bid)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Didanosine (Videx EC, ddi)  
Dosage form: Powder for swallowing or reconstitution for oral solution (10 mg/mL, 20 mg/mL, 50 mg/mL)  
Neonates/Infants: (Body Surface Area [BSA] = mm2/m2)  
Pediatric dose: 0 to 11 months (0.2 mg/kg/dose po daily, max 15 mg bid)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Emtricitabine (Emtrix, FTC)  
Dosage form: Capsule, tablet, oral solution (10 mL bottle, 250 mL bottle)  
Neonates/Infants: Not approved in children < 2 yrs

Pediatric dose: 2 to 23 months (0.9 mg/kg/dose po bid max 60 mg bid)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Lamivudine (Epivir, 3TC)  
Dosage form: Capsule, tablet, oral solution (10 mL bottle, 250 mL bottle)  
Pediatric dose: 2 to 11 years (3 mg/kg/dose po bid max 60 mg bid)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Stavudine (Zerit, d4T)  
Dosage form: Capsule, tablet, oral solution (200 mL bottle)  
Pediatric dose: 12 to 23 months (1.2 mg/kg/dose po bid max 60 mg bid)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Zidovudine (Retrovir, AZT, AZT)  
Dosage form: Tablets, capsules, oral solution (240 mL bottle)  
Pediatric dose: 2 to 11 years (2 to 3 g/m² po every 12 hrs)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

ARV Therapy in Pediatrics
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Warmline  
800-303-3413  
National Perinatal HIV Telephone Consultation Service  
Monday – Friday, 8 – 5 pm EST

Voicemail 24 hours a day, 7 days a week

Lactic acidosis risk factors: women, obesity, prolonged NRTI exposure

Clinical Consultation  
Visit www.FCAETC.org/Hotline for the most up-to-date version of this resource.

The information contained in this publication is intended for medical professionals.  
If a patient is in need of medical care, please call 911 or visit the nearest emergency department for immediate medical care.

Visit www.FCAETC.org/Hotline for the most up-to-date version of this resource.

Nucleoside/Nucleotide Reverse Transcriptase Inhibitors (NRTIs)

Class adverse effects: Lactic acidosis with hyperlipidemia

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Dosage form: Capsule, tablet, oral suspension (240 mL bottle)  
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12 to 15 months (5 mg/kg/dose po bid max 150 mg bid)

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Pediatric dose: 0 to 11 months (0.2 mg/kg/dose po daily, max 15 mg bid)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
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- Use caution if creatinine clearance is < 70 mL/min

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Dosage form: Capsule, tablet, oral solution (10 mL bottle, 250 mL bottle)  
Neonates/Infants: Not approved in children < 2 yrs

Pediatric dose: 2 to 23 months (0.9 mg/kg/dose po bid max 60 mg bid)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

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Dosage form: Capsule, tablet, oral solution (10 mL bottle, 250 mL bottle)  
Pediatric dose: 2 to 11 years (3 mg/kg/dose po bid max 60 mg bid)

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

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Dosage form: Tablets, capsules, oral solution (240 mL bottle)  
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- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

INTEGRASE INHIBITOR

Raltegravir (Isentress, RAL)  
Dosage form: capsules (50 mg, 100 mg, 150 mg, 300 mg)  
Pediatric dose: (≤ 2 yrs) 400 mg/kg cap or 240 mg (24 mL soln) po once daily  
(> 2 yrs) 2 mg/kg oral soln bid  
enalafenil for use to prevent transmission to children  < 12 yrs; Once daily dosing of LPV/r or boosted/unboosted FPV

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Elvitegravir (EVO)  
Dosage form: Tablet (60 mg po q24h)  
Pediatric dose: (≤ 18 yrs) 1 tablet on daily or twice daily in perinatal native adults

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Combination Products:  
Atripla®  
Dosage form: Tablet (FTC 200 mg + TDF 300 mg + Efavirenz 600 mg)  
Pediatric dose: (≤ 12 yrs) 1 tablet q24h  
(> 12 yrs) 1 tablet q24h

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Epzicom®  
Dosage form: Tablet (Zidovudine 300 mg + Stavudine 200 mg)  
Pediatric dose: (≤ 12 yrs) 1 tablet q24h  
(> 12 yrs) 1 tablet q24h

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Steldr®  
Dosage form: Tablet (300 mg po)  
Pediatric dose: (≤ 12 yrs) 1 tablet q24h  
(> 12 yrs) 1 tablet q24h

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
- Monitor estimated creatinine clearance, urine glucose and urine protein
- Use caution if creatinine clearance is < 70 mL/min

Trizivir®  
Dosage form: Tablet (300 mg + Stavudine 200 mg + Azidothymidine 300 mg)  
Pediatric dose: (≤ 12 yrs) 1 tablet q24h  
(> 12 yrs) 1 tablet q24h

Important Points:  
- Some experts recommend monitoring for proteinuria and glycosuria every 6 mos
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**PROTEASE INHIBITORS (Pis)**

Class adverse effects: Hepatotoxicity, hyperlipidemia (especially with non-nucleoside reverse transcriptase inhibitors [NNRTIs]), nausea, vomiting, diarrhea, abdominal pain, headache, and rash. 

**Fixed-dose combinations**:

- **Atazanavir/ritonavir (ATV/r)**: 300 mg/100 mg (ATV 300 mg + RTV 100 mg) PO once daily (bid) with food.
- **Lopinavir/ritonavir (LPV/r)**: 400 mg/100 mg (LPV 400 mg + RTV 100 mg) PO once daily (bid).
- **Tipranavir/ritonavir (TPV/r)**: 900 mg/100 mg (TPV 900 mg + RTV 100 mg) PO bid.

**Important Points**:

- Adverse effects: See individual drugs.
- Labs: LFTs, fasting glucose.
- Interactions: Many drug interactions!
- Use with caution in hepatic impairment.
- Avoid concomitant use with many other drugs.

**Adverse Events (AEs)**: 

- **Atazanavir**: Rash (common), fever, nausea, vomiting, diarrhea, abdominal pain.
- **Lopinavir**: Rash, nausea, vomiting, diarrhea, abdominal pain.
- **Tipranavir**: Rash, nausea, vomiting, diarrhea, abdominal pain.

**Important Points**:

- Use with caution in hepatic impairment.
- Avoid concomitant use with many other drugs.
- Monitor LFTs.

**Precautions**:

- Use with caution in hepatic impairment.
- Avoid concomitant use with many other drugs.
- Monitor LFTs.

**Adverse Events (AEs)**: 

- **Atazanavir**: Rash (common), fever, nausea, vomiting, diarrhea, abdominal pain.
- **Lopinavir**: Rash, nausea, vomiting, diarrhea, abdominal pain.
- **Tipranavir**: Rash, nausea, vomiting, diarrhea, abdominal pain.

**Important Points**:

- Use with caution in hepatic impairment.
- Avoid concomitant use with many other drugs.
- Monitor LFTs.

**Precautions**:

- Use with caution in hepatic impairment.
- Avoid concomitant use with many other drugs.
- Monitor LFTs.

**Adverse Events (AEs)**: 

- **Atazanavir**: Rash (common), fever, nausea, vomiting, diarrhea, abdominal pain.
- **Lopinavir**: Rash, nausea, vomiting, diarrhea, abdominal pain.
- **Tipranavir**: Rash, nausea, vomiting, diarrhea, abdominal pain.

**Important Points**:

- Use with caution in hepatic impairment.
- Avoid concomitant use with many other drugs.
- Monitor LFTs.

**Precautions**:

- Use with caution in hepatic impairment.
- Avoid concomitant use with many other drugs.
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- **Atazanavir**: Rash (common), fever, nausea, vomiting, diarrhea, abdominal pain.
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- **Tipranavir**: Rash, nausea, vomiting, diarrhea, abdominal pain.

**Important Points**:

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- Avoid concomitant use with many other drugs.
- Monitor LFTs.

**Precautions**:

- Use with caution in hepatic impairment.
- Avoid concomitant use with many other drugs.
- Monitor LFTs.