



# HELPING PATIENTS MANAGE THEIR ARV SIDE EFFECTS



# Objectives



1. Increase side effect awareness
2. List the common side effects of the major ARVs
3. Provide advice for patients on how to manage some of these major side effects

*Geared for 1st Line ARV Therapy Patients*



# Side Effect Awareness



- Some people take ARVs and don't have any side effects
- Some people take ARVs and have side effects
- Patients who have side effects are **not** alone
- Side effects are **different** from person to person
- Patients should take their ARVs as their doctor says



# Side Effect Awareness



- Side effects often occur at drug initiation.
- They may decrease or disappear entirely after several weeks; some may persist throughout the entire time a person is on therapy
- If the patient has any side effects, they must keep taking their ARVs and *immediately* tell their doctor or nurse



# Some **Major** Side Effects



- Nausea, vomiting
- Fever
- Yellow eyes
- Rash, itching or peeling of skin
- Passing scanty or little urine
- Stomach pain

If the patient has any of these side effects,  
**THEY MUST SEE THEIR DOCTOR  
IMMEDIATELY. DO NOT WAIT.**



# SOME COMMON MINOR SIDE EFFECTS



- Pain or tingling in hands, feet
- Feeling tired, low energy
- Diarrhea
- Headaches
- Trouble remembering
- Feeling dizzy or lightheaded
- Feeling sad or depressed
- Muscle or joint pain

**Patient should tell the doctor if these side effects last more than a few days.**



# QUESTIONS FROM THE PATIENT



Question:

I am having side effects and think one of my ARVs is making me sick. Can I stop taking it?

Answer: NO!

- Do not stop taking part of your ARVs
  - Resistance may occur
- All ARVs must be taken together
- If you have any side effects, keep taking your ARVs and go to your doctor



# QUESTIONS FROM THE PATIENT



Question: I am feeling sick, can I take traditional medicines?

Answer: No!

- Do not take traditional medicines with your ARVs
- Traditional medicines can interfere with the ARVs and stop them from working



# QUESTIONS FROM THE PATIENT



Question: What can I do to feel better?

Answer:

- Get enough rest
- Drink lots of potable water, juices, and use ORT for diarrhea and vomiting
- Eat a balanced diet with foods such as bananas, beans, plantain, leafy green vegetables



# HIV HAS SYMPTOMS AND MEDICATIONS HAVE SIDE EFFECTS



All medications have side effects.

Its critical to inform your patient about possible side effects from their ARVs medications.

- Most side effects can be managed without changing therapy
- Very rarely, side effects can be life threatening and patients must be counseled about seeking medical attention



# STRATEGY TO MANAGE ARV SIDE EFFECTS



- Encourage patients to tell you about their side effects
  - Monitoring of side effects includes obtaining blood tests
- Keeping regular clinic appointments is vital to be able to detect and manage ARV side effects before they become severe

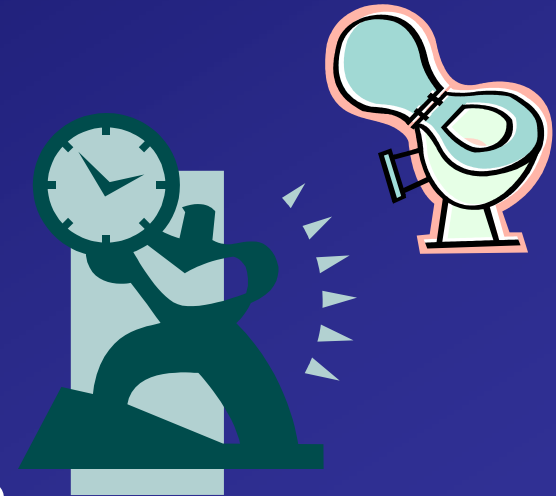




# COMMON ARV SIDE EFFECTS



- Most ARVs can cause some nausea.
- Many ARVs can cause rash or diarrhea.
- Some side effects of ARV will disappear with time as the body adjusts, but other side effects may remain.
- Some side effects of ARV are similar to symptoms caused by HIV (e.g., diarrhea).
- It is important to be sure the problem is from the medicine and not from the disease.





# ZIDOVUDINE / RETROVIR (AZT, ZDV)



- Can cause some stomach upset or anemia
- Can cause headache or trouble falling asleep
- Can cause some changes in finger nails, skin coloration and hair
- Can be taken with or without food

Management for **nausea**:  
take medication with  
food



Management for  
**headache**: pain  
medication



Headache or trouble  
falling asleep usually  
**resolves within 2-4 weeks**





# LAMIVUDINE / EPIVIR (3TC)



- Relatively safe with few side effects (headache, dry mouth)
- Generally well-tolerated
- Rarely causes pancreatitis, which shows up as severe abdominal pain
- Can be taken with or without food





# TENOFOVIR / VIREAD (TDF)



- Not used in children or pregnant women
- Fairly well-tolerated
- May cause nausea, vomiting, or loss of appetite
- May cause loss of bone density

Management for **nausea**:  
take medication with  
food



Management for **loss of  
bone density**: calcium or  
vitamin D supplements  
may be helpful

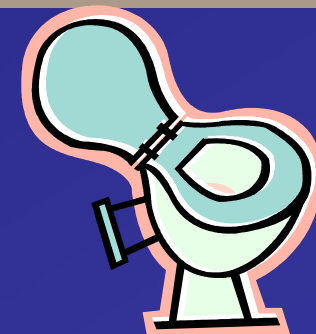
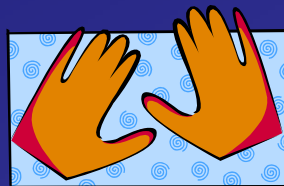
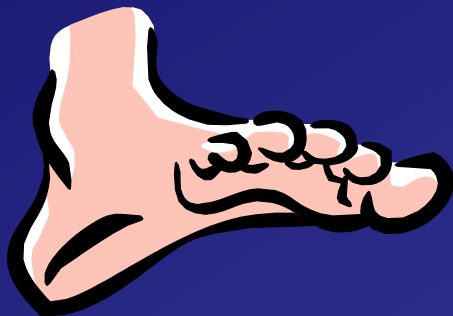




# STAVUDINE / ZERIT (D4T)



- **D4T** can cause numbness and tingling in the toes (“neuropathy”).
- **D4T** may cause nausea, vomiting, diarrhea, abdominal pain, and loss of body fat (usually over time).

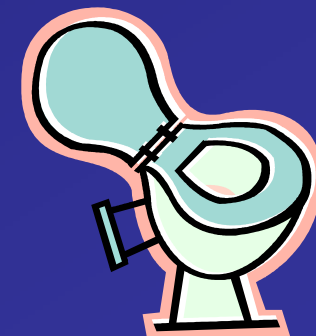
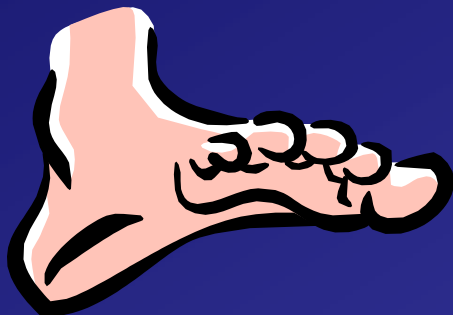




# DIDANOSINE/VIDEX (DDI)



- **DDI** can cause numbness and tingling in the toes (“neuropathy”).
- **DDI** may cause stomach upset—nausea, vomiting, diarrhea, abdominal pain and body shape changes (usually over time)
- **DDI** can cause pancreatitis, which shows up as severe abdominal pain
- Needs to be taken on an empty stomach—1 hour before food or 2 hours after





# NEVIRAPINE / VIRAMUNE (NVP)



- May cause rash in the first 2 weeks
- To decrease the chance of a rash, start at one pill once a day for the first 2 weeks, then increase to one pill twice a day
- May cause hepatitis
  - look for signs of hepatitis like swollen legs, yellow eyes or pain in the abdomen

- If a rash develops, doctor can prescribe medication for mild rash
- If signs of hepatitis occur, encourage patient to see the doctor right away



Credit: NIH

Nevirapine (Viramune)



# EFAVIRENZ / STOCRIN (EFV)



- Not used in children under 3 years old or women of childbearing potential
  - May cause vivid dreams or mental disturbances, especially in the first 2-4 weeks
  - May cause a rash
  - Can cause drowsiness
- To decrease **drowsiness**:  
take at bedtime
- Can be taken with or without food BUT avoid taking after a high fat meal

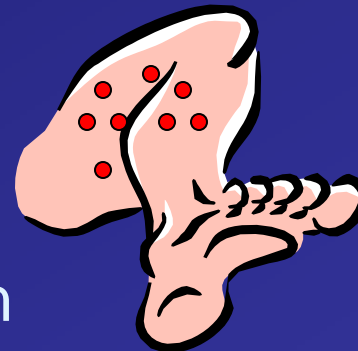




# LOPINAVIR-RITONAVIR / KALETRA (LPV/r)



- Not used in children under 6 months
- Taken with food is better tolerated
- May cause nausea/vomiting
- May cause diarrhea
- May alter taste senses
- Can cause body shape changes (over time)
- May cause rash in children
- Oral liquid may taste bitter and have burning sensation to lips





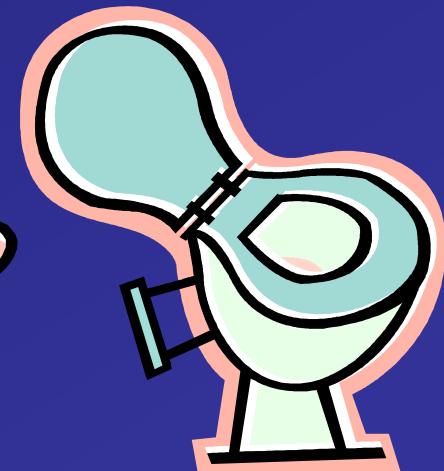
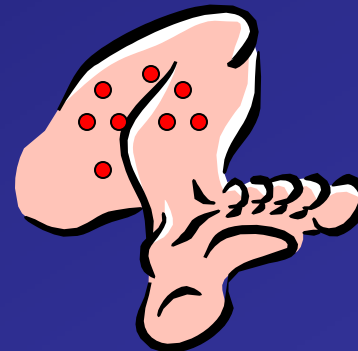
# NELFINAVIR / VIRACEPT (NFV)



- Taken with food
- Generally well-tolerated
- May cause diarrhea
- May cause nausea or rash
- May cause increased cholesterol levels



Management for **diarrhea**:  
eat fiber and bland foods  
(plantain, toast, etc)

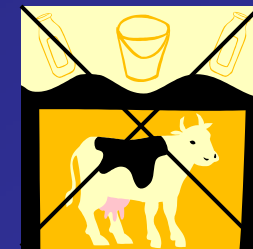
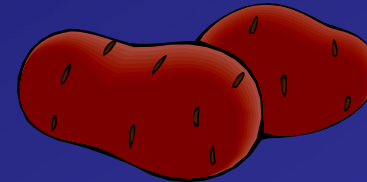




# MANAGEMENT OF NAUSEA AND VOMITING

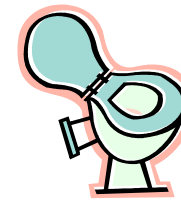


- Eat small meals frequently instead of 2-3 large meals
- Take small amounts (sips) of liquids (ORS, water, electrolyte-replacement drinks). Increase as tolerated.
- Eat bland, odorless foods (breads, crackers, pounded yam, porridge, potatoes, rice) in small amounts. Increase as tolerated.
- Use anti-nausea medications
- Avoid hot, spicy, fatty or greasy foods
- Avoid dairy items
- Use local remedies - ginger, herbal teas



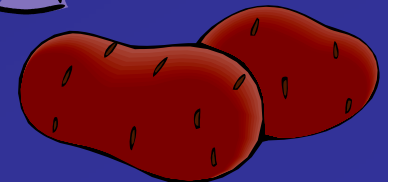


# MANAGEMENT OF DIARRRHEA



- Drink lots of fluids, juices, ORS can be used after every loose motion
- Monitor children closely for signs of dehydration
- Take anti-diarrheal medications as prescribed by the doctor
- Avoid caffeinated beverages
- Avoid fried, spicy, fatty foods
- Adjust diet:
  - Eat rice
  - Eat high fiber foods (ie, bananas)
  - Consume low fat/dairy products
  - Eat bland foods: pounded yam, porridge, breads, toast

**See your doctor if diarrhea persists more than 2-3 days or if unable to maintain oral hydration**





# Headache - management



- Treat cause, if known
- Review medication profile
- Headaches can generally be treated with non-prescription drugs and stress reduction
- Avoid or limit foods or situations known to trigger headaches
- Keep headache diary
- **See a doctor if the following are present: visual changes, neurologic changes, headaches upon wakening, sudden onset, headaches that last more than 1-2 days**





# Rash - management



- Many rashes will respond to antihistamines, moisturizers, topical corticosteroids (except in fungal rashes)
- Avoid hot water, scented soaps and moisturizers, excessive sun exposure
- Discontinue any medications or other exposures that could be the cause

See the doctor immediately if there any of these symptoms develop:

- Blisters around the mouth, eye and genitals
- Fever
- Extreme tiredness and body aches
- Swelling of lips/face or body





# MANAGEMENT OF NEUROPATHY



- Stop or decrease offending medication
- Multivitamin supplements
- Wear loose fitting shoes, slippers
- Massage feet, soak in warm water may help with symptoms
- Mild to moderate amount of walking may increase blood circulation
- Pain relief medications





# Things to Remember About Side Effects



- Not everyone will have side effects.
- It's good to counsel the patient about common side effects before ARV is started and monitor his or her side effects regularly.
- Most side effects can be managed if detected early.
- Encourage patient to consult with the doctor, nurse or other health care team member if s/he thinks s/he has a possible side effect.
- Patient should not stop or change his/her medication without first consulting with his/her doctor!

