



ARV Basics



OBJECTIVES



1. What are ARVs?
2. What are principles of ARV treatment?
3. What is resistance?
4. What are the goals of ARV treatment?



IS THERE A CURE FOR HIV?



NO!

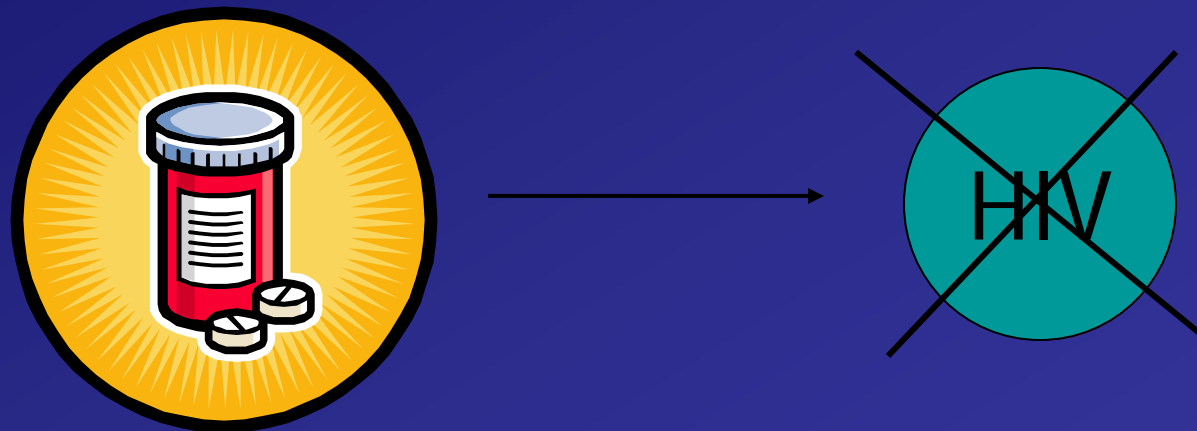
- This includes faith-healing and being “prayed for.” Faith is very important for daily life, but it does not cure HIV.
- Herbal remedies cannot cure HIV, no matter how expensive.
- Getting a blood transfusion abroad will not cure HIV.



1. WHAT ARE ARVs?

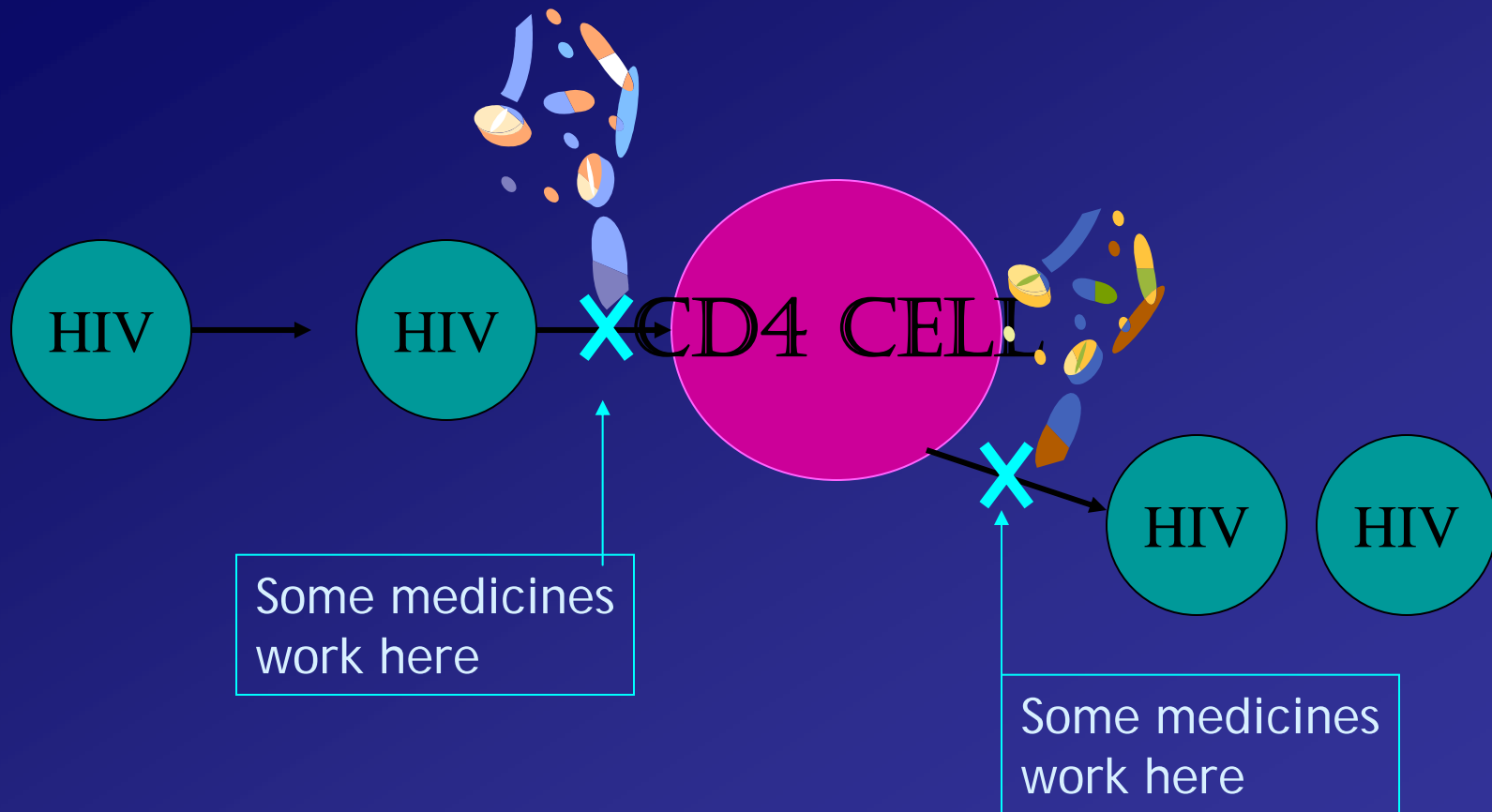


- ARVs are the drugs that fight HIV, the virus that causes AIDS.
- ARVs attack the virus so that the immune system can recover.
- ARVs do not cure HIV





HOW ARV MEDICATION WORKS



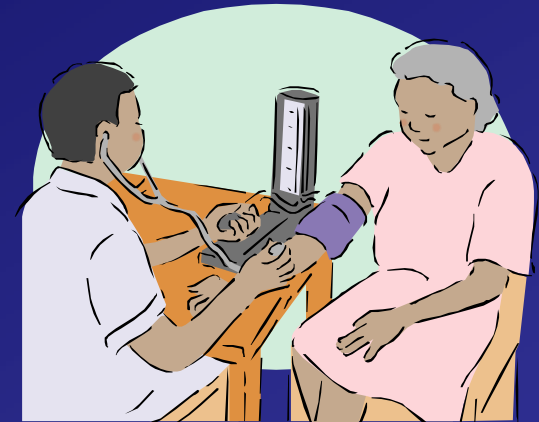


2. WHEN DO I START TAKING ARVs?



An ACTION doctor will take blood tests and perform a physical examination to determine whether a patient qualifies to go on ARVs.

If he or she qualifies for treatment, s/he will then meet with the counselor for treatment preparation and to create a treatment plan.





2. WHAT ARE PRINCIPLES OF ARV TREATMENT?



A patient qualifies for ARV treatment if

- His or her CD4 cell count is <250
- He or she has or has had an AIDS-defining illness,
 - TB
 - Kaposi's Sarcoma
 - PCP pneumonia
- He or she is on the FGN treatment program



BENEFITS OF ARV MEDICATIONS



- Increases uptake of voluntary testing/ counseling
- Increases awareness of HIV
- Increases motivation of health care workers
- Reduces expenses for palliative and OI care
- Reduces number of orphans
- Keeps households and businesses intact
- Has potential to enhance prevention
 - a. Behavioral: access to prevention education during health care encounters
 - b. Biological: decreased transmission due to lowered viral load



RISKS FOR ARV MEDICATIONS



- Risk: If the virus is not suppressed fully, drug resistance can develop
 - Makes current ARV regimen less effective
 - Limits future ARV treatment options
- Risk: Possible short and long term side effects for patients
- Risk: Possible interactions with other medications or natural remedies



STRATEGIES TO REDUCE THE RISKS



- A comprehensive ARV program
- Excellent patient education and preparation before starting ARVs
- Perfect patient adherence to ARVs
- Provider knowledge of ARVs and proper use
- Excellent patient follow-up and monitoring



TREATMENT READINESS



- *Adherence Readiness*: BEFORE starting ARVs
- Starting ART is rarely an emergency.
- Adherence counseling and patient education is necessary to maximize adherence.
- ART should **not** be started on the FIRST clinic visit.
- Several visits may be required before the patient is ready to start ARVs.



HOW DO I TAKE ARVs?



HIV medicine must be taken every single day,
just as the directions say

Monday



Tuesday



Wednesday



Thursday



Friday



Saturday



Sunday



Once you start HIV medicines, you should not stop
taking them unless your doctor advises you to.



WHAT ARE PRINCIPLES OF ARV TREATMENT?



- A patient must come to all of his/her clinic appointments to ensure that the medicines are working.
- A patient that is not adherent to his or her clinic appointments will probably not adhere to medications.





GOALS OF ANTIRETROVIRAL THERAPY (ART)



- Reduce HIV-related morbidity and mortality
- Reduce viral load (to undetectable levels, i.e. ≤ 400 c/ml) for as long as possible
 - halts disease progression
 - prevents/reduces resistant viruses
- Provide an antiretroviral regimen which
 - has a high likelihood of success
 - preserves future therapeutic options
 - has relatively few side effects
 - is tailored to individual needs for adherence



HAART: WHAT IS IT?



- Patients need to take at least 3 different ARV medicines AT THE SAME TIME to maximally suppress virus
- This is sometimes called HAART = Highly Active Antiretroviral Therapy



DRUGS AVAILABLE IN NIGERIA



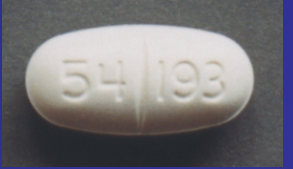
NRTIs	NtRTI	NNRTIs	Fusion Inhibitors	PIs
Zidovudine (ZDV)	Tenofovir (TDF)	Nevirapine (NVP)	Enfuvirtide (T-20)	Saquinavir (SQV)
Didanosine (ddI)		Efavirenz (EFV)		Ritonavir (RTV)
Zalcitabine (ddC)		Delavirdine (DLV)		Indinavir (IDV)
Stavudine (d4T)				Nelfinavir (NFV)
Lamivudine (3TC)				Amprenavir (APV)
Abacavir (ABC)				Lopinavir-ritonavir (LPV/r)
Emtricitabine (FTC)				Atazanavir (AZV)
				Tipranavir



TYPICAL NIGERIAN HIV TREATMENT REGIMEN

ACTION
AIDS Care and Treatment in Nigeria

For more than 60 kg patient (d4T) and after first 14 days of therapy (NVP)

Medicine	AM	PM
d4T		
3TC		
NVP		

TOTAL

3

+

3

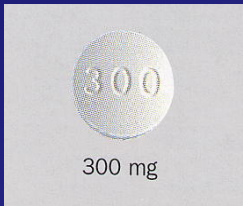
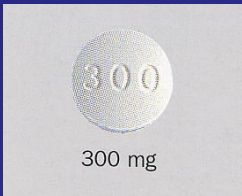


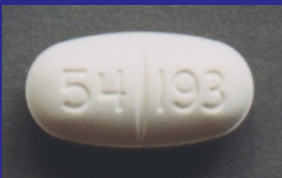
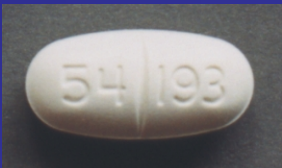
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TYPICAL NIGERIAN HIV TREATMENT REGIMEN



After first 14 days of therapy (NVP)



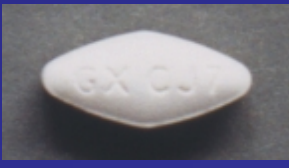
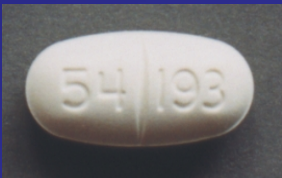
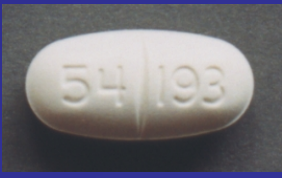
Medicine	AM	PM
AZT	 300 mg	 300 mg
3TC		
NVP		
TOTAL	3	3 = 6



TYPICAL NIGERIAN HIV TREATMENT REGIMEN



After first 14 days of therapy (NVP)

Medicine	AM	PM
TDF		
3TC		
NVP		

TOTAL

3

+

2

= 5



RESISTANCE



- The most common cause of resistance developing is having a small amount of medicine in your blood stream which will not prevent the virus from replicating.
- The most common cause of this happening is missing doses occasionally.



- Patients who fail the “first line regimen” (based on blood tests or getting sicker) are usually started on a “second line regimen”.
- Usually, the medicines in the “second line regimen” are harder to take and may cause more side effects. They also may not necessarily work.



ACTION-ARV Treatment Regimens

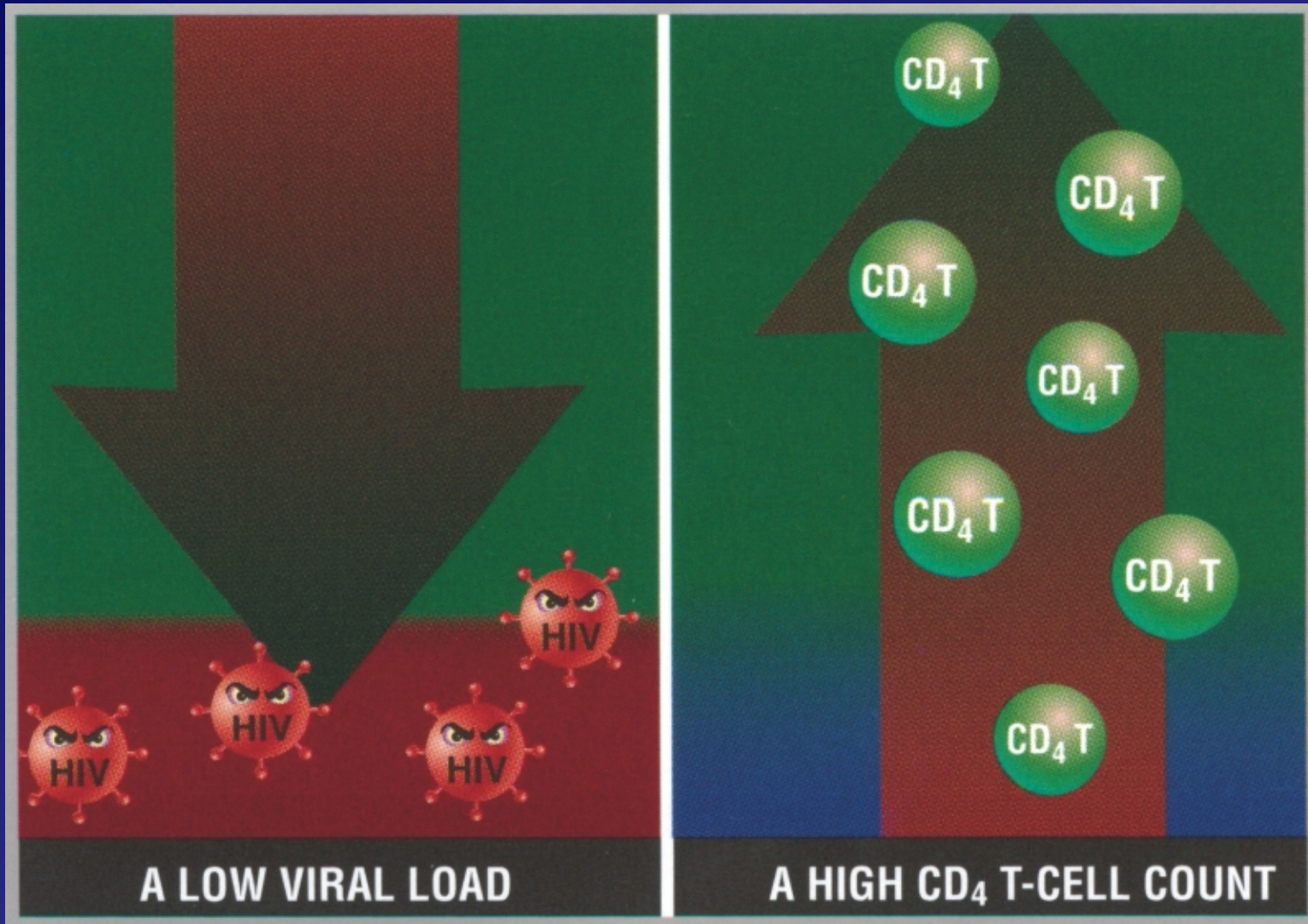
April 2005- March 2006



Adult First Line	2NRTI plus NNRTI
Adult Salvage	2NRTI plus PI
Pediatric	2NRTI plus NNRTI or PI
PMTCT Plus	2NRTI plus NNRTI plus NVP/AZT for infant with breast milk substitute
PMTCT	AZT plus NVP for mother and NVP and AZT for infant with breast milk substitute



ARV TREATMENT GOALS

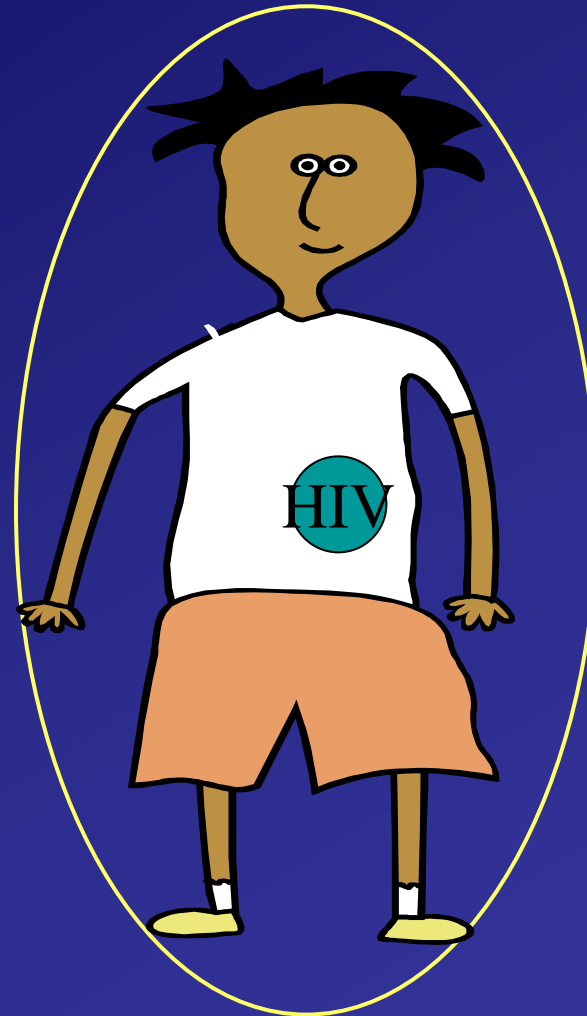
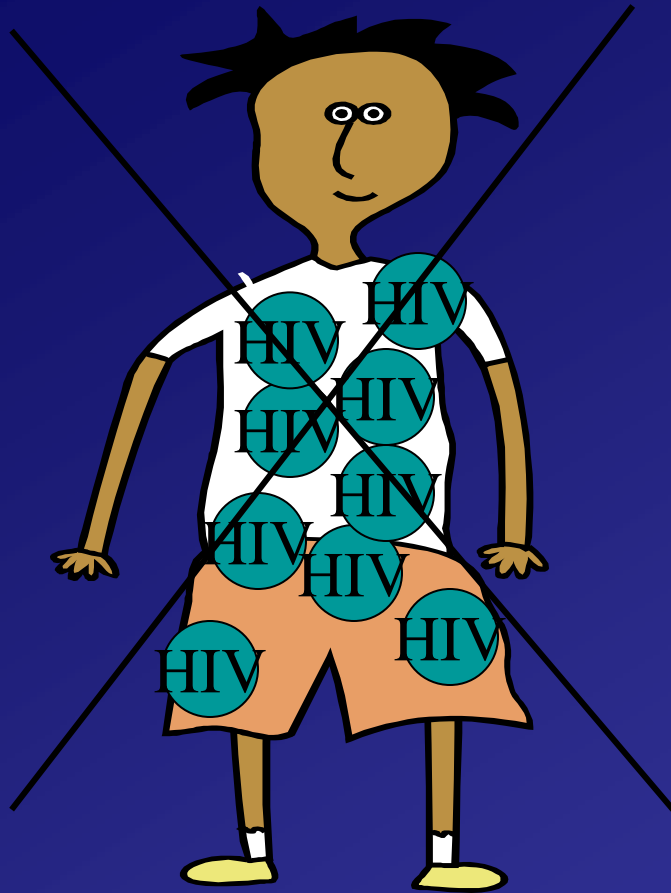




WHAT ARE THE GOALS OF TREATMENT?



We want the **viral load** to be **low** !

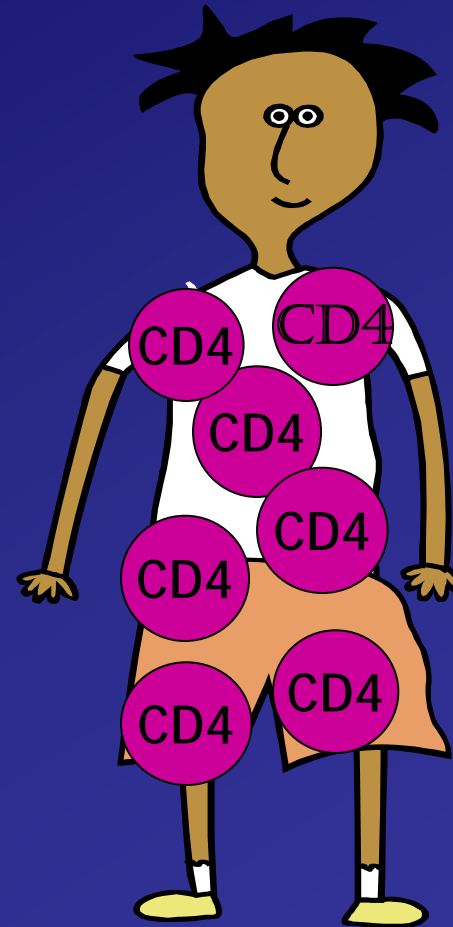




WHAT ARE THE GOALS OF TREATMENT?



Doctors can also check to see how many **CD4 cells (or T-cells)** a patient has in his/her body. We want this number to be **HIGH!**

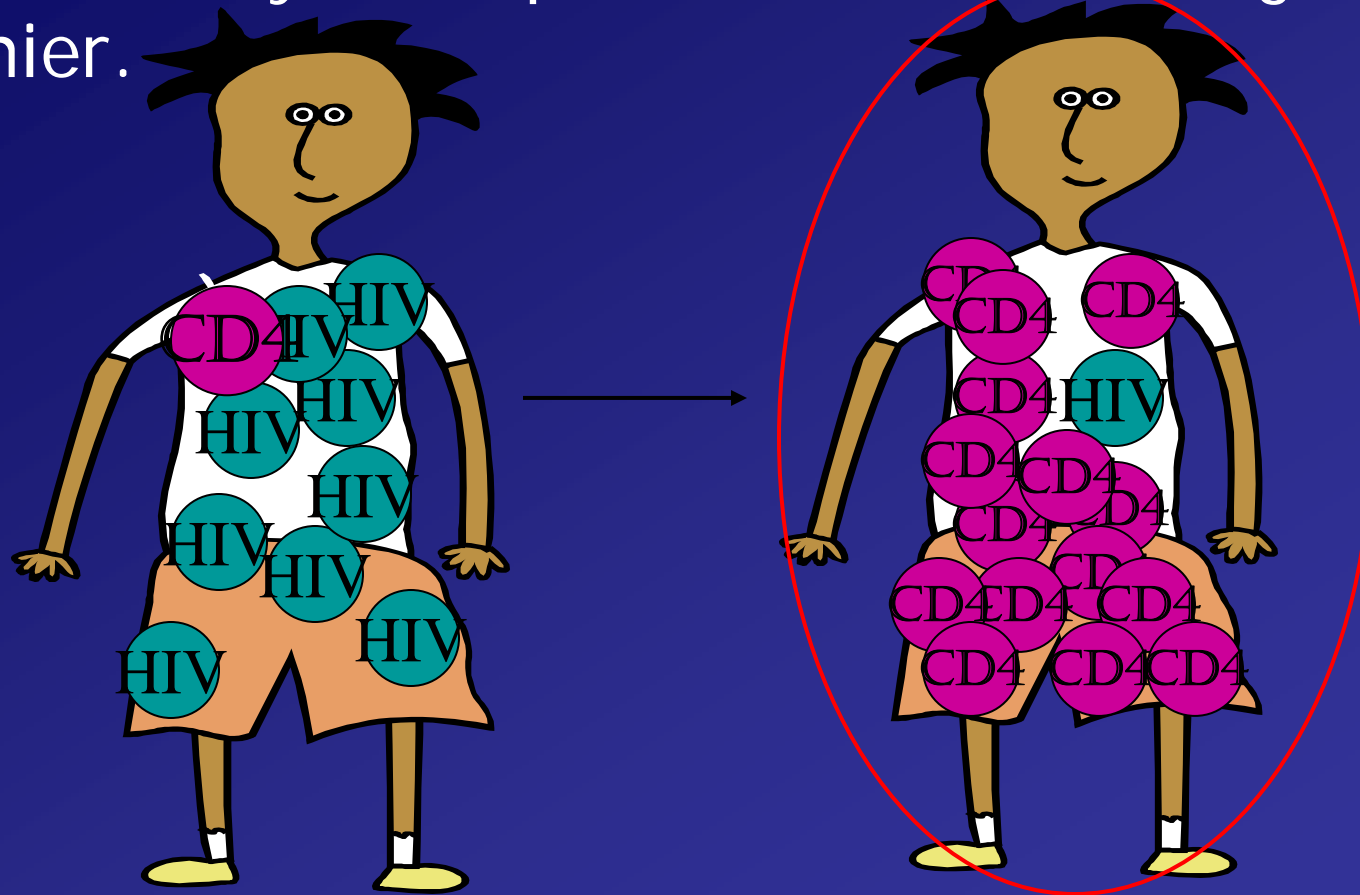




WHAT ARE GOALS OF ARV TREATMENT?



When the medicines are working, the patient's CD4 count will be high and there will be very little virus in his or her body. The patient will feel stronger and healthier.

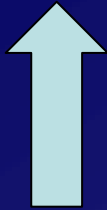




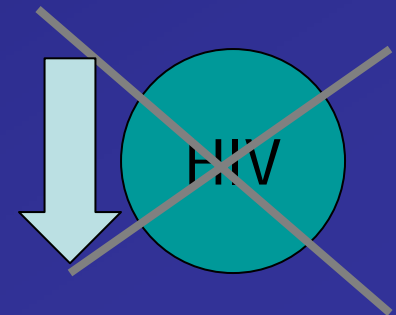
WHAT ARE THE GOALS OF TREATMENT?



CD4



If the patient's **CD4 cells** are **high** and **viral load** is **low**, s/he can be productive and healthy for a very long time





QUESTIONS?



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