

Advanced HIV in primary care



A common problem currently across the world

- AHD receiving increased attention
- Associated high mortality
- Needs correct approach
- A few simple tests

This session in two parts:

1. AHD overview

2. AHD patients in primary care

Patient story again

- A 26 year old patient comes to your clinic. She started ART 2 years ago, but about 4 months later returned to her village and was unable to continue treatment. She returned to your area a year ago, but was too scared to come to clinic because she thought the staff would be angry because she had stopped her treatment.
- She is complaining of a cough for 3 weeks, and feels she sometimes has a fever. On examination she is a bit thin and has some oral candida, but not much else to find.

We have decided that this patient probably has AHD.

QUESTIONS:

- **What conditions do you need to consider in this consultation before you send her home?**
- **Write down your ideas**

Learning Outcomes

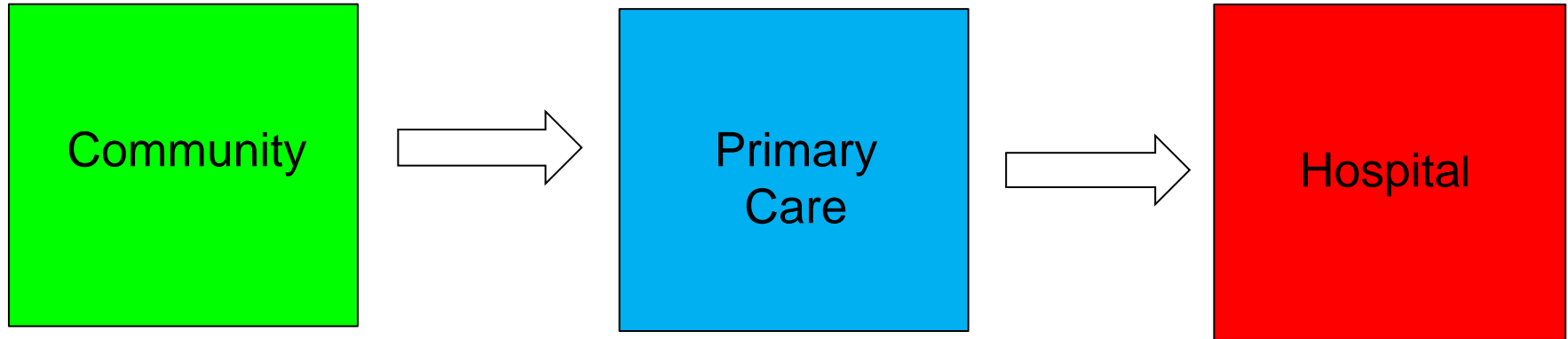
On successful completion of this session you will be able to:

- Describe the key steps in a safe approach to patients with advanced HIV who present to a primary care clinic
- Describe a few programmatic principles for managing these patients in a busy clinic

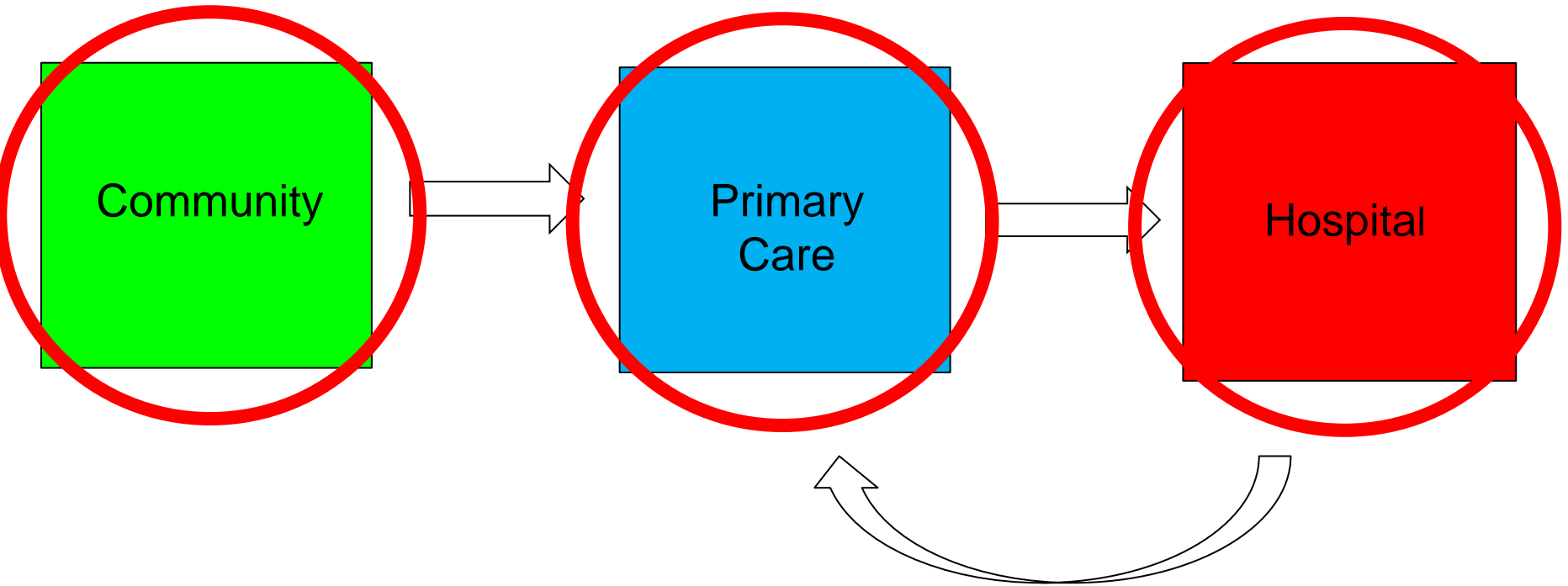
**A brief reminder of what we
have just discussed**

Where are patients with
advanced HIV?

Where are patients with advanced HIV?



All three levels of care are important



After hospitalization, patients
need higher level of care after
discharge

What are the risks for this type of patient presenting with AHD?

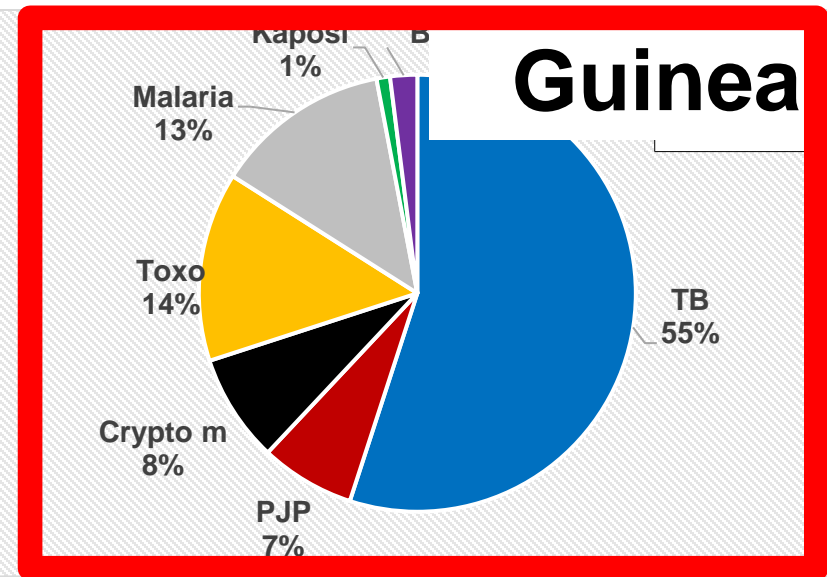
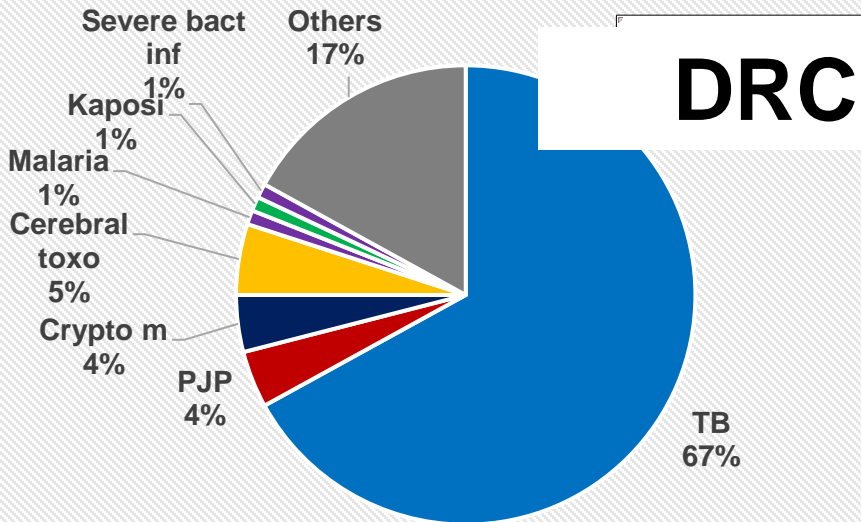
SUMMARY OF LAST SESSION: Data from studies

- In-patient mortality 17 - 37%
- Mortality rate in the first 48 hours can be up to 31%
- The lower the CD4, the higher the mortality:
eg CD4 < 25, mortality of 52%
- After discharge from hospital: in one study, the mortality rate within nine months was 30%

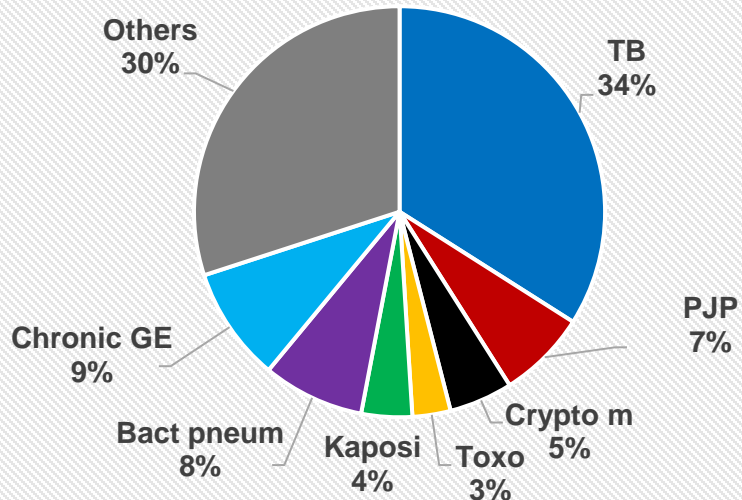
Causes of mortality

Remember the pie charts we looked at. TB is by far the commonest along with a collection of other common causes of mortality

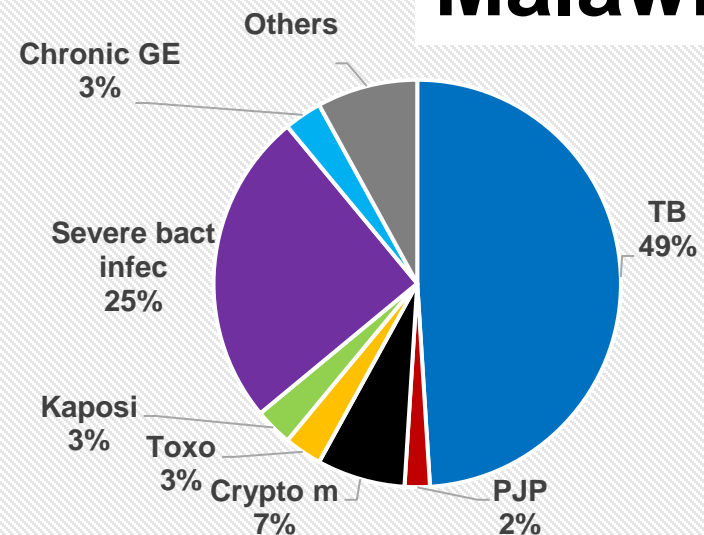
FOUR DIFFERENT SITES AS EXAMPLES



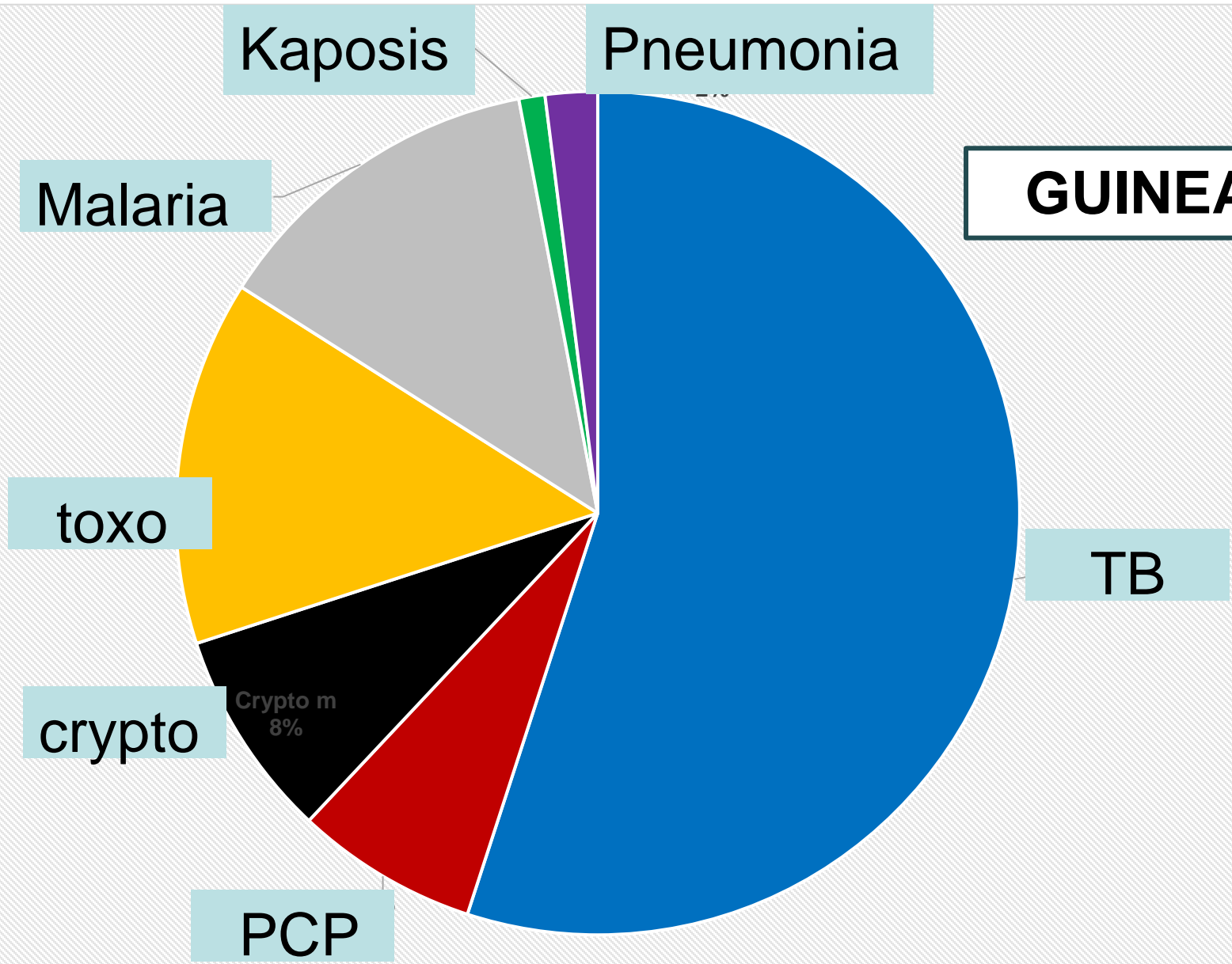
Mozambique



Malawi

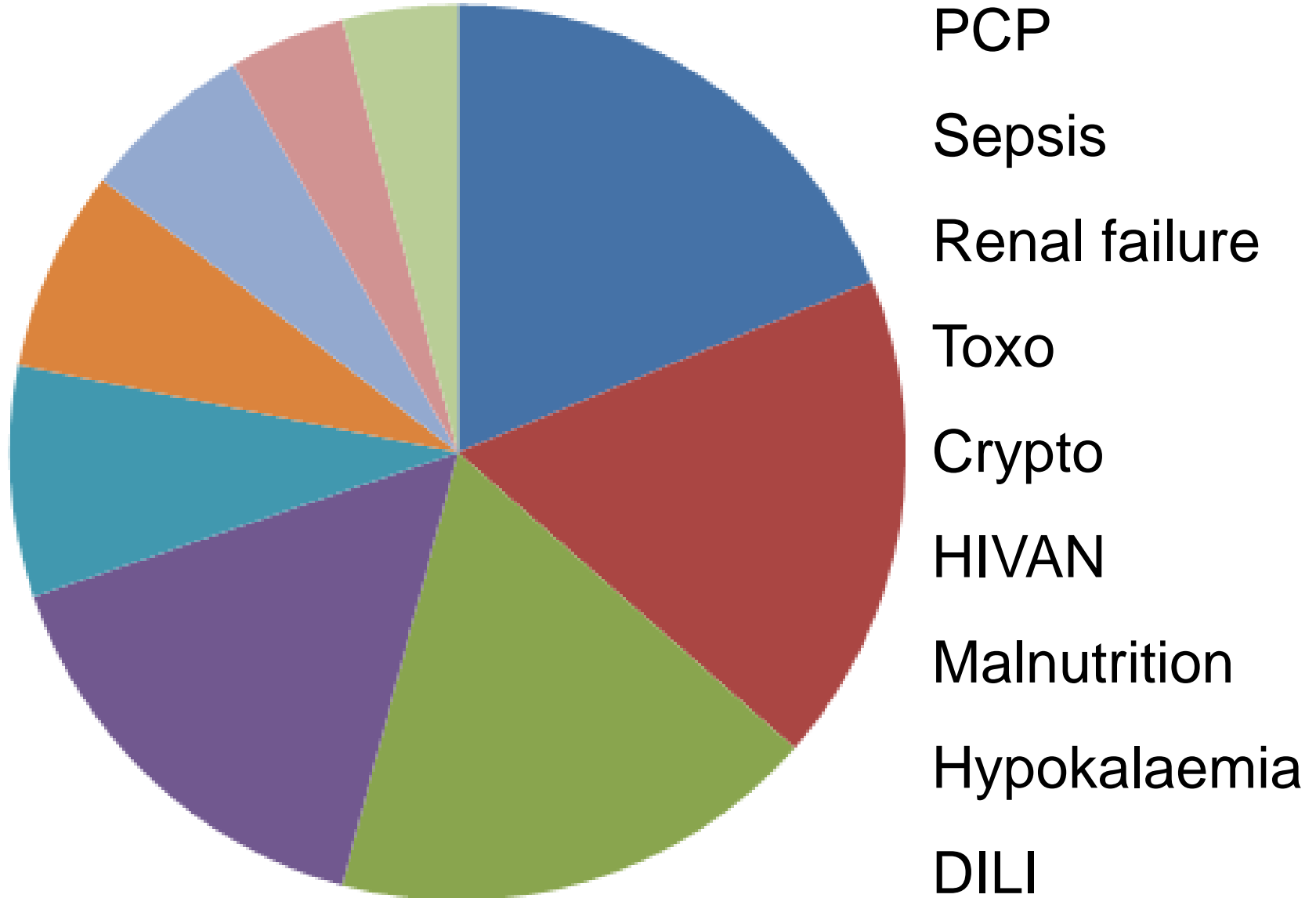


GUINEA



Remember that if there is TB, there are often other causes as well.

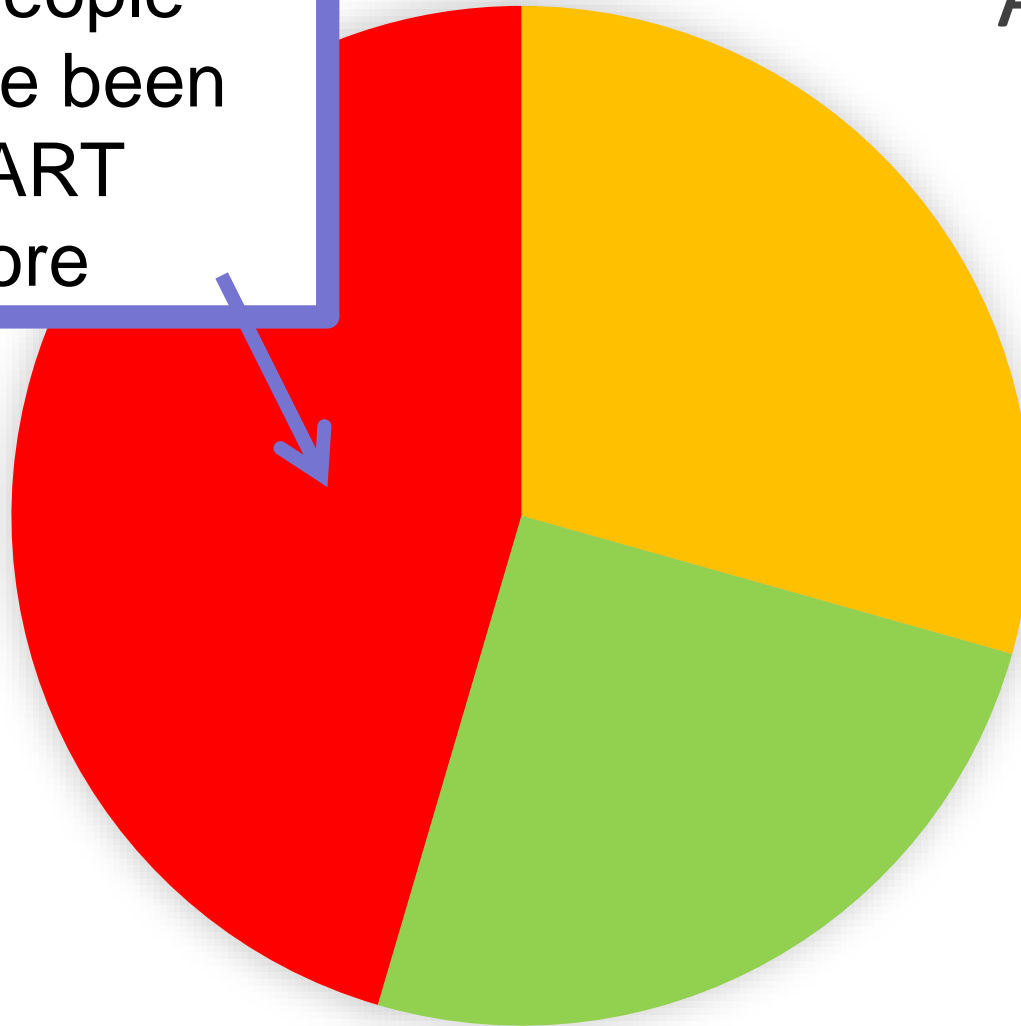
Co-morbidities occurring at the same time as TB



Also, remember about ART.....

Nearly 50%
of people
have been
on ART
before

ART status

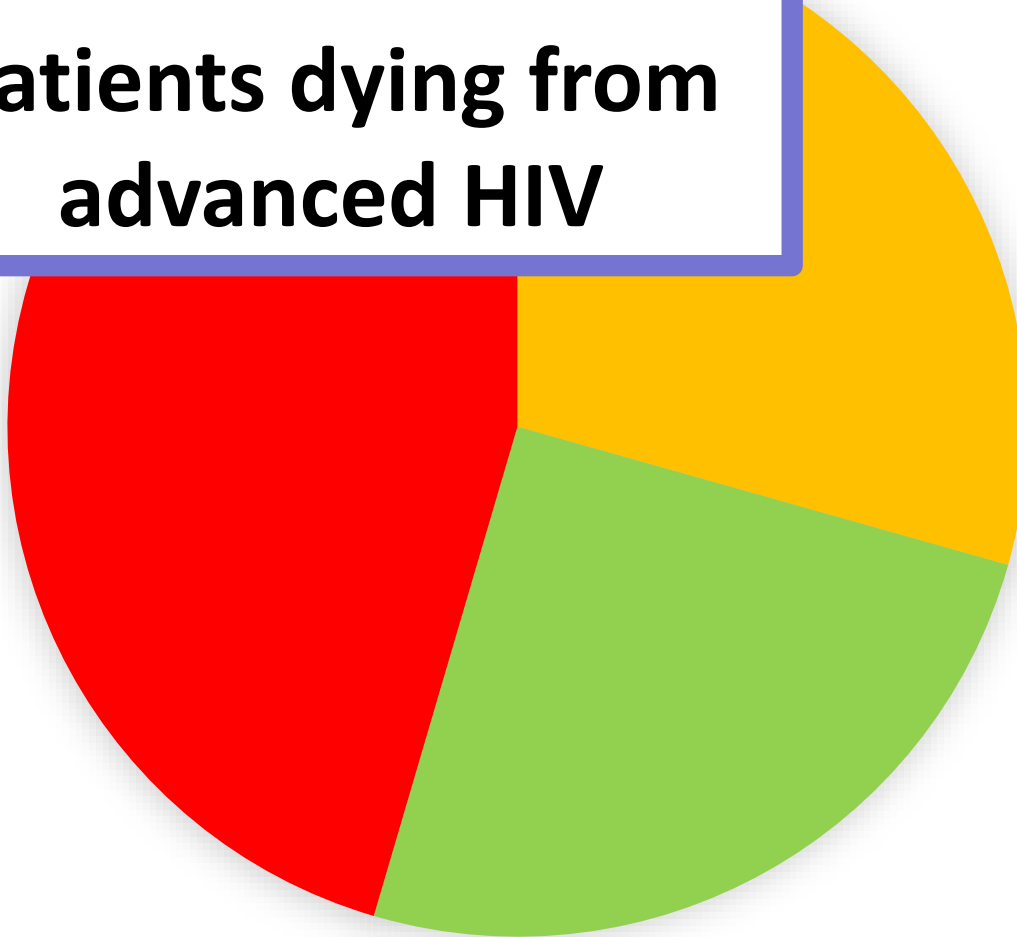


- ART naïve
- ART < 6 months
- ART > 6 months

**Failure of first line
ART is common in
patients dying from
advanced HIV**

ART status

- ART naïve
- ART < 6 months
- ART > 6 months



IN SUMMARY:

Patients with AHD:

- Have a high mortality rate
- Often have TB
- Often have multiple other problems as well as TB
- Often have treatment failure

The approach to the patient in primary care is therefore about:

1. Identifying the patient with AHD as early as possible
2. Looking first for danger signs and referring immediately if present
3. Checking carefully for any of the many illnesses that may be present and treating condition immediately before they become life-threatening

As soon as you have diagnosed AHD:

- Think about all the different causes of mortality
- Look for ALL causes of mortality
- Remember that early diagnosis saves lives

Write down as many of the causes of mortality as you can in TRUNKKS

T R U N K K S

TB

Resp

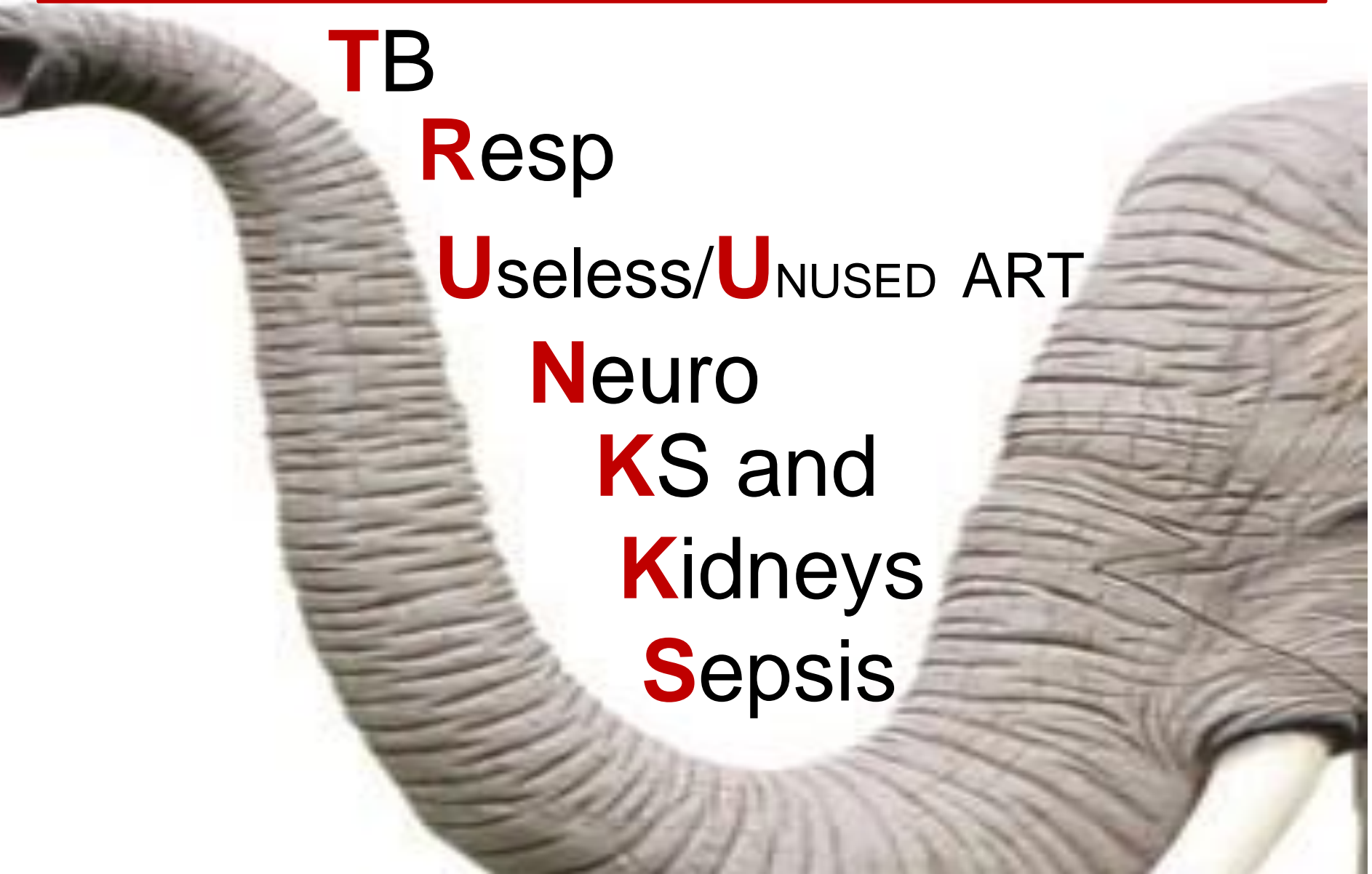
Useless/**U**NUSED ART

Neuro

KS and

Kidneys

Sepsis



T R U N K K S

TB

Resp: BIG 3: TB, pneumonia, PCP

Useless/**U**NUSED ART

Neuro: BIG 3: TBM, CCM, toxo

KS and

Kidneys

Sepsis

add malaria

The clinical approach to advanced HIV

1. Look for danger signs!
2. Take a relevant TRUNKKS history
3. Do a **full** examination (look for TRUNKKS)
4. Document findings clearly
5. Use point of care and lab investigations appropriately

Clinical approach to advanced HIV

1. Look for danger signs!



Refer immediately if any present

Clinical approach to advanced HIV

1. Look for danger signs!
2. Take a good TRUNKKS history

A good TRUNKKS history

- TB: look for it. If on treatment, why are they not doing well
- If Respiratory: presentation: Consider the big 3
- U: useless (treatment failure) or unused (defaulted). Need to check carefully.

Patients on ART should be doing well: what has gone wrong?

- If on an NNRTI-based regimen, treatment failure is highly likely
- If on a DTG- or PI-based regimen, adherence problems are very likely
- If on a new ART regimen for less than 3 months, consider IRIS?

A good TRUNKKS history

- TB: look for it. If on treatment, why are they not doing well
- If Respiratory: presentation: Consider the big 3
- U: useless (treatment failure) or unused (defaulted). Need to check carefully.
- If Neuro presentation: Care with headache, weakness in arm or leg, new paraplegia
- Kidney. If weak and wasted may be dehydrated and have renal problems too
- KS (will look for it specifically)
- Sepsis. Take any fever seriously
- Malaria: don't forget

Clinical approach to advanced HIV

1. Look for danger signs!
2. Take a good history
3. Do a **full** examination

Do a **full** examination

- In primary care, not usually necessary for everyone: often just focal exam
- For ADHD patients, **wide variety of diseases (TRUNKKS)**
- Quick but **FULL** examination is needed

TO DO THIS YOU NEED TO **UNDRESS** THE PATIENT

Key points not to miss on exam

- General: nodes, anaemia, KS, oedema
- Resp: Effusion, crackles
- CVS: heart rate, bp
- Abdo: liver, spleen
- Neuro: important if any suggestion of neuro problems
- Skin: KS
- Urine: ideally

Remember to look for KS

Look in mouth

Look at the skin



Clinical approach to advanced HIV

Detail in the algorithms and text in the reference books

1. Look for danger signs!
2. Take a good history
3. Do a full examination
4. Good documentation - **poor documentation contributes to mortality**

Clinical approach to advanced HIV

Detail in the algorithms and text in the reference books

1. Look for danger signs!
2. Take a good history
3. Do a full examination
4. Good documentation
5. Key tests: CD4, TB LAM, CrAg

Poll 7

Who needs a CD4? Targeted CD4

RSA ART guidelines 2023, page 17

CD4 count informs you of patient's immune status:

- Susceptibility to OIs
- Identifies AHD
- Informs eligibility for OI prophylaxis

Therefore test:

- Initially after 10 months on ART. Then if:
- CD4 still < 200
- VL > 1000
- New stage 3 or 4 disease
- Returning to care after missing an appointment

PHC Level Screening –investigations

TB –LAM



In 2019 in two large hospitals in Mozambique 18% of routine TB LAM screening was positive

CD4

LAM
X-pert

Poll 8

TB Investigations: Remember to have a high suspicion in all patients with advanced HIV

TB LAM:

- OPD: CD4 < 200 or any patients with symptoms of TB
- IPD: all patients

Xpert MTB/RIF:

- Sputum or non-sputum samples
- OPD: any symptoms of TB
- IPD: all patients

TB Investigations: Remember to have a high suspicion in all patients with advanced HIV

TB LAM:

- OPD: **CD4 < 200 or any patients with symptoms of TB**
- IPD: all patients

Xpert MTB/RIF:

- Sputum or non-sputum samples
- OPD: any symptoms of TB
- IPD: all patients

Remember that negative TB tests do not rule out TB

- Therefore, if your clinical suspicion is high, a negative test must not reduce your suspicion

Poll 9

CrAg: Cryptococcal Antigen test

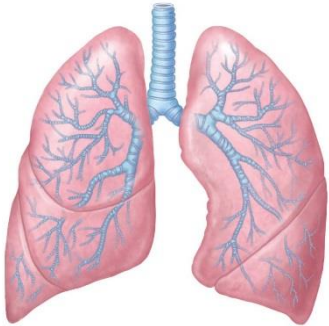
- Detects capsule of cryptococcus fungus: blood, CSF
- Can **confirm or exclude** cryptococcal disease

Who needs serum CrAg screening?

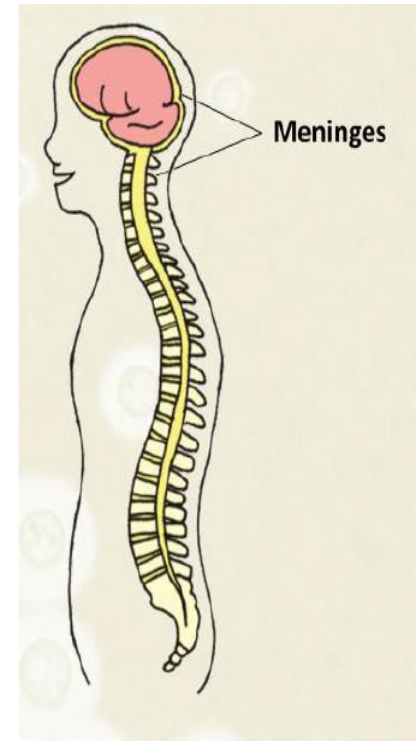
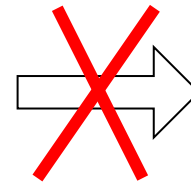
All CD4 < 200

Why for all $CD4 < 200$?

Cryptococcal meningitis (CCM) has a very high mortality
It is spread from lungs to blood to other organs, especially
the meninges

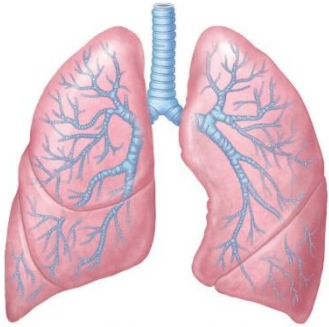


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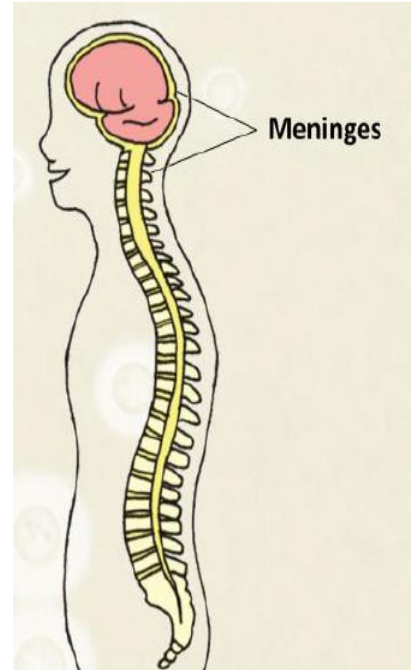
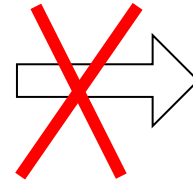
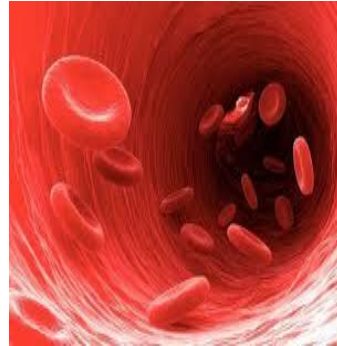
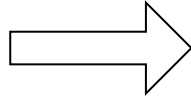


- CrAg detects cryptococcal disease in the blood a mean of 22 days before symptoms of meningitis develop

Why for all CD4 < 200?



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Meninges

LP is indicated for all patients with positive serum CrAg to exclude CCM. This is so that prophylaxis with fluconazole can be given as it prevents meningitis from developing

Clinical approach to advanced HIV

1. Look for danger signs!
2. Take a good history
3. Do a full examination
4. Good documentation
5. Key tests: CD4, TB LAM, CrAg,
6. Start treatment early; this includes treating all OIs present and providing effective ART

Treatment: start without delay

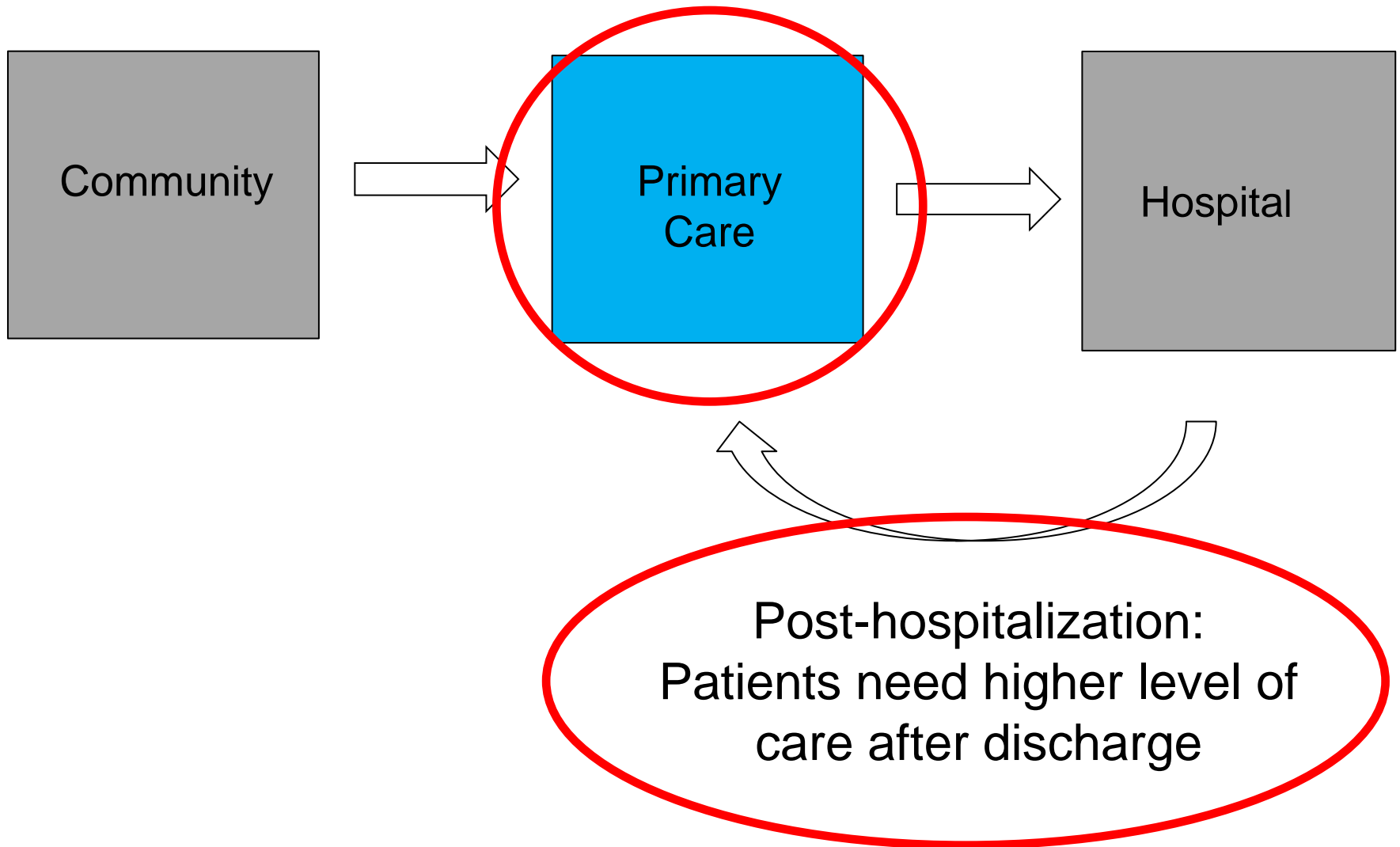
- Treat identified morbidities, based on investigations or clinical suspicion
- **Sometimes, in very rural settings, empiric treatment is often essential because of:**
 - Delays in results
 - A lack of diagnostics
 - Even with some diagnostic tests, even if they are negative in the presence of high clinical suspicion, they still cannot rule out the disease (especially TB tests)



Discussion so far has been about patients **presenting** in primary care

What about coming back to the clinic after discharge from hospital?

Dual role of primary care



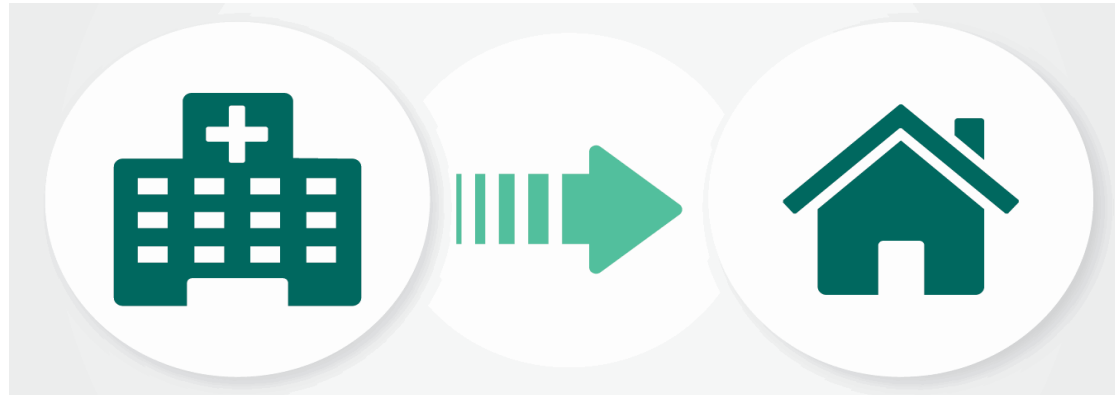
REMEMBER

Mortality following discharge from hospital in a study in Homa Bay, Kenya

Overall mortality in first 9 months: 30%

Why is mortality so high post hospitalization ?

Post-hospitalisation: common gaps in care



What do you think they are?
Write down as many as you can

Common gaps in care

1. Lack of linkage to care due to the poor quality of the discharge letter
2. Lack of community tracing for patients missing appointments
3. Lack of support in the form of counselling. Often high stigma in the community

LACK OF SUPPORT

It is important to be non-judgemental to patients with poor adherence or returning to care after treatment interruptions



These patients are often poorly treated by the staff in clinics

Common gaps in care

1. Lack of linkage to care; quality of discharge letter
2. Lack of community tracing for patients missing appointments
3. Lack of support – counselling, community, high stigma
4. Failure to continue treatment for opportunistic infections started in hospital (e.g. fluconazole for crypto, steroids after TBM or PCP etc)

Common gaps in care

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Common gaps in care

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4. Failure to continue treatment for opportunistic infections started in hospital (e.g. fluconazole for CCM, steroids after TBM or PCP etc)
5. Failure to continue routine prophylaxis such as CTX
6. Poor attention to ART status – switches to DTG- or PI-based regimens not done and/or adherence issues not attended to

Attention to ART status

- If a new regimen has been started by the hospital, don't refuse to give it without checking with the hospital first. There may be a good reason for it.
- Ensure that a switch to a new regimen is done if needed

Common gaps in care

1. Lack of linkage to care; quality of discharge letter
2. Lack of community tracing for patients missing appointments
3. Lack of support – counselling, community, high stigma
4. Failure to continue treatment for opportunistic infections started in hospital (e.g. fluconazole for CCM, steroids after TBM or PCP etc)
5. Failure to continue routine prophylaxis such as CTX
6. Poor attention to ART status – switches to DTG- or PI-based regimens not done and/or adherence issues not attended to
7. Other conditions missed because of a focus on only one illness. Remember that there is often more than one illness

Coming in to land



A few programmatic suggestions

Practically in your clinic, pre-and
post-hospital

PLHIV do not all need the same level of
care. A suggested a plan to accommodate
this:

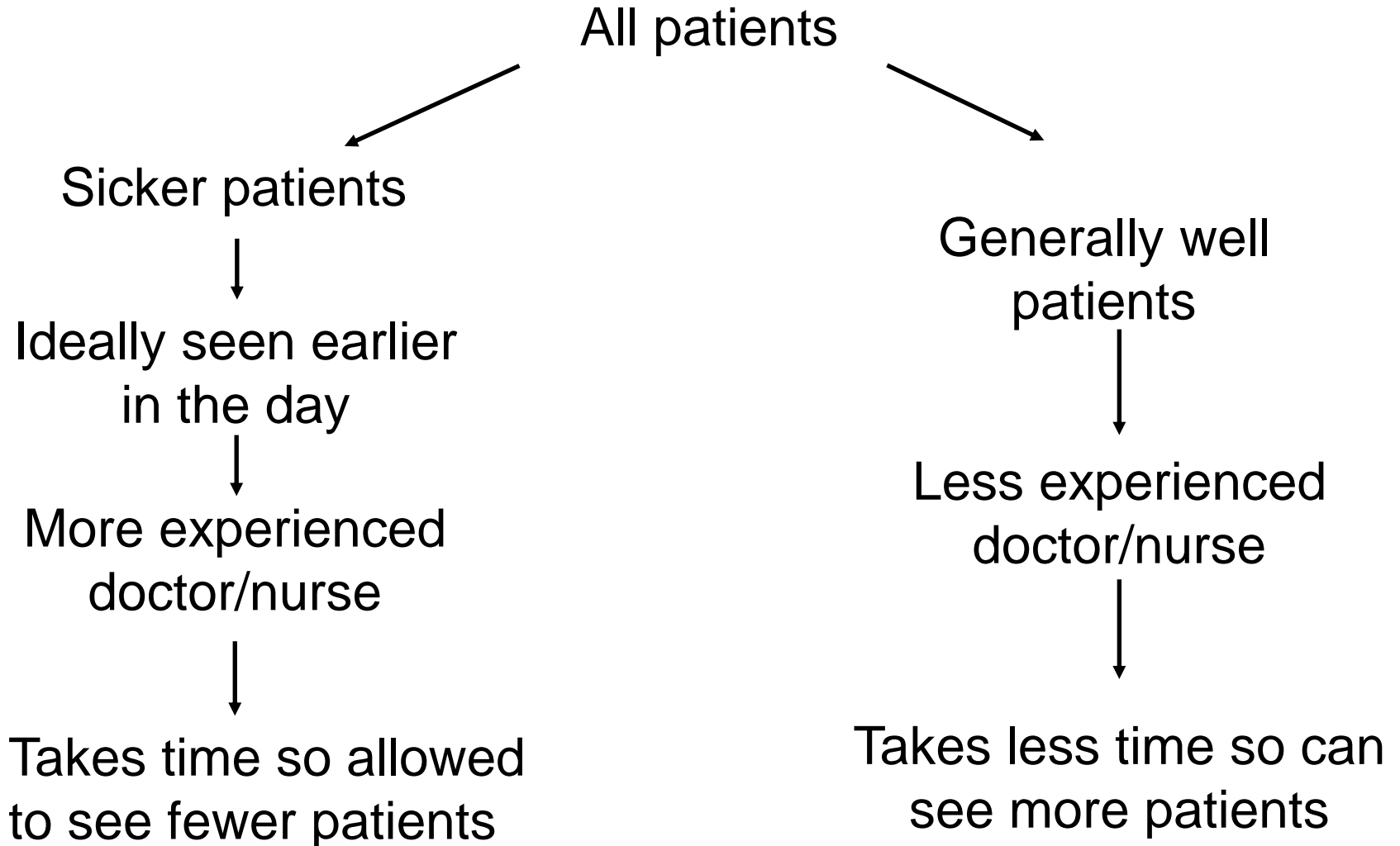
Ideal consultation skills (pre- and post-hospital):

- Thorough understanding of ART management, especially treatment failure
- Knowledge of and ability to look for all possible TRUNKKS conditions (remember: often multiple illnesses)
- All the above ideally needs a more experienced clinician

Also

- Ensure availability of or referral for specific tests
- Allow for a longer consultation

Suggest a plan to accommodate this

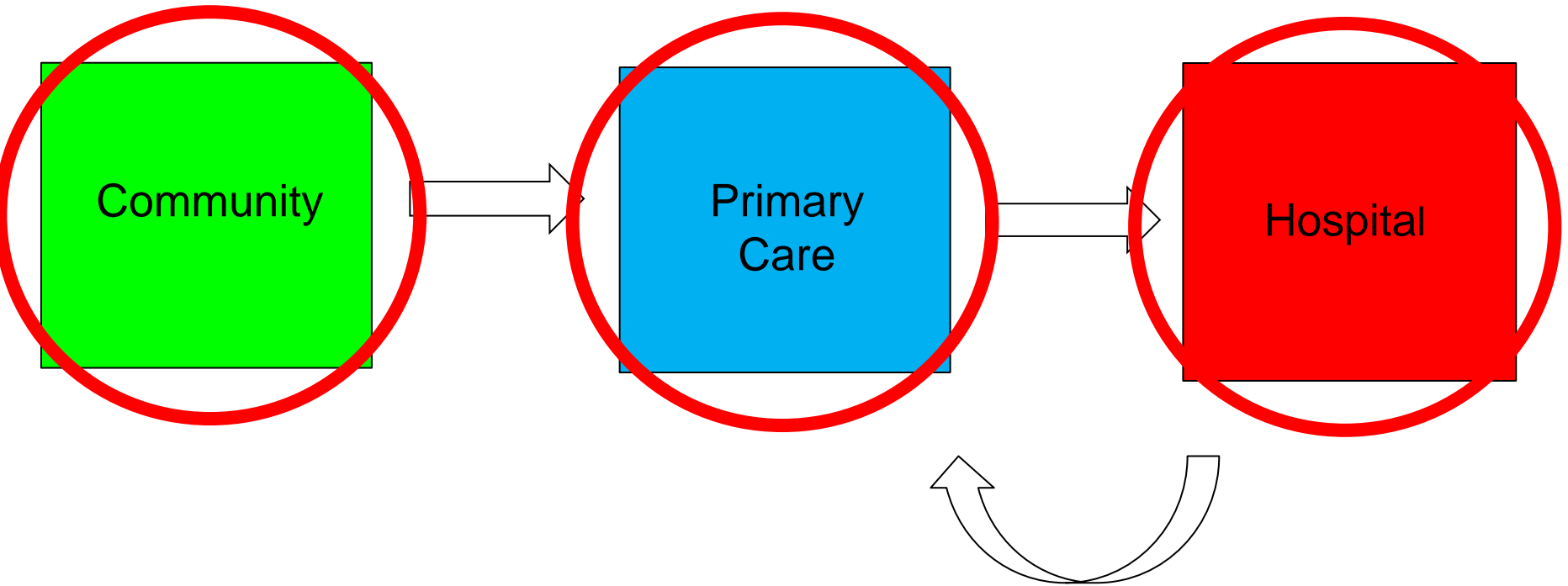


Review



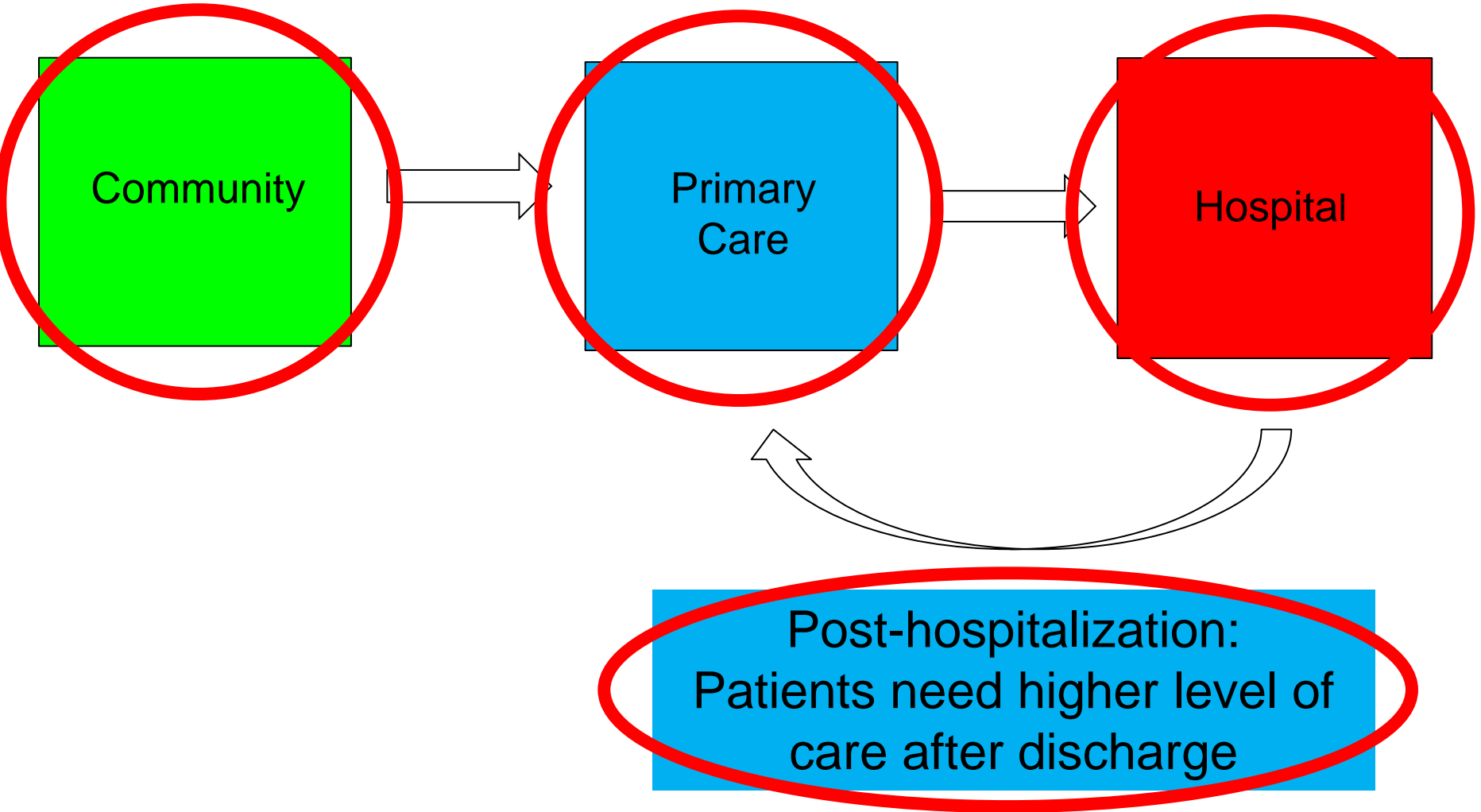
REMEMBER

All three levels important



Post-hospitalization:
Patients need higher level of
care after discharge

Don't forget about after discharge from hospital



Learning Outcomes

By now you should be able to:

- Appropriately identify patients with advanced HIV in primary care
- Summarise the initial approach to patients with advanced HIV who present to a primary care clinic
- Describe the principles of differentiated care in primary care