Advanced HIV: A Paradigm Shift
Considerations for Monitoring and Evaluation

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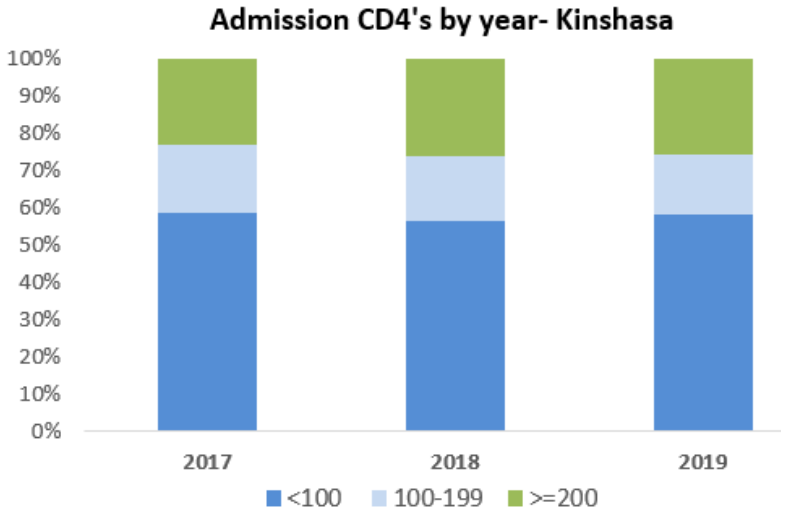
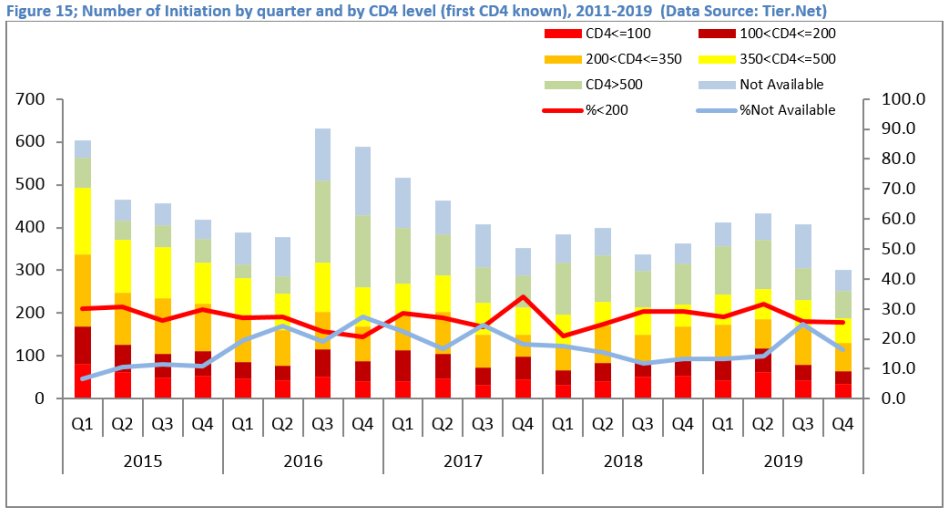
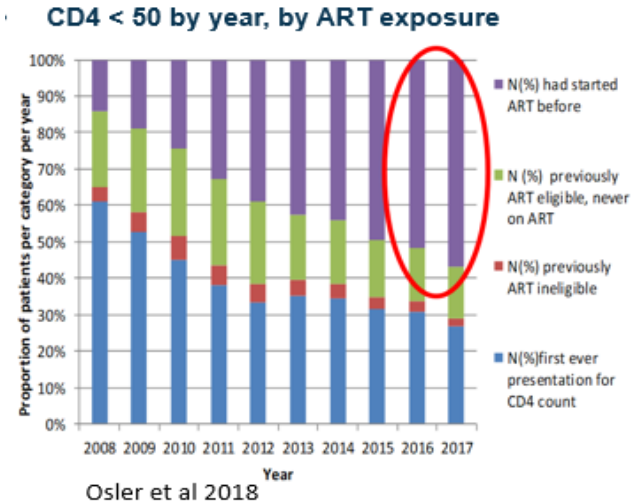
HIV LEARNING NETWORK
The CQUIN Project for Differentiated Service Delivery

Background

- AHD remains an important life-threatening problem in:
  - Low and high HIV prevalence settings
  - PHC and hospitals
    - Implies need for strong referral and contra-referrals







Osler et al 2018

Meg Osler, Katherine Hilderbrand, Eric Goemaere, Nathan Ford, Mariette Smith, Graeme Meintjes, James Kruger, Nelesh P Govender, Andrew Boulle, The Continuing Burden of Advanced HIV Disease Over 10 Years of Increasing Antiretroviral Therapy Coverage in South Africa, Clinical Infectious Diseases, Volume 66, Issue suppl_2, 1 April 2018, Pages S118–S125, https://doi.org/10.1093/cid/cix1140

Who are we seeing? Who do we count?

	PHC	IPD
Describing who enters:	**Total unique patients seen** ***Stratified by:*** **Sex** (M/F) **Age** (0-<5; 5-15; 15-24; 25-49; >49) **ART history** (Naïve; On ART; Interrupted*)	**Total admissions**
Entry door:	**CD4 measured** % 0-<100 %100-<200 % >=200	**? CD4 < 100 or < 200 to trigger AHD tests ?**
Eligibility for CD4:	**New initiations** **Returnees** **High VL**	**CD4 on all admissions**

*Previously on ART but having interrupted treatment for at least 90 days

AHD Algorithms feed the M&E system

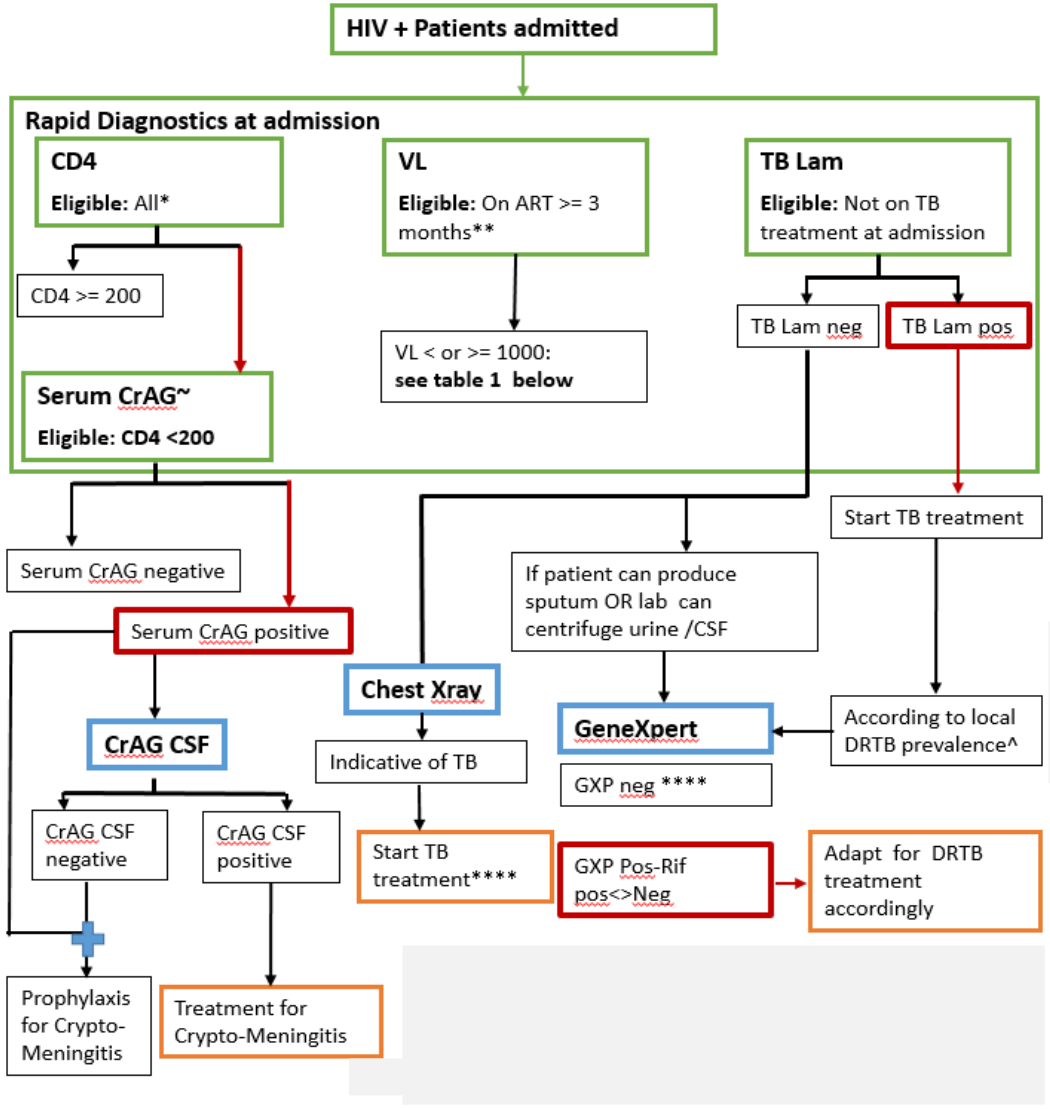
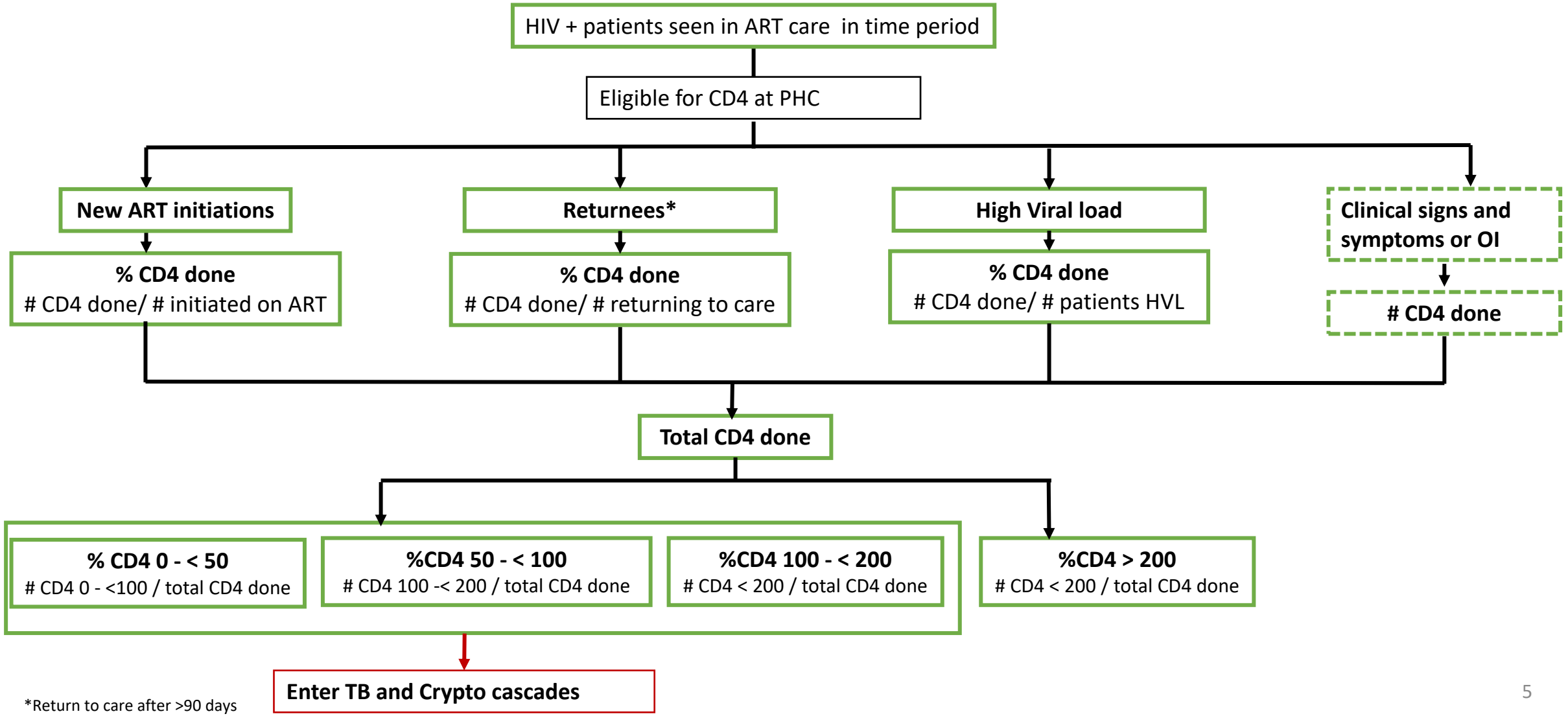


Table 1 : algorithm based on CD4 and VL results
(see: Fig 11.4 chapt 11 MSF PHC guideline)

VL result	CD result	Action
VL < 1000	CD4 < 200	OI check
VL >= 1000 (or VL Not available)	CD4 < 100	Switch to 2nd line (+DTG)
VL >= 1000	CD4 >= 200	Adherence check

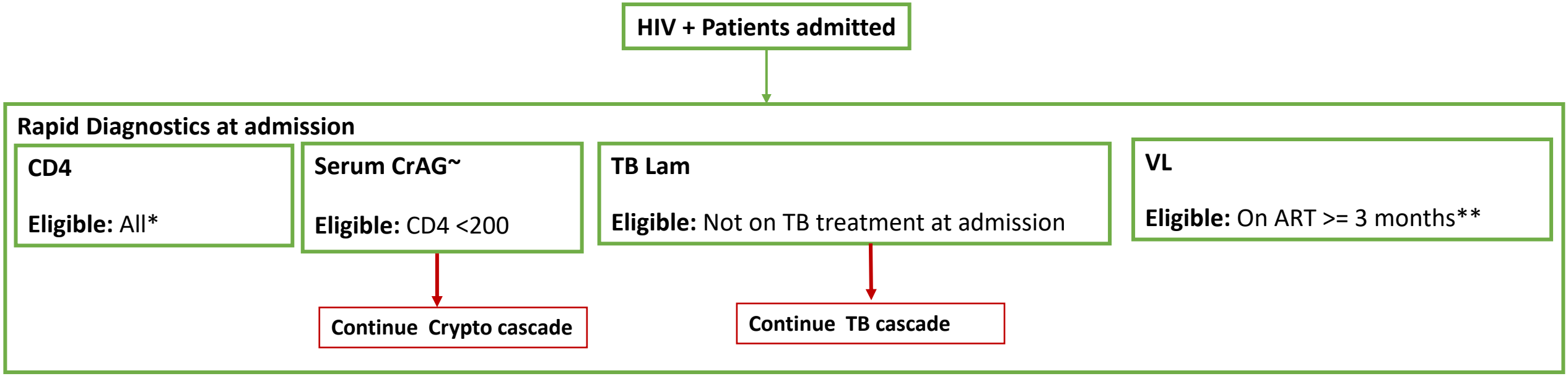
*Review project specific definition for valid CD4 at admission (i.e. at admission or within 3 months of admission)
~In projects where the majority of patients admitted have a CD4<200, this algorithm is often simplified such that all admitted patients receive a serum CrAG.
**Review project specific definition for valid VL at admission (i.e. at admission or within 3 months of admission)
^If local DRTB high prevalence , all TB lam positive should received Rif R testing via GeneXpert.
****: CNS TB likely or clinical presentation strongly suggests TB; investigations not available or unable to exclude TB, Clinical condition life threatening patient deteriorating, or not improving after 3 days of hospitalization(MSF IPD guideline page 9)

The entry door: PHC



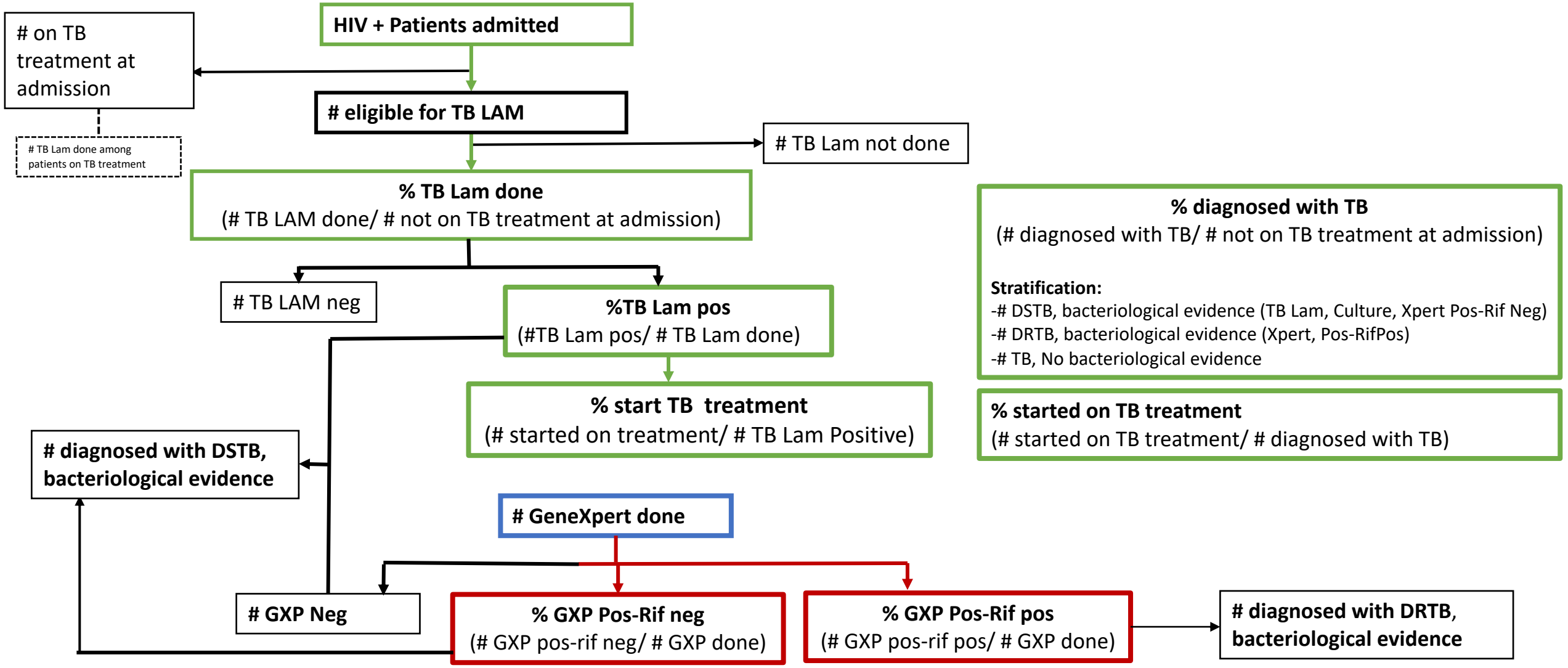
*Return to care after >90 days

The entry door: IPD

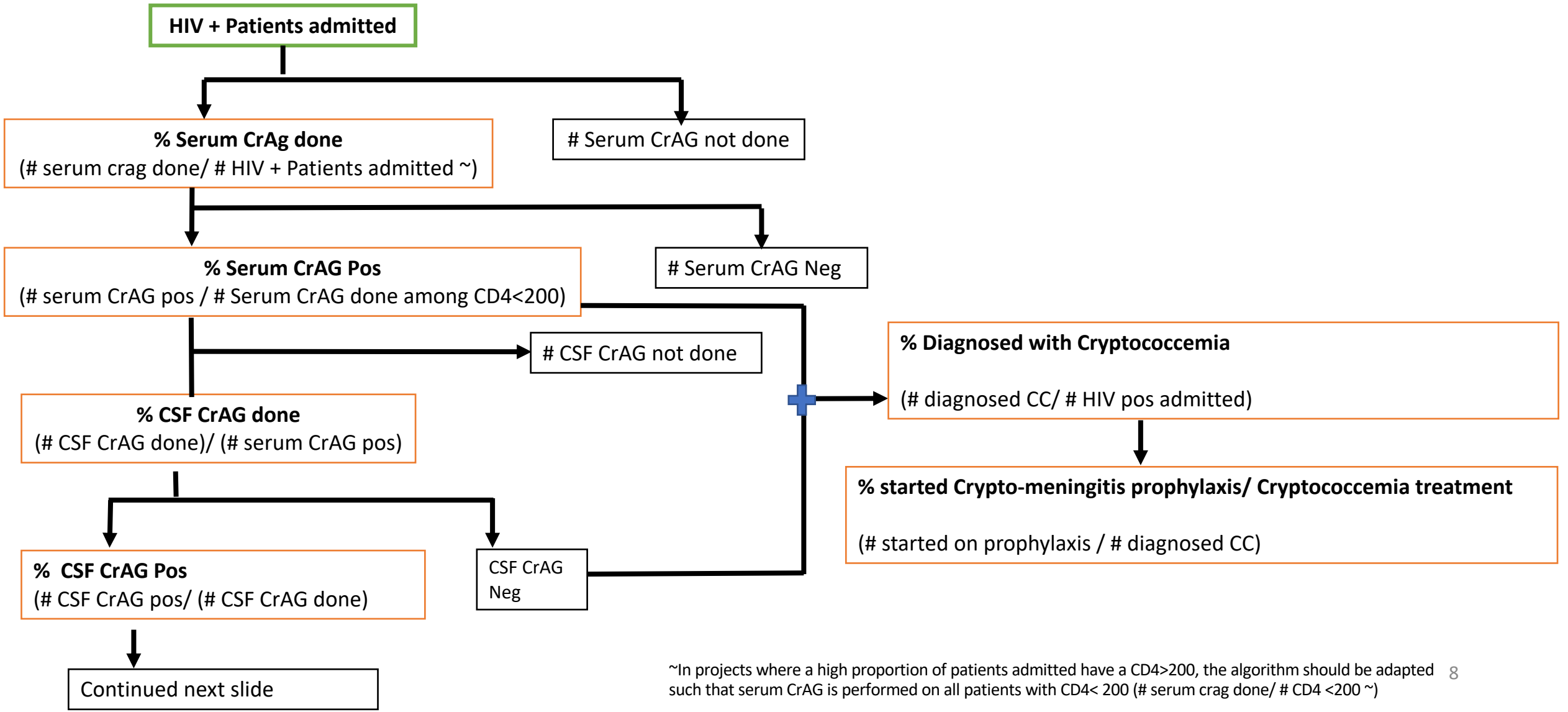


~In projects where the majority of patients admitted have a CD4<200, this algorithm is often simplified such that all admitted patients receive a serum CrAG.

IPD: TB

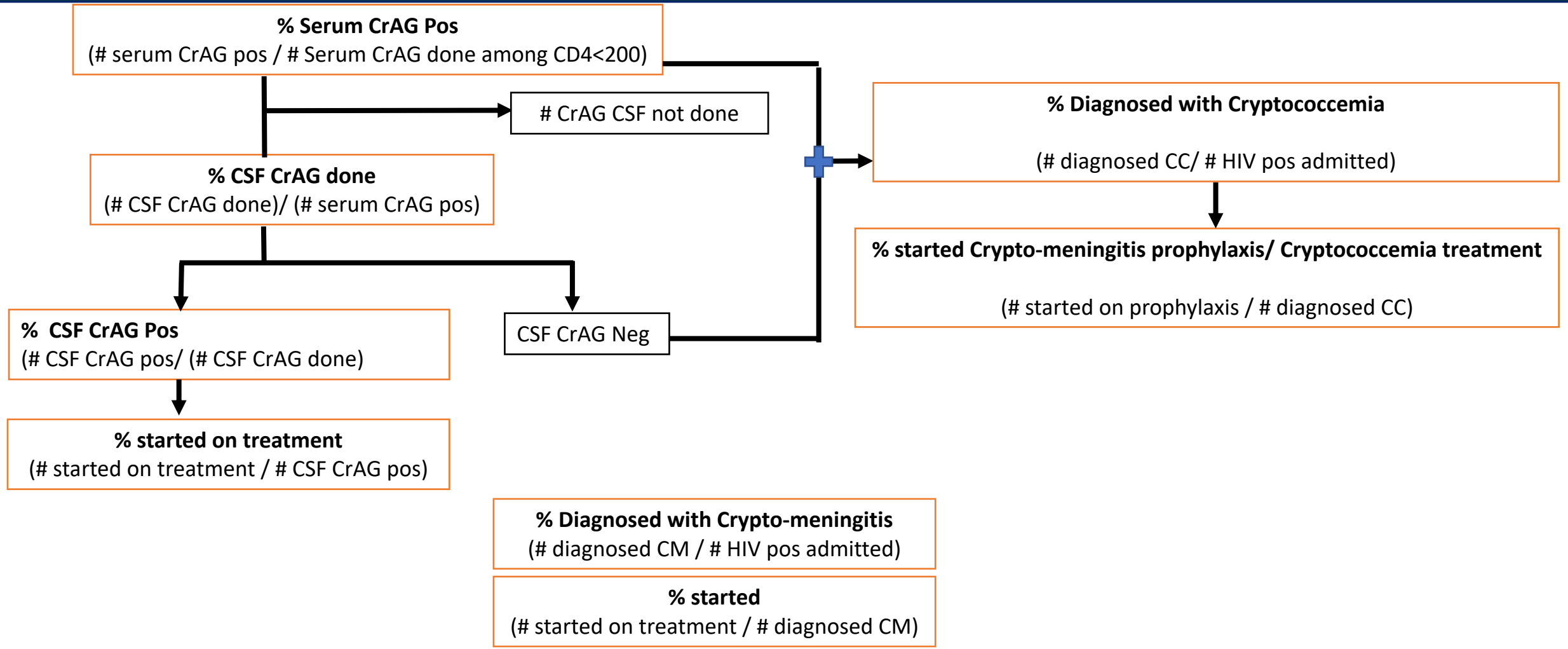

on TB treatment at admission
TB Lam done among patients on TB treatment
HIV + Patients admitted
eligible for TB LAM
TB Lam not done
% TB Lam done
(# TB LAM done/ # not on TB treatment at admission)
TB LAM neg
%TB Lam pos
(#TB Lam pos/ # TB Lam done)
% start TB treatment
(# started on treatment/ # TB Lam Positive)
diagnosed with DSTB, bacteriological evidence
GeneXpert done
GXP Neg
% GXP Pos-Rif neg
(# GXP pos-rif neg/ # GXP done)
% GXP Pos-Rif pos
(# GXP pos-rif pos/ # GXP done)
diagnosed with DRTB, bacteriological evidence
% diagnosed with TB
(# diagnosed with TB/ # not on TB treatment at admission)
Stratification:
-# DSTB, bacteriological evidence (TB Lam, Culture, Xpert Pos-Rif Neg)
-# DRTB, bacteriological evidence (Xpert, Pos-RifPos)
-# TB, No bacteriological evidence
% started on TB treatment
(# started on TB treatment/ # diagnosed with TB)

IPD: Crypto



~In projects where a high proportion of patients admitted have a CD4>200, the algorithm should be adapted such that serum CrAG is performed on all patients with CD4< 200 (# serum crag done/ # CD4 <200 ~)

IPD: Crypto continued



Recap

	PHC	IPD
	Total unique patients seen	**Total admissions**
CD4	**CD4 stratified by eligibility:** High VL; New initiations; Returnees*	**CD4 on all admissions**
	Stratified by: Sex; Age; ART history (Naïve; On ART; Interrupted*)	
LAM **GXP**	All with CD4 < 200 or signs and symptoms of TB at any CD4 count High prevalence DR TB : GXP on all +ve LAM Low prevalence DR TB : ? Cut –off	
Serum_CrAg	?CD4 < 200 < 100 ? Or signs and symptoms of meningitis	
CSF_CrAg	Referral to 2 ° health	Positive S-CrAg / Signs and symptoms
Outcomes	Routine M&E, particular attention to 3 month mortality	**% Mortality** Stratified by: <48 hours; >=48hours

*Previously on ART but having interrupted treatment for at least 90 days

Summary and future steps

- There is momentum – AHD is being integrated into existing systems
  - Increase emphasis on outcomes: including treatment start, treatment outcomes and post-discharge follow-up
- Learn from routine HIV monitoring on the importance of objective measures in selecting monitoring indicators
  - Importance of easy to implement point-of-care tests
- Utilization of cascades can be useful but…
  - May underestimate total number of tests done
  - Challenging with aggregate data tools (e.g., paper register)

The denominator is important and should be reflect reporting needs and feasibility

Thank you, enKosi, Merci, Danke

Acknowledgements:

- Patients, project teams and partners

References:

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