

Missed opportunities for HIV testing in newly diagnosed HIV-infected patients in France

ANRS - Opportunités Study

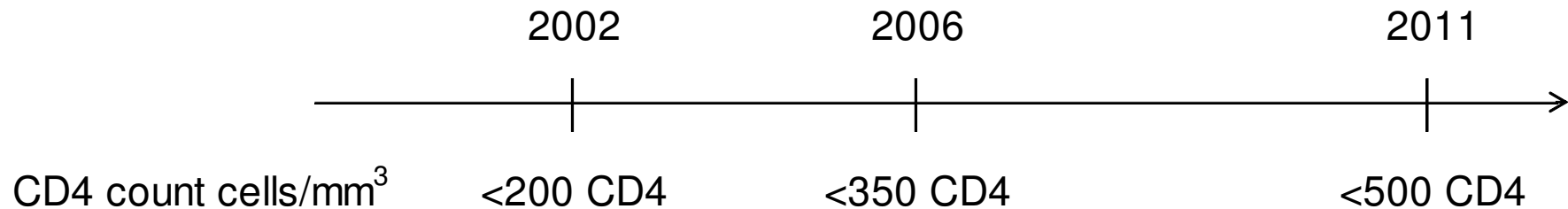
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*Inserm, équipe ATIP-Avenir: « Modélisation, Aide à la Décision, et Coût-Efficacité en Maladies Infectieuses » , France

Background

Recommendations to initiate cART earlier

- Recommendations to start cART



- Early treatment benefits
 - Individual level
 - Decreases AIDS and non-AIDS defining events occurrence
 - Maintains immune functions
 - Population level
 - Limit secondary transmissions of HIV

Background

Early treatment needs early diagnosis

- HIV testing in France : 5 Million tests / year

But

- 29,000 HIV-infected people unaware of their HIV status
- 30% of HIV-infected patients access to care at an advanced stage of disease (CD4<200/mm³ or AIDS)
 - Mortality rate at 6 months x13 / early access to care

Research question

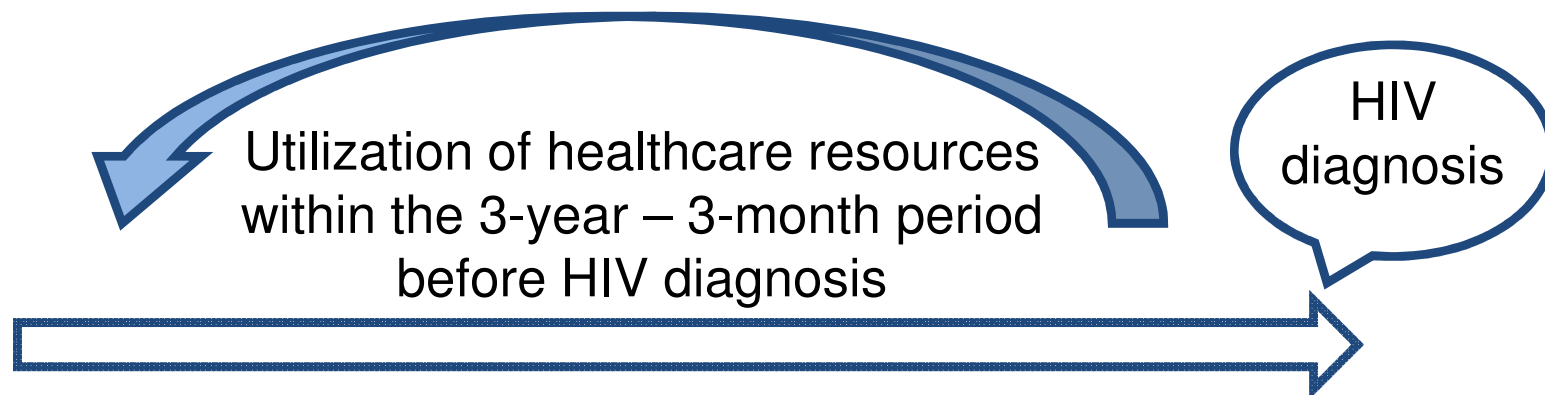
- Why a high proportion of HIV-infected patients initiate care at advanced stages of the disease ?
 - No previous contact with the healthcare system?
 - Previous contacts but healthcare providers do not address HIV testing?

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Objective

In patients with newly diagnosed HIV infection

- Identify missed opportunities for HIV testing
 - Within healthcare settings encounters



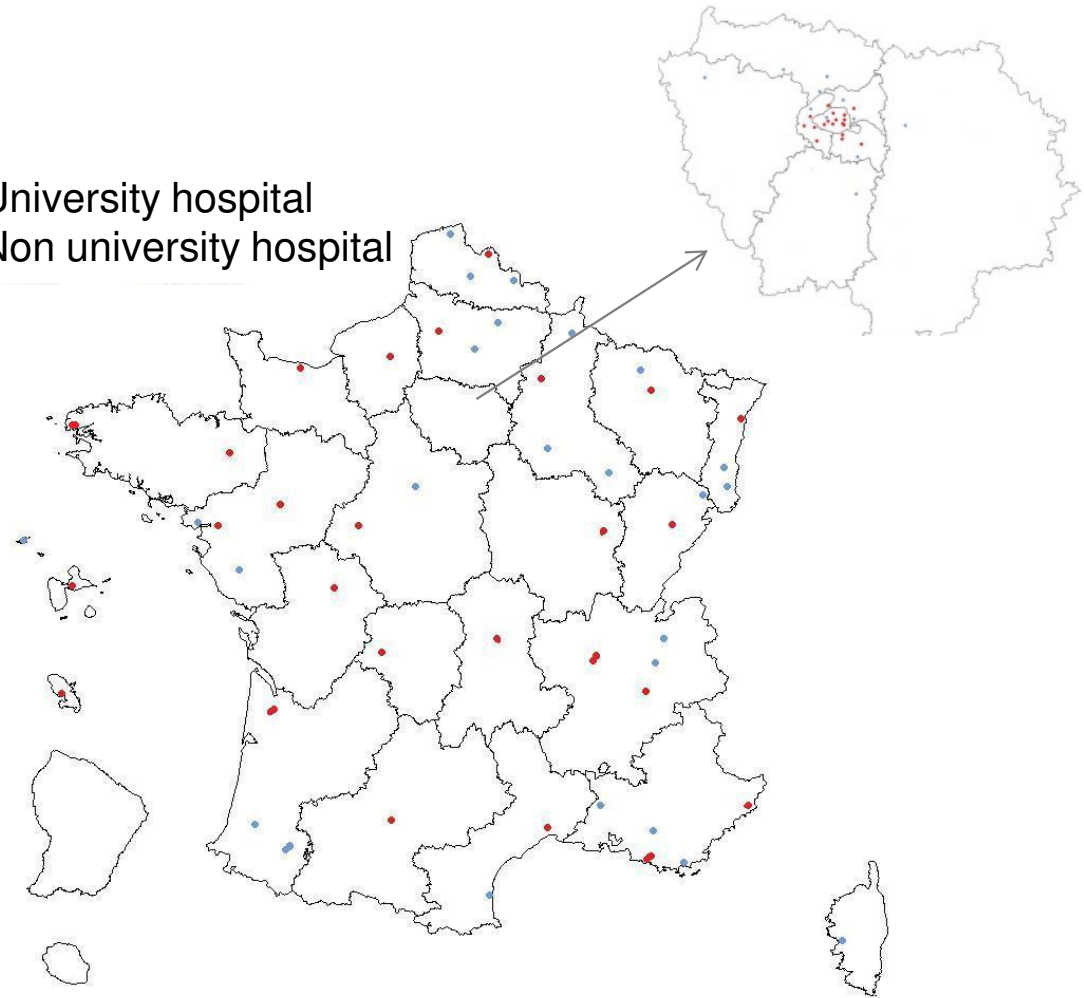
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Methods

Study design

- Cross-sectional study
- 69 HIV care centers
- 06/2009 - 10/2010

- University hospital
- Non university hospital



Study population

- Newly HIV diagnosed infections (≤ 6 months of care initiation)
- HIV diagnosis in France
- Age ≥ 18 years
- Living in France for ≥ 1 year

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Methods

Data collection

- Data collection: a face to face questionnaire
 - Patients' characteristics at HIV diagnosis
 - History of HIV testing
 - Encounters with healthcare settings
 - HIV-related symptoms*
- } 3 years prior to HIV diagnosis
- Descriptive statistical analysis


* Fever >1month, diarrhea >1month, weight loss>10%, generalized lymphadenopathy, seborrheic dermatitis, oral herpes, oral hairy leukoplakia, oral candidiasis, varicella zoster, onychomycosis, unexplained prurigo, community acquired pneumonia, pulmonary tuberculosis, recurrent bacterial infections, STIs, viral hepatitis

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Methods

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- Missed opportunity for HIV testing
 - Contact with a healthcare setting within the 3 years prior to HIV diagnosis in which

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- and***
- The healthcare provider does not propose a HIV testing

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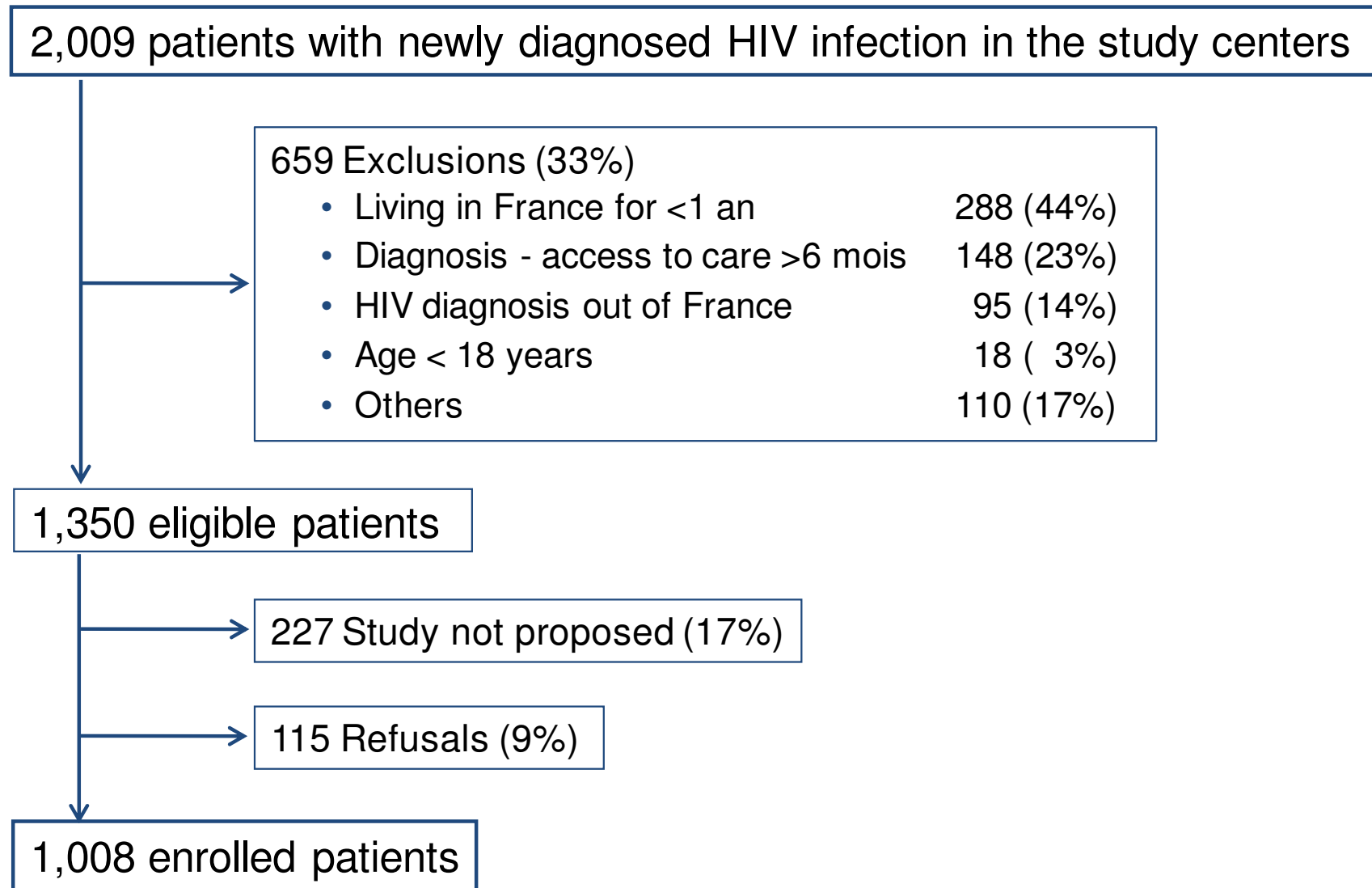
Methods

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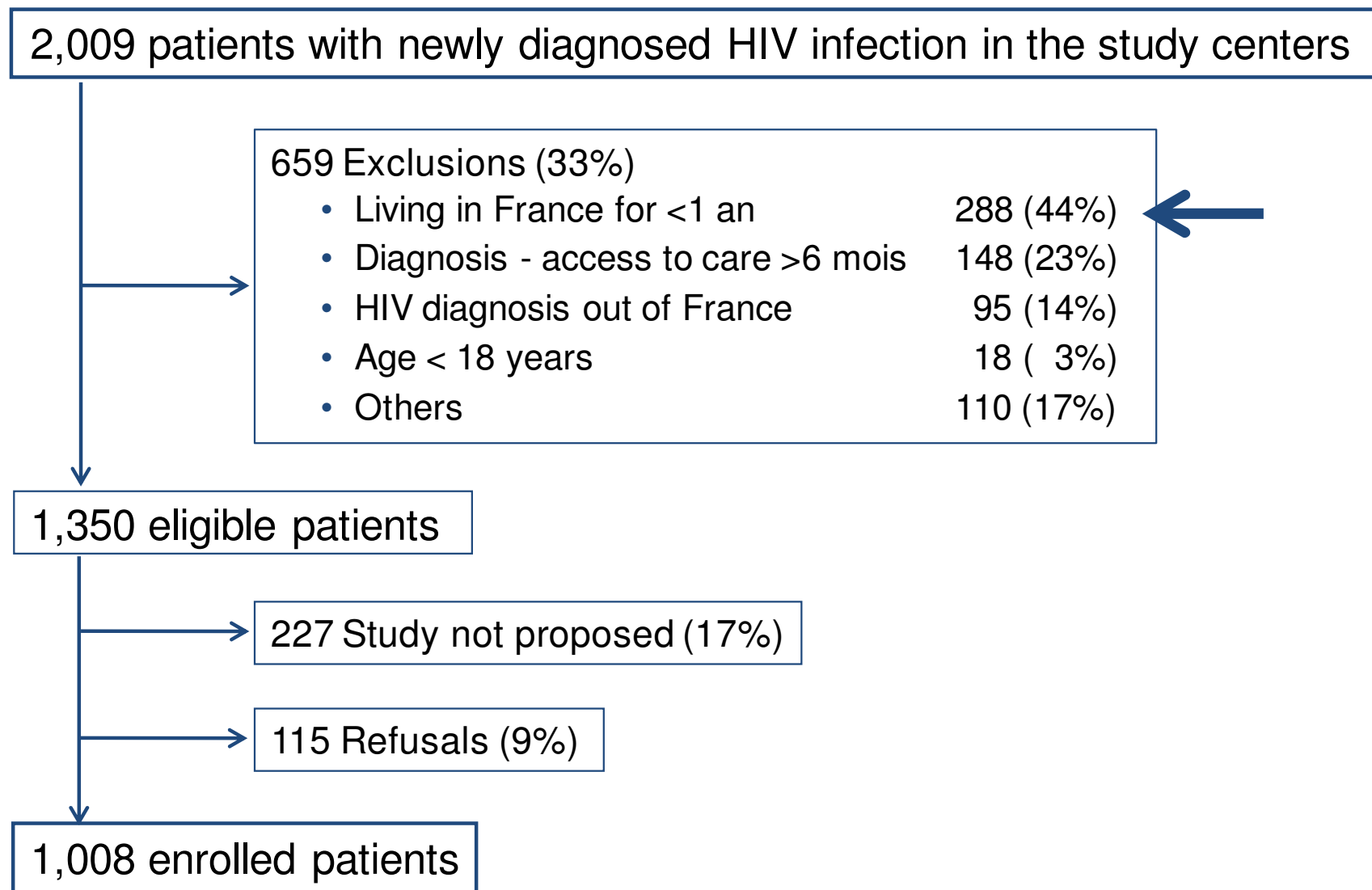
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 - The patient reports belonging to a risk group of HIV acquisition
 - The patient reports HIV related symptoms (onset >3 months prior to HIV diagnosis)
 - and***
 - The healthcare provider does not propose a HIV testing
- Patient « *likely to be HIV infected* » if
 - He was not diagnosed for HIV at acute HIV infection stage
 - He does not report any negative HIV test after this contact

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Enrollment

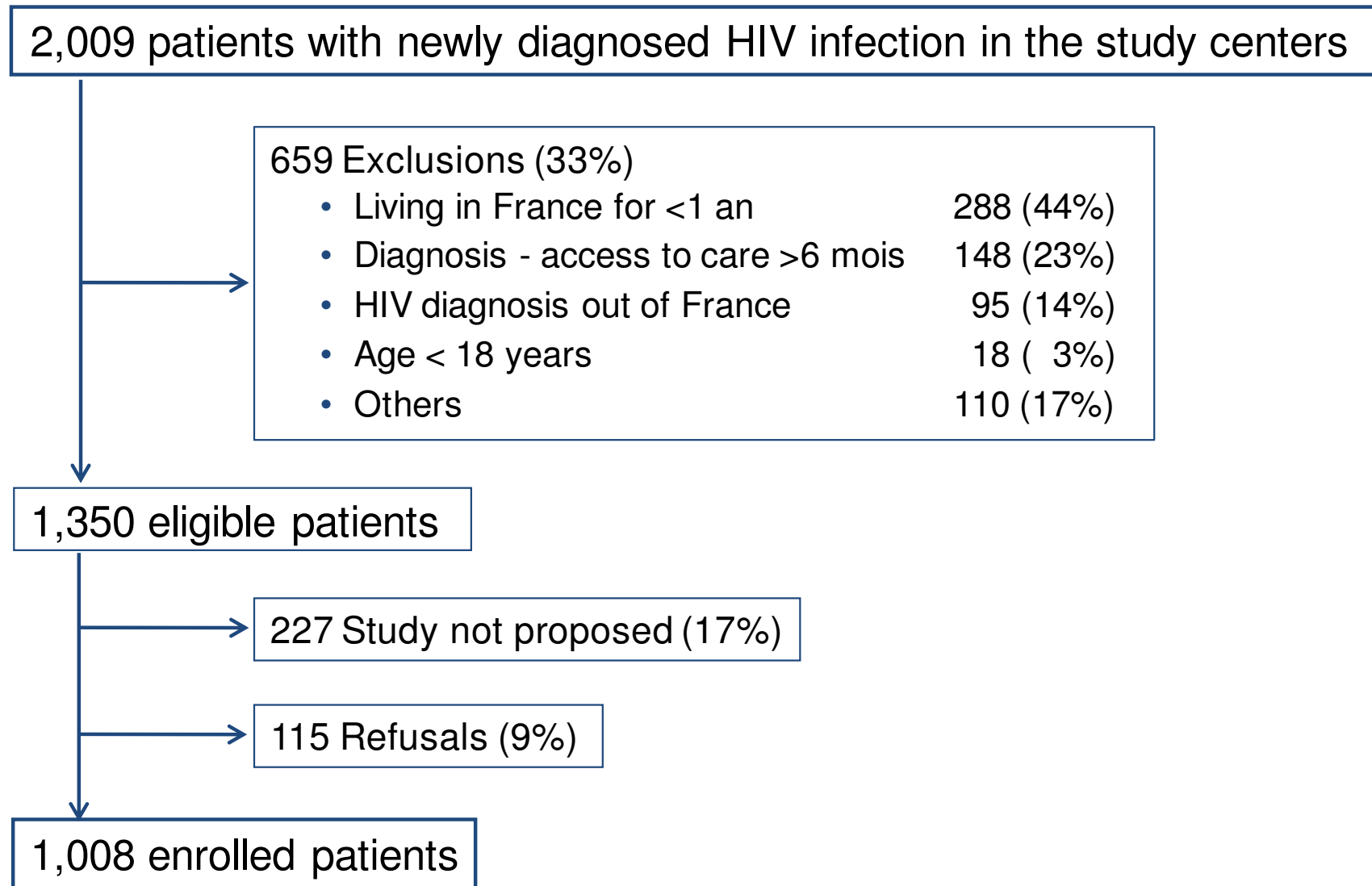


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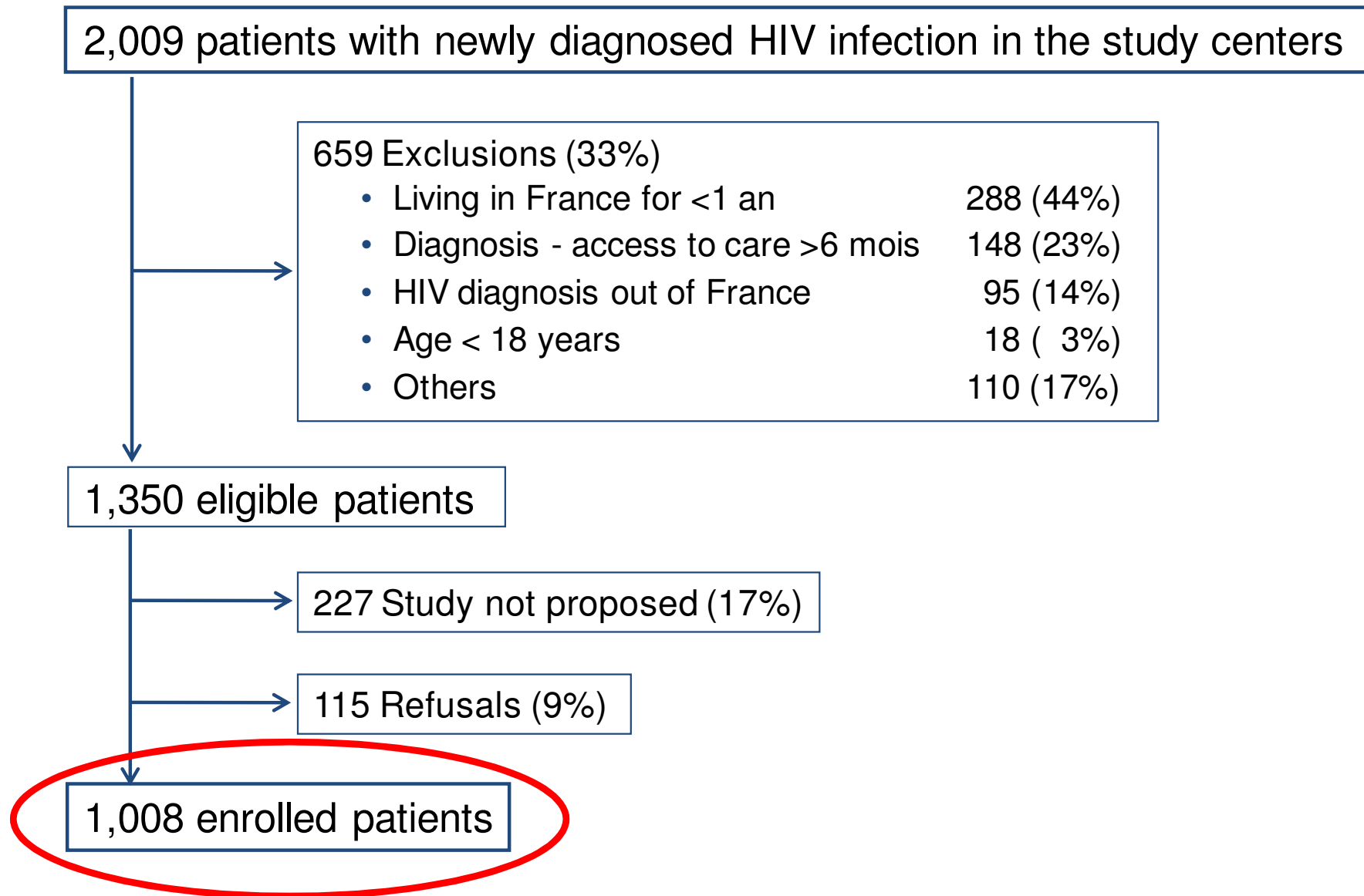
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Enrollment



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Enrollment



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- Patients approached in the study centers
≈ patients newly diagnosed for HIV in
France in 2010

2,009 patients with newly diagnosed HIV infection in the study centers

- 659 Exclusions (33%)
- Living in France for <1 an 288 (44%)
 - Diagnosis - access to care >6 mois 148 (23%)
 - HIV diagnosis out of France 95 (14%)
 - Age < 18 years 18 (3%)
 - Others 110 (17%)

1,350 eligible patients

227 Study not proposed (17%)

115 Refusals (9%)

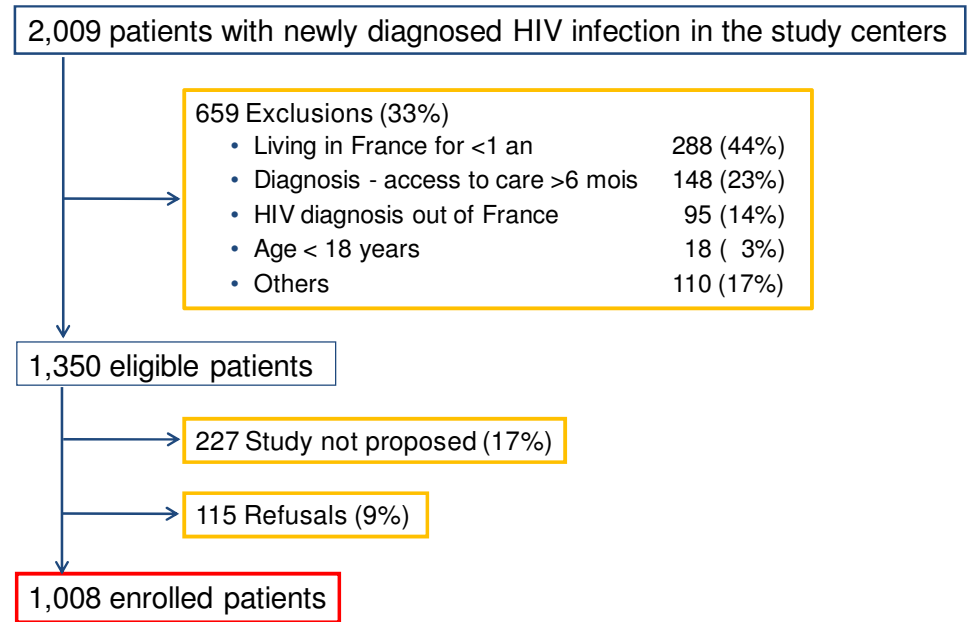
1,008 enrolled patients



New HIV diagnoses	Study n=2,009	France 2010 n=6,300
Sex, men (%)	69%	68%
Born out of France, n (%)	39%	48%
HIV stage when diagnosed, n (%)		
CD4 <200/mm ³	28%	29%
Aids	15%	15%
Acute primary infection	12%	11%
Mean age when diagnosed, years	37,6	37,9

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- Inclusion criteria
- Higher proportion of “older” men born in France enrolled in the study



New HIV diagnoses	Enrolled n=1,008		Not enrolled n=1,001		p
	n	%	n	%	
Sex, men (%)	793	79%	599	60%	<0.0001
Born out of France, n (%)	267	27%	418	52%	<0.0001
HIV stage when diagnosed, n (%)					
CD4 <200/mm ³	308	31%	254	25%	0.72
Aids	162	16%	133	13%	0.18
Acute primary infection	153	15%	87	9%	0.0002
Mean age when diagnosed, years	39.5	(11.6)	35.7	(11.7)	<0.0001

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Results

Risk groups, n=1,008

- 81% of patients enrolled belonged to a risk group

	n	%
Man who have sex with men	530	53%
Heterosexual with sexual risk*	155	15%
Sub-Saharan Africa immigrant	124	12%
Injecting drug user	12	1%
No risk group	187	19%



* ≥ 2 sexual partners and/or unprotected sexual intercourse with casual partners within the 3 years prior to HIV diagnosis

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Results

History of HIV testing, n=1,008

- 40% of patients ≤ 3 years
 - Median time last negative test – HIV diagnosis : 11 months [5.2-18.9]
- 27% of patients >3 years
- 32% of patients never tested
 - 57% of people stated they do not belong to a risk group
 - 45% of immigrants from sub-Saharan Africa
 - 44% of heterosexuals with sexual risk
(versus 18% of MSM, $p < 0.0001$)

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Results

Healthcare utilization

- 994 (99%) of patients reported ≥ 1 encounter with a healthcare setting within the 3 years prior to HIV diagnosis

Contacts with a healthcare setting	n	%
General practitioner (GP)	922	93%
Specialist practitioner	649	65%
Hospital	324	33%
Emergency department	329	33%
Other medical department or practitioner	377	38%

- 888 (89%) patients visited a GP at least annually

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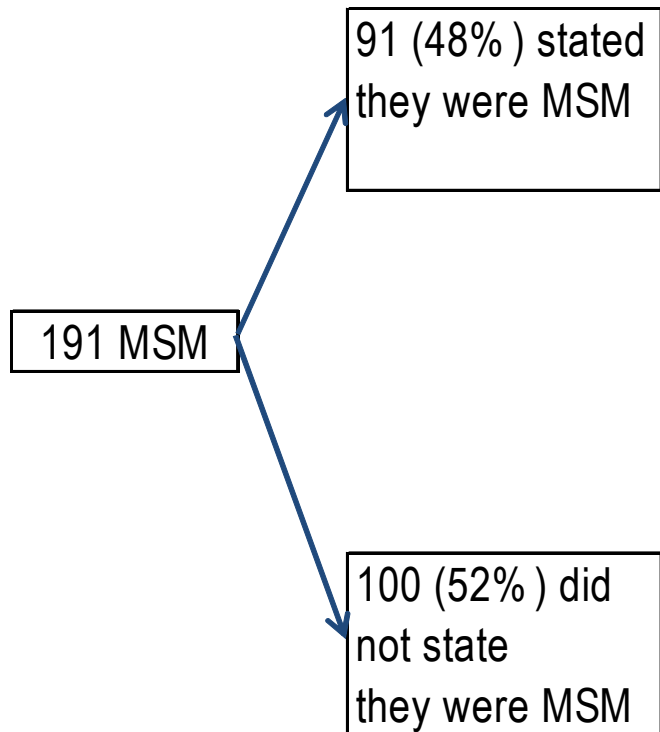
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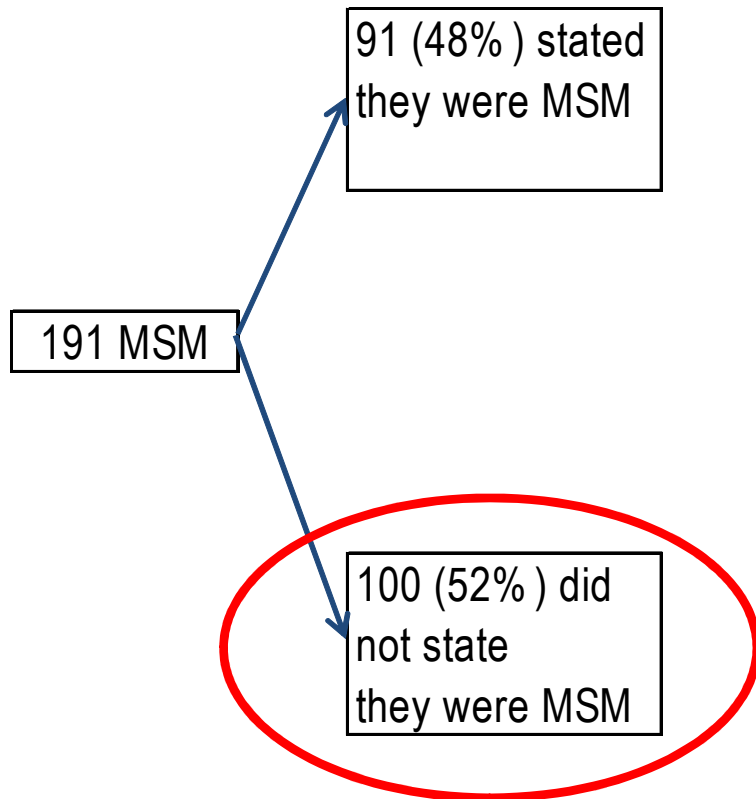
Missed opportunities for HIV testing
/ MSM with no HIV related symptoms



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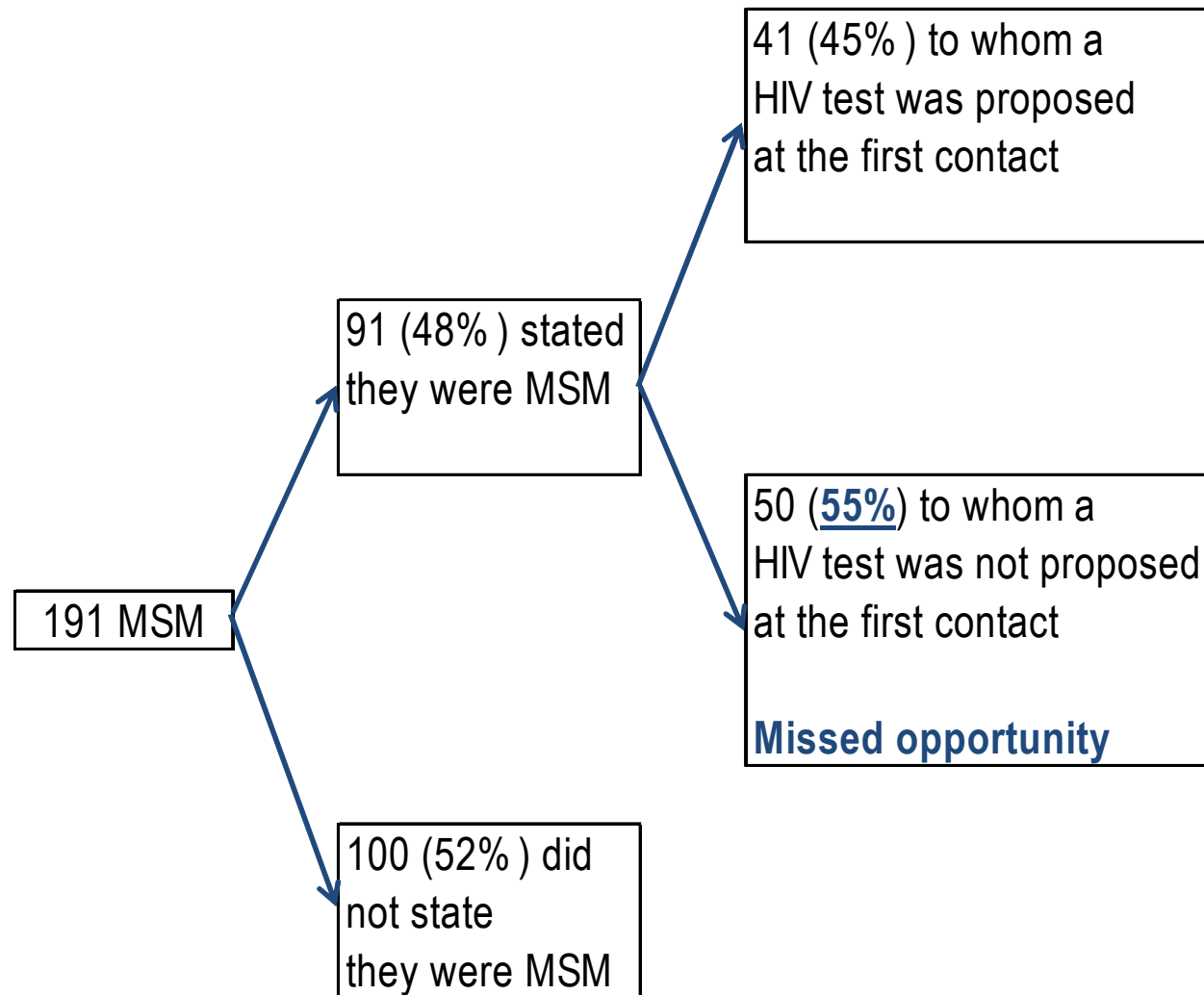
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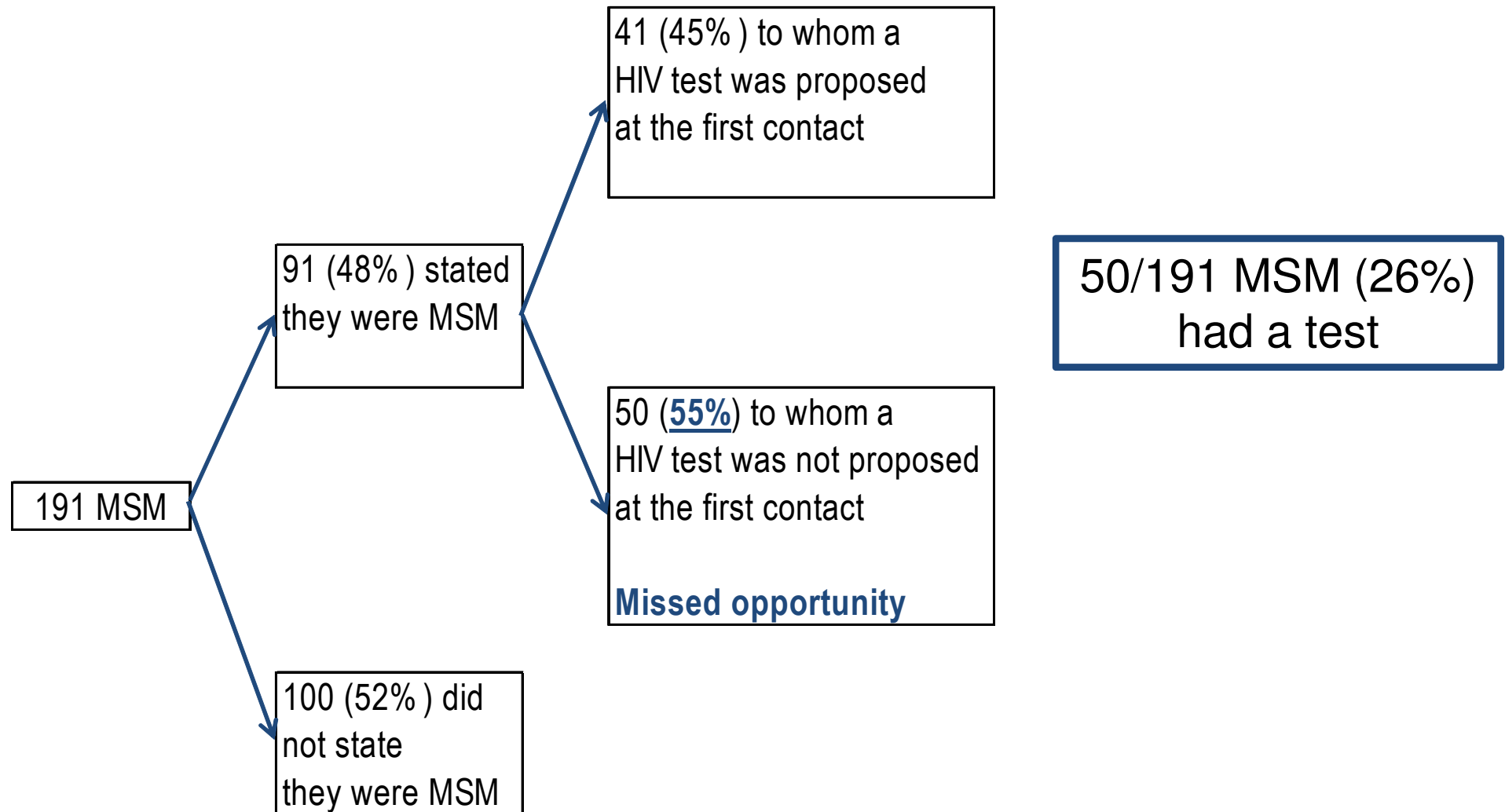
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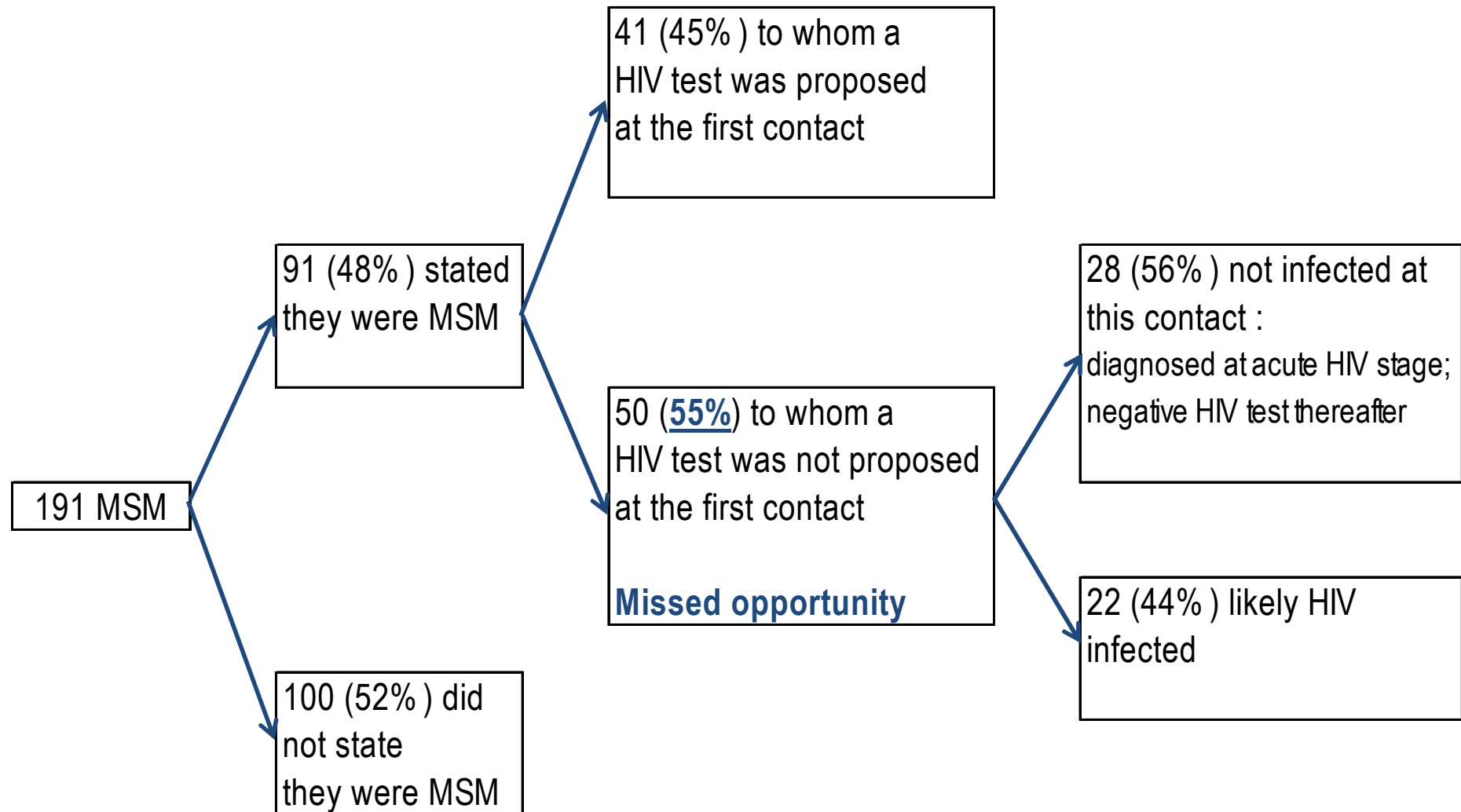
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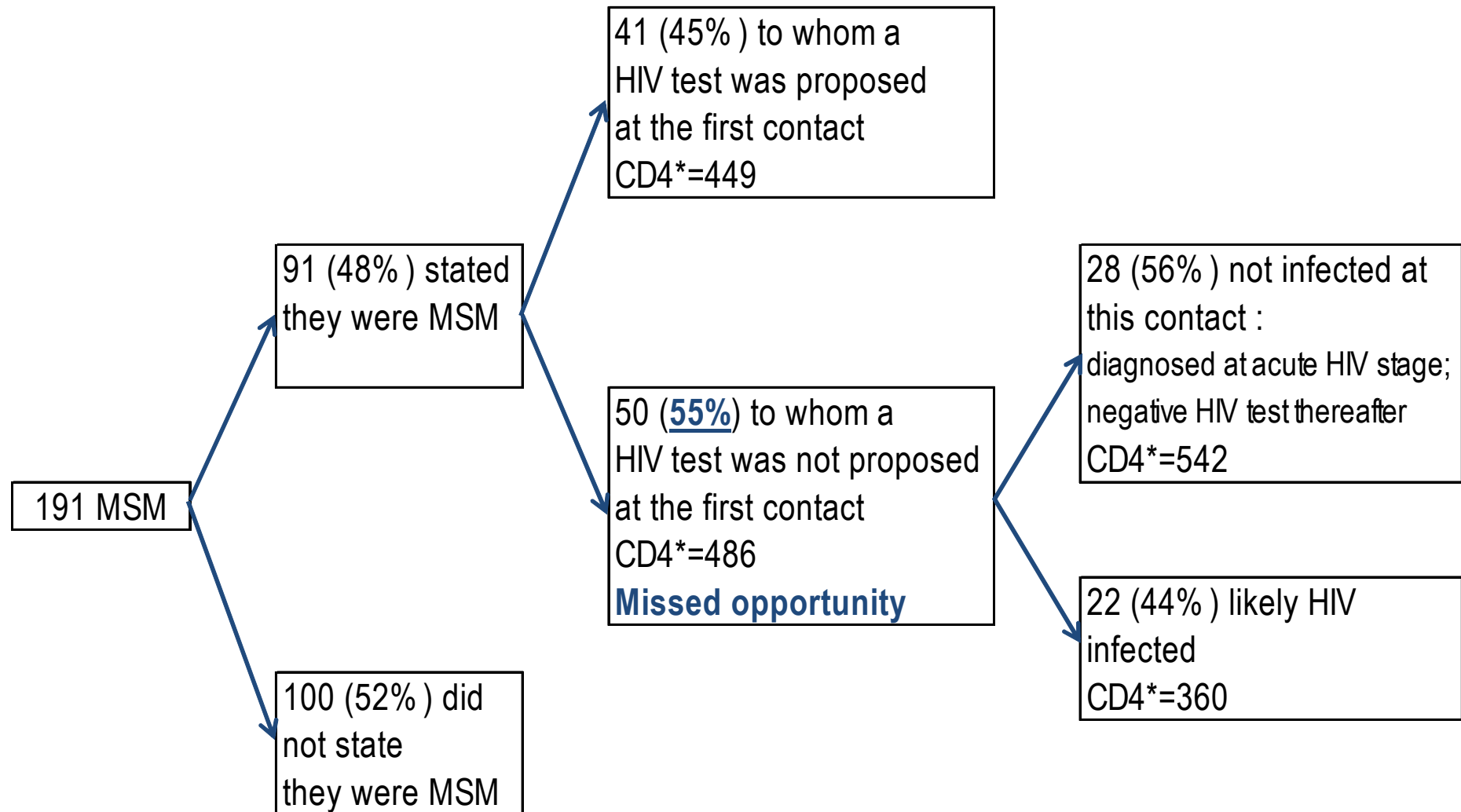
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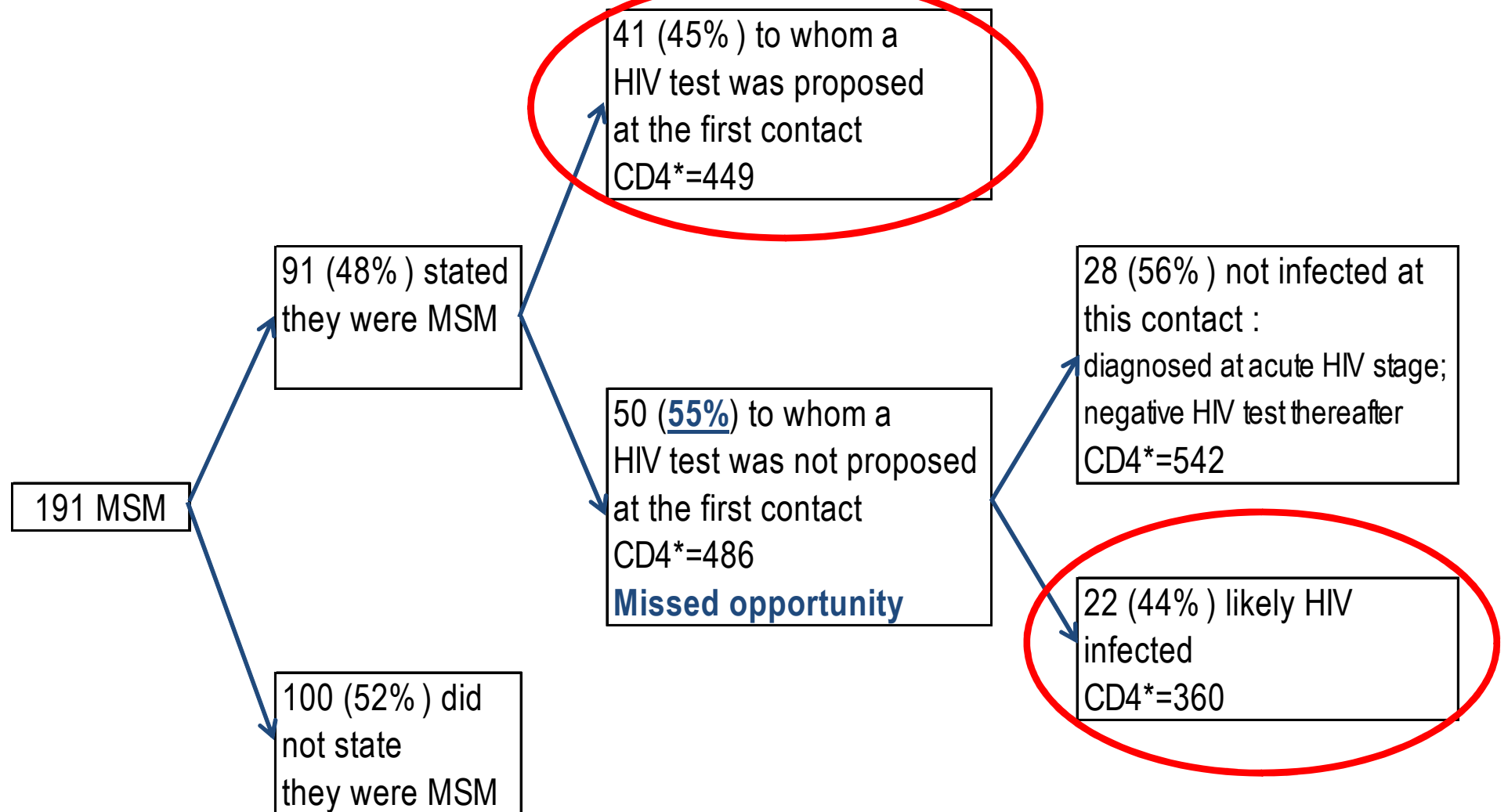


* Median CD4 count , cells/mm³

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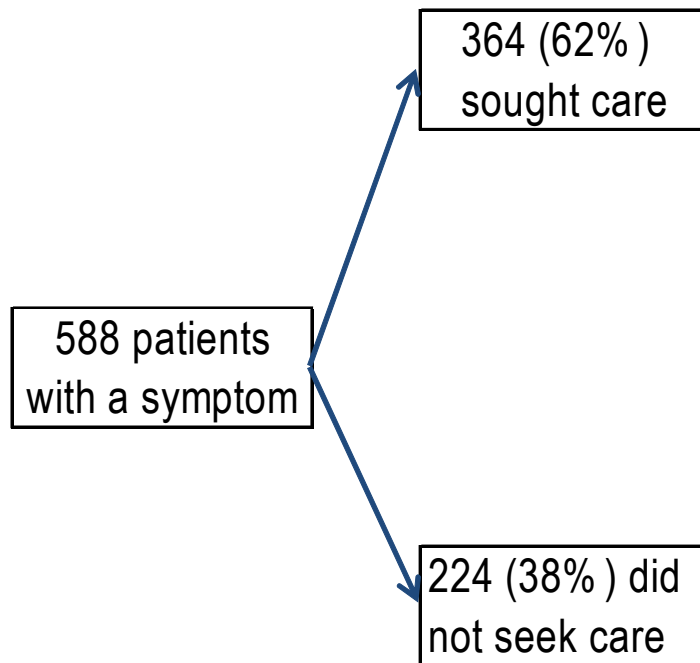
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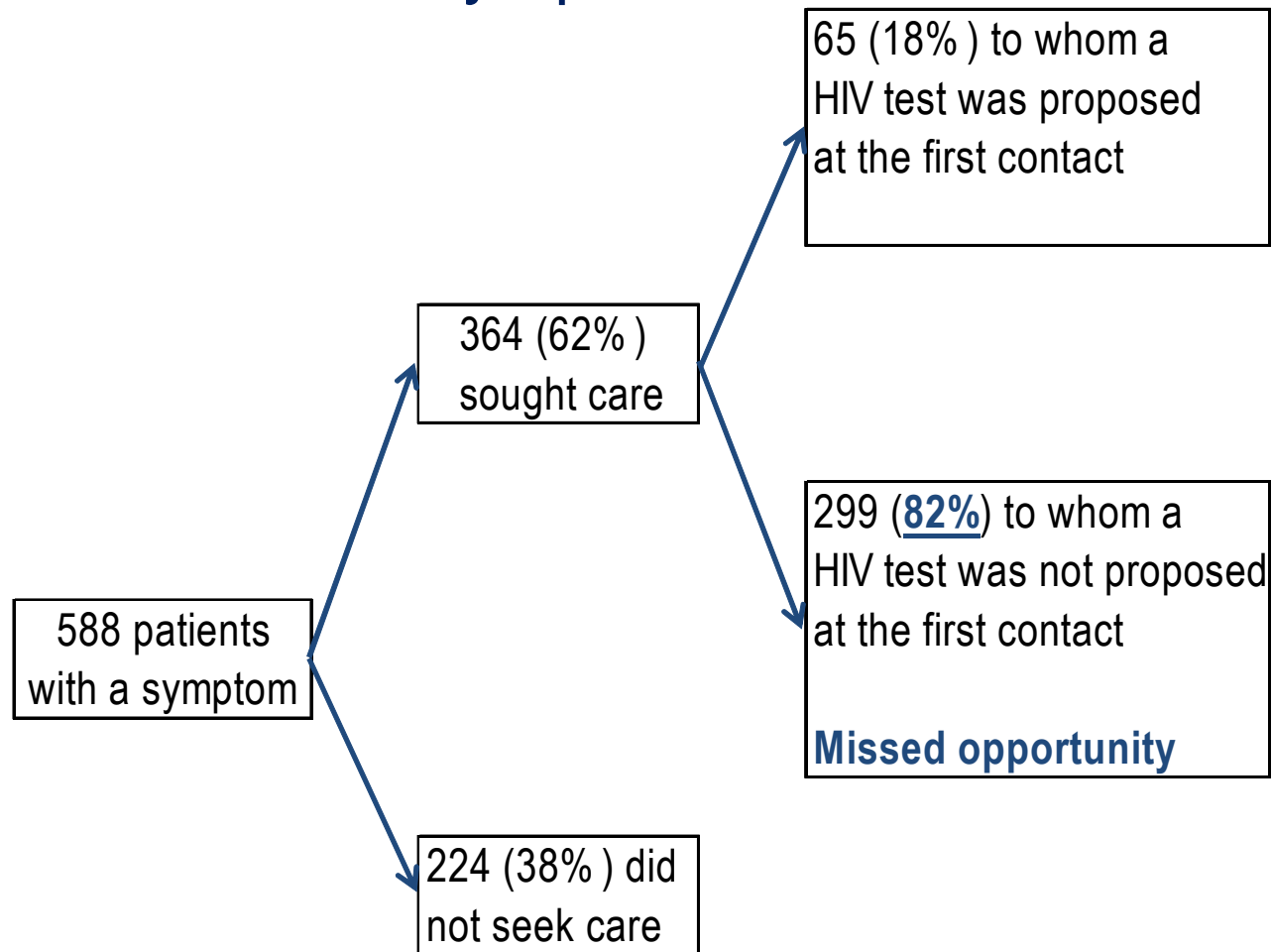
Missed opportunities for HIV testing / HIV related symptom[‡]



[‡] Within the 3-year – 3-month period before HIV diagnosis; the first HIV-related symptom in this period

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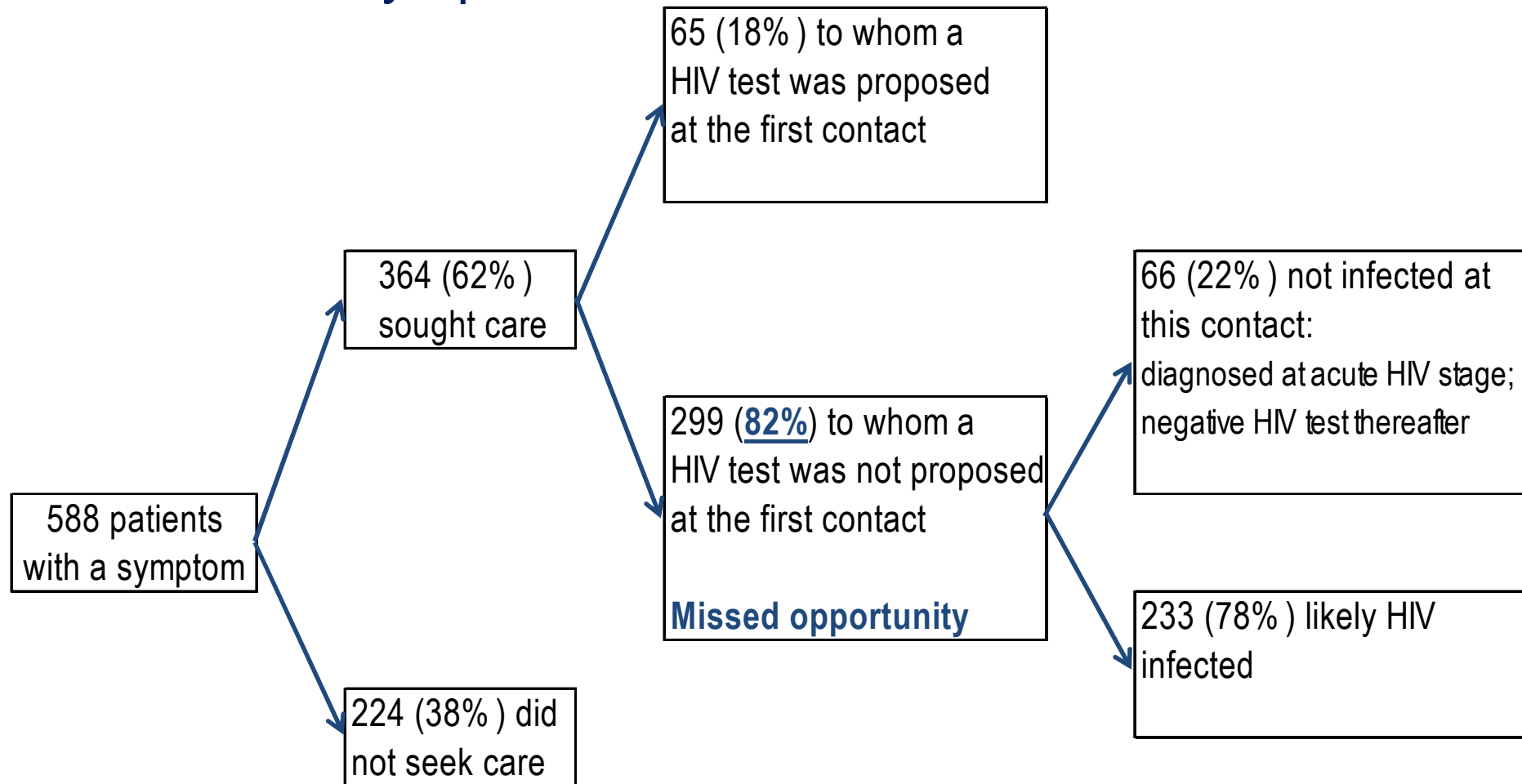
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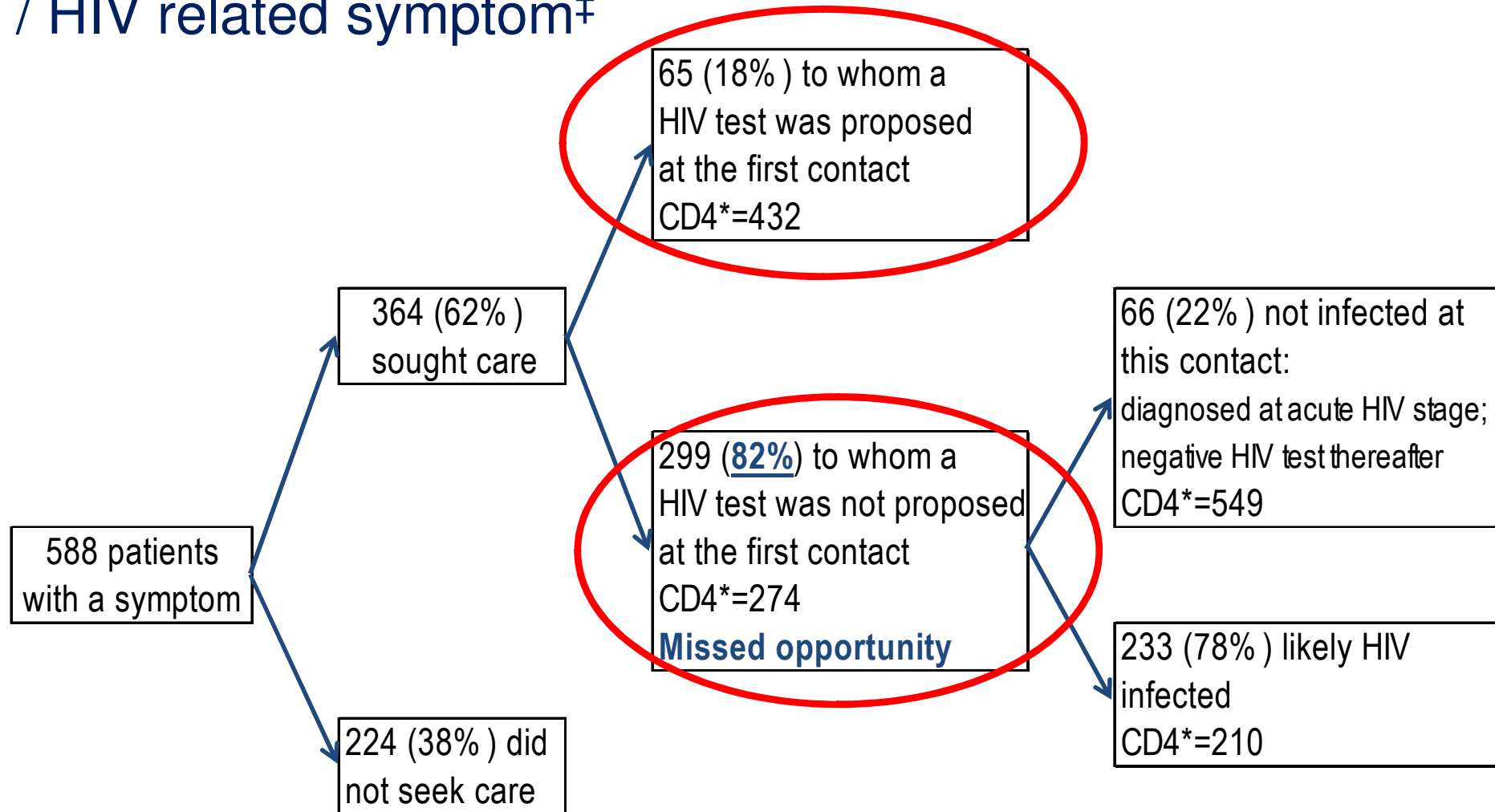
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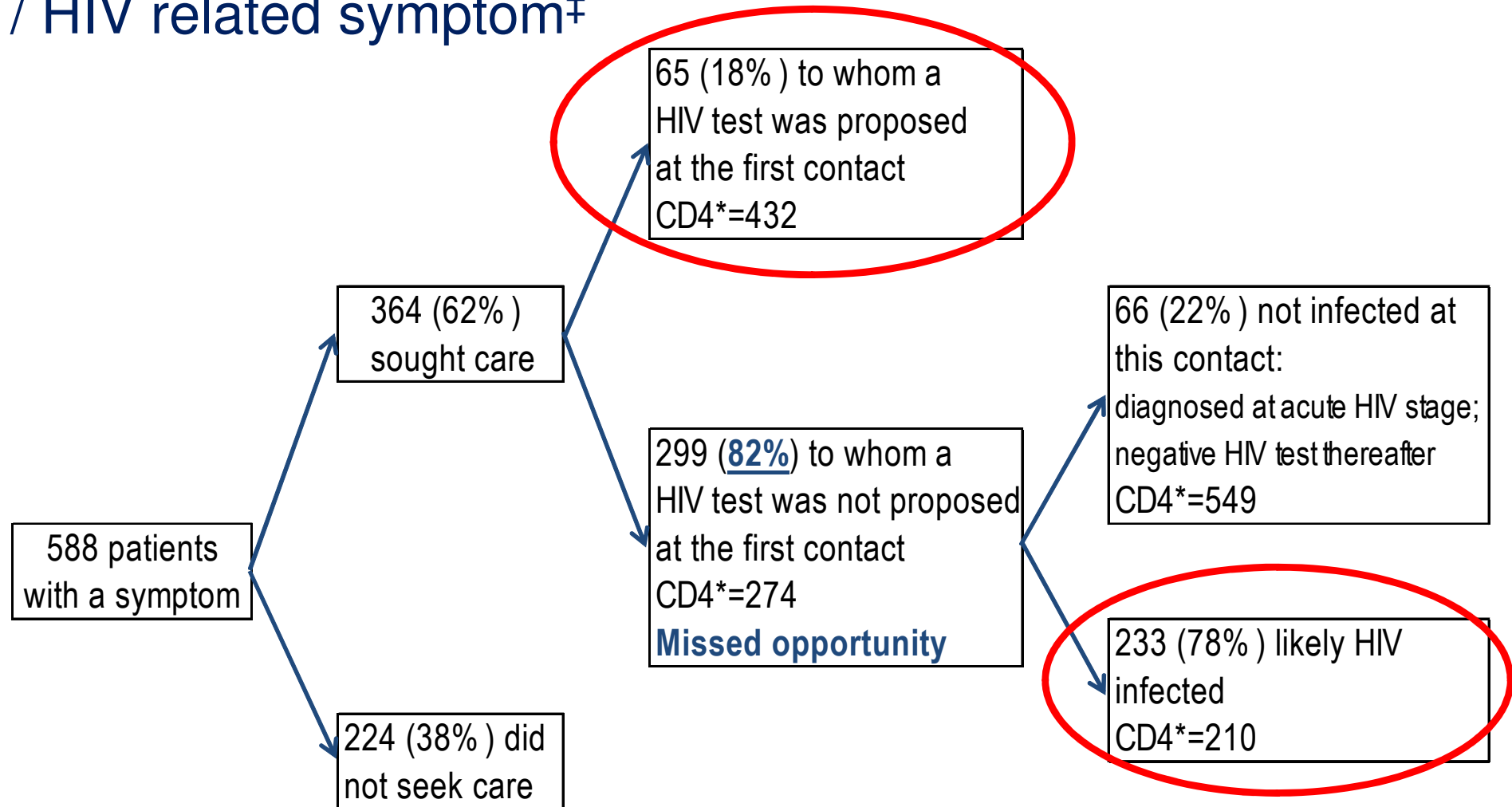


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Results

HIV test proposal at the first contact with a healthcare setting with a HIV related symptom *

HIV related symptom*	N	HIV test proposal
Recurrent bacterial infections	87	2 (2%)
Generalized lymphadenopathy	46	5 (11%)
Varicella zoster	35	5 (14%)
Unexplained weight loss $\geq 10\%$	45	7 (16%)
Diarrhea ≥ 1 month	36	6 (17%)
Fever ≥ 1 month	22	5 (23%)
Sexually transmitted diseases	101	54 (53%)

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Limitations

- Recall bias: missed opportunities for HIV testing under-estimated
 - Exclusion of patients if time between HIV diagnosis and access to care >6 months
 - Data collection limited to 3 years prior to HIV diagnosis
- Few number of asymptomatic patients in HIV risk groups other than MSM
 - Missed opportunities for HIV testing in these groups can not be studied
- HIV test proposal at the first contact with a healthcare setting: missed opportunities for HIV testing over-estimated?
 - Visits <3 months prior to HIV diagnosed excluded from the analysis
 - Most patients with a missed opportunity not tested for HIV within the 3 months following the contact

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Conclusion

- Failure for healthcare providers to identify people at risk for HIV
 - Sexual risk not stated by patients and not asked by physicians
 - Low proportion of HIV test proposal knowing that the patient was at risk
- High to very high proportions of missed opportunities
 - According HIV related symptoms
- Results in favor of
 - Improving identification of people at risk for HIV
 - Education of healthcare providers
 - Improvement of risk assessment strategies

Algorithms*?
 - Extending HIV testing in primary care settings
 - 90% of patients visit a GP at least annually

Routine HIV testing?