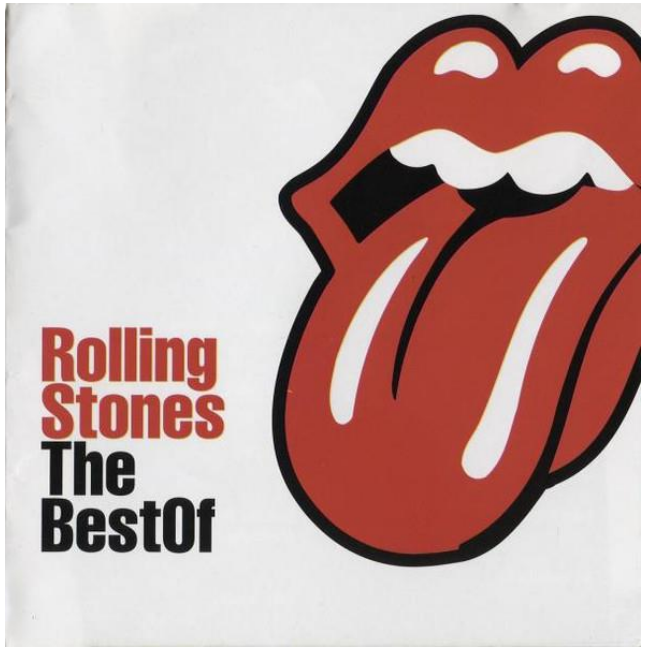
Best of Maladies Infectieuses dans les Caraïbes

Samuel Markowicz

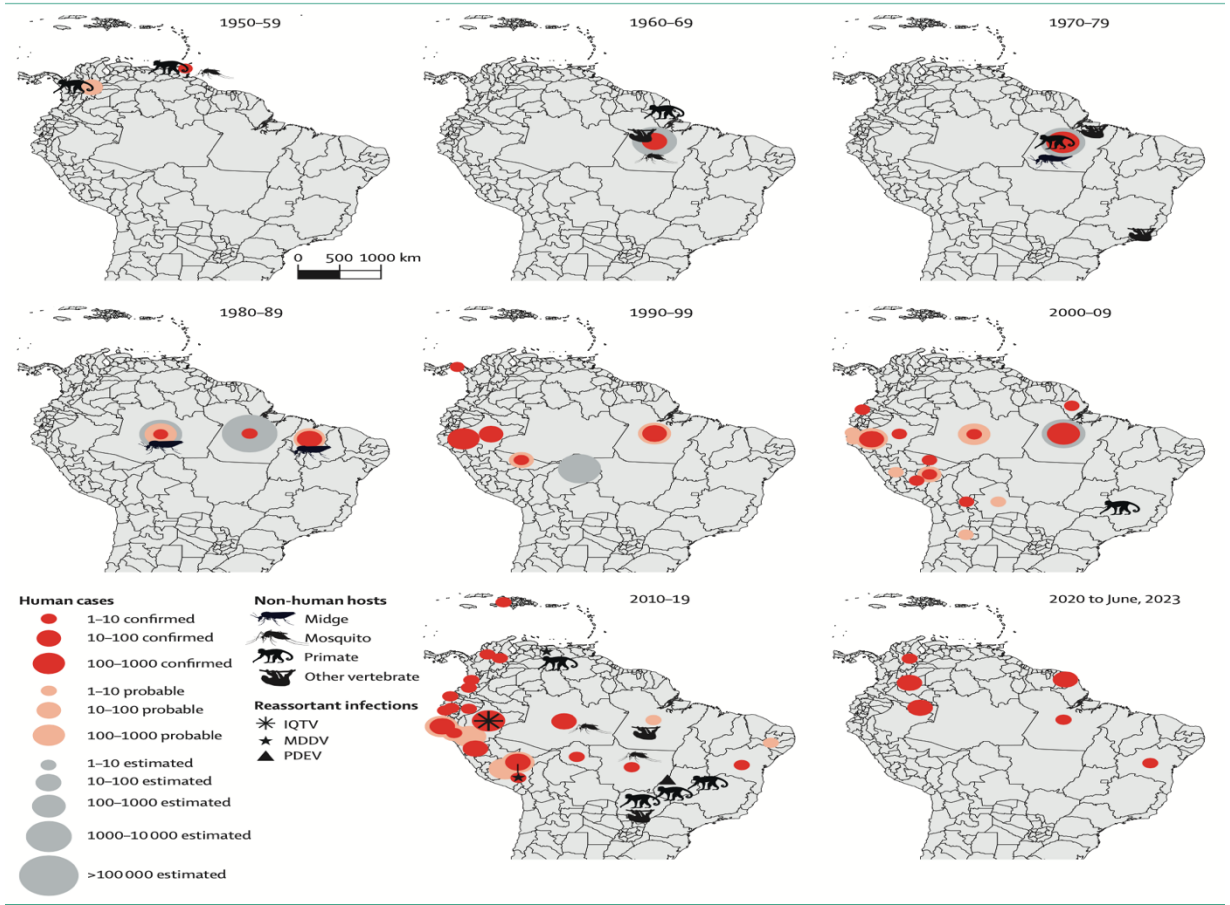
CHU Guadeloupe

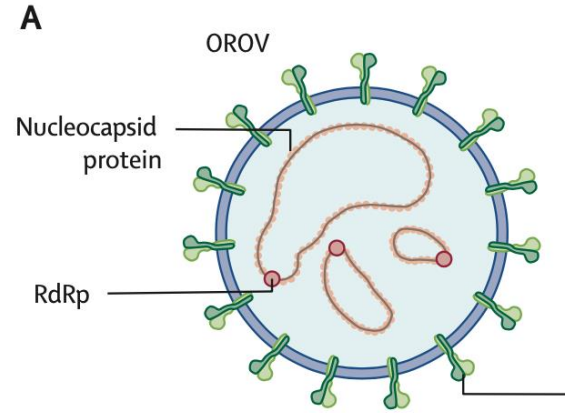
18/10/2024



Emergence of Oropouche fever in Latin America: a narrative review

Konrad M Wesselmann, Ignacio Postigo-Hidalgo, Laura Pezzi, Edmilson F de Oliveira-Filho, Carlo Fischer, Xavier de Lamballerie, Jan Felix Drexler





Preparedness for emerging epidemic threats: detection of Oropouche circulation in Cuba

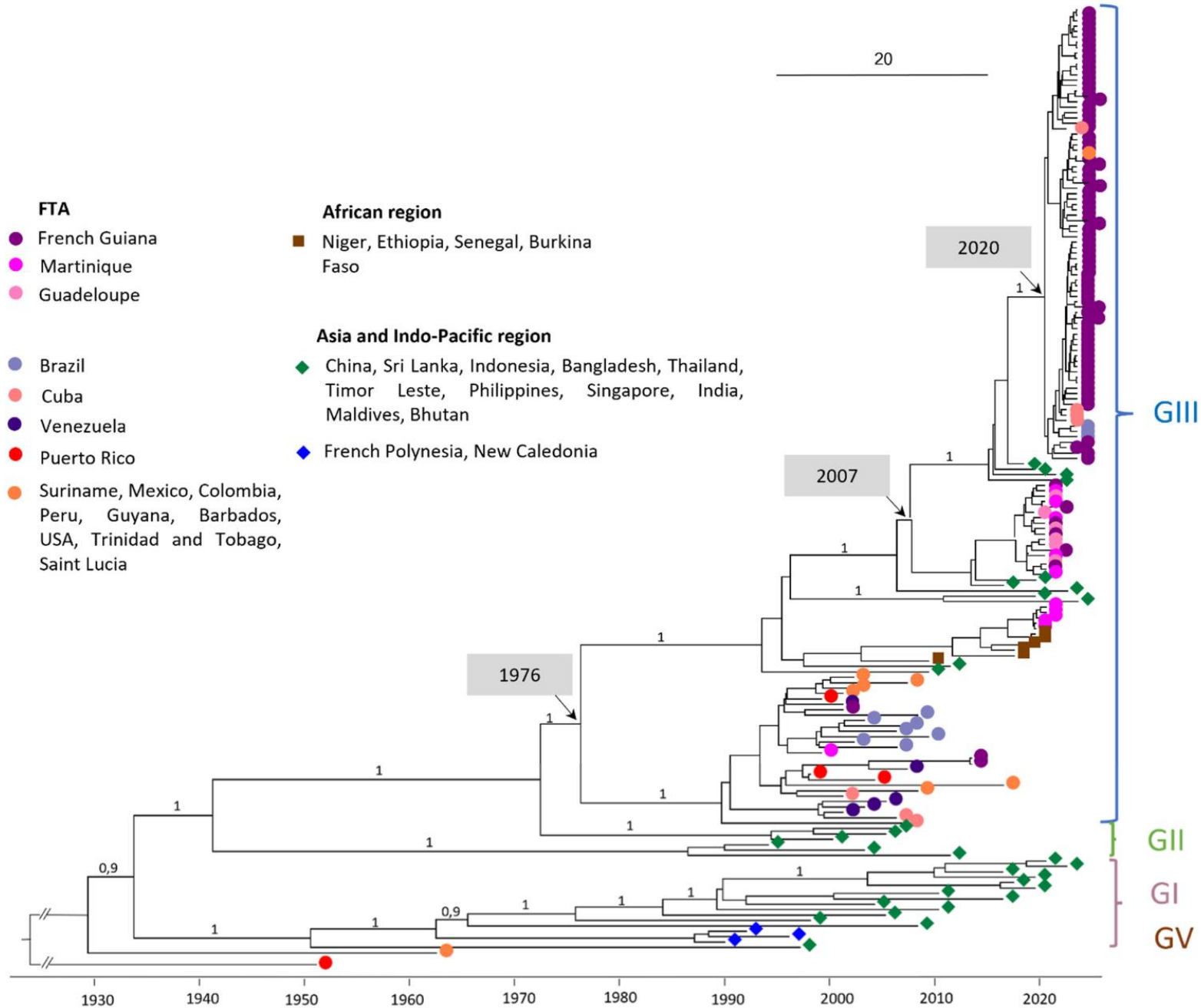
viruses

MDPI

Article

Re-Emergence of DENV-3 in French Guiana: Retrospective Analysis of Cases That Circulated in the French Territories of the Americas from the 2000s to the 2023–2024 Outbreak

Alisé Lagrave [1], Antoine Enfissi [1], Sourakhata Tirera [1], Magalie Pierre Demar [2], Jean Jaonasoa [2], Jean-François Carod [3], Tsiriniaina Ramavoson [3], Tiphanie Succo [4], Luisiane Carvalho [4], Sophie Devos [4], Frédérique Dorleans [5], Lucie Leon [5], Alain Berlioz-Arthaud [6], Didier Musso [6], Anne Lavergne [1] and Dominique Rousset [1,*]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French Guiana
Martinique
Guadeloupe
Brazil
Cuba
Venezuela
Puerto Rico
Suriname, Mexico, Colombia, Peru, Guyana, Barbados, USA, Trinidad and Tobago, Saint Lucia
African region
Niger, Ethiopia, Senegal, Burkina Faso
Asia and Indo-Pacific region
China, Sri Lanka, Indonesia, Bangladesh, Thailand, Timor Leste, Philippines, Singapore, India, Maldives, Bhutan
French Polynesia, New Caledonia
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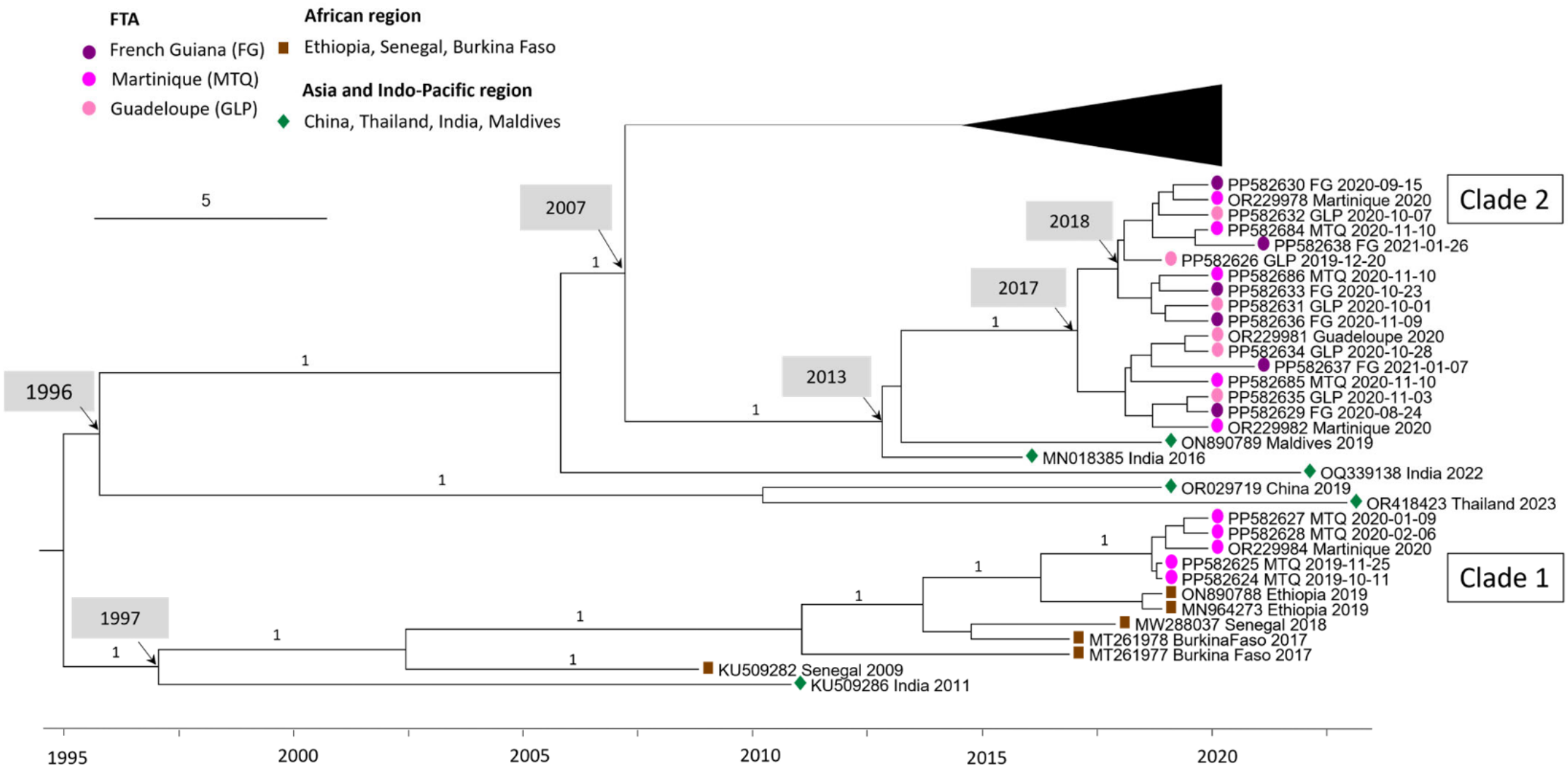
FTA
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Guadeloupe (GLP)
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Ethiopia, Senegal, Burkina Faso
Asia and Indo-Pacific region
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PP582684 MTQ 2020-11-10
PP582638 FG 2021-01-26
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PP582686 MTQ 2020-11-10
PP582633 FG 2020-10-23
PP582631 GLP 2020-10-01
PP582636 FG 2020-11-09
OR229981 Guadeloupe 2020
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PP582635 GLP 2020-11-03
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OQ339138 India 2022
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PP582628 MTQ 2020-02-06
OR229984 Martinique 2020
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MN964273 Ethiopia 2019
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MT261977 Burkina Faso 2017
KU509282 Senegal 2009
KU509286 India 2011
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Clade 1
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2015
2020

Short communication

Knowledge on human papillomavirus (HPV), HPV screening and HPV vaccine among sexual health clinic patients in Martinique, French West Indies

O. Cabras [a,c,*], L. Sylvanise [a], A. Marquise [a], A. Cabié [a,b,c], L. Cuzin [a,d]

Among this young population seeking care in a sexual health clinic, 32 % of the respondents never had heard of HPV. Among those who had heard of HPV (54.1 % of them being women), awareness was still poor overall. Women had a better median of correct answers, especially for questions regarding HPV vaccine and screening. Among this very young population, we did not find any significant difference between age groups. Knowledge of patients under 30 was as poor as that of those over 30.

PLOS NEGLECTED TROPICAL DISEASES

RESEARCH ARTICLE

Causes and consequences of fever in Amazonian pregnant women: A large retrospective study from French Guiana

Najeh Hcini[1,2]*, Véronique Lambert[1], Olivier Picone[3], Jean-Francois Carod[4], Mérédith Mathieu[1], Romane Cousin[1], Ferroudja Akli[1], Gabriel Carles[1], Célia Basurko[5], Léo Pomar[6,7], Loïc Epelboin[2,8], Mathieu Nacher[5]

1 Department of Obstetrics and Gynaecology, West French Guiana Hospital Center, Saint-Laurent-du-Maroni, French Guiana, **2** INSERM CIC1424 Centre d'Investigation Clinique Antilles Guyane, Cayenne, French Guiana, **3** Service Gynécologie Obstétrique, Hôpital Louis Mourier, Hôpitaux Universitaires Paris Nord Val de Seine, Assistance Publique: Hôpitaux de Paris, Université Paris Diderot, Colombes CEDEX, France, **4** Department of Biology, West French Guiana Hospital Center, Saint-Laurent-du-Maroni, French Guiana, **5** Centre d'Investigation Clinique Antilles-Guyane, Epidémiologie Clinique, CIC INSERM 1424, DRISP, Centre hospitalier de Cayenne, Cayenne, French Guiana, **6** Ultrasound and Fetal Medicine, Department Woman-Mother-Child, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland, **7** School of Health Sciences (HESAV), University of Applied Sciences and Arts Western Switzerland, Lausanne, Switzerland, **8** Department of Infectious and Tropical Diseases Cayenne General Hospital French Guiana France

* hcininajeh@gmail.com

Citation: Hcini N, Lambert V, Picone O, Carod J-F,

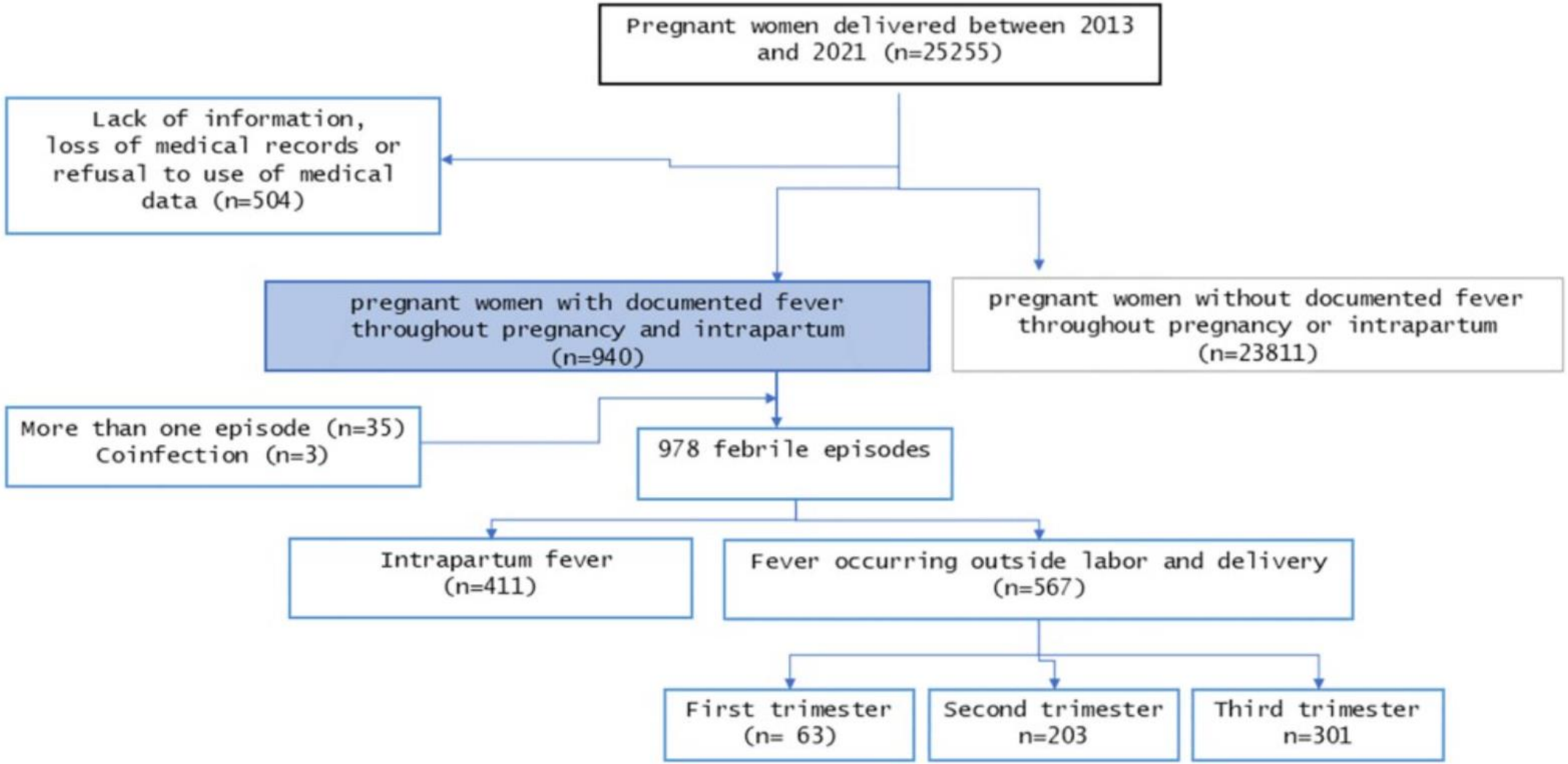


Fig 1. Flow diagram of patient recruitment in this retrospective study. Second tr
weeks and 6 days.

Table 3. Confirmed causes of fever among pregnant women in Western French Guiana and along the Maroni River.

Causes of fever	Number n = 483	Percentage (%)
Arboviruses	146	30.2
CHIKV	84	17.4
DENV	36	7.4
ZIKV	23	4.7
Other arboviruses	3	0.6
Urinary tract infections	134	27.7
COVID 19	64	13.2
Chickenpox	27	5.5
Influenza	16	3.3
Gastrointestinal infections	14	2.9
Shigellosis	9	1.8
Viral	4	0.8
Salmonellosis	2	0.4
Ear, nose, and throat disorders	12	2.4
Skin lesions and abscesses	10	2
Pulmonary infections	10	2
Leptospirosis	9	1.8
Malaria	8	1.6
STI	7	1.4
Secondary syphilis	4	0.8
HSV primary genital infection	3	0.6
Coxiella burnetii (Q fever)	5	1
Others	21	4.3
Total	483	100

This table only lists cases having occurred outside labor and delivery (n = 483). STI, sexually transmitted infections;

Table 4. Comparison of main perinatal outcomes between pregnant women with documented fever and pregnant women without documented fever.

	Pregnant women with documented fever (n = 940)	Pregnant women without documented fever (n = 23811)	aOR* [95%CI]	P value
Stillbirth	52/940 (5.5%)	459/23811(1.92%)	2.7 [2–3.7]	0.001
Cesarean delivery **	180/909 (19.8%)	3690/23803 (15.5%)	1.3 [1.1–1.6]	0.001
Preterm birth <34wg	68/940 (7.2%)	1119/23811 (4.7%)	1.5 [1.2–2]	0.001
Preterm birth <37wg	247/940 (26.3%)	5738/23811 (24.1%)	1.1 [0.9–1.3]	0.12

Dequidt *et al. Critical Care* (2023) 27:418
https://doi.org/10.1186/s13054-023-04712-2

Critical Care

RESEARCH Open Access

Cefoxitin versus carbapenems as definitive treatment for extended-spectrum β-lactamase-producing *Klebsiella pneumoniae* bacteremia in intensive care unit: a propensity-matched retrospective analysis

Tanguy Dequidt[1*], Sylvaine Bastian[2,3], Mathieu Nacher[4], Sébastien Breurec[2,3,5,6,7], Michel Carles[8], Guillaume Thiery[9], Laurent Camous[10], Benoit Tressieres[7], Marc Valette[10] and Jean-David Pommier[10]

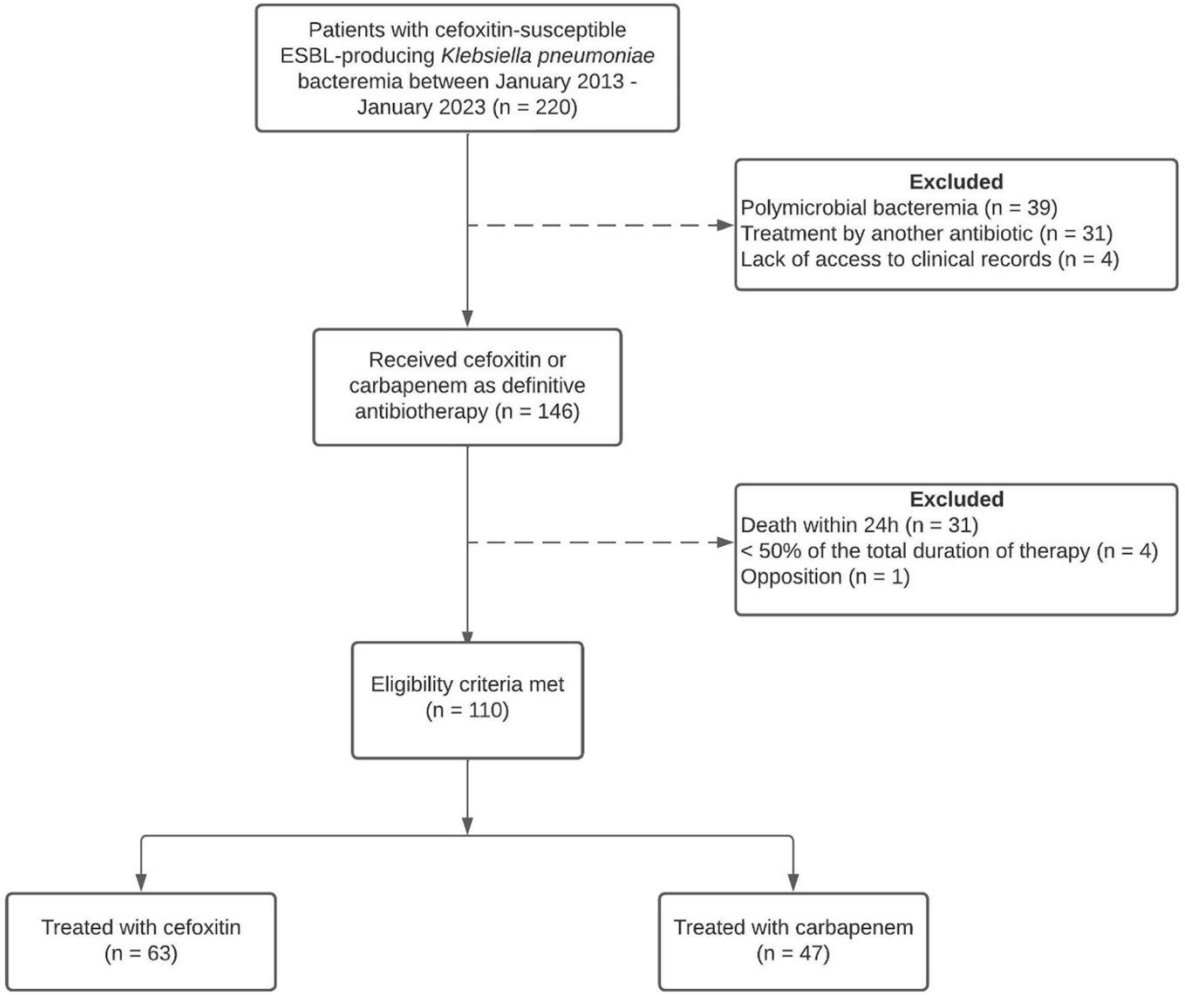


Fig. 1 Study flow chart

Table 2 Outcomes of patients with ESBL-KP bacteremia according to antibiotic treatment

Outcomes	Cefoxitin (*n* = 63)	Carbapenem (*n* = 47)	Univariate analysis		PS-adjusted analysis (*n* = 100)	
			HR (95%CI)	*p* value	aHR (95%CI)	*p* value
30-day clinical success	36 (57)	25 (53)	0.9 (0.5–1.6)	.823	1.3 (0.6–2.5)	.497
30-day all-cause mortality	18 (29)	20 (42)	0.6 (0.3–1.2)	.131	0.8 (0.4–1.7)	.549
Relapse	6 (11)	4 (11)	1.1 (0.3–3.9)	.887	0.8 (0.1–4.0)	.768
Change of antibiotic	11 (17)	0 (0)	N/A	**.002**	N/A	N/A
7-day all-cause mortality	9 (14)	7 (15)	0.9 (0.3–2.5)	.889	1.5 (0.5–4.8)	.463
Microbiological failure	10 (16)	7 (15)	1.1 (0.4–2.8)	.897	1.6 (0.5–5.3)	.414

Data are presented as median [IQR] or count (%). *p* values in bold are statistically significant. aHR = adjusted hazard ratio. N/A = not applicable

*Fisher's exact test used for this variable for which one of the counts is 0

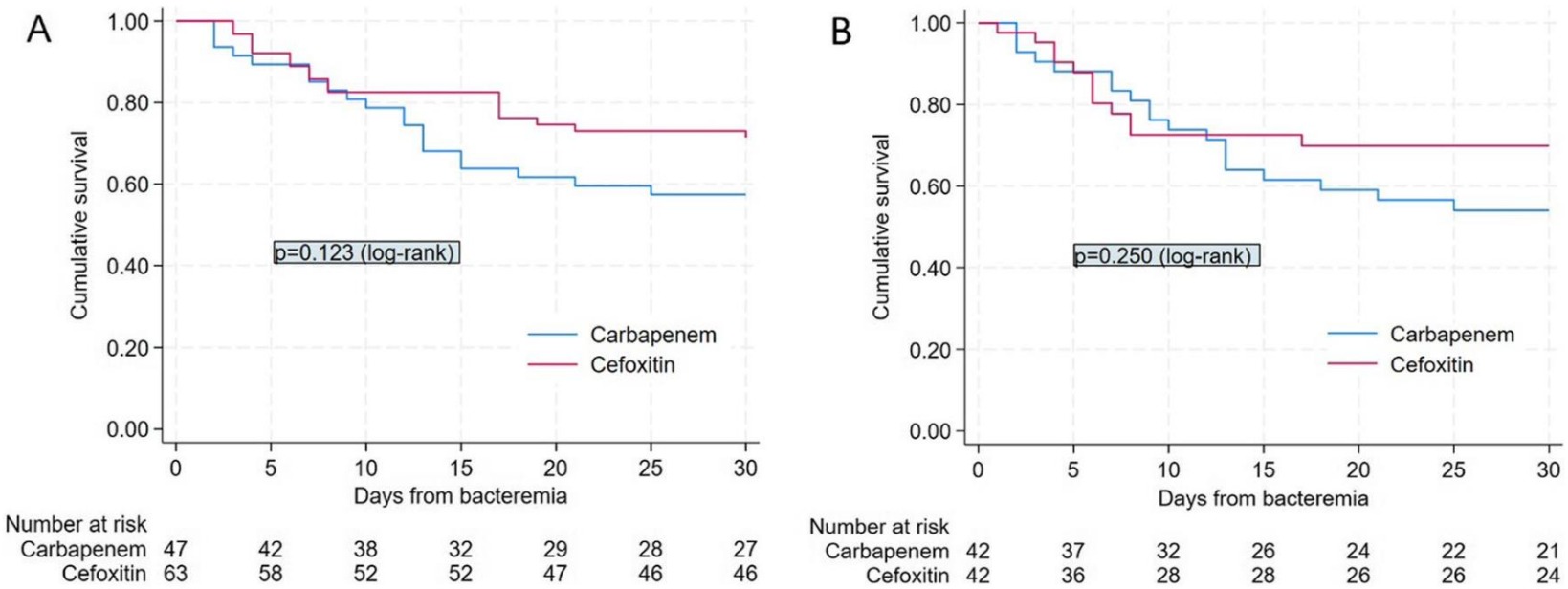


Fig. 2 Kaplan–Meier survival curves for baseline population (**A**) and PS-matched patients (**B**) receiving cefoxitin or carbapenem therapy for extended-spectrum beta-lactamase (ESBL)-producing *Klebsiella pneumoniae*

Table 3 Subgroup analysis of 30-day clinical success according to source of infection

30-day clinical success	Cefoxitin *n* = 63 (57%)	Carbapenem *n* = 47 (43%)	OR (95% CI)	*p* value
Source of bacteremia				
Central line associated	20/24 (83%)	10/12 (83%)	1.0 (0.1–8.5)	1.00
Pneumonia	1/7 (14%)	3/14 (21%)	0.6 (0.1–10.0)	1.00
Urinary tract	8/13 (61%)	2/3 (67%)	0.8 (0.1–19.7)	1.00
Intra-abdominal	2/8 (25%)	1/4 (25%)	1.0 (0.1–78.4)	1.00
Unknown	4/8 (50%)	7/9 (78%)	0.3 (0.2–3.4)	.335

Data are presented as count (%). OR = odd ratio

Table 4 Selection of cefoxitin-resistant bacterial strains at 30 days on any sample after administration of cefoxitin or carbapenem

Characteristic	Cefoxitin *n* = 63	Carbapenem *n* = 47	*p* value
Selection of at least one cefoxitin-resistant gram-negative bacteria at 30 days	30 (48)	22 (47)	.933
Klebsiella pneumoniae cefoxitin-resistant	7 (11)	4 (8)	.755
Including colonization	4 (6)	1 (2)	
Including infection	3 (5)	3 (6)	
AmpC β-lactamase-producing Enterobacterales	15 (24)	2 (4)	**.006**
Including colonization	6 (9)	0 (0)	
Including infection	9 (14)	2 (4)	
Pseudomonas aeruginosa	13 (21)	18 (38)	**.042**
Including colonization	3 (5)	8 (17)	
Including infection	10 (16)	10 (21)	
Pseudomonas aeruginosa carbapenem-resistant	3 (5)	11 (23)	**.007**
Including colonization	2 (3)	5 (11)	
Including infection	1 (2)	6 (13)	
Stenotrophomonas maltophilia	0 (0)	1 (2)	.427
Acinetobacter baumannii	2 (3)	0 (0)	1.00

Date are presented as count (%). *P* values in bold are statistically significant

OBSERVATIONAL STUDY

OPEN

Organ Involvement Related to Death in Critically Ill Patients With Leptospirosis: Unsupervised Analysis in a French West Indies ICU

OBJECTIVES: To identify distinct phenotypes of critically ill leptospirosis patients upon ICU admission and their potential associations with outcome.

DESIGN: Retrospective observational study including all patients with biologically confirmed leptospirosis admitted to the ICU between January 2014 and December 2022. Subgroups of patients with similar clinical profiles were identified by unsupervised clustering (factor analysis for mixed data and hierarchical clustering on principal components).

SETTING: All patients admitted to the ICU of the University Hospital of Guadeloupe on the study period.

PATIENTS: One hundred thirty critically ill patients with confirmed leptospirosis were included.

Laurent Camous, MD, MSC[1]

Jean-David Pommier, MD, MPH[1,2]

Benoît Tressières, Msc[3]

Frederic Martino, MD[1,4]

Mathieu Picardeau, MD, PhD[5]

Cecile Loraux, MD, MSC[6]

Marc Valette, MD[1]

Hugo Chaumont, MD, PhD[3,7]

Michel Carles, MD, PhD[8]

Alexandre Demoule, MD, PhD[9,10]

Sebastien Breurec, MD, PhD[3,4,6,11]

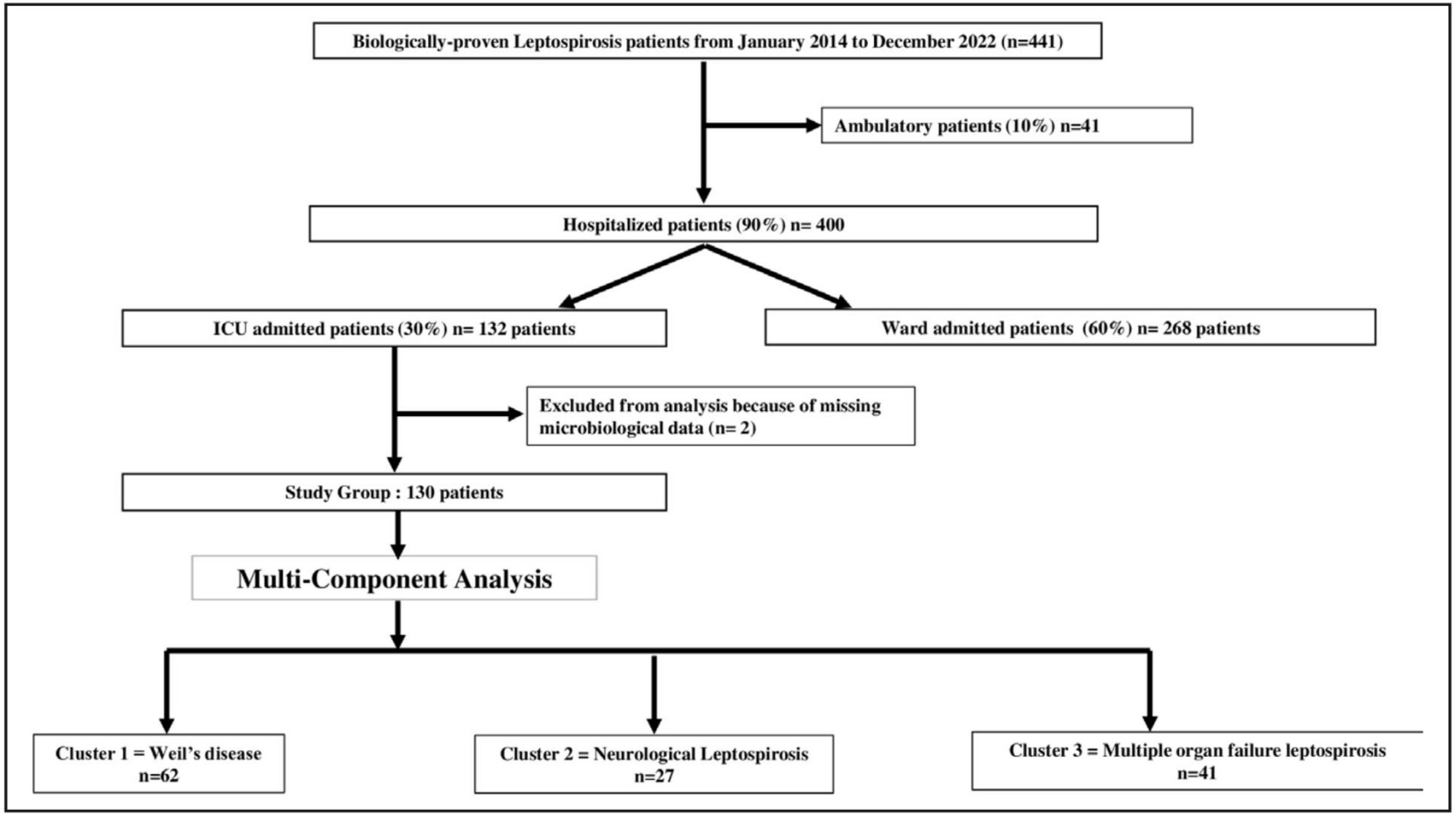


Figure 1. Flow chart of patients with biologically proven leptospirosis who were admitted to the Guadeloupe University Hospital between 2014 and 2022.

TABLE 2.
Clinical and Biological Characteristics of the Three Patient Clusters

Variables	Cluster 1: "Weil's Disease," *n* = 62	Cluster 2: "Neurologic Leptospirosis," *n* = 27	Cluster 3: "Multiple Organ Failure," *n* = 41	*p*
Positive blood and/or urine polymerase chain reaction, *n* (%)	46 (77)	6 (23)	35 (88)	< 0.001
Positive *Leptospira* antibody titer, *n* (%)	48 (80)	24 (92)	30 (77)	0.266
Clinical features and organ involvement at ICU admission, *n* (%)				
Jaundice	54 (87)	24 (89)	36 (88)	1.0
Acute respiratory failure	5 (8)	12 (44)	27 (66)	< 0.001
Shock	17 (27)	14 (52)	36 (88)	< 0.001
Myocarditis	5 (8)	15 (56)	33 (80)	< 0.001
CNS involvement	0 (0)	27 (100)	0 (0)	< 0.001
Acute renal injury	54 (87)	25 (96)	39 (95)	0.317
Biological and radiological data at ICU admission				
Lactate, mmol/L	1.8 (1.0–2.5)	2.3 (1.5–4.4)	3.0 (2.3–3.9)	< 0.001
Platelets, G/L	38 (26–66)	53 (34–100)	41 (26–70)	0.230
Creatinine, µmol/L	245 (138–514)	486 (360–600)	481 (325–571)	0.007
Bilirubin, µmol/L	130 (56–223)	254 (69–360)	211 (116–367)	0.014
Abnormal thoracic CT scan, *n* (%)	4 (7)	8 (30)	18 (44)	< 0.001
Left ventricular ejection fraction < 40%, *n* (%)	0 (0)	4 (15)	10 (24)	< 0.001
Advanced life support therapy in ICU, *n* (%)				
Renal replacement therapy	8 (13)	14 (52)	19 (46)	< 0.001
Mechanical ventilation	2 (3)	13 (48)	19 (46)	< 0.001
Outcome				
Duration of mechanical ventilation, d	4 (4–4)	7 (4–10)	8 (2–9)	0.563
30-d mortality, *n* (%)	2 (3)	7 (26)	9 (22)	0.002

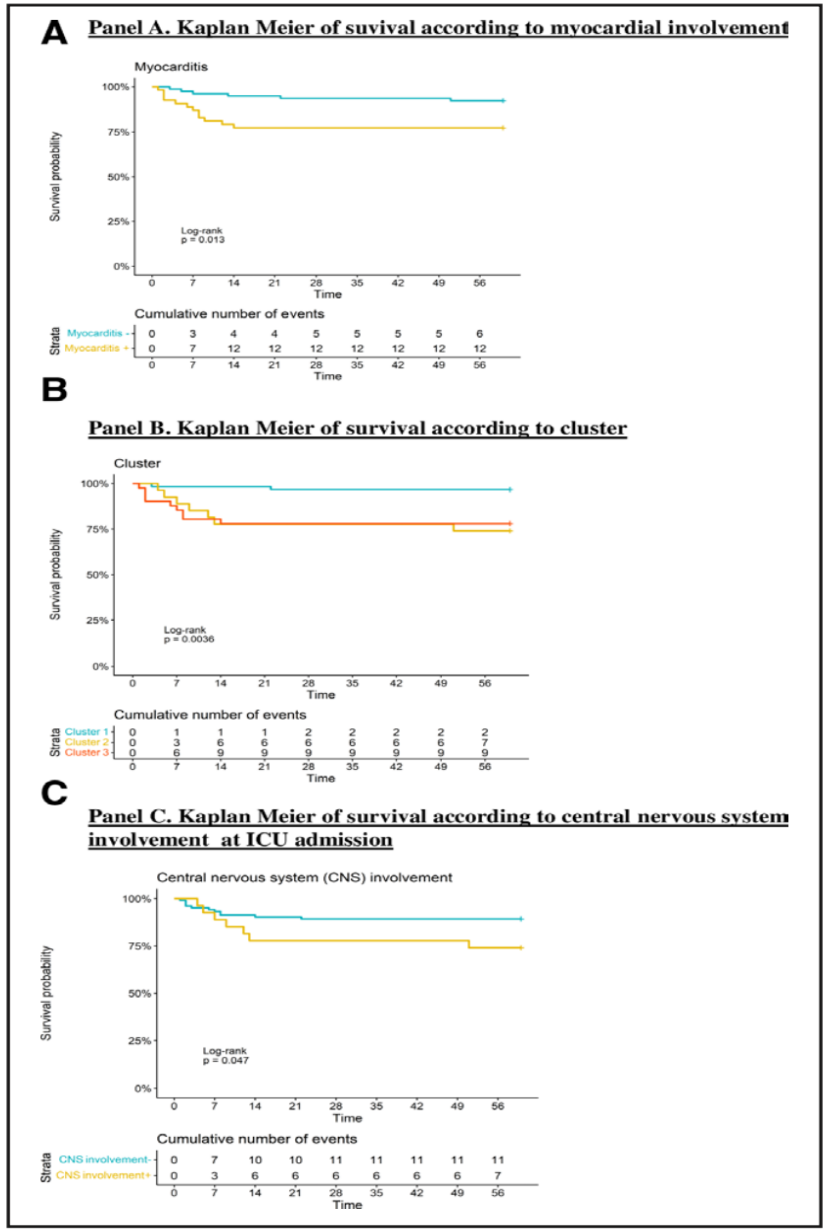


Figure 3. Kaplan-Meier survival curves according to myocardial involvement at ICU admission (**A**), cluster (**B**), and CNS involvement at ICU admission (**C**).

RESEARCH

Retrospective Study of Infections with *Corynebacterium diphtheriae* Species Complex, French Guiana, 2016–2021

Mélanie Gaillet, Mélanie Hennart, Vincent Sainte Rose, Edgar Badell, Céline Michaud, Romain Blaizot, Magalie Demar, Luisiane Carvalho, Jean François Carod, Audrey Andrieu, Félix Djossou, Julie Toubiana, Loic Epelboin, Sylvain Brisse

Emerging Infectious Diseases • www.cdc.gov/eid • Vol. 30, No. 8, August 2024

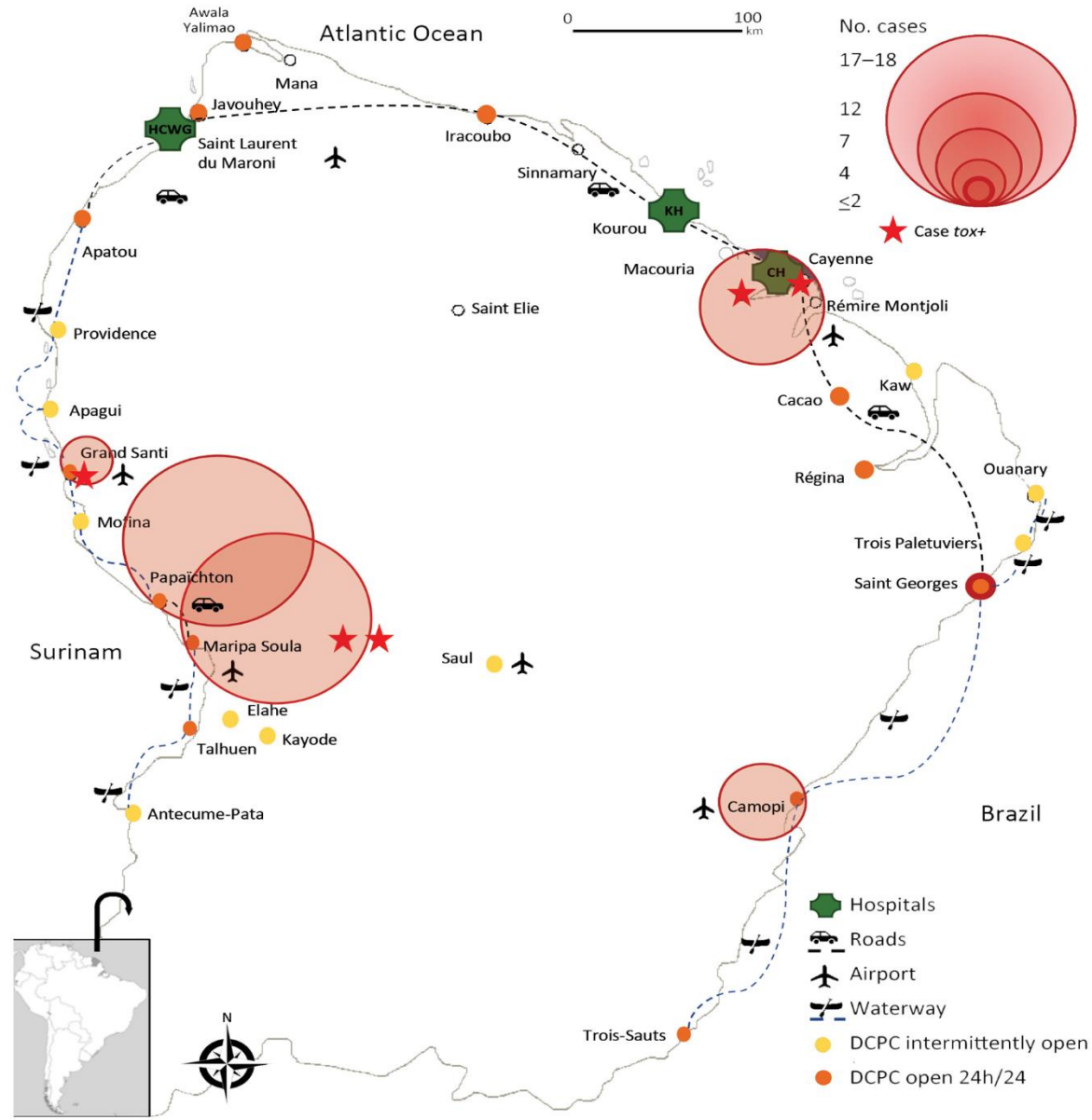


Figure 1. Geographic distribution of 64 cases of *Corynebacterium diphtheriae* species complex infections, French Guiana, 2016–2021. Inset map shows location of French Guiana in South America. DCPC, Delocalized Centers for Prevention and Care.

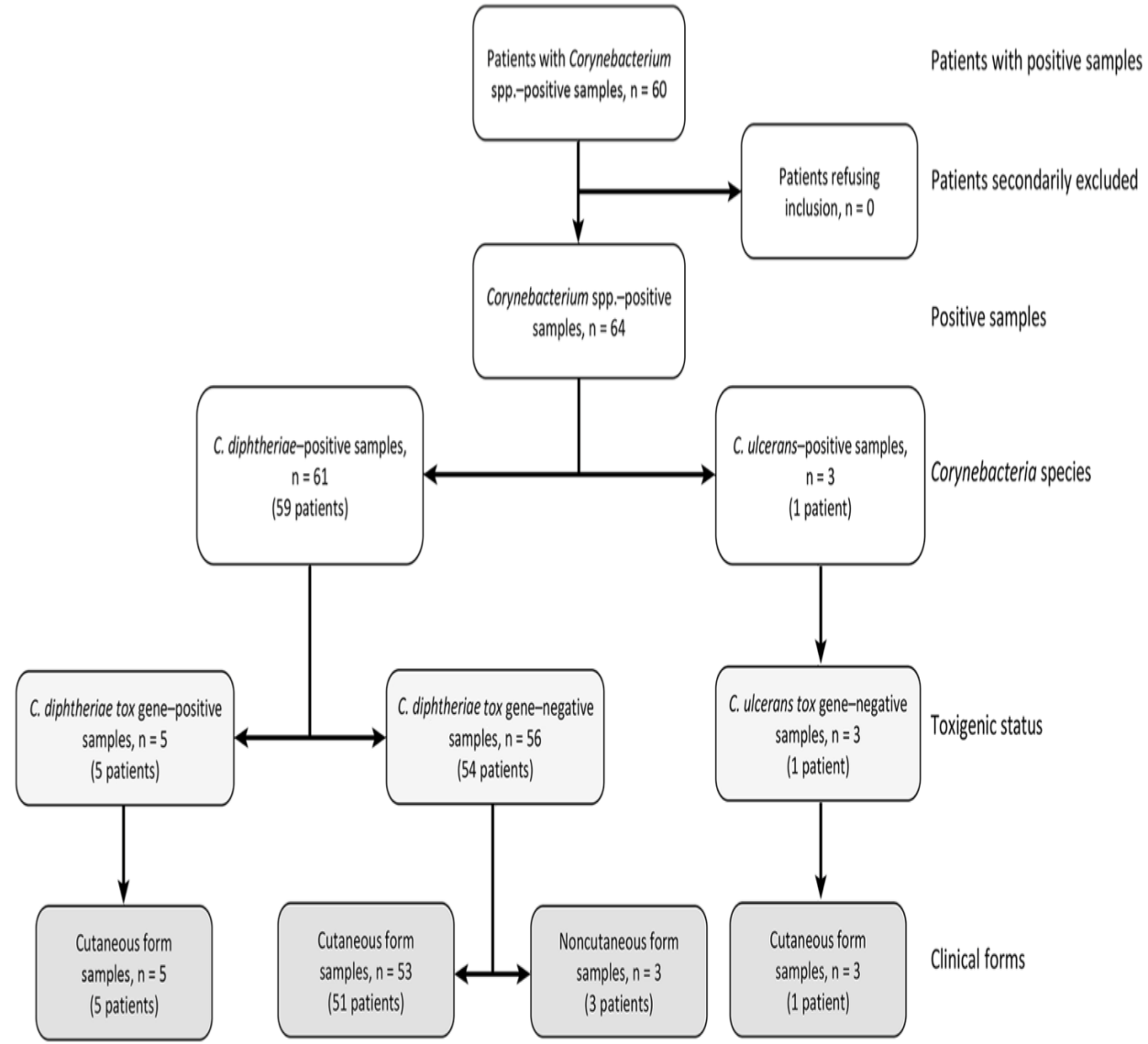


Figure 2. Flowchart of cases included in retrospective study of infections with *Corynebacterium diphtheriae* species complex, French Guiana, 2016–2021.

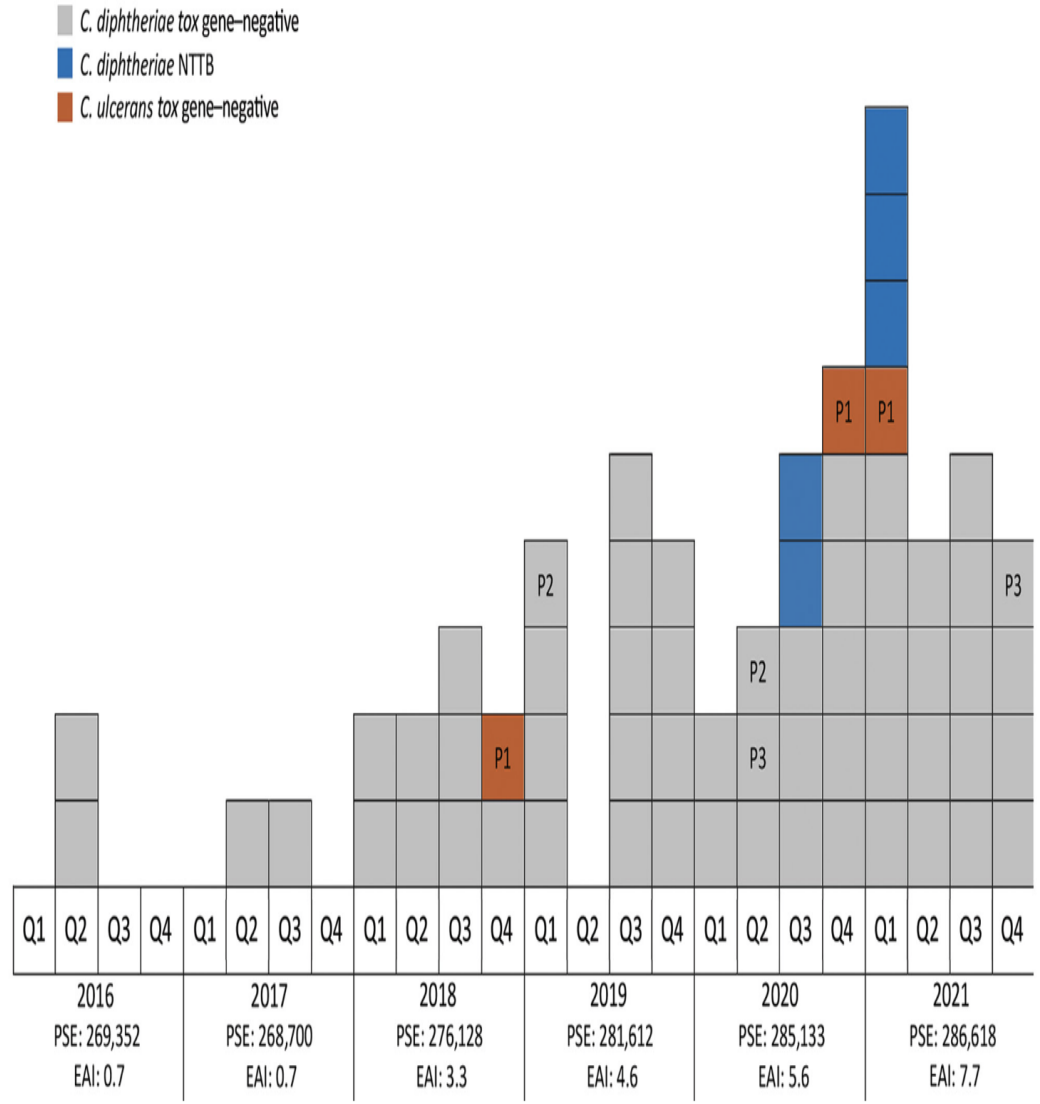


Figure 3. Temporal distribution of isolates corresponding to 64 clinical episodes of infection with *Corynebacterium diphtheriae* species complex in French Guiana, 2016–2021. Each box indicates 1 case; patient number labels (e.g., P1) indicate multiple cases in the same patient. EAI, estimated annual incidence (cases/100,000 population); NTTB, nontoxigenic *tox*-gene–bearing; PSE, population size estimation; Q, quarter.

ORIGINAL REPORT

Leprosy in French Guiana, 2015 to 2021: Dynamics of a Persistent Public Health Problem

Aurore PETIOT[1], Kinan DRAK ALSIBAI[2,3], Carmelita DOSSOU[1], Pierre COUPPIE[1] and Romain BLAIZOT[1,4,5]
[1]Dermatology Department, [2]Histopathology and Cytology Department, [3]Biological Resources Centre, CRB Amazonie, Cayenne Hospital Centre and [4]UMR 1019 TBIP, Tropical Biomes and Immunophysiopathology, University of French Guiana, Cayenne, French Guiana and [5]Griddist, Research Group for Infectious Dermatology and Sexually Transmitted Diseases, French Society of Dermatology, Paris, France

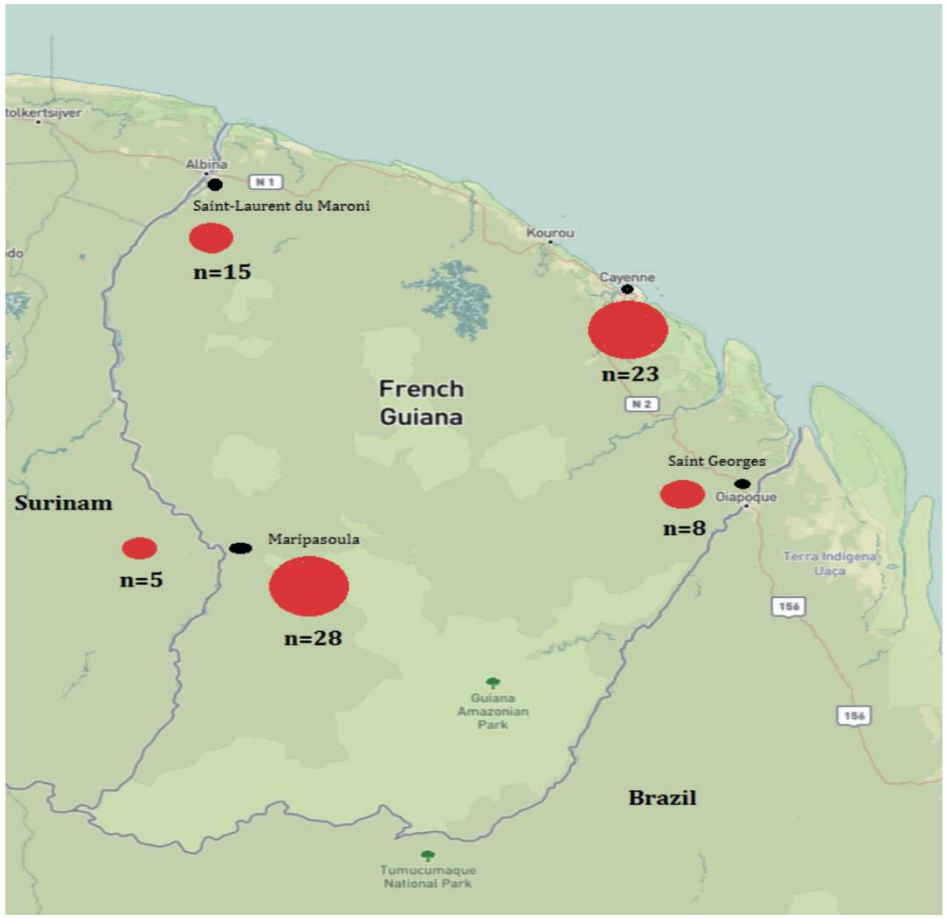
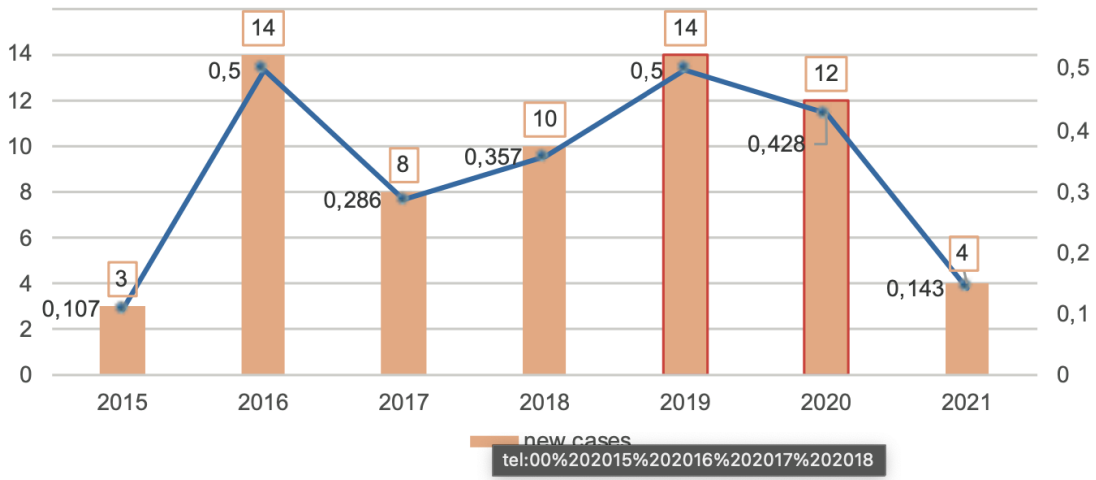


Fig. 1. Geographical distribution of leprosy cases in French Guiana, 2015 to 2021, shown for 85/86 cases with known origin



Acta Derm Venereol 2023

Fig. 2. Annual incidence for 10,000 inhabitants and new cases of leprosy diagnosed in French Guiana, 2015 to 2021.

Contents lists available at ScienceDirect

International Journal of Infectious Diseases

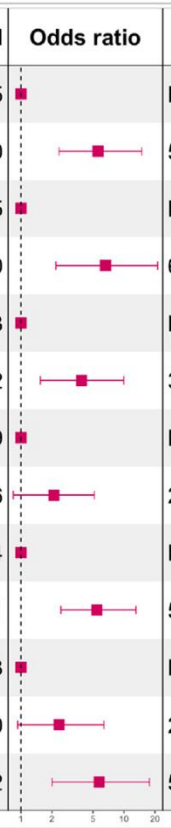
journal homepage: www.elsevier.com/locate/ijid

Development of a case fatality prognostic score for HIV-associated histoplasmosis

Ugo Françoise[1,*], Mathieu Nacher[1,2], Morgane Bourne-watrin[3], Loïc Epelboin[2,4], Camille Thorey[5], Magalie Demar[2,6], Jean-François Carod[7], Félix Djossou[2,4], Pierre Couppié[2,3], Antoine Adenis[1,2]

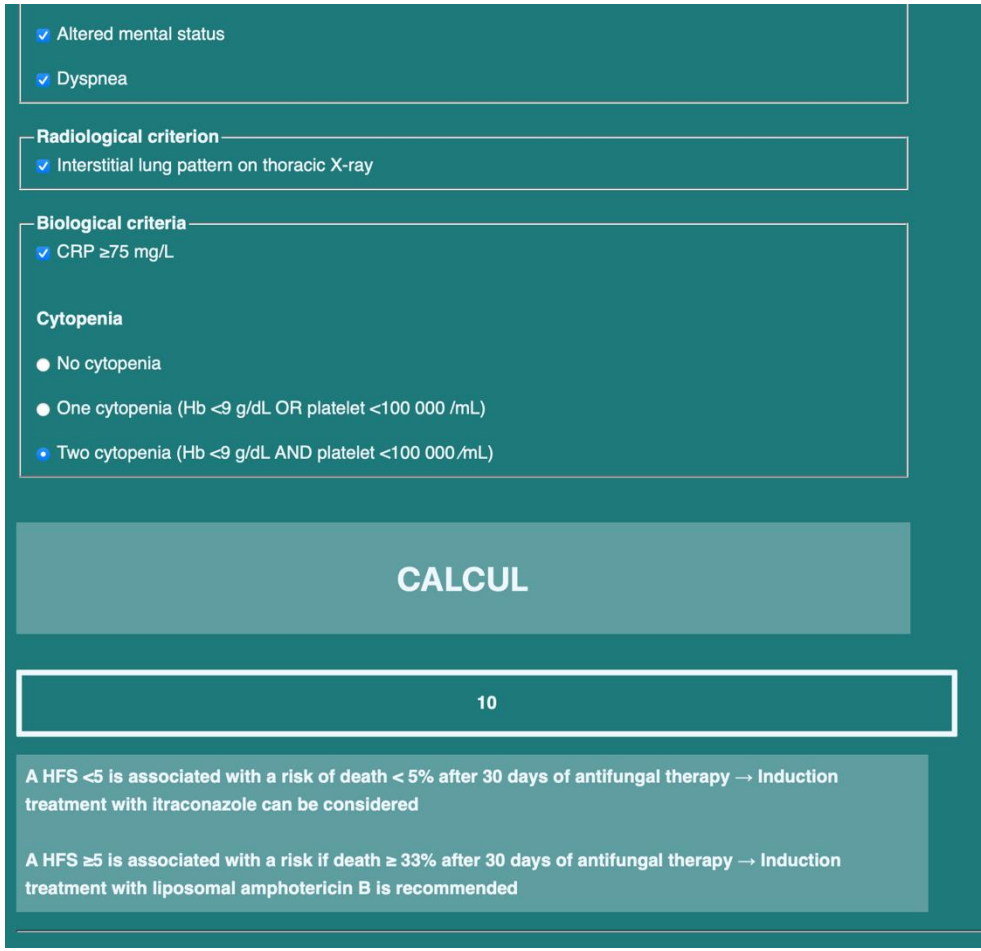
Table 3
Predictive model of death within 30 days of initiation of antifungal therapy in patients presenting HIV-associated histoplasmosis and prognosis score scale construction (HFS)

Variable		N	Odds ratio	p	HFS
Performance status ≥ 3	No	235		Reference	
	Yes	180		5.60 (2.35, 14.87)	<0.001	+2
Altered mental status	No	385		Reference	
	Yes	30		6.62 (2.18, 21.23)	0.001	+3
Dyspnea	No	343		Reference	
	Yes	72		3.87 (1.54, 9.94)	0.004	+2
Interstitial lung pattern on the chest X-ray	No	279		Reference	
	Yes	136		2.09 (0.84, 5.16)	0.107	+1
CRP ≥ 75 mg/L	No	264		Reference	
	Yes	151		5.45 (2.44, 13.06)	<0.001	+2
Cytopenia*	No cytopenia	173		Reference	
	One cytopenia	180		2.35 (0.93, 6.39)	0.080	+1
	Two cytopenia	62		5.74 (2.00, 17.64)	0.001	+2



Adjusted odds ratio from logistic regression coefficients with 95% confidence interval
HFS : Histoplasmosis case-Fatality Score, obtained by dividing the model's explanatory variable coefficients by the smallest of them and rounding to the nearest integer
*One cytopenia (anaemia <9g/dL or thrombocytopenia <100000/mL) and two cytopenia (anaemia <9g/dL and thrombocytopenia <100000/mL)

http://cicec-antilles-guyane.org/hfs/



Mycopathologia (2023) 188:1065–1078
https://doi.org/10.1007/s11046-023-00799-x

ORIGINAL ARTICLE

Pulmonary Histoplasmosis in People Living with Human Immunodeficiency Virus in French Guiana: Clinical Epidemiology, Medical Imaging and Prognostic

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Résultats principaux (cohorte de 65 patients)

- Age médian = 39 ans
- 5% sous ARV
- Clinique:
  - PS >2 = 43%; perte pondérale 89%
  - Fièvre 89%
  - Symptômes respiratoires 80% (toux 58%, dyspnée 35%, auscultation anormale 60%)
  - Symptômes digestifs 65%
- Biologie:
  - Médiane CD4 = 24/mm^3; CV HIV médiane > 5 log
  - Thrombopénie 49%
  - Ferritine > 1000 UI/L = 79%
  - Médiane CRP = 74 mg/dl
- Imagerie:
  - RP anormale 87% (atteinte interstitielle diffuse 77%)
  - Scanner thoracique: TOUS anormaux
    - Lésions nodulaires 83% (micronodules 63%) diffuses
    - Consolidations dans 46% des cas
    - Adénopathies intrathoraciques dans 58% des cas
- Diagnostic microbiologique par LBA =98 % (ED + 79%, culture + 74%)

Camous *et al. Annals of Intensive Care* (2023) 13:30
https://doi.org/10.1186/s13613-023-01128-7

Annals of Intensive Care

RESEARCH Open Access

Factors related to mortality in critically ill histoplasmosis: a multicenter retrospective study in Guadeloupe and French Guyana

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Résultats principaux (cohorte de 65 patients)

- 58 % VIH, 27% autre IS, 15% pas d'IS identifiée
- Hémocultures + 70%
- Délai médian entre DDS et admission réa = 22 jours
- Biologie:
  - Médiane ferritine = 35 000 UI/L
  - Médiane plaquettes 76 G/L (VIH = 26 G/L)
  - Médiane CRP = 150 mg/L

Table 2 Comparison of HIV-infected patients vs patients with other immunosuppressive underlying conditions vs patients without any identified underlying immunodeficiency

	All patients *n* = 40	**HIV- infected *n* = 23**	**Other immunodeficiency *n* = 11**	**No identified immunodeficiency *n* = 6**	***p*-value**
Acute respiratory failure, *n (%)*	34 (85)	20 (87)	11 (100)	3 (50)	0.024
Shock, *n (%)*	31 (78)	18 (78)	9 (82)	4 (67)	0.756
Coma, *n (%)*	12 (30)	7 (30)	4 (36)	1 (17)	0.802
Hemophagocytosis lymphohistiocytosis, *n (%)*	19 (48)	15 (65)	3 (27)	1 (17)	0.044
Disseminated histoplasmosis, *n (%)*	32 (80)	22 (96)	9 (82)	1 (17)	< 0.001
Advanced life support therapy					
Renal replacement therapy, *n (%)*	22 (55)	14 (61)	6 (55)	2 (33)	0.550
Mechanical ventilation, *n (%)*	31 (78)	19 (83)	8 (73)	4 (67)	0.655
Outcome					
30-day mortality, *n (%)*	21 (53)	14 (61)	3 (27)	4 (67)	0.151
Length of ICU stay (days)	6 (4–11)	6 (4–9)	6 (4–12)	8 (3–22)	0.796

Facteurs de risque de mortalité (analyse multivariée)

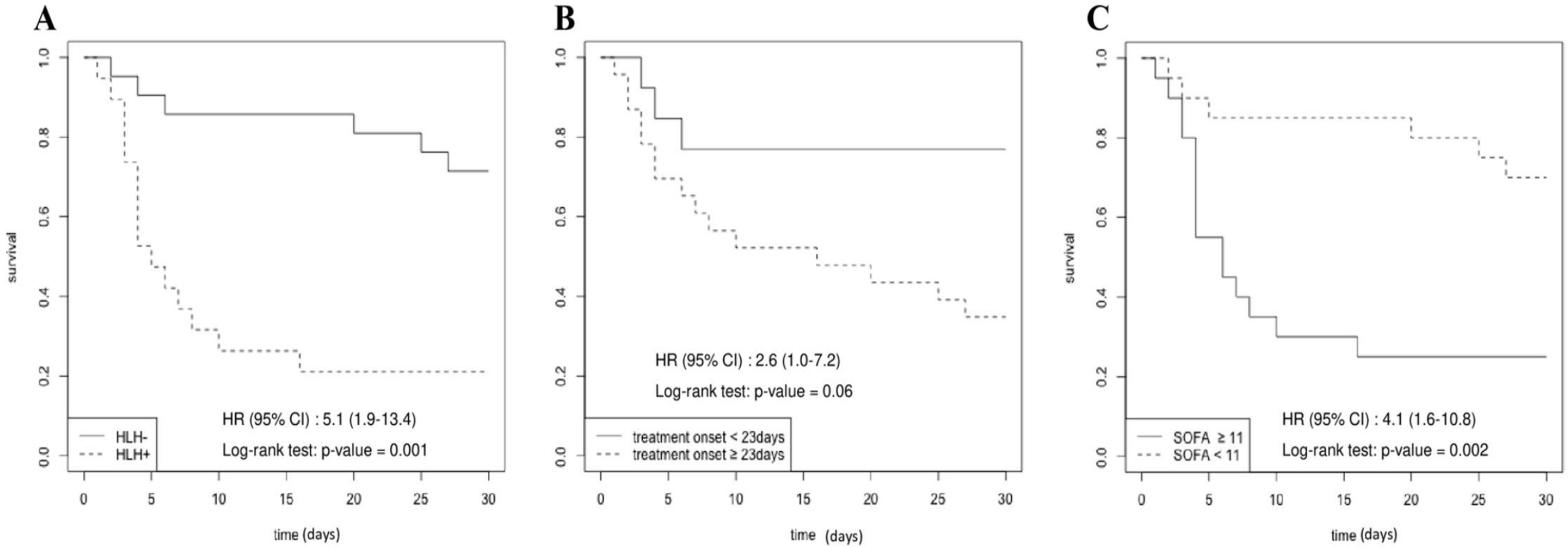

Fig. 2 Kaplan–Meier survival estimates according to the presence or not of hemophagocytic lymphohistiocytosis (HLH, **A**), time from symptom onset to treatment (more or less than 23 days, **B**), and severity on ICU admission (Sequential Organ Failure Assessment; [SOFA] score below vs above or equal 11, **C**)

Dahuron *et al. Malaria Journal* (2024) 23:140
https://doi.org/10.1186/s12936-024-04973-4

Malaria Journal

RESEARCH Open Access

Kinetics of glucose-6-phosphate dehydrogenase (G6PD) activity during *Plasmodium vivax* infection: implications for early radical malaria treatment

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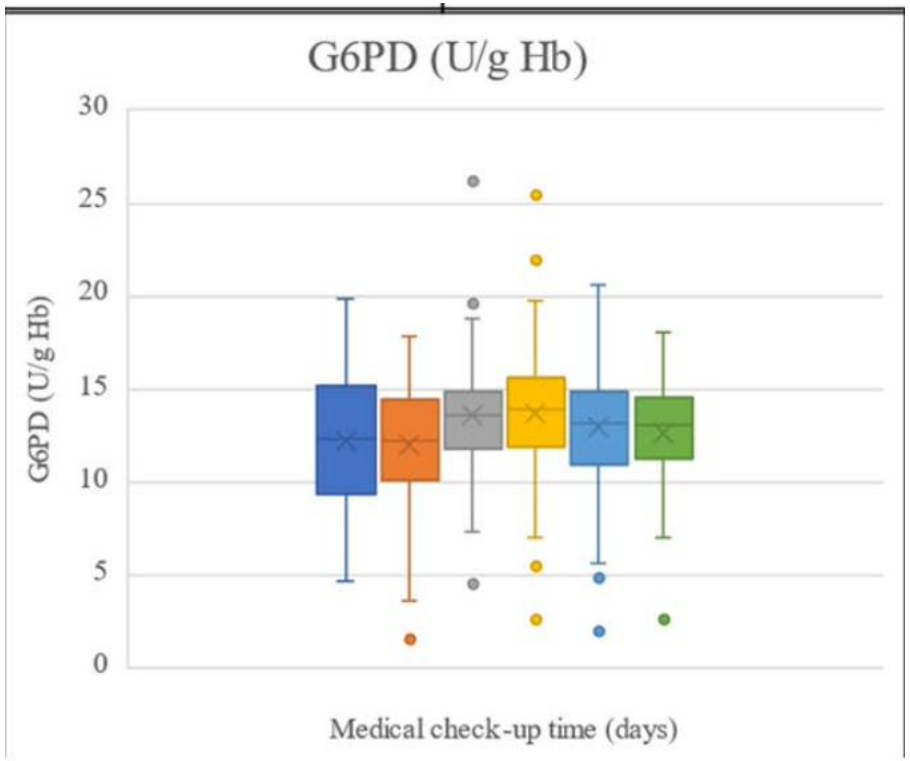

Table 5 Prevalence of G6PD deficiency in patients treated for *P. vivax* infection in French Guiana between January 1, 2018 and December 31, 2020

G6PD activity (%)	Prevalence of G6PD deficiency (%), n = 210[a]	Prevalence of G6PD deficiency from day 7 onwards (%), n = 202[b]
< 10	0	0
10–30	3 (1.4)	2 (1)
30–80	8 (3.8)	6 (3)
> 80	212 (94.8)	194 (96)

[a] All patients N_p (three groups together)

[b] Only patients with G6PD measured at day 7, day 14, day 21 or day 28

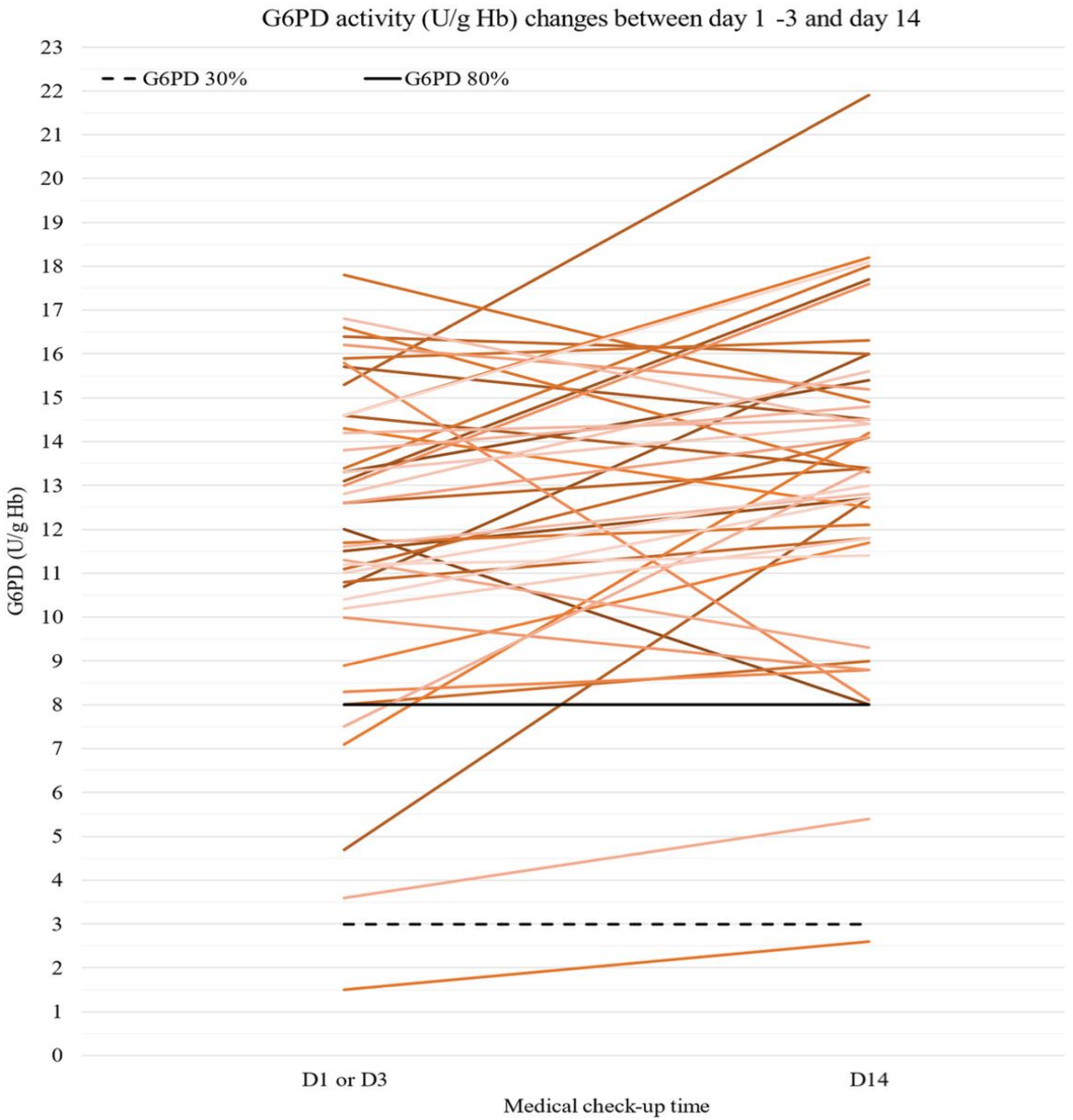

Fig. 3 G6PD activity (U/g Hb) changes in the 44 patients from group 1 with G6PD activity measurements at day 1 or day 3 and at day 14 after treatment initiation (chloroquine or artemisinin-based combination). Dashed black line and black line: 30% and 80% of G6PD activity, respectively. *D* day

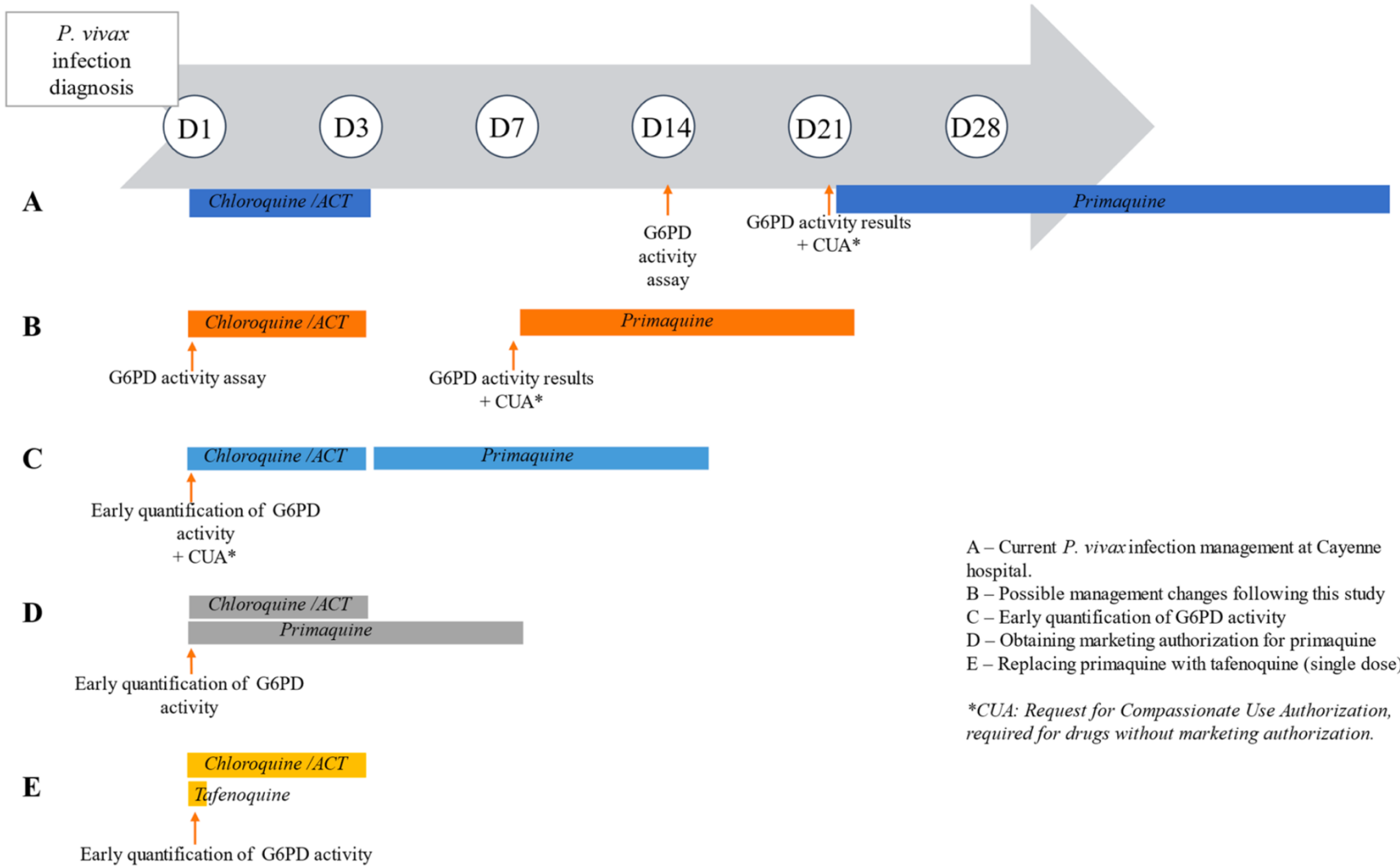

Fig. 6 Optimization of *P. vivax* infection management using different diagnostic and treatment levers


Merci de votre attention!