

# CMV resistance to antivirals is still an unmet need: Results from the French National surveillance 2006-2020

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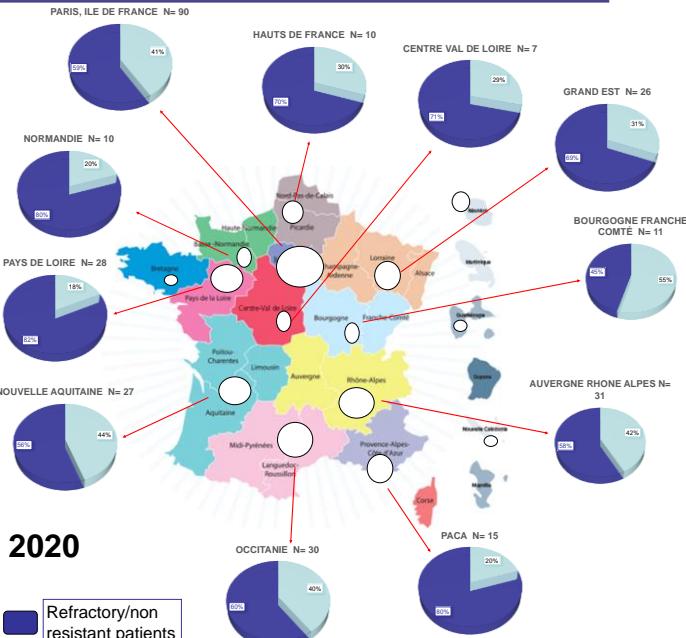
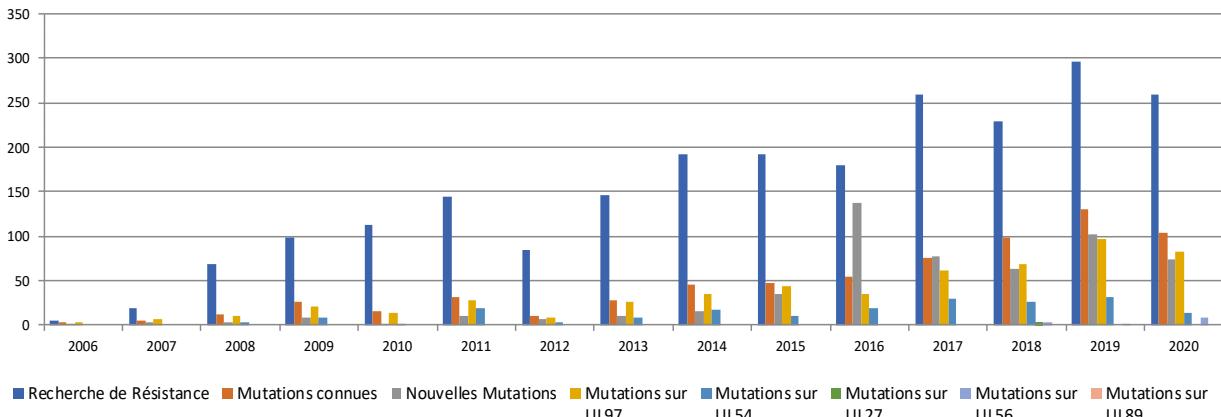
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# French CMV resistance survey 2006-2021

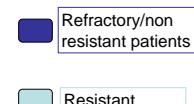
Out of 2287 genotypes performed at the University Hospital of Limoges  
687 (30%) showed the presence of resistance mutations,  
547 in UL97 (79.6%), 194 in UL54 (28.2%), 13/181 (7.2%) since 2018 in UL56, 0 in UL89.

No major impact of  
Covid19 on the burden of  
resistance

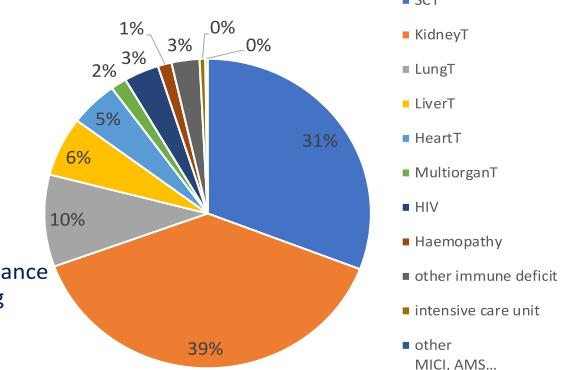


Proportion of  
virological  
resistance  
amongst  
refractory  
patients

2020: 34%



Proportion of refractory  
infections by pathology



2278 resistance  
genotyping  
2010-2020

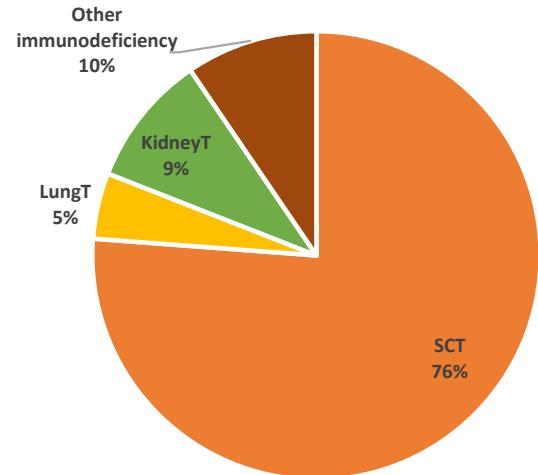
New mutations in clinical samples:	DNA Pol Inhibitors	LMV	MBV
Colour code for UL54 :	UL97/GCVR	UL54	UL51
GCV + CDV	F342Y#	E315D	UL56 R246C*** A95V
FOS	IS50 2,9	E381A	C480F
CDV		Y538C	N510S
FOS + GCV		T552S	I550 3
FOS + GCV + CDV		H686Y	P536T***
GCV + MBV		G698V	I550 2,7
Others:		I726T	
No resistance or <2		H729R	
***increased fitness		P747L	
# decreased fitness		E756G	
		E756G	
		V787E	
		Q455H + D804H	
		L982M	

# Resistance to new antivirals also occurs

Letermovir resistance 2018-2021

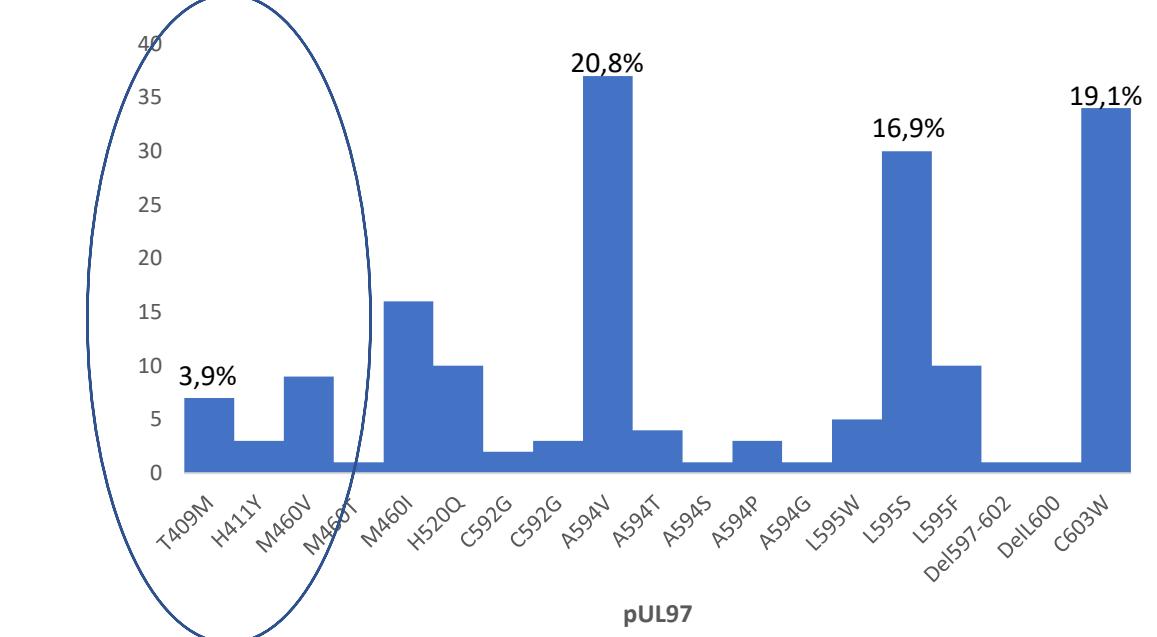
21 patients with resistance  
from 12 centers

Mutations: UL56



No mutation in UL89,  
2 cases with UL51 mutations (P91S and a new mutation  
A95V)

Maribavir resistance 2018-2021



MBV R: 3,9%

# Conclusion

- Virological resistance account for one third of non response cases.
- The stable number of resistance genotyping asked by centers illustrates the constant risk of treatment failure, and emergence of resistance, even during Covid 19 pandemics, with the risk of late diagnosis due to lower access to medical structures.

THANK YOU FOR YOUR ATTENTION !

- **References:**

Chou S. et al. AVR 2020, Piret et al., JID 2019, Paccoud et al., Curr Res in Transl. Med 2022, Santos-Bravo et al. JID 2020.