



## Risque d'infection par le SARS-CoV-2 chez les patients transplantés

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# Conflits d'intérêts

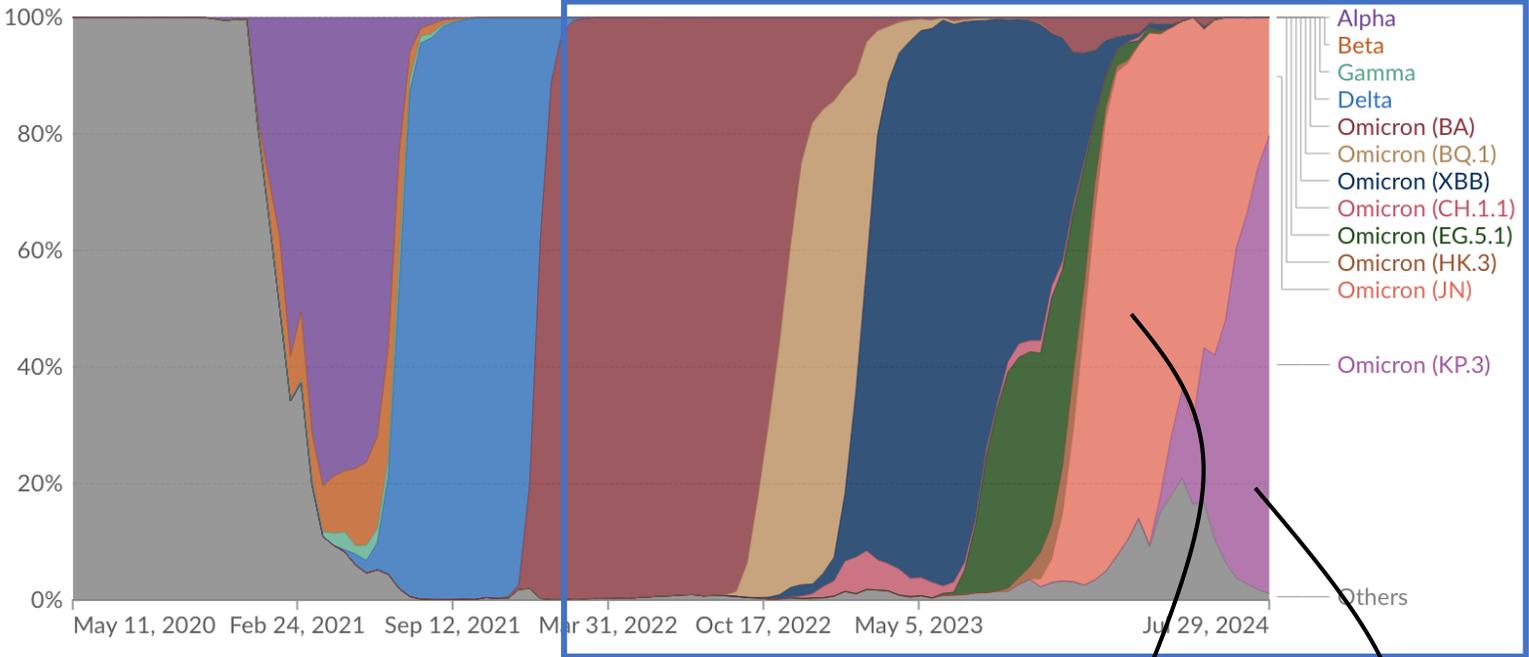
## **Honoraria, advisory**

- Bristol Myers Squibb
- Astrazeneca

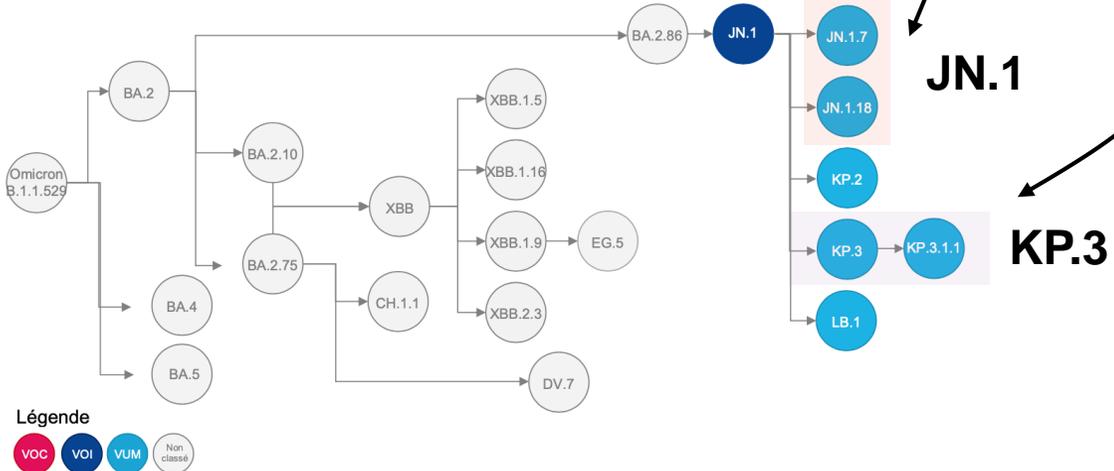
## **Research fundings**

- Recordati

# De quel SARS-CoV-2 parle-t-on ?



Aire omicron



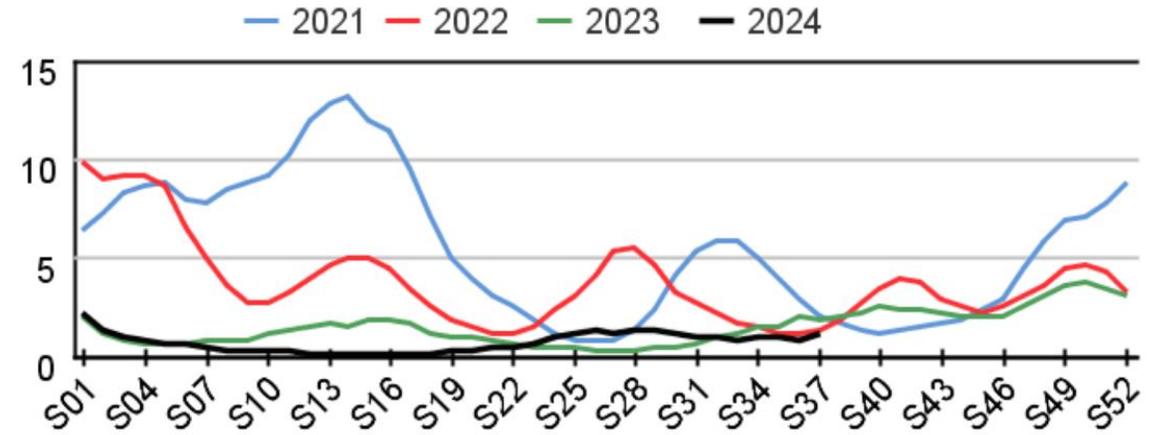
# Données épidémiologiques du COVID19

## Cas pour 1M



Our World in Data

## % d'hospitalisation pour suspicion de COVID19

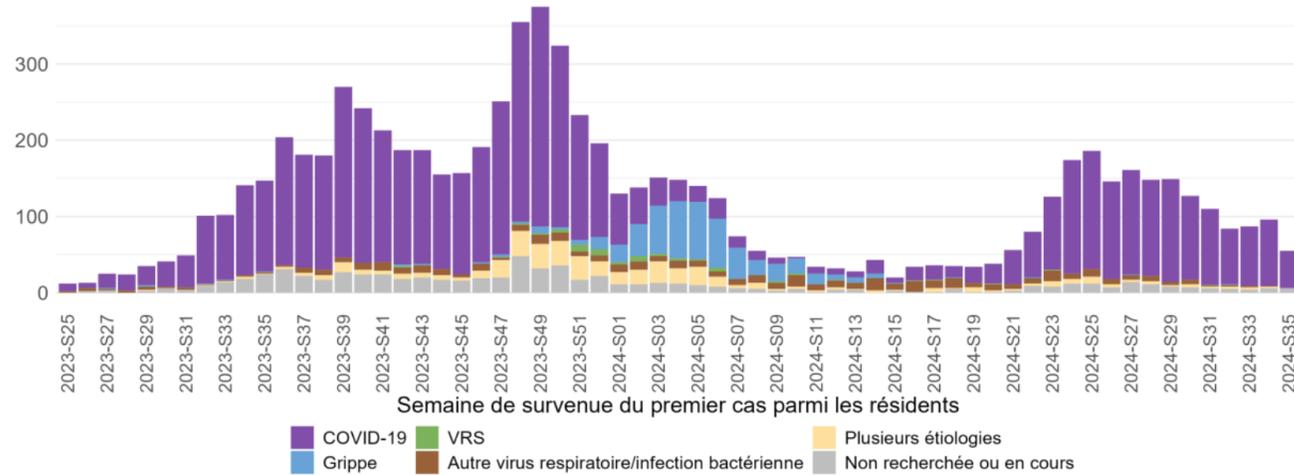


Rapport réseau OSCOUR 17/09/2024 #1014

## COVID19, toujours un enjeu en 2024 ?

# Causes d'insuffisance respiratoire

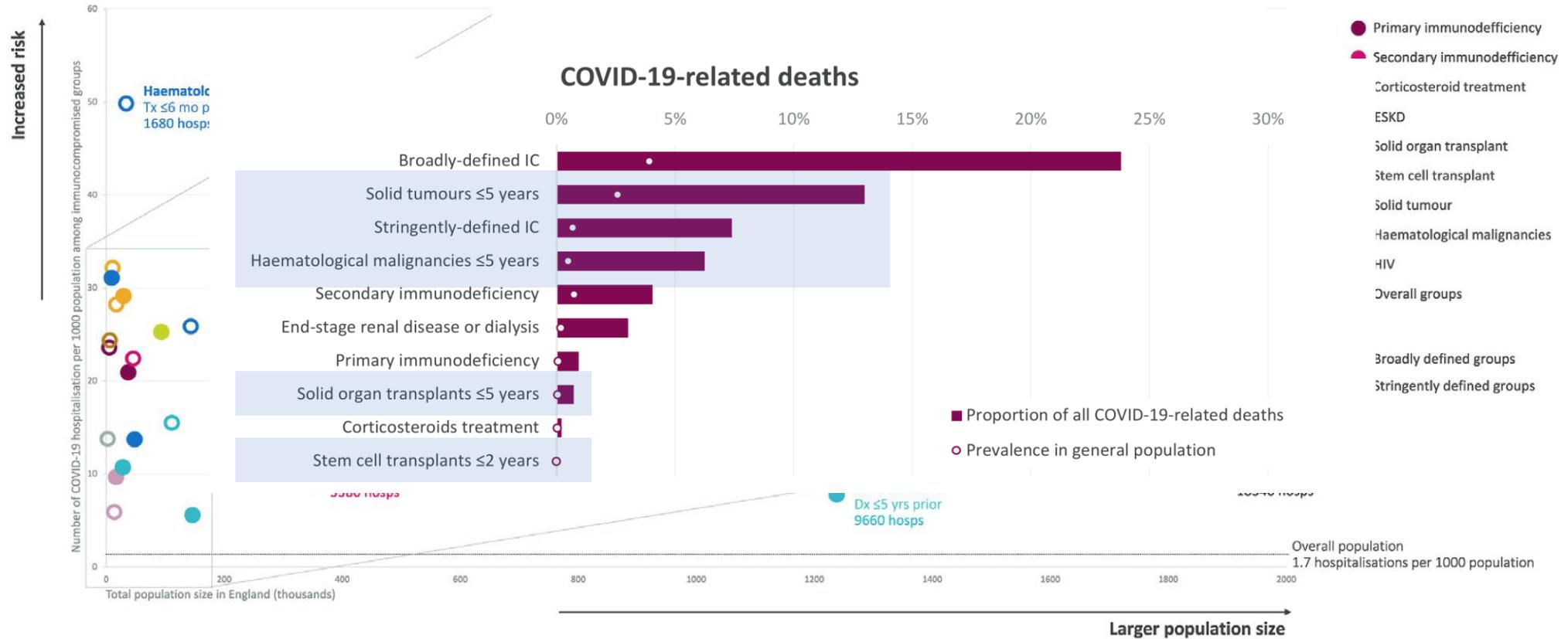
Nombre d'épisodes de cas groupés d'IRA dans les établissements médico-sociaux



Première cause  
d'insuffisance  
respiratoire aiguë  
en 2024

# Impact de l'immunosuppression sur la survenue d'un COVID19

Total number COVID-19 hospitalisations occurring among immunocompromised groups in the broad versus stringent definitions by number COVID-19 hospitalisations per 1000 population and total population size in England

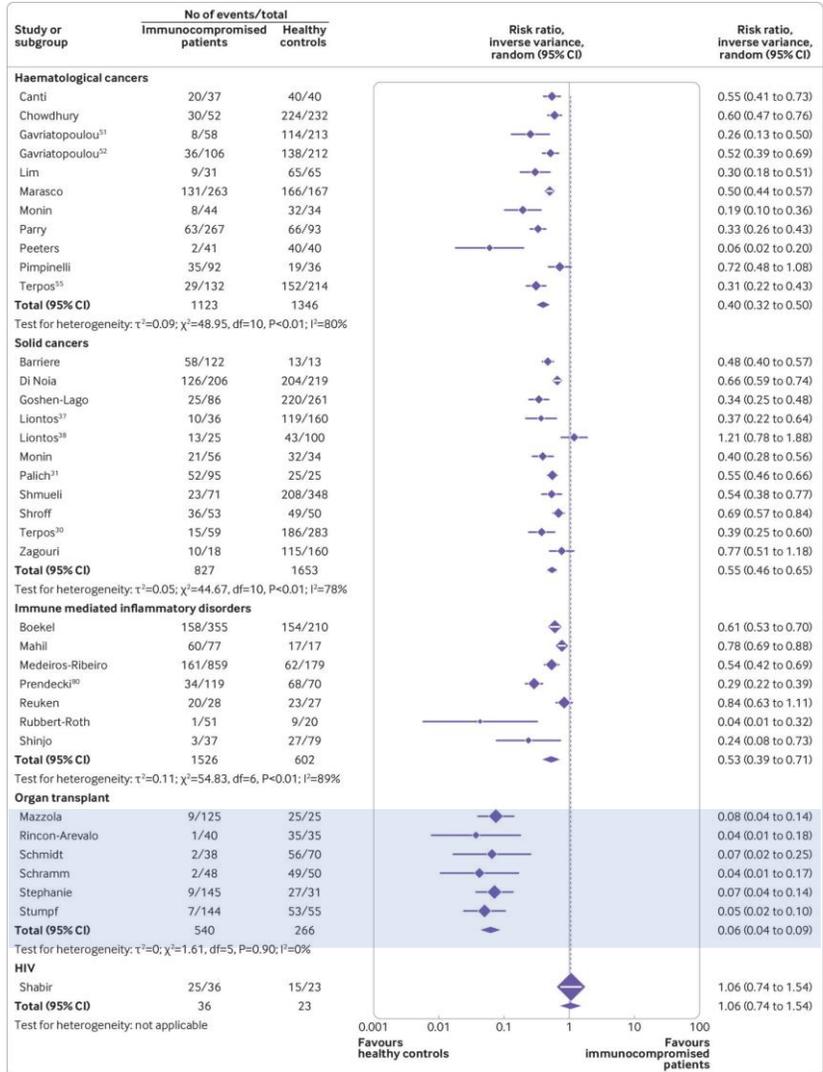


Evans et al. Lancet Reg Health Eur. 2023 Oct 13;35:100747

Peut-on prévenir la survenue des infections chez les patients immunodéprimés ?

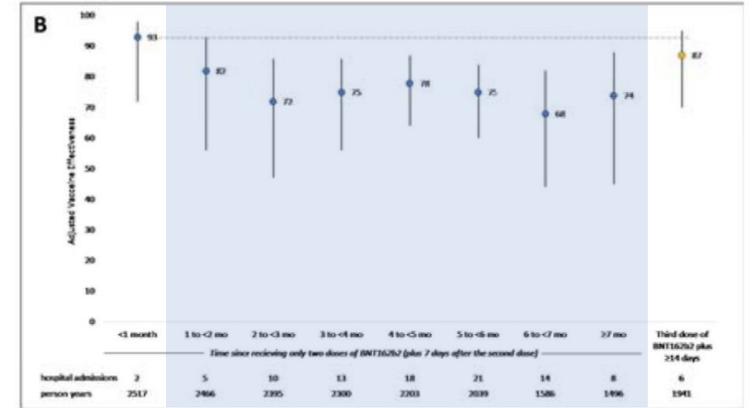
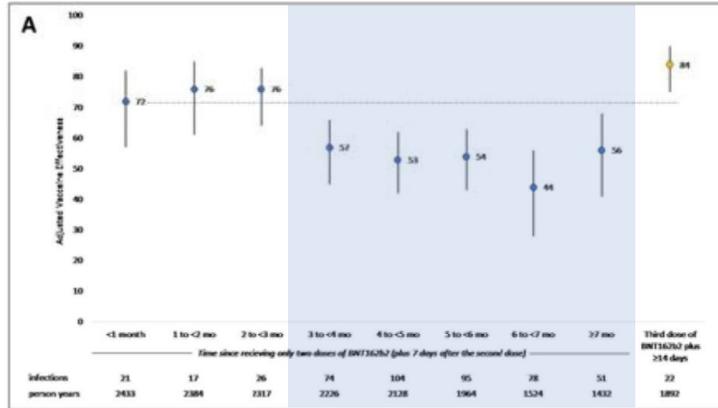
# Vaccination

## Séroconversion



Lee et al. BMJ 2022;376:e068632

## Durée de la réponse

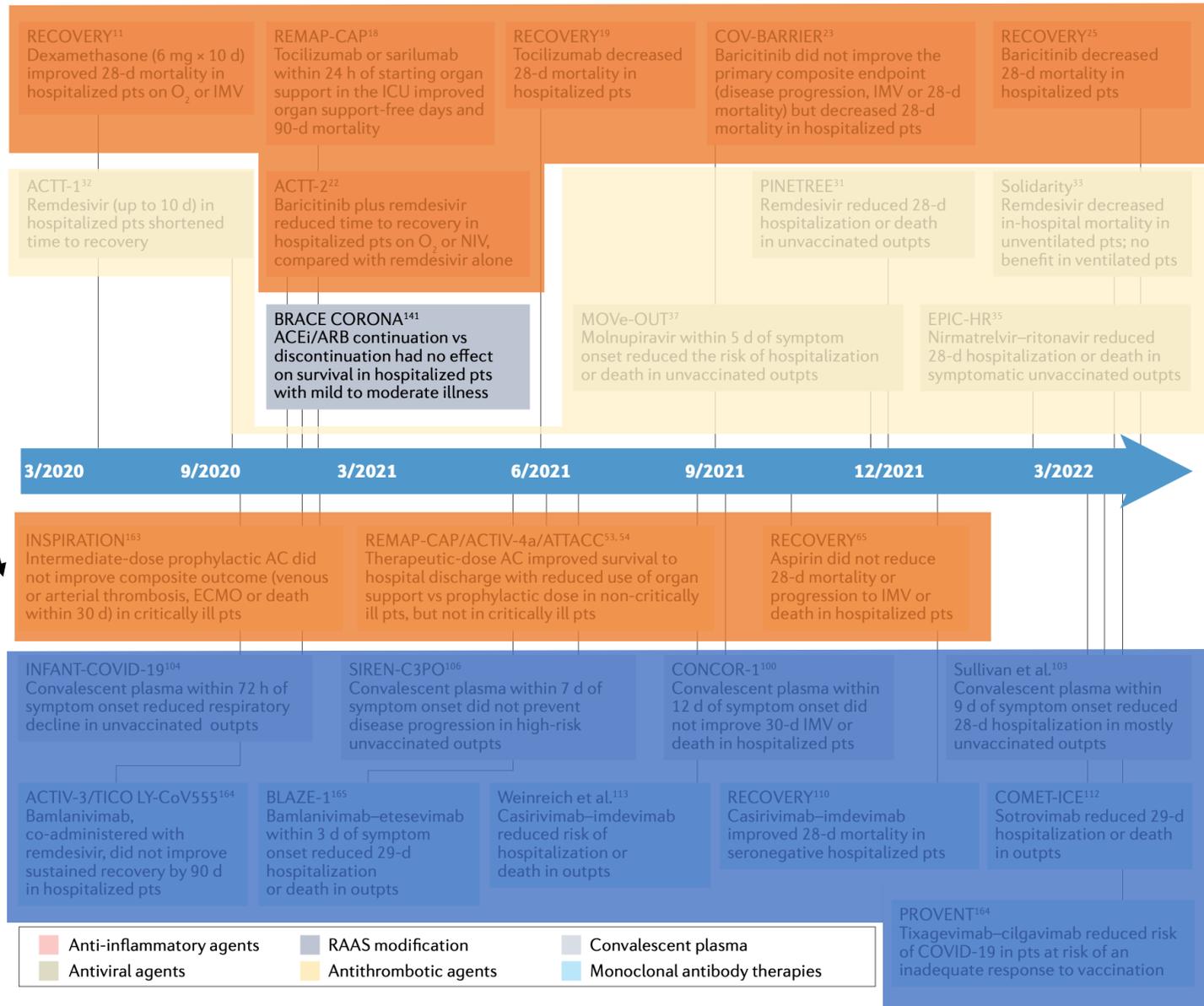


Tartof et al. The Lancet Regional Health – Americas 2022;9:100198

Si les mesures préventives ont échoué, comment peut-on traiter les patients ?

# Evolution des thérapeutiques

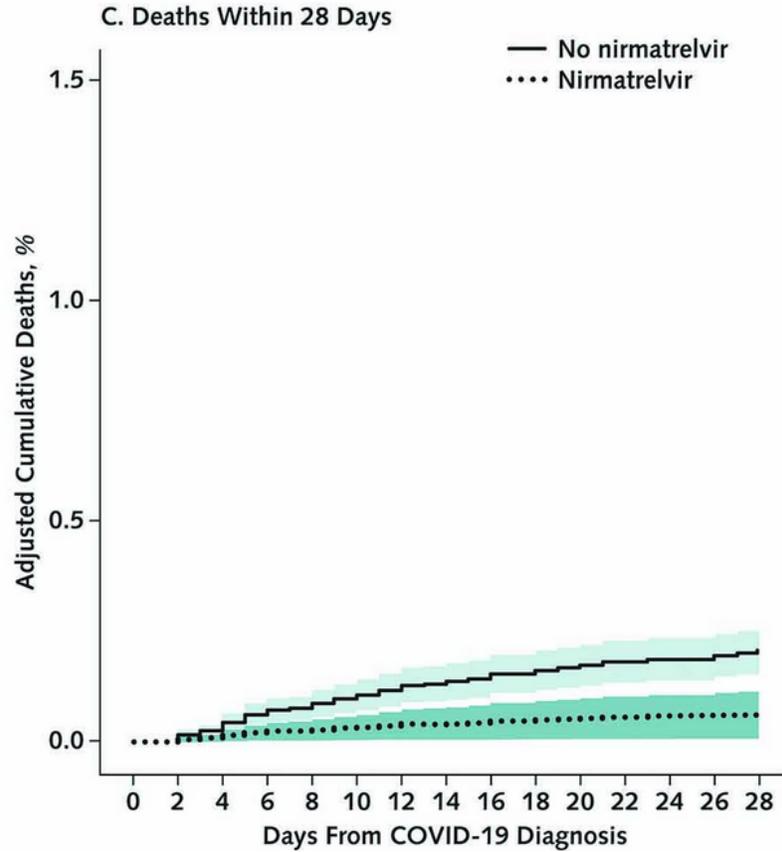
Traitements inflammatoires



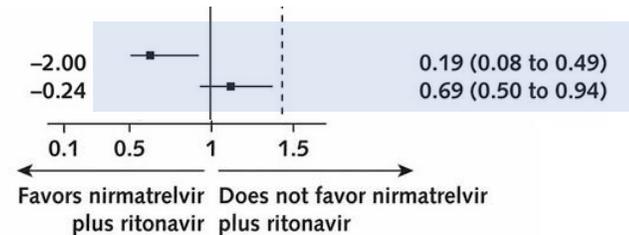
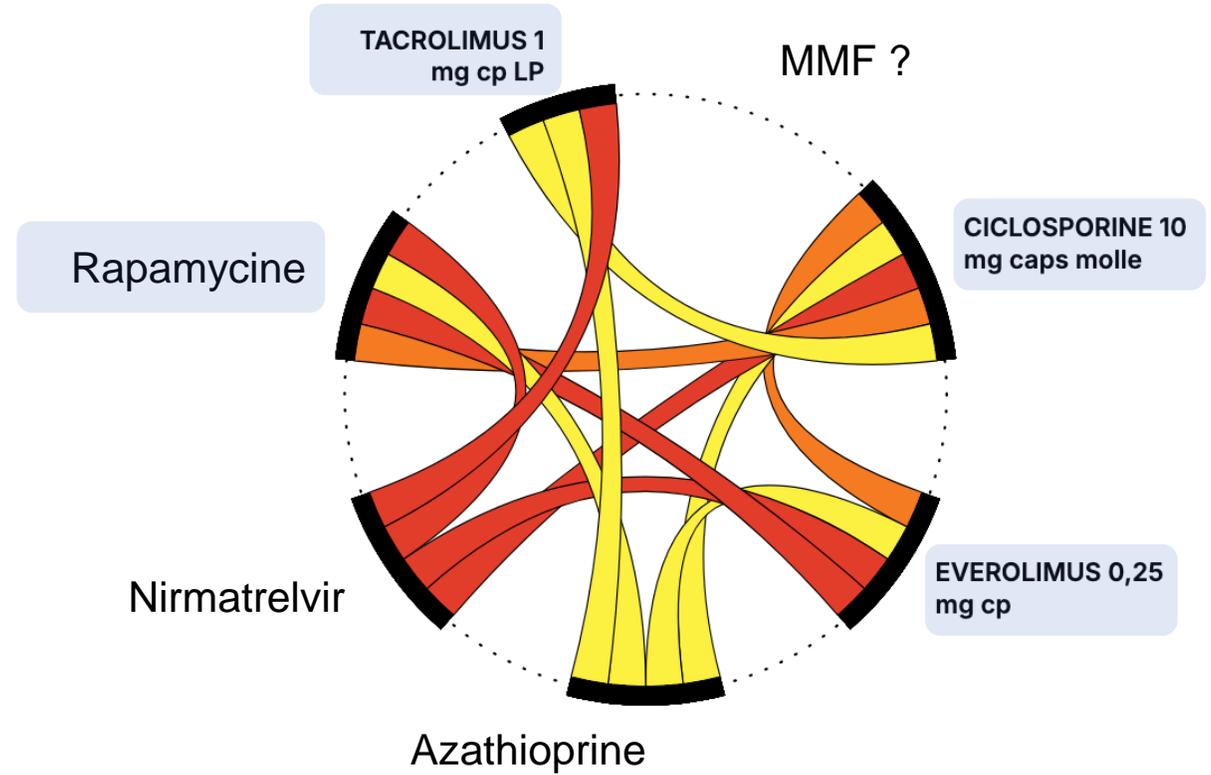
Antiviraux : bloquant les protéines virales

Les anticorps

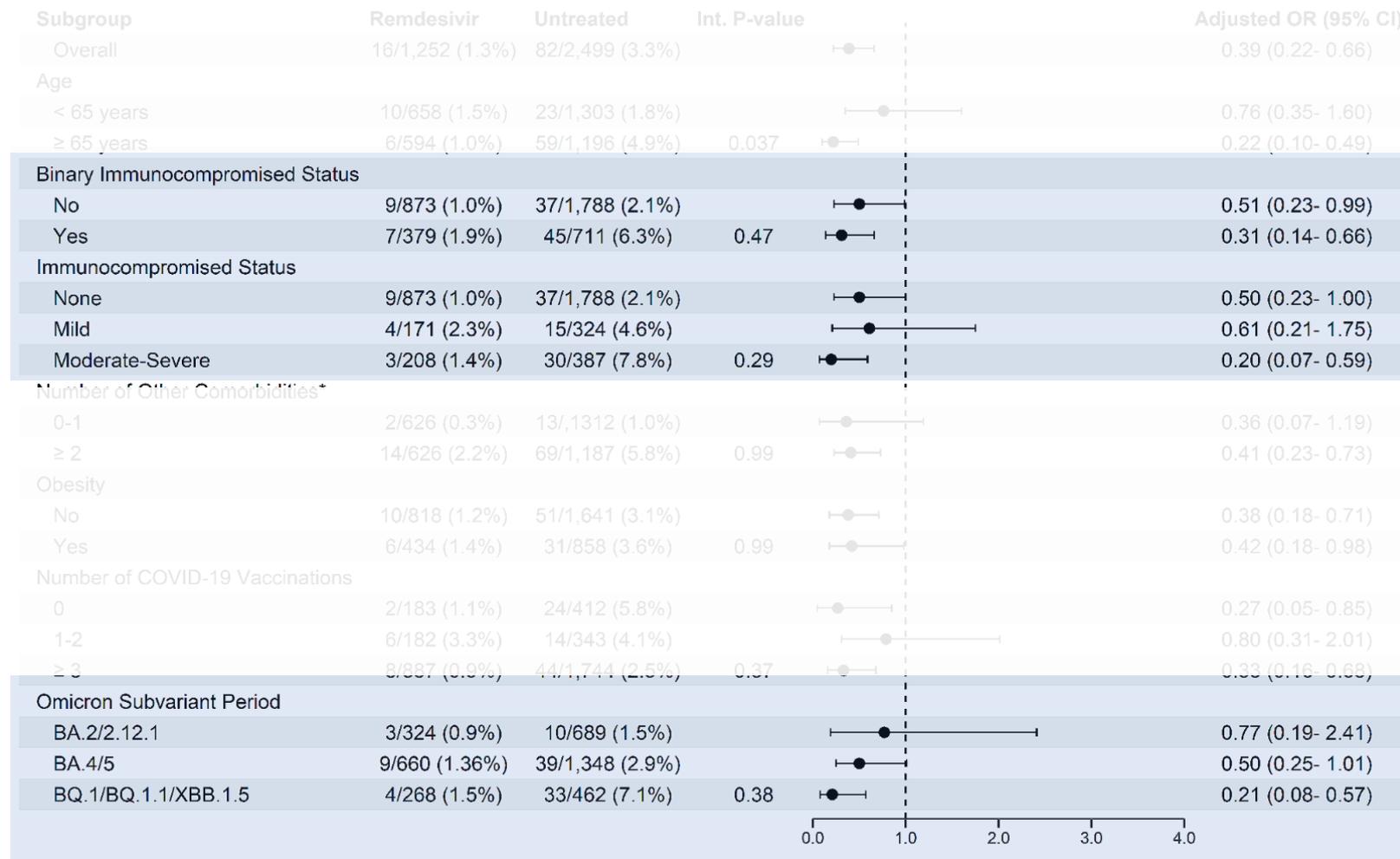
# Nirmatrelvir ritonavir



Vaccination status	682	3633	0.48	2.48
Not fully vaccinated	11 859	28 377	0.53	0.77



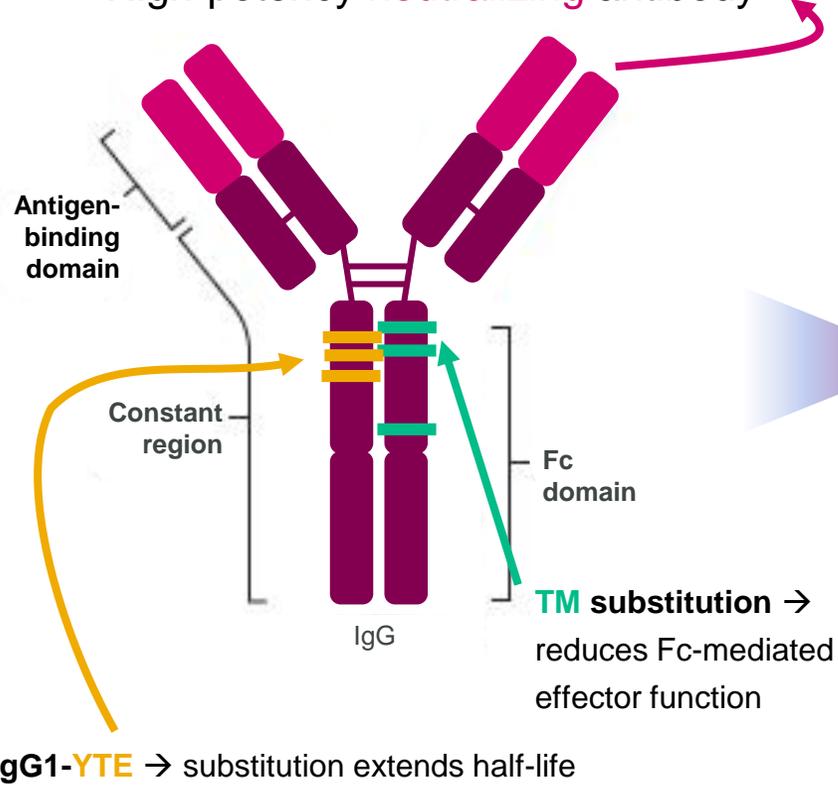
# Remdesivir



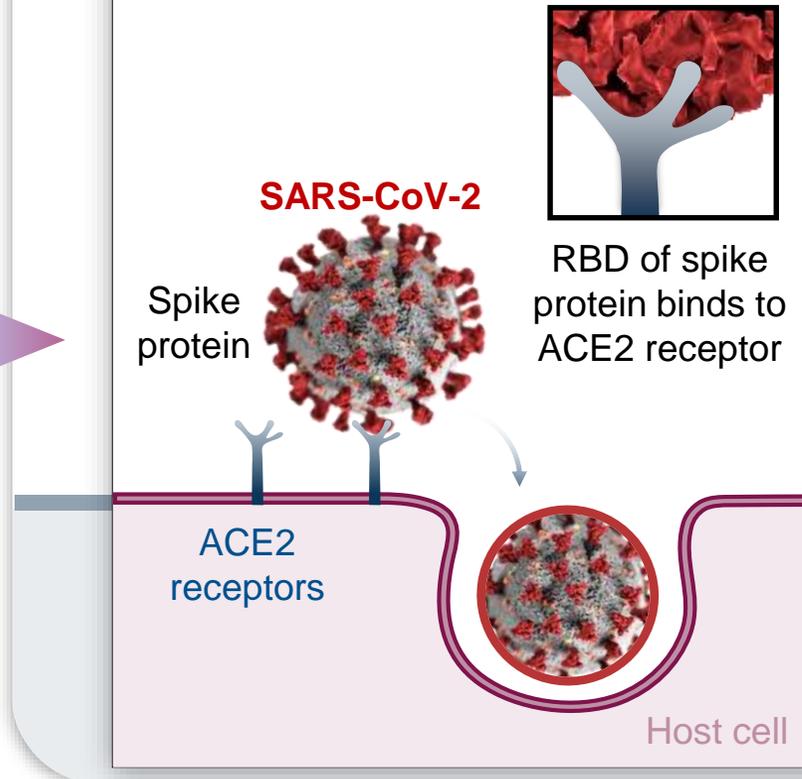
# Anticorps monoclonaux

AZD3152 was derived from a vaccinated individual following Omicron BA.1 breakthrough infection

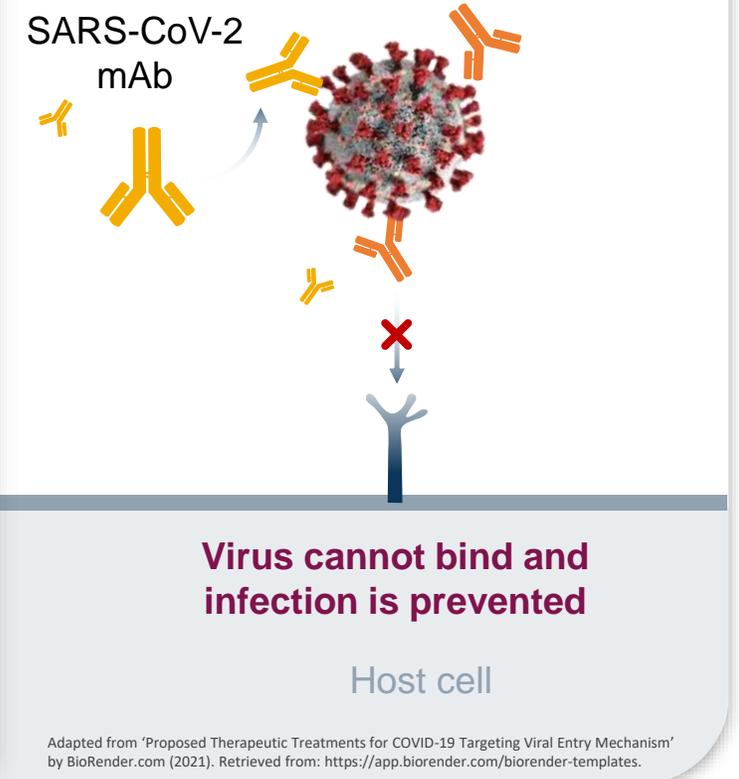
High-potency **neutralizing** antibody



## Viral entry mechanism of SARS-CoV-2

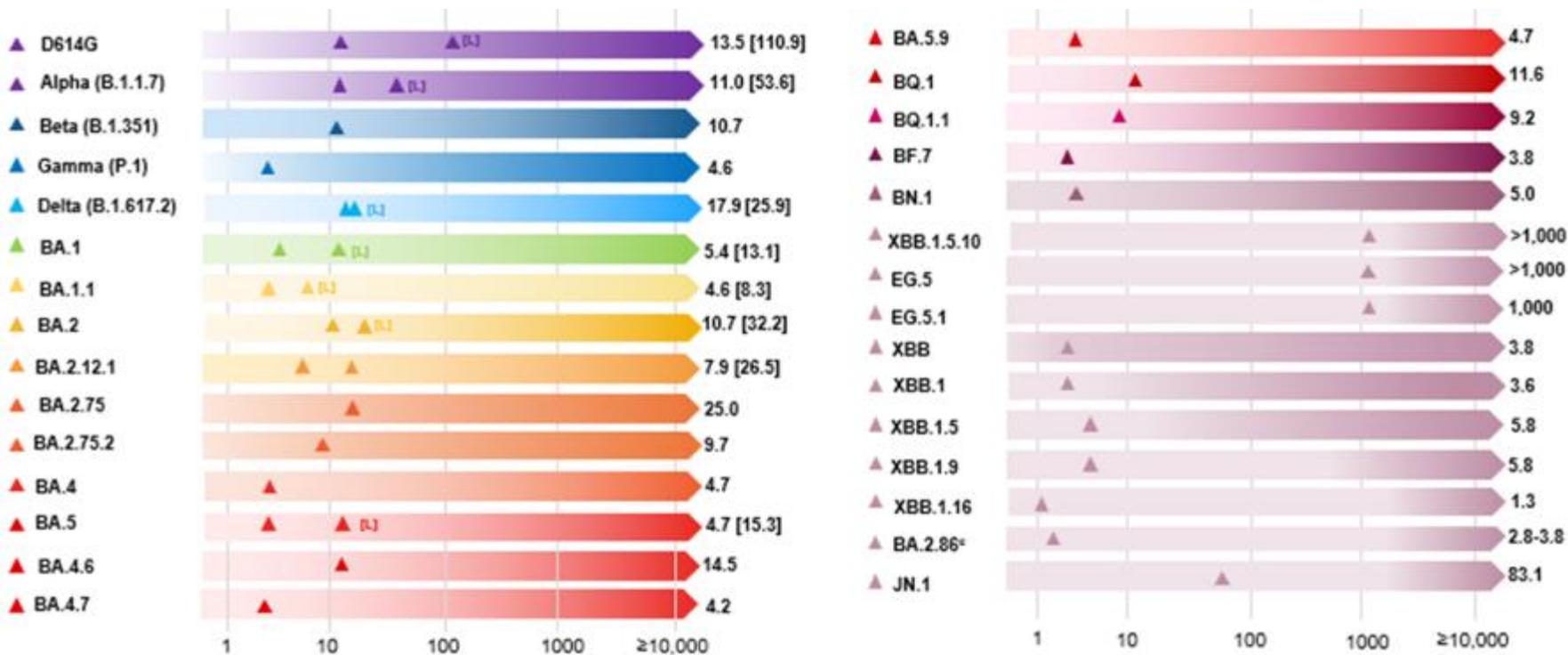


**mAb targets SARS-CoV-2 spike protein**



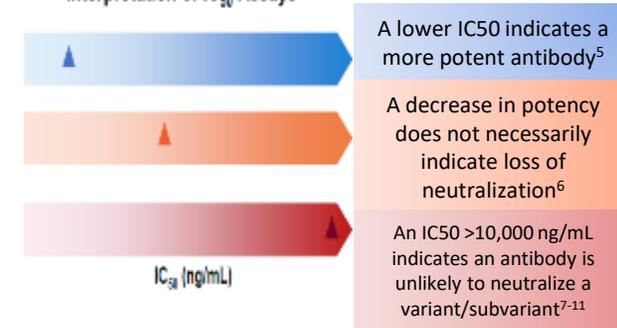
# Mais risque de perte d'activité selon les variants

AZD3152 IC50 Against Variants & Subvariants

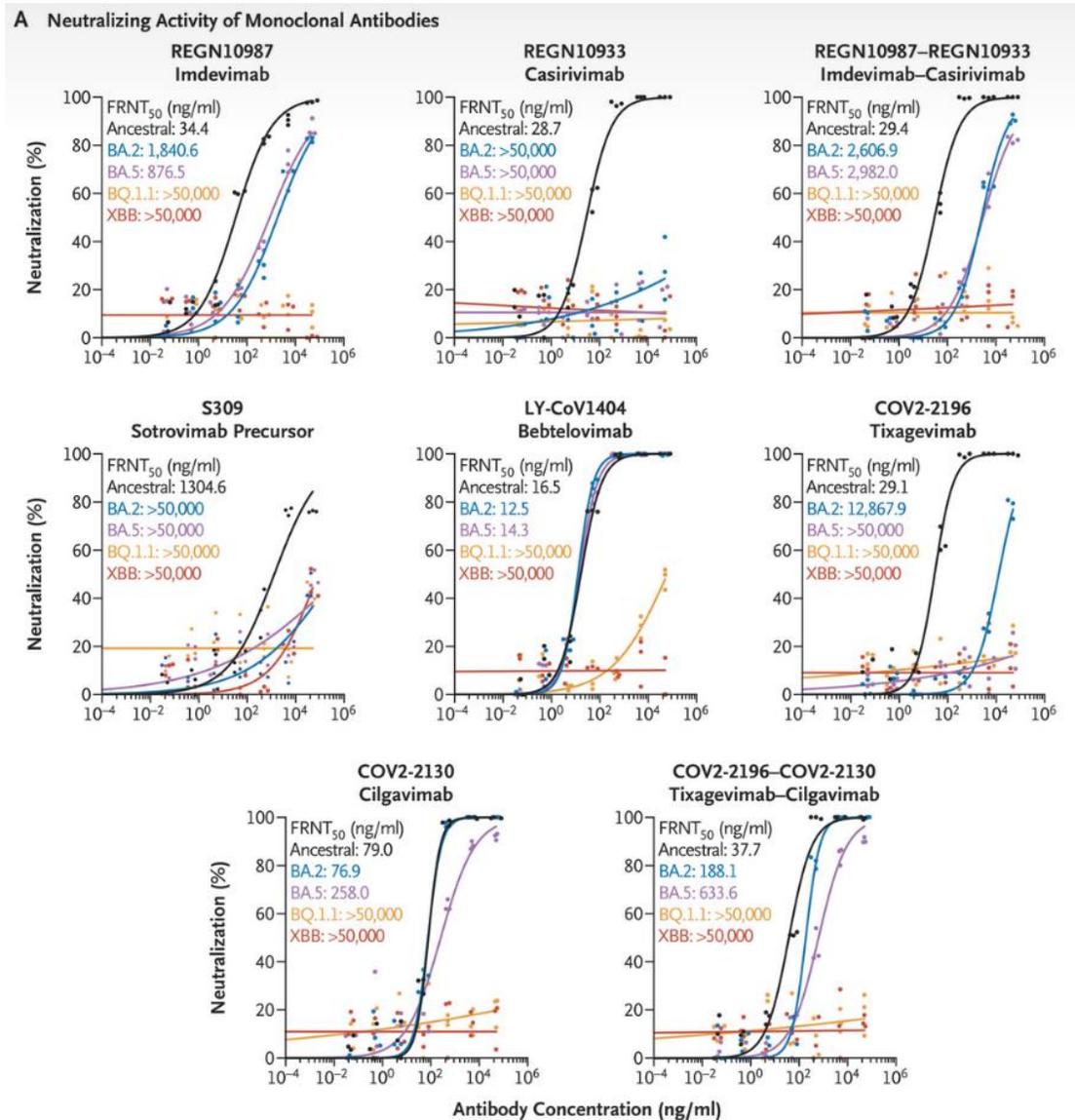


Concentration (ng/mL)

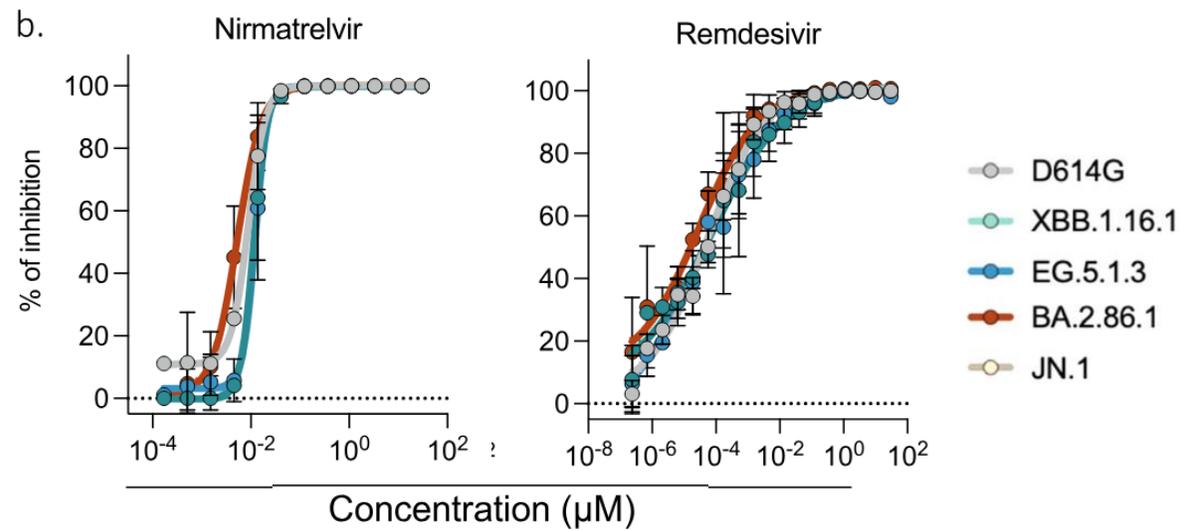
Interpretation of IC<sub>50</sub> Assays



# Echappement thérapeutique



## Risque d'échappement



# Anticorps polyclonaux... Plasma de patients convalescents

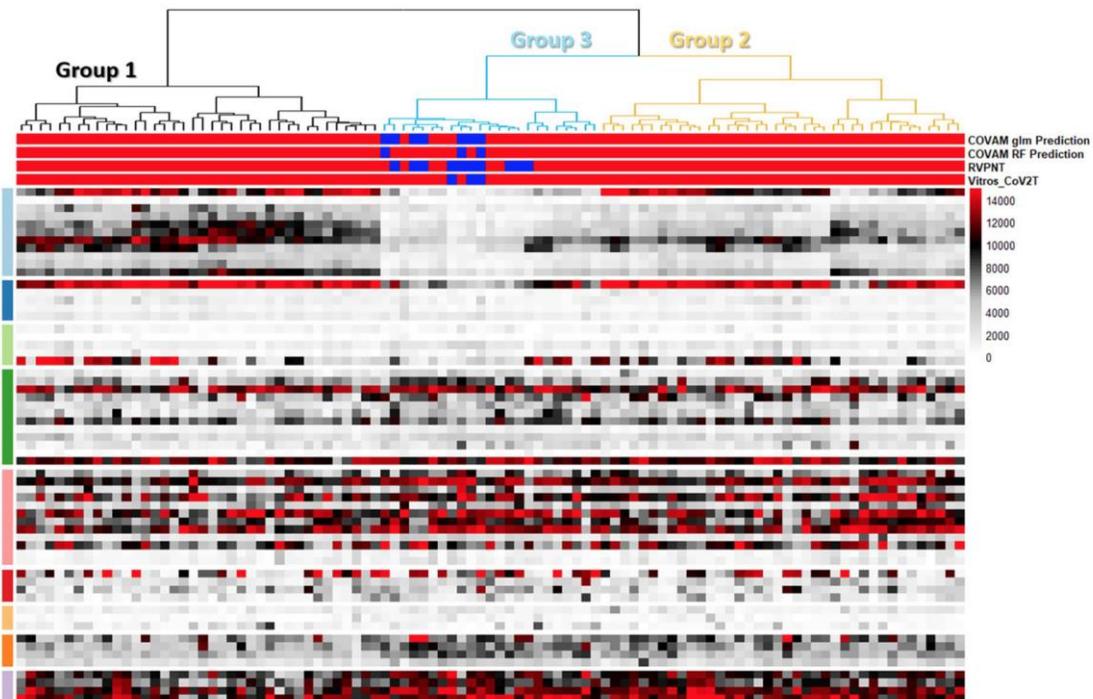
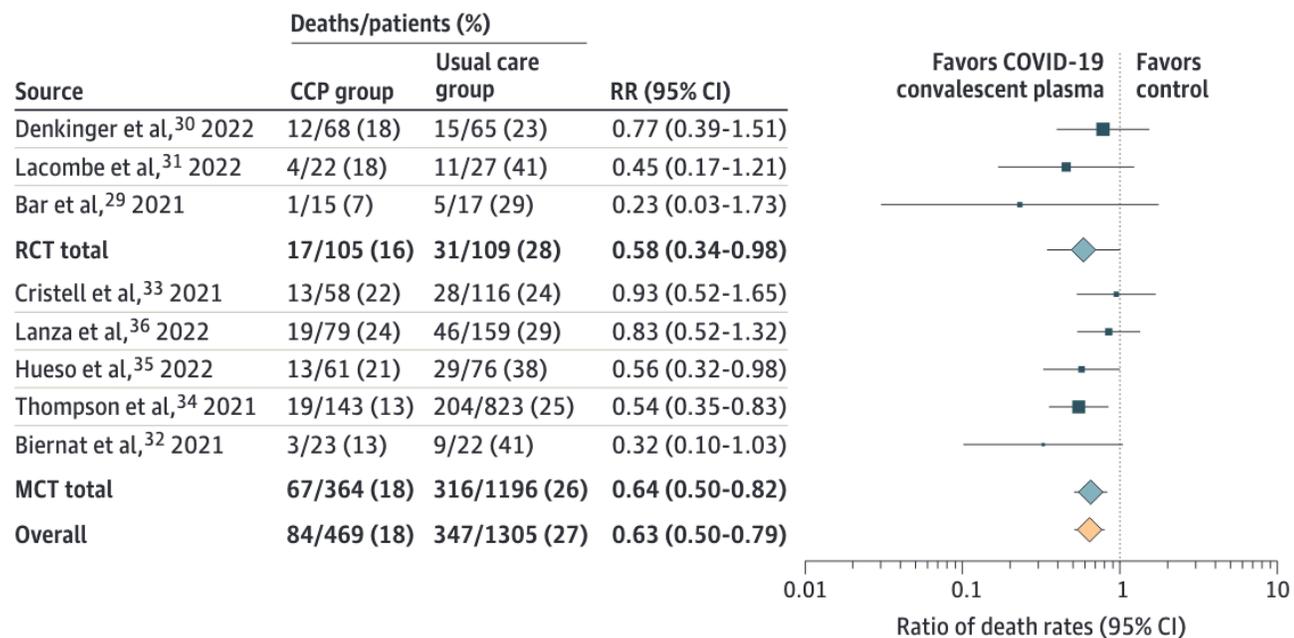
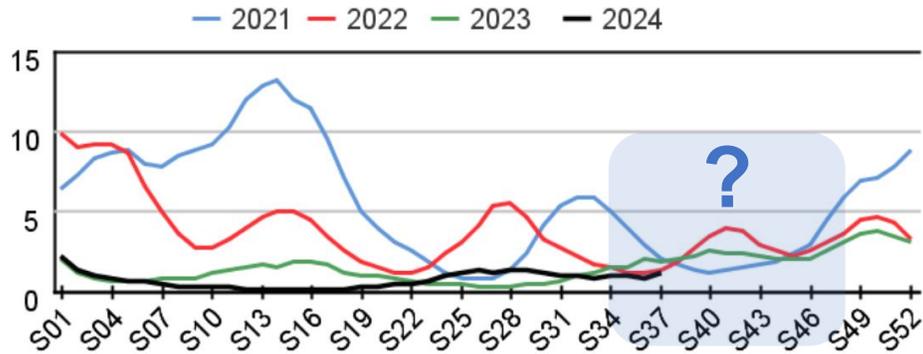


Figure 2. Forest Plot of Mortality Among Randomized Clinical Trials and Matched Cohort Studies

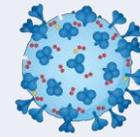


# Conclusions

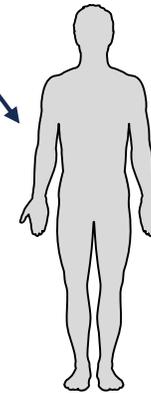
De moins en moins problématique ?



## PREVENTIF



Anticorps monoclonaux : risque d'échappement



Vaccination

Anti-JN.1

Vaccin nasal



## CURATIF

Traitements toujours efficaces sur omicron JN.1

- Nirmatrelvir-ritonavir
- Remdesivir
- Plasma de patient convalescent

Gestes barrières



# Merci pour votre attention



Service d'Hématologie et  
Thérapie Cellulaire



Emmanuel Gyan



Plateforme Métabolomique et d'Analyse  
Chimique



## Collaborations

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Catherine Poirot (GRECOT)



## CRYOSTEM

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## Institut de Recherche Saint Louis

David Michonneau (Inserm U976)



## Guix HPC

Simon Tournier



## Pour leur soutien

Fédération Leucémie Espoir  
Association pour Laurène  
SOS Oxygène  
ITMO Cancer Aviesan / Inserm  
Association CANCEM  
Novartis

