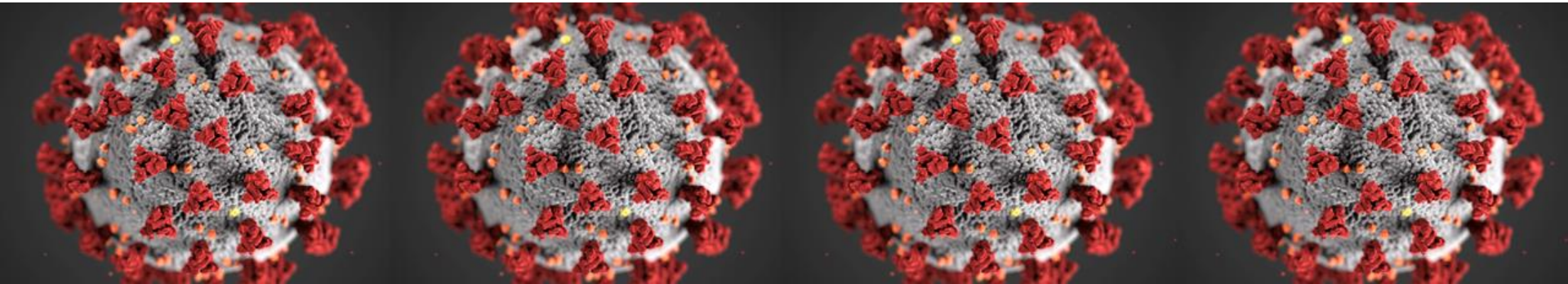
Casirivimab and imdevimab (Cas&Im) for post-exposure prophylaxis of COVID-19 (2069)

M-XX-00005700



Cas&Im: under clinical investigation for the treatment and prevention of COVID-19

Ambulatory study: 2067

- Adaptive trial (Ph 1/2/3)
- Ambulatory COVID-19 patients
- **IV** delivery

Post-exposure prophylaxis (PEP) study: 2069

- Ph 3 trial
- Household contacts (HHCs) of index patients (IPs) with COVID-19
- **SC** delivery

Hospitalised study: 2066

- Adaptive trial (Ph 1/2/3)
- Hospitalised COVID-19 patients
- **IV** delivery

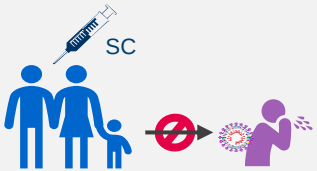
NCT04426695; NCT04425629; NCT04452318

Prophylaxis versus treatment of COVID-19

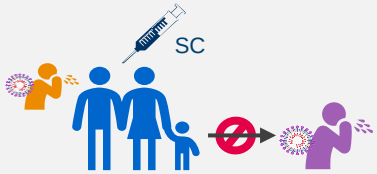
PROPHYLAXIS

Treating healthy individuals
to prevent infection or disease onset

PRE-EXPOSURE (PrEP)
– long-term prophylaxis



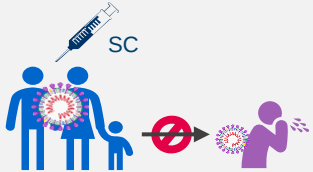
POST-EXPOSURE (PEP)



TREATMENT

Treating infected individuals
to prevent disease progression

ASYMPTOMATIC
- pre-emptive treatment



SYMPTOMATIC

Study 2069

Study 2067

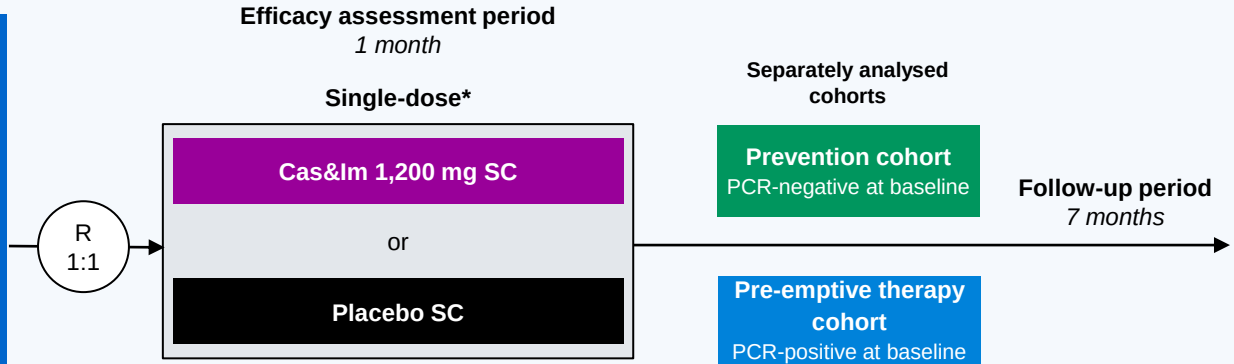
O'Brien MP. 2021a; O'Brien MP. 2021b
Mitjà. Lancet Global Health 2020; NCT04425629; NCT04452318

Cas&Im for post-exposure prophylaxis: a randomised, placebo-controlled Ph 3 study in households (2069)

Study design

- **Adults and adolescents**
- Asymptomatic HHCs with exposure to an IP with SARS-CoV-2
- PCR-positive or -negative at baseline (separate cohorts)
- Otherwise healthy, and living in same household as the IP until Day 29
- Randomisation within 96 hrs of IP's positive SARS-CoV-2 test sample

N=2,475 participants



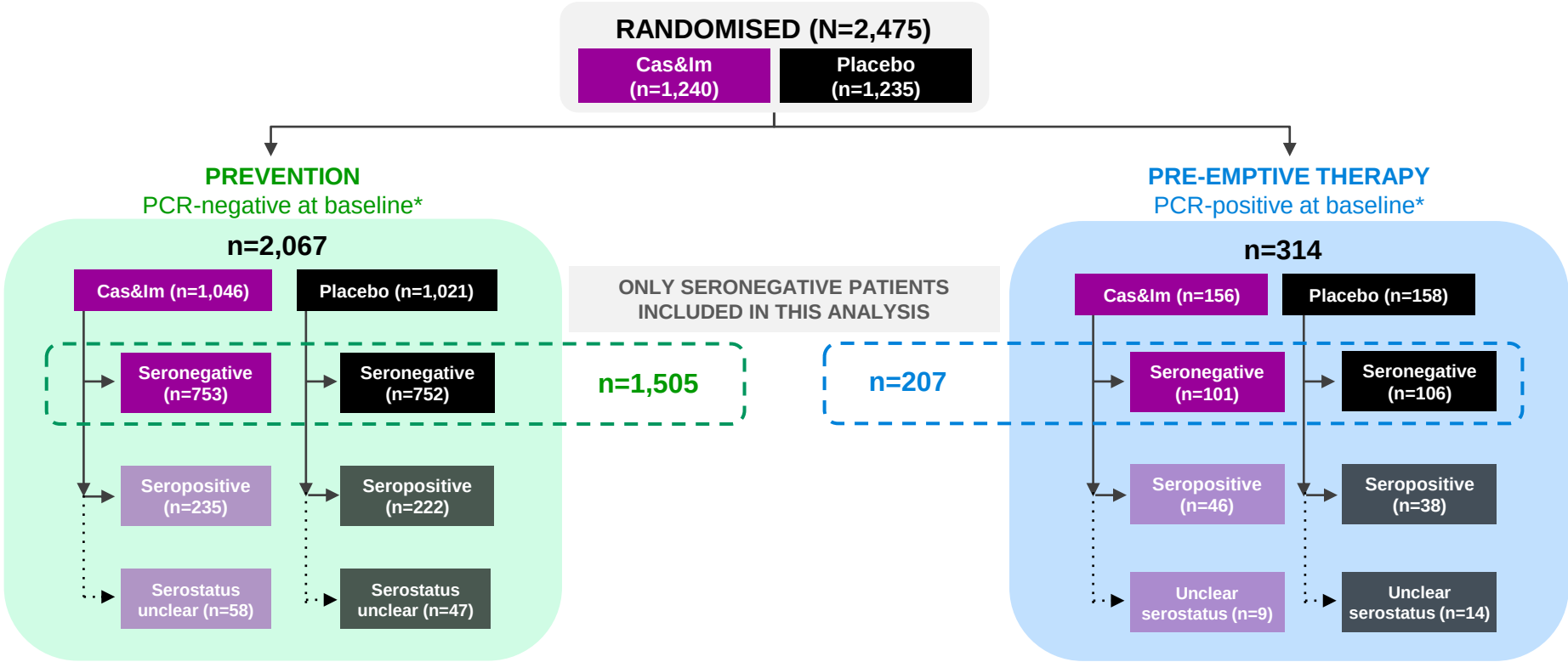
Primary endpoint

To evaluate the efficacy of Cas&Im compared to placebo in preventing symptomatic SARS-CoV-2 infections through day 28
prevention and pre-emptive therapy cohorts evaluated separately

*4 injections of 2.5mL each

O'Brien MP. 2021a; O'Brien MP. 2021b; NCT04452318;

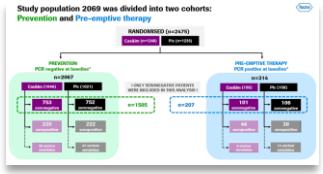
Study population 2069
two cohorts: Prevention and Pre-emptive therapy



*There were 94 patients with undetermined RT-qPCR (placebo n=56; Cas&Im n=38)

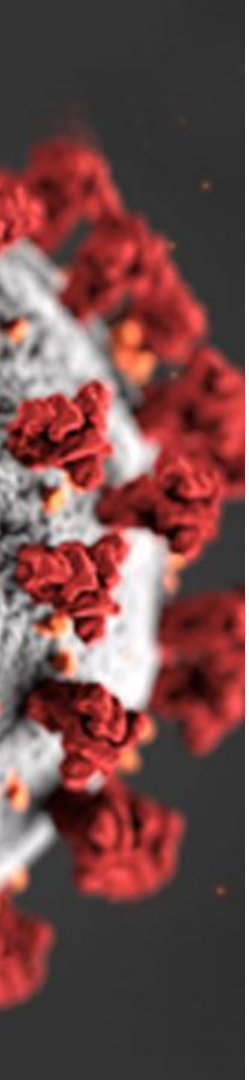
O'Brien MP. 2021a; O'Brien MP. 2021b; Roche 2021

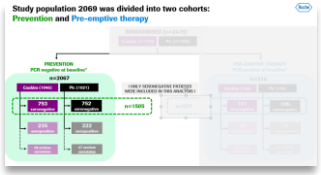
Baseline characteristics for patients who were seronegative



Baseline characteristic	Prevention cohort		Pre-emptive therapy cohort	
	Cas&Im N=753	Placebo N=752	Cas&Im N=101	Placebo N=106
Mean age (range), years	43.2 (12–87)	42.7 (12–92)	39.2 (17.7)	18.3
Age ≥50 years, %	39.0	37.2	30.7	36.8
Male, %	44.2	47.6	50.5	40.6
White, %	86.7	84.4	78.2	90.6
Black, %	8.2	10.4	6.9	3.8
Asian, %	3.1	2.5	8.9	2.8
BMI ≥30kg/$m^{2,}$ %	34.5	32.3	36.6	28.8
Participants with any high-risk factor for COVID-19, %	31.6	29.4	31.0	32.7
Total number of households	679	686	97	99

O'Brien MP. 2021a; O'Brien MP. 2021b

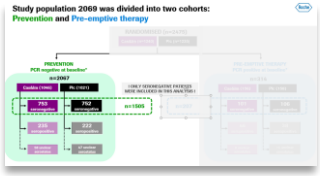


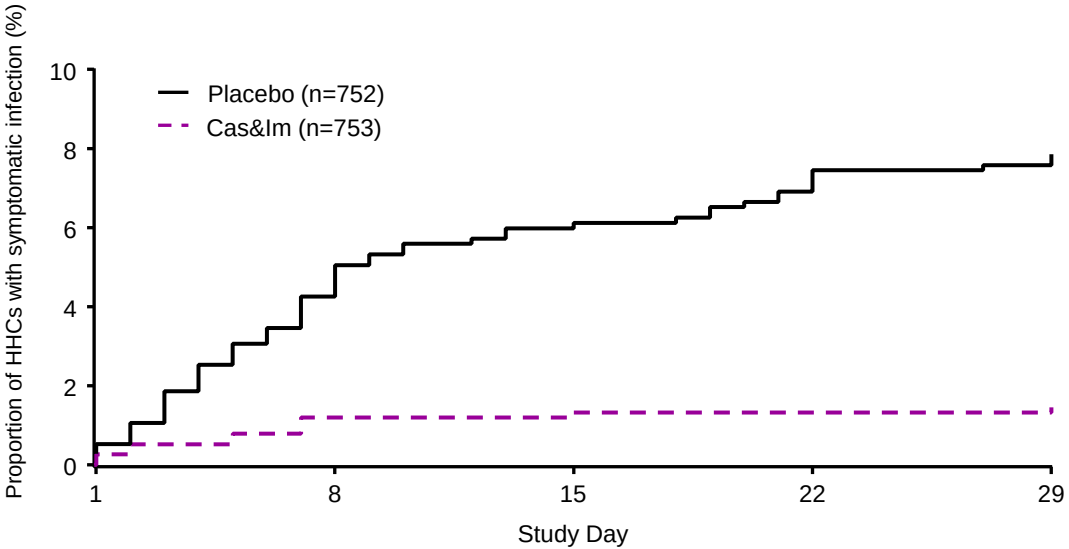


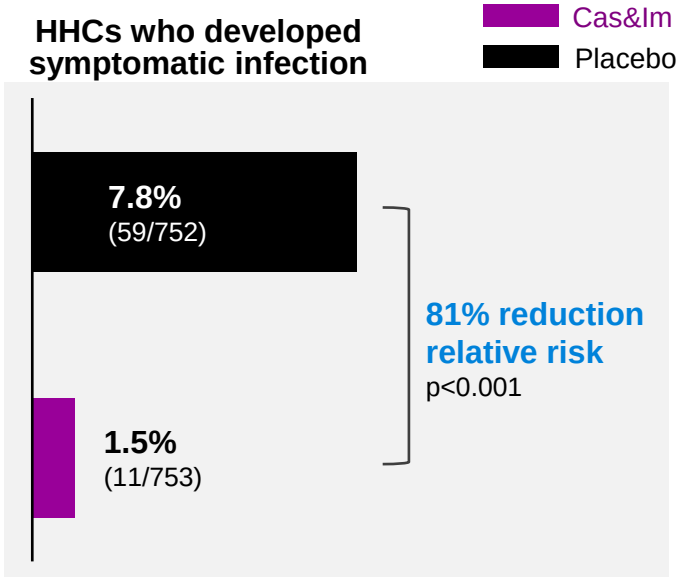
Prevention cohort (n=1,505)

Healthy seronegative individuals, with no infection at baseline

Cas&Im prophylaxis resulted in 81% reduction in symptomatic infections



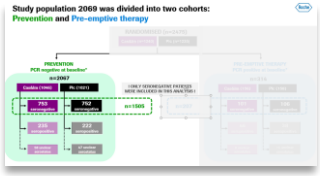




O'Brien MP. 2021a; Roche 2021

Cas&Im prophylaxis resulted in 66% reduction in all infections

Symptomatic and asymptomatic

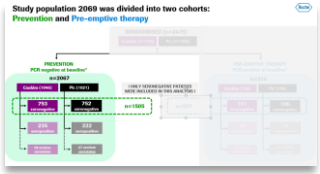


Cas&Im

Placebo

O'Brien MP. 2021a

In those HHCs who still became infected, Cas&Im prophylaxis resulted in 86% reduction in patients with high viral load



Cas&Im

Placebo

HHCs who became infected and had high viral load

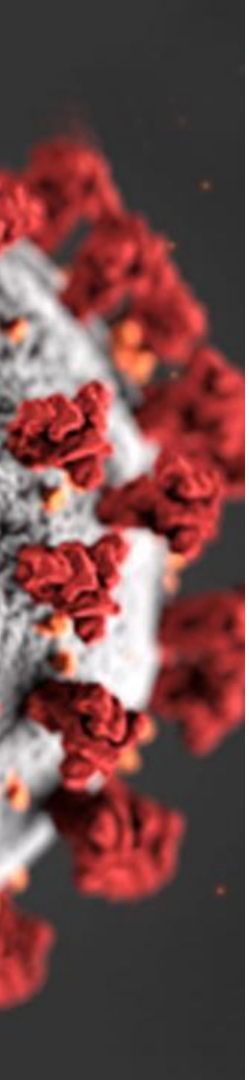
(>10^4 RNA copies/mL)

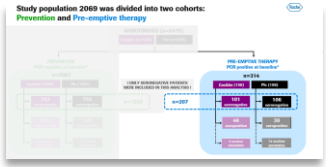
1.6%
(12/745)

11.3%
(85/749)

86%
relative risk reduction
OR 0.13 (0.07, 0.24)
p<0.001

O'Brien MP. 2021a

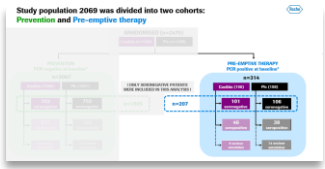


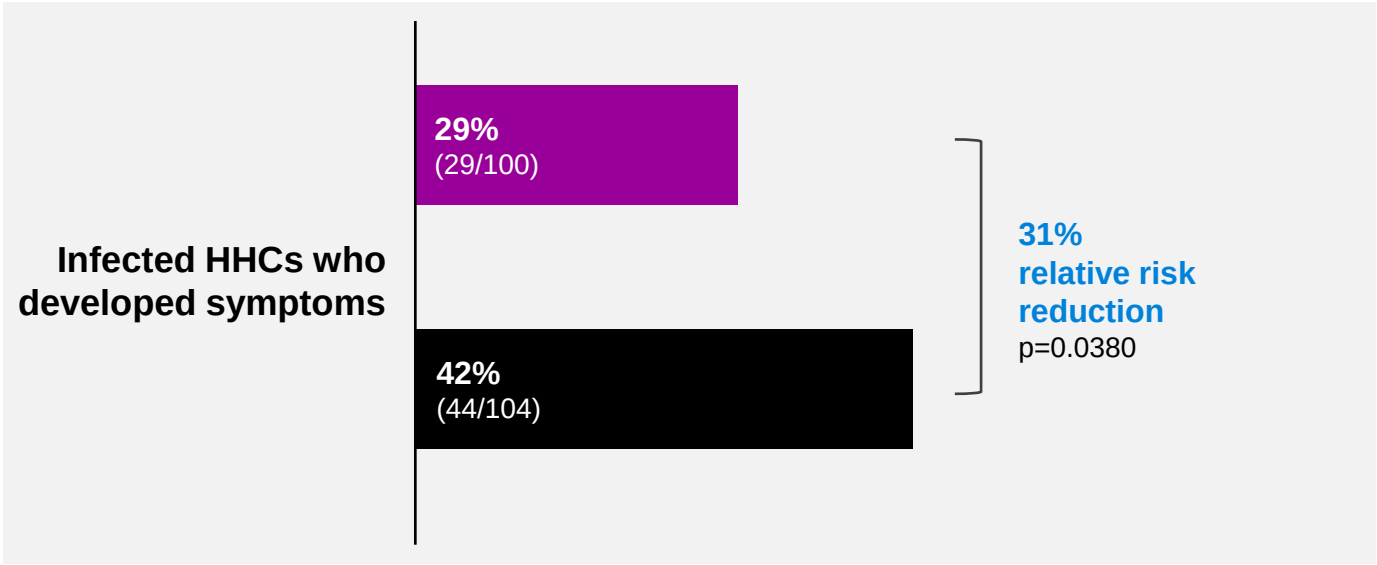


Pre-emptive therapy cohort (n=207)

Asymptomatic seronegative patients, infected at baseline

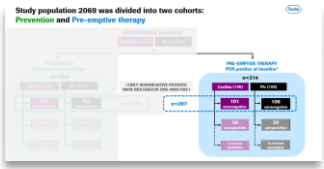
Cas&Im prophylaxis resulted in 31% reduction in development of symptomatic disease in HHCs infected at baseline

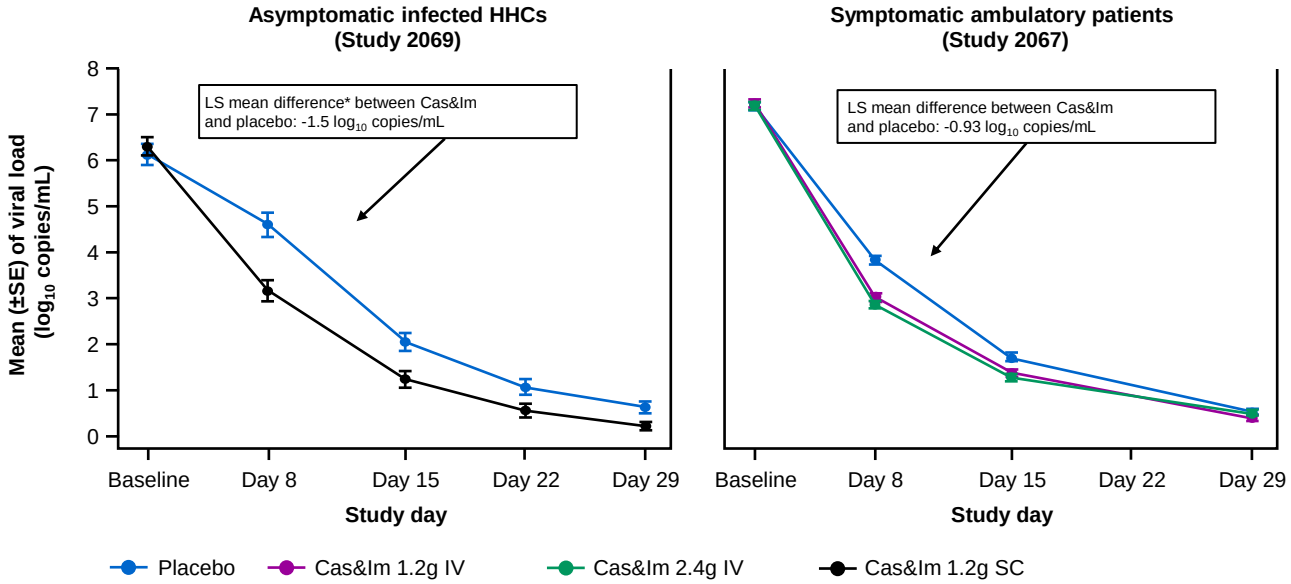




O'Brien MP. 2021b

SC Cas&Im resulted in a more rapid decrease in viral load compared with placebo

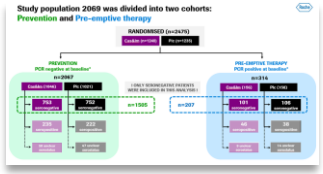




*Outpatients (Study 2067): symptomatic, RT-qPCR positive, seronegative at baseline
†Early treatment (Study 2069-B): asymptomatic, RT-qPCR positive, seronegative at baseline
IVE, intravenous(ly), LS, least squares; RT-qPCR, reverse transcription quantitative polymerase chain reaction; SC, subcutaneous

O'Brien MP. 2021a; O'Brien MP. 2021b

Safety profile

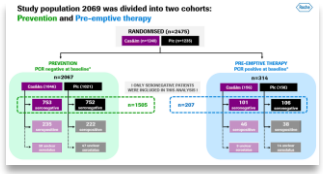


Including seronegative and seropositive subjects, n (%)	Prevention cohort		Pre-emptive therapy cohort	
	Placebo N=1,306	Cas&Im N=1,311	Placebo N=156	Cas&Im N=155
Subjects with any TEAE	379 (29.0)	265 (20.2)	75 (48.1)	52 (33.5)
Subjects with any AESI*	0	0	0	0
Subjects with any serious TEAE	15 (1.1)	10 (0.8)	4 (2.6)	0
Deaths†	2 (0.2)	2 (0.2)	0	0
Injection site reaction	19 (1.5)	55 (4.2)	1 (0.6)	6 (3.9)
Subjects with treatment/study withdrawn due to TEAEs	0	0	0	0

Injection site reactions reported with Cas&Im were mild to moderate in severity
*Grade ≥3 injection site reaction or hypersensitivity reaction; †none of the deaths in the trial (2 Cas&Im, 2 placebo) were attributed to COVID-19 or study drug

O'Brien MP. 2021a; O'Brien MP. 2021b; Roche 2021

TEAEs that occurred in >2% subjects in any treatment group



Including seronegative and seropositive subjects, n (%)	Prevention cohort		Pre-emptive therapy cohort	
	Placebo N=1,306	Cas&Im N=1,311	Placebo N=156	Cas&Im N=155
Headache	46 (3.5)	24 (1.8)	1 (0.6)	0
Injection site reaction	19 (1.5)	55 (4.2)	1 (0.6)	6 (3.9)

O'Brien MP. 2021a; O'Brien MP. 2021b; Roche 2021

Study 2069

- Prophylactic SC administration of Cas&Im in HHCs reduced the risk of symptomatic COVID-19 infections by 81%
- Individuals who still experienced symptomatic infections with Cas&Im were able to clear the virus faster and had shorter symptom duration. No subjects treated with Cas&Im had hospitalisation or ER visits due to COVID-19
- In infected asymptomatic patients (pre-emptive treatment), Cas&Im reduced the overall risk of progressing to symptomatic COVID-19 by 31%
- Cas&Im was generally well tolerated

O'Brien MP. 2021a; O'Brien MP. 2021b; Roche 2021

References

- Mitjà. Lancet Global Health 2020;8(5):E639–40.
- NCT04425629. Available at: https://clinicaltrials.gov/ct2/show/NCT04425629.
- NCT04452318. Available at: https://clinicaltrials.gov/ct2/show/NCT04452318.
- NCT04426695. Available at: https://clinicaltrials.gov/ct2/show/NCT04426695.
- O'Brien, M. P., et al. 2021a Subcutaneous REGEN-COV Antibody Combination to Prevent Covid-19 https://www.nejm.org/doi/full/10.1056/NEJMoa2109682
- O'Brien, M. P., et al. 2021b. Subcutaneous REGEN-COV Antibody Combination in Early SARS-CoV-2 Infection. 2021.2006.2014.21258569. pre-print https://pubmed.ncbi.nlm.nih.gov/34159343/
- Roche 2021. Phase III prevention trial showed subcutaneous administration of investigational antibody cocktail casirivimab and imdevimab reduced risk of symptomatic COVID-19 infections by 81%. April 12 2021. Available at: https://www.roche.com/media/releases/med-cor-2021-04-12.htm. Accessed April 2021

Doing now what patients need next