Source	Title/link	Date	Findings/conclusions
News stories/press releases			
WHO	COVID-19 Weekly Epidemiological Update https://www.who.int/publications/m/item/weekly-epidemiological-update---9-february-2021	9-feb-'21	See Table 3 in the document, 20H/501Y.V2 potential impact on vaccines: • Moderna and Pfizer-BioNTech: Reduction in the neutralizing activity, but impact on protection against disease not known • Novavax and Johnson & Johnson: Lower vaccine efficacy in South Africa compared to settings without the variant (press release data only). Moderate-severe disease were assessed. Serologic neutralization results pending • Oxford/AstraZeneca: Minimal vaccine efficacy against mild-moderate COVID-19 disease, with wide confidence intervals (press release data only), impact on severe disease undetermined. Serologic neutralization substantially reduced compared with original strains, based on small number of samples analyzed
Moderna	Moderna COVID-19 Vaccine Retains Neutralizing Activity Against Emerging Variants First Identified in the U.K. and the Republic of South Africa https://investors.modernatx.com/node/10841/pdf	25-jan-'21	• For the B.1.351 variant, vaccination with the Moderna COVID-19 Vaccine produces neutralizing antibody titers that remain above the neutralizing titers that were shown to protect NHPs against wildtype viral challenge. While the company expects these levels of neutralizing antibodies to be protective, pseudovirus neutralizing antibody titers were approximately 6-fold lower relative to prior variants. These lower titers may suggest a potential risk of earlier waning of immunity to the new B.1.351 strains (preprint yet to be posted)
The BMJ	Covid-19: Novavax vaccine efficacy is 86% against UK variant and 60% against South African variant https://www.bmj.com/content/372/bmj.n296	1-feb-'21	• The SARS-CoV-2 vaccine produced by the US biotechnology company Novavax is 95.6% effective against the original variant of SARS-CoV-2 but also provides protection against the newer variants B.1.1.7 (85.6%) and B.1.351 (60%), preliminary data from clinical trials show • The phase II trial of the Novavax vaccine is ongoing in South Africa with 4400 volunteers, in which 29 cases have been seen in the placebo group (one severe) and 15 in the vaccine group. Preliminary sequencing data of 27 of these cases found that 93% (25) involved the South Africa variant
University of Oxford; Wits University	ChAdOx1 nCov-19 provides minimal protection against mild-moderate COVID-19 infection from B.1.351 coronavirus variant in young South African adults	7-feb-'21	• In an analysis, submitted as a pre-print prior to peer-review publication (not yet available), a two-dose regimen of the ChAdOx1 nCoV-19 vaccine provides minimal protection against mild-moderate COVID-19 infection from the B.1.351 coronavirus variant first identified in South Africa

	https://www.research.ox.ac.uk/Article/2021-02-07-chadox1-ncov-19-minimal-protection-against-mild-covid-19-from-b-1-351-variant-in-young-sa-adults https://www.wits.ac.za/covid19/covid19-news/latest/oxford-covid-19-vaccine-trial-results.html		• Efficacy against severe COVID-19 infection from this variant was not assessed • Study of approximately 2,000 volunteers who were on average 31 years old, mild disease was defined as at least one symptom of COVID-19
WHO; CIDRAP	https://www.who.int/news/item/08-02-2021-covax-statement-on-new-variants-of-sars-cov-2 https://www.cidrap.umn.edu/news-perspective/2021/02/south-africa-pauses-astrazeneca-vaccine-rollout-amid-variant-covid	8-feb-'21	• The WHO Strategic Advisory Group of Experts on Immunization (SAGE) convened to review evidence on the AstraZeneca/Oxford vaccine, including emerging evidence on performance against viral variants, and to consider the demonstrated impact of the product and the risk-benefit assessment for use cases with limited data. These recommendations for use of the AstraZeneca product are being finalized and will be presented to the WHO Director-General on 9 Feb 2021. In the next few days, the WHO expects to make a decision about emergency use listing of the AstraZeneca-Oxford vaccine, which would be its second, behind the one from Pfizer-BioNTech • At a WHO briefing on Feb 8, Salim Abdool Karim, MD, PhD, co-chair of South Africa's COVID-19 advisory committee, said here are several caveats about the new South African trial findings, including that the number of participants was small and that confidence intervals were wide, with a 60% upper boundary range that approached the overall efficacy finding of the wider phase 3 study. He also said the dosing interval in the study was short, compared to newer longer intervals that have been proposed by AstraZeneca to improve immune response
Published articles			
Nature Medicine	Neutralization of SARS-CoV-2 spike 69/70 deletion, E484K and N501Y variants by BNT162b2 vaccine-elicited sera (Xie et al., 2021) https://doi.org/10.1038/s41591-021-01270-4	8-feb-'21	• We tested a panel of human sera from 20 participants in the previously reported clinical trial, drawn 2 or 4 weeks after immunization with two 30-μg doses of BNT162b2 spaced 3 weeks apart • Consistent with other recent reports of the neutralization of SARS-CoV-2 variants or corresponding pseudoviruses by convalescent or post-immunization sera, the neutralization GMT of the serum panel against the virus with three mutations from the SA variant (E484K + N501Y + D614G) was slightly lower than the neutralization GMTs against the N501Y virus or the virus with three mutations from the UK variant (Δ69/70 + N501Y + D614G). However, the magnitude of the differences in neutralization GMTs against any of the mutant viruses in this study was small (0.81- to 1.41-fold), as compared to the greater than four-fold differences in hemagglutination-inhibition titers that have been used to signal potential need for a strain

			change in influenza vaccines
Preprints			
bioRxiv	mRNA vaccine-elicited antibodies to SARS-CoV-2 and circulating variants (Wang et al.) https://doi.org/10.1101/2021.01.15.426911	30-jan- '21	• Here we report on the antibody and memory B cell responses in a cohort of 20 volunteers who received either the Moderna (mRNA-1273) or Pfizer-BioNTech (BNT162b2) vaccines • Consistent with prior reports, 8 weeks after the second vaccine injection volunteers showed high levels of IgM, and IgG anti-SARS-CoV-2 spike protein (S) and receptor binding domain (RBD) binding titers. Moreover, the plasma neutralizing activity, and the relative numbers of RBD-specific memory B cells were equivalent to individuals who recovered from natural infection. However, activity against SARS-CoV-2 variants encoding E484K or N501Y or the K417N:E484K:N501Y combination was reduced by a small but significant margin
bioRxiv	mRNA-1273 vaccine induces neutralizing antibodies against spike mutants from global SARS-CoV-2 variants (Wu et al.) https://doi.org/10.1101/2021.01.25.427948	25-jan-'21	• We assessed the neutralization capacity of sera from eight phase 1 clinical trial participants (aged 18-55 years) who received two 100 µg doses of mRNA-1273, and NHPs immunized with two doses of 30 µg or 100 µg of mRNA-1273 • Consistent with other recent reports assessing neutralization of the mutations found in B.1.351 (Wang et al, 2021), there was a 2.7-fold reduction in neutralization from sera collected from participants vaccinated with mRNA-1273 when the 3 mutations found in the RBD (K417NE484K-N501Y) were present in the VSV-based pseudovirus assay. Importantly a 6.4-fold reduction was observed when the full set of mutations, including those in the N-terminal domain (NTD), were included
bioRxiv	Neutralization of viruses with European, South African, and United States SARS-CoV-2 variant spike proteins by convalescent sera and BNT162b2 mRNA vaccine-elicited antibodies (Tada et al.) https://doi.org/10.1101/2021.02.05.430003	7-feb- '21	• We report here on antibody neutralization of the European, UK, South Africa, Europe, Columbus, Ohio and mink spike variants by the sera of convalescent individuals and those vaccinated with BNT162b2 • The results showed that the variants bound ACE2 with increased affinity and thermostability. The variants were neutralized both by the sera of convalescent and vaccinated individuals. Virus with the UK B.1.1.7 spike protein was neutralized as well as the parental D614G while the South Africa B.1.351 variant spike was neutralized with a 3-4-fold reduction in IC50 compared to D614G virus • Even with the relatively minor reduction in neutralizing titer for B.1.351 by serum antibodies of vaccinated individuals, neutralizing titers remained above those of naturally infected individuals. The findings suggest that the protection provided by vaccination will remain largely intact against the South Africa variant and other currently circulating SARS-CoV-2 variants

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1. Google → gezocht op “South African variant vaccine efficacy”; “501Y.V2”; “b.1.351”
2. https://www.biorxiv.org → gezocht op 501Y.V2 OR b.1.351 (52 hits)
3. https://www.medrxiv.org/ → gezocht op 501Y.V2 OR b.1.351 (35 hits)