

Practical considerations for COVID-19 vaccination in Africa

Fact sheet for COVID-19 vaccinations

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COVID-19 vaccines have been studied in African populations

Ghana, Nigeria¹



RWE study

(May – July 2021)

- N=667 participants recruited to be vaccinated with two AZD1222 doses

- Significant increase in neutralization of WT Wu-1 D614G, Delta and Omicron PV
- **16%** had evidence of breakthrough infections
- Evidence of waning antibody response

South Africa²



Single-arm, open-label, phase IIIb study

(February – May 2021)

- N=477,102 HCWs invited and received Ad26.CoV2.S

- Effectiveness against:
 - COVID-19-related deaths: **83%**
 - COVID-19-related hospitalization: **67%** (requiring critical/intensive care: **75%**)

South Africa³



Retrospective analysis of PCR assays

(September – December 2021)

- Effectiveness of two BNT162b2 doses across Omicron variant and comparator periods
- N=211,610 PCR tests

- Effectiveness against COVID-19-related hospitalization in:
 - Omicron-variant period: **70%**
 - Comparator period: **93%**

South Africa⁴



Retrospective analysis of PCR assays

(November 2021 – January 2022)

- N=162,637 PCR tests (n=93,854 from patients who received 2 doses of Ad26.CoV2.S or BNT162b2)

At 1–2 months

- VE against hospitalization:**
 - Ad26.CoV2.S: **72%**
 - BNT162b2: **70%**
- VE against intensive care:**
 - Ad26.CoV2.S: **82%**
 - BNT162b2: **70%**

Zambia⁵



Retrospective cohort study

(April 2021 – March 2022)

- N=1,653 participants admitted to COVID-19 treatment centres

- **22%** of admitted patients died
- **14%** of patients had received ≥ 1 dose of any vaccine
 - Of those who received ≥ 1 vaccine dose: **9%** died, vs **24%** of unvaccinated people ($p < 0.01$)

Hesitancy and other barriers must be addressed to support vaccine uptake

Addressing community concerns is important to improve confidence in the vaccine and support uptake⁶

Lack of awareness and mistrust of vaccines may impede vaccine uptake:⁷

Public engagement can build trust, improve understanding and address concerns⁶



- **Inform public expectations** about vaccine benefits, risks and production/supply⁸
- **Empower, equip and galvanize** HCWs to advocate vaccination⁹
- **Promote extensive community engagement**, which is essential to build public trust⁶
- **Develop social behaviour change** communications to address community concerns¹⁰

Safety concerns are an important reason for hesitancy:⁷

Clear explanations of AEs can improve confidence and address safety concerns⁶



- **Clinical data may help reassure patients:**
 - Serious AEs are infrequent: reported in <1.5% of vaccinated people¹¹⁻¹³

The most commonly reported AEs in African studies were:^{11,14}



Headache
11–17%



Injection-site pain
8–21%



Pyrexia
9–20%



Fatigue
16%





Misinformation can discourage uptake and create vaccine mistrust:¹⁵

Swift responses are needed to address misinformation and rumours early and avoid misinformation spread⁶



- **Misinformation is a challenge**, accelerated by the internet/social media¹⁵
- **Develop social listening mechanisms** to understand public concerns, information needs and rumours¹⁶
- **Social media campaigns** can help shape the conversation^{6,15}
- **Carefully prebunk or debunk** high-risk misinformation¹⁶

Vulnerable populations still benefit from vaccination

Population	Challenge	Recommendation
People living with HIV 	<ul style="list-style-type: none"> HIV increases risk of severe symptoms & mortality following COVID-19 infection,¹⁷ which worsens with lower CD4 count¹⁸ 	<ul style="list-style-type: none"> Vaccination is associated with a lower risk of hospitalization. People with HIV should be prioritized for vaccination¹⁹ Current studies suggest no increased risk of severe side effects after vaccination²⁰
Pregnant women 	<ul style="list-style-type: none"> COVID-19 is associated with increased risk of:^{21,22} <ul style="list-style-type: none"> Severe COVID-19 Stillbirth Caesarean delivery Preterm birth 	<ul style="list-style-type: none"> COVID-19 vaccination is recommended for women who are pregnant or breastfeeding²³ COVID-19 vaccines during pregnancy: <ul style="list-style-type: none"> Reduce the risk of hospitalization*²⁴ Do not increase risk of adverse outcomes^{†21,25} Offer infant protection against hospitalization^{‡26}
Elderly 	<ul style="list-style-type: none"> High risk of COVID-19 –related hospitalization and mortality in people >65 years old²³ 	<ul style="list-style-type: none"> Elderly people are a high-risk group who should be prioritized for vaccination²⁷ <ul style="list-style-type: none"> Currently available vaccines are effective in the elderly population²³
Immunocompromised 	<ul style="list-style-type: none"> Infection is the most common cause of mortality²⁸ Vaccine efficacy is generally lower. Additional protection is warranted^{29,30} 	<ul style="list-style-type: none"> In addition to vaccination, immunocompromised people should take additional protective measures, including:³¹ <ul style="list-style-type: none"> Receiving available booster vaccinations Wearing well-fitting face masks Avoiding poorly ventilated or crowded areas

*89% VE against COVID-19 hospitalization in days 7–56 after second dose.²⁴
†e.g. stillbirth or preterm delivery.
‡52% VE against hospitalization of infants <6 months old.²⁶

Abbreviations & references

Abbreviations

AE, adverse event; HCW, healthcare worker; PCR, polymerase chain reaction; PV, pseudovirus; RWE, real-world evidence; VE, vaccine efficacy; WT, wild type.

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The guidance provided by this practice aid is not intended to directly influence patient care. Clinicians should always evaluate their patients’ conditions and potential contraindications and review any relevant manufacturer product information or recommendations of other authorities prior to consideration of procedures, medications, or other courses of diagnosis or therapy included here.

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