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Test and treat: a missing link in the global fight against COVID-19

The treatment landscape for COVID-19 is changing substantially, representing a golden opportunity for pandemic control, especially in impoverished countries. Until recently, most treatments targeted the minority of patients requiring hospital care. But the newly published efficacy of a repurposed antidepressant, fluvoxamine, heralds an important shift for primary care.¹ Fluvoxamine is joined by promising novel antivirals, Merck's molnupiravir and Pfizer's Paxlovid, but commodities alone are not a magic bullet—how they are positioned for success is critical.^{2,3}

Patients with COVID-19 must begin these therapies soon after symptom onset, which is a substantial challenge in settings such as sub-Saharan Africa, where the large majority of cases go undetected and only one in 20 people have ever been tested.⁴ Treatment must be closely linked to testing and integrated into primary care. Fortunately, test and treat is a tried-and-true approach in which early diagnosis and outpatient treatment prevents disease progression and transmission. As the key planks of this strategy come into focus, crucial steps remain (panel).

First, COVID-19 testing needs to be much more widely available. Antigen rapid diagnostic tests are fast and easy, but they are underused globally. Primary-care facilities and community

health workers can use them in the same way as testing for malaria or HIV, facilitating early diagnosis. Additional decentralisation can be achieved through home self-testing. A global push for test and treat should focus on antigen rapid diagnostic tests and self-testing, for which demand will be amplified by the availability of effective treatments.

Second, we need to ensure equitable access to therapies. Fluvoxamine and new antivirals show promise in reducing hospitalisations and deaths,¹⁻³ and WHO needs to move fast to assess therapies and issue treatment guidelines. Furthermore, deliberate steps must be taken to ensure that access for people living in poverty will not be restricted by the patent protections, price barriers, or nationalism that plague the vaccines.⁵ Where middle-income countries are excluded from licences and face predatory pricing, decisive action to override these barriers must be pursued.

Finally, test and treat must be embedded within primary care using multipronged and sustained strategies. Seizing this opportunity requires collective action to shape supply, staffing, training, test and treat literacy, and referral pathways, positioning primary care for long-term success. Otherwise, the global community will be trapped preparing hospitals for the next deadly surge. Test and treat should begin to be scaled-up—with the tools available now, and the promise of more to come.

EBW and BKB are volunteer civil society representatives to the Access to COVID-19 Tools Accelerator. BKB is a volunteer senior policy analyst and board member at Health Global Access Project. KJS and PEF declare no competing interests.

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Published Online
December 22, 2021
[https://doi.org/10.1016/S2214-109X\(21\)00568-4](https://doi.org/10.1016/S2214-109X(21)00568-4)

Panel: Action needed for a robust test and treat strategy

To expand access to testing

Expanded guidelines and training

- WHO to further expand antigen rapid diagnostic test use to include community-based testing and self-testing to capture infections at the earliest stage of detectability
- Clear guidance and training on how to decentralise antigen rapid diagnostic tests to primary-care facilities, community health workers, and self-testing

Improved supply and access

- Realistic estimates for the number of antigen rapid diagnostic tests that would be required to cover country populations for COVID-19 test and treat
- More WHO-approved high quality antigen rapid diagnostic test products
- Funders to work with manufacturers to drive the price down further to US\$1 per test

Increased COVID-19 test and treat health literacy

- Community outreach so that people who are infected and their providers can understand the importance of near immediate connection to care and treatment

To expand access to treatment

More approved treatment options

- Rapid evaluation of promising drugs and therapies and jumpstart guideline adoption as soon as evidence from phase 3 trials is available, leading to more WHO-approved therapies for outpatients

Expanded sources of supply and access

- Realistic estimates for the number of treatment courses that would be required to cover country populations for COVID-19 test and treat strategies
- In addition to ongoing work with Medicines Patent Pool for licensing novel antivirals for low-income countries, open or compulsory licensing for middle-income countries facing supply and price barriers should be considered
- Funders to negotiate advance purchase agreements with originator and generic manufacturers of promising drugs and therapies

- 1 Reis G, Moreira-Silva EAdS, Medeiros Silva DC, et al. Effect of early treatment with fluvoxamine on risk of emergency care and hospitalisation among patients with COVID-19: the TOGETHER randomised, platform clinical trial. *Lancet Glob Health* 2021; **10**: e42–51.
- 2 Mahase E. Covid-19: molnupiravir reduces risk of hospital admission or death by 50% in patients at risk, MSD reports. *BMJ* 2021; **375**: n2422.
- 3 Pfizer. Pfizer's novel COVID-19 oral antiviral treatment candidate reduced risk of hospitalization or death by 89% in interim analysis of phase 2/3 EPIC-HR study. Nov 5, 2021. <https://www.pfizer.com/news/press-release/press-release-detail/pfizers-novel-covid-19-oral-antiviral-treatment-candidate> (accessed Nov 21, 2021).
- 4 Khan AJ. Six out of seven coronavirus cases in Africa are going undetected, the WHO says. Oct 14, 2021. <https://www.nytimes.com/2021/10/14/world/africa/covid-africa-who.html> (accessed Oct 28, 2021).
- 5 Farmer P, Desai I, Binagwaho A. Africa shouldn't be forced to go it alone when it comes to Covid vaccines. July 10, 2021. <https://www.theguardian.com/commentisfree/2021/jul/10/africa-covid-vaccines-europe-us> (accessed Sept 23, 2021).