Impacting Global Health Delivery Through Advocacy

The Case of Losartan

DEAR EDITOR,

Cardiovascular disease is the world's leading cause of death, and hypertension the biggest risk factor for premature death and disability. Fortunately, evidence from multiple settings shows that non-physicians can test and treat high blood pressure in settings where doctors are scarce. In sites including Nigeria, China, Iran, Ghana, Kenya, and India, such providers have screened, referred, and even prescribed medication for hypertension, with efficacy comparable to that of physicians [1]. Yet lack of medications frequently hampers these programs.

There is a policy tool, however, to stock these shelves. In 1977, the World Health Organization (WHO) created the Essential Medicines List (EML)—a roster of every medication "basic, indispensable, and necessary" for population health. In 2002, WHO allowed the public to apply to amend the list—by year's end, WHO had added long-standing omissions (such as angiotensin-converting enzyme [ACE] inhibitors for hypertension and heart failure) in response to such advocacy. In the years that followed, studies found that medications on the list appeared more often in public and private clinics in low- and middle-income countries than those left off the list [2], demonstrating that the EML influences national-level procurement and supply practices.

Yet the EML remains a work in progress. As of 2016, despite evidence that angiotensin-receptor blockers such as losartan are as effective as ACE inhibitors for the control of hypertension, chronic kidney disease, and heart failure, as well as better-tolerated and comparably affordable [3], angiotensin-receptor blockers were absent from the list. We therefore petitioned WHO to add losartan to the EML [3]; following favorable public comment and review, WHO added losartan in March 2017 as an alternative agent for those who cannot tolerate ACE inhibitors.

This change has significant potential to impact the global disease burden from these 3 causes of chronic disease. Hypertension, alone, affects 31% of all adults worldwide, including more than 1 billion people in low- and middle-income countries of which 92% have uncontrolled blood pressure [4]. A better-tolerated, affordable treatment for these common conditions would therefore achieve global results even if that treatment were only marginally more available. If the addition of losartan to the EML leads to even a 0.1% increase in the fraction of persons with hypertension who receive treatment in LMICs (740,000 of 740 million untreated) [4], this change could save 5,900 lives over 5 years. EML amendments are therefore a powerful strategy for researcher-advocates to affect health outcomes.

But the impact of this work continues to unfold, and all concerned and motivated people—regardless of their current position—can act to improve the EML. Since we added losartan to the list in 2017, a systematic review found that losartan and other angiotensin-receptor blockers are just as effective as ACE inhibitors for blood pressure control, with fewer side effects, concluding that there is "little, if any reason to use ACE inhibitors for the treatment of hypertension" and arguably promoting losartan to first-line hypertension therapy [5].

Nor is the list of medications complete. The EML does not currently include any combination therapy for cardiovascular disease, for example, despite recent evidence demonstrating that, for patients with blood pressure above 150/95, combination therapy (losartan with hydrochlorothiazide) controlled blood pressure more effectively than the use of either medication alone [6]. Because the EML does not currently include any of these agents, we have submitted an application to add multiple fixed-dose combination tablets for hypertension to the EML in 2019 [6].

We suggest that the EML therefore offers at least 3 means to influence health policy. First, direct additions to the list can boost global availability of needed medications: a tool available to anyone worldwide able to make a strong case that a drug is needed, effective, and affordable. As losartan and the above-mentioned combination medications demonstrate, the EML still has many gaps relative to the latest medical guidelines, creating ample opportunity for action. Second, revisions and amendments to the list—for example, clarifying when angiotensin receptor blockers or combination agents should be used as first-line rather than backup therapies—can help decision makers at country and local levels make better use of scarce resources: for example, in sites where losartan is cheaper and easier to obtain than other agents. But, third, the text of the EML offers a framework for local accountability: making sure that the agreed medicines and guidelines are actually available in the countries and communities that need them. The EML is technically a "model list" because each country must craft its own, to suit local priorities, but the EML can drive or inspire such initiatives. A "citizen science" initiative—relying on concerned volunteers' queries—is now underway in multiple states across India to ensure national and subnational EML are aligned with international EML standards.

Despite the massive burden of chronic disease borne by diverse vulnerable populations worldwide, the domains of research and policy that aim to tackle this threat are limited, and the communities of involved actors that are often needlessly small, elite, and exclusive. The EML is a rare opportunity to democratize the process of policy change. Any reader with an interest in research, advocacy, policy, and delivery science can now pick up this crucial task.

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