

Access to Medications Throughout the World

An introduction to the World Health Organization's *Model List of Essential Medicines*

by Ceanne Veldhorst

If a pharmacist thinks about the most common problems that arise during a day of work in a pharmacy, problems such as drug interactions, patient adherence issues, insurance and Medicare Part D complications come to mind. Now, think about the type of issues facing a pharmacy, clinic, or hospital in a developing country. Limited access to medicines would most likely be a major obstacle that pharmacists or other health care providers would experience. Although pharmacy shelves are filled with medications in the United States, this is not the case in many other countries.

Millions of poor people have little or no access to safe, high-quality medicines in order to meet their health care needs. As a result, many developing countries have started national programs in order to promote the availability, accessibility, affordability, quality and rational use of medicines.¹ The concept of essential medicines started in 1977 when the World Health Organization (WHO) developed a *Model List of Essential Medicines*. The list was developed to help countries focus their training, public education and pharmaceutical expenditures in a way that reflects priority conditions, availability of drugs and accessibility of health care. It serves as a guide to assist countries in the development of national essential medicine lists.² Now many national programs are centered around the concept of essential medicines. Likewise, many international organizations, including the United Nations Children's Fund (UNICEF) and United Nations High Commissioner for Refugees (UNHCR), as well as nongovernmental organizations and international non-profit supply agencies, have adopted the essential medicines concept and base their medicine supply system mainly on the *WHO Model List of Essential Medicines*.³

The *WHO Model List of Essential Medicines* has been updated every two years since 1977. The most current 14th list, prepared in March 2005 by the WHO Expert Committee on the Selection and Use of Essential Medicines, contains 312 medicines. The Committee makes the updates using an evidence-based approach to evaluate new information on drug efficacy, safety, risk-benefit and cost-effectiveness.⁴ Following the WHO Expert committee meeting, a technical report is written to present a summary of the Committee's considerations and justifications for changes made to the *WHO Model List of Essential Medicines*.⁵ In addition, the WHO technical report lists all the members on the WHO Expert Committee responsible for updating the List.

Definition of Essential Medicines³

Essential medicines are those that meet the priority health care needs of the population. They are intended to be available within the context of a functioning health system at all times in adequate amounts, in the appropriate dosage forms, with assured quality and adequate information, and at a price the individual and the community can afford. The implementation of the concept of essential medicines is intended to be flexible and adaptable to many different situations.

The *Model List* has considerably fewer medications than those available on the market in most of the developed world. Table 1 shows the amount of antacid and anti-ulcer medications in the current edition of the *WHO List of Essential Medicines* (three agents) compared to all of the commercially available medicines in the United States (22 agents). Proton pump inhibitors are commonly used in devel-

oped countries for acid peptic disease; however, there are no agents from that drug class on the *WHO List of Essential Medicines*.

The majority of the medicines on the *Model List* are off patent, which results in lower costs. However, in 2002, 12 antiretroviral medicines for HIV/AIDS were listed despite the high cost of these medicines. When these medicines were added to the list of essential medicines, a note was also added stating that rigorous promotion of measures to prevent new infections is essential. It emphasized

that the need for prevention has not been diminished in any way by the addition of antiretroviral drugs to the *Model List of Essential Medicines*. Adequate resources and trained health professionals are a prerequisite for the introduction of this class of drugs.⁶ The addition of these medicines

TABLE 1. ANTACIDS AND OTHER ANTI-ULCER MEDICATIONS

WHO List of Essential Medicines 14th edition:^{6,4}

aluminum hydroxide, ranitidine, magnesium hydroxide

All available agents in United States:⁷

aluminum hydroxide, aluminum hydroxide/magnesium carbonate, aluminum hydroxide/magnesium hydroxide, aluminum hydroxide/magnesium trisilicate, aluminum hydroxide/magnesium hydroxide/simethicone, calcium carbonate, calcium carbonate/magnesium hydroxide, famotidine/calcium carbonate/magnesium hydroxide, magaldrate/simethicone, magnesium hydroxide, magnesium oxide, magnesium sulfate, sodium bicarbonate, cimetidine, famotidine, nizatidine, esomeprazole, lansoprazole, lansoprazole/naproxen, omeprazole, pantoprazole, rabeprazole

now implies that they should become affordable to all patients who need them. However, there are still many barriers to providing access to antiretroviral drugs for HIV/AIDS patients in countries of the developing world.¹

The World Health Organization's goal is that essential medicines can be used to help save lives and improve health, es-

ensure that they are safely and properly used.² In 2006 alone, there will be over 40 million deaths in developing countries, one-third among children under age five. Ten million will be due to acute respiratory infections, diarrheal diseases, tuberculosis, and malaria – all conditions for which safe, inexpensive, essential drugs can be life-saving.³

Although the concept of essential medicines was initially aimed at developing countries, it is becoming more relevant

for middle and high-income countries as well.¹ Problems of increasing demand and rising costs of medicines are not limited to developing countries. For example, programs like Medicare Part D and insurance drug coverage have been developed to help improve access and control costs of medicines in the United States. Careful selection of what drugs should be covered is standard among all the drug coverage benefit programs. The concept of essential medicines to promote the availability, accessibility, affordability, quality and ratio-

nal use of medicines is important to every country in the world. Pharmacists must continue to intensify efforts to ensure that every man, woman, and child has access to medicines to meet his or her basic health needs. ●

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FOR MORE ON THE WORLD HEALTH ORGANIZATION AND THE MODEL LIST OF ESSENTIAL MEDICINES: WWW.WHO.INT/MEDICINES

pecially for the poor and disadvantaged. Essential medicines are intended to be available at all times in adequate amounts, in the appropriate dosage forms, with assured quality and at a price the individual and the community can afford.⁵ Essential medicines are one of the most cost-effective elements in modern health care and their potential health impact is remarkable. In many countries, essential medicine policies and lists help improve access to drugs, thus strengthening health systems and optimizing the health of the people.

The concept of essential medicines, establishing national formularies and improving access to medications is not easy. There are political, economical and cultural influences that play strong roles in the concept of essential medicines and national formularies. The economic impact of pharmaceuticals is substantial in every nation. In most developed countries the spending on pharmaceuticals represents less than 20% of total public and private health care spending. However, in developing countries, it represents 25-66% of health care spending.³ Although developing countries spend a large percentage of health care monies on medicines, there is still a serious lack of access to essential drugs. Countries need to weigh the long-term benefits of providing medications against their cost.

The number of people with access to essential medicines has grown from 2.1 billion in 1977 when the *WHO Model List of Essential Medicines* was first developed to 3.8 billion in 1997. Approximately two-thirds of people in developing countries now have some form of access to essential medicines. However, many still do not have access to many lifesaving medicines and the necessary support to

REFERENCES

1. Hogerzeil HV. The concept of essential medicines: lessons for rich countries. *BMJ* 2004; 329:1169-1172.
2. Brundtland GH. From the World Health Organization. Essential medicines: 25 years of better health. *JAMA*. 2002; 288:3102.
3. Essential Medicines. World Health Organization. 15 July 2006. Available at: http://www.who.int/medicines/services/essmedicines_def/en/.
4. Breckenridge A. Debate that "this house believes the essential drug concept hinders the effective deployment of drugs in developing countries". Introduction. *Trans R Soc Trop Med Hyg* 2003; 97:1.
5. The selection and use of essential medicines. Report of the WHO Expert Committee. WHO Tech Rep Ser. 2005; 933: i-vii, 1-119. Available at: http://www.who.int/medicines/publications/essentialmeds_committeereports/en/index.html
6. WHO List of Essential Medicines. World Health Organization. 12 July 2006. Available at: <http://www.who.int/medicines/publications/essentialmedicines/en/>.
7. Lacy CF, Lora LA, Morton PG, Leonard LL. *Drug Information Handbook*. 13th ed. Hudson, OH: Lexi Comp, 2005.