
HERBAL MEDICINES REQUIRE REGULATION LIKE CONVENTIONAL MEDICINES

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The use of herbal medicines is increasing and gaining popularity throughout the world. People take herbal remedies to treat various diseases ranging from malaria, to diabetes and cancer. Their use is not regulated in many low-income countries, including Kenya. The herbal products are freely available, thus people are more liable to self-medicate and neglect to inform their doctors, even though herbal remedies can cause side effects or react with prescription drugs. This is because consumers have a widespread misconception that "natural" always means "safe" and a common belief that herbal remedies are harmless and carry no risk, because they are "not chemicals" like conventional medicines. These herbal medications must be regulated and the population must be informed about their risks.

The quality and safety of herbal medicines is poorly understood. Several studies have reported that herbal medicines have various toxic and pathogenic contaminants. In this context the term "contaminants" can be defined as the intentional or unintentional presence of undeclared ingredients which impact adversely on the safety of the product.

Among the potential contaminants are toxic botanicals, microorganisms (germs), microbial endotoxins, mycotoxins, pesticides, fumigation agents, toxic metals and animal substances. Potential harmful germs include *Staphylococcus aureus*, *Escherichia coli*, *Salmonella typhi* and *Pseudomonas aeruginosa*. Other detrimental effects are attributable to problems of quality, for example, adulteration with undeclared pharmaceutical substances such as sildenafil (Viagra®) for aphrodisiacs and amoxicillin for antibiotics. Adverse events may also arise from the mistaken use of the wrong species of medicinal plants, incorrect dosing, and errors in the use of herbal medicines by both health-care providers and consumers.

Herbal medicines have side effects, because plants have "active ingredients" just like conventional medicines. For example coffee contains caffeine which keeps people awake and is the primary reason why we drink coffee. Similarly, all herbs contain compounds which are also used in traditional medicines. A good example is *Cinchona* species which contains quinine, an antimalarial used for treatment of severe malaria; at high doses it can cause cardiac arrhythmias, blindness and even death. The fact that it is a plant does not make *Cinchona* any safer!

Other plants are inherently toxic and can kill due to the molecules they contain. *Abrus precatorius* has attractive seeds which contain abrin, which is a very potent poison and causes nausea, vomiting, convulsions, liver failure, and death. Ingesting a single seed can kill an adult human. Abrin is classified as a "select agent" under U.S. law, and it has no antidote.

In Kenya, the Pharmacy and Poison Board (PPB), which is the Government drug regulatory body, doesn't register all herbal medicinal products. Some are listed as food supplements by Kenya Bureau of Standards. This is partially because some people market these products as food supplements and also stiff opposition from some especially traditional health practitioners who think that herbal medicine practice is a cultural practice that should be regulated by Ministry of Culture and Social Services. Hence, herbal medicines can be purchased from outlets ranging from health food stores, roadside stalls to retail outlets, and even herbalists homes thus relevant and important evaluation of their safety lacks.

A lot of unethical practices have been documented, such as advertising in print and electronic media, peddling of products with no therapeutic benefits, and unsubstantiated medicinal claims.

For these reasons, the PPB needs full support from stakeholders in healthcare and all Kenyans to ensure that only good quality, safe and efficacious herbal products are marketed. The PPB can contribute towards their accessibility, cost effectiveness and appropriate use within the current state of knowledge. Although it is hard (as many argue) to determine efficacy of herbal medicines, the PPB needs support at least to ensure safety of herbal products.

My advice to Kenyans is to avoid unlicensed herbal medicines, particularly those sold on the streets, unlicensed shops and the internet. Secondly you should completely avoid any drug claiming to be "100 % safe" or "safe because it is natural". Herbs can have side effects and some even kill! And lastly consult your doctor or pharmacist in case you are in doubt about any product you buy.

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