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Poor-quality medicines in developing countries

We welcome the attention given to the serious public-health problem represented by the spread of poor-quality medicines in developing countries, and we would like to comment on some points expressed in the recent Newsdesk feature by Kathryn Senior[1] on the global health-care implications of substandard medicines.

Senior recommends that, as a major measure to fight this phenomenon, guidelines are urgently put in place for the random sampling of the quality of medicines in the field. While we agree that random sampling may be a last resort for the testing of medicines of doubtful origin that have already reached the field, the value of random testing remains limited since it cannot evaluate a number of parameters that are relevant to the quality and safety of a pharmaceutical product—eg, stability over time, presence of unexpected impurities, batch and interbatch reproducibility, and clinical parameters such as bioequivalence. WHO states that quality cannot be simply tested into a product.[2]

In addition, the whole burden of quality assurance should not be put on the final purchaser or user of medicines, but rather on those bodies and institutions whose mandate includes the protection of individual and public health. The rigorous enforcement of existing regulations is desperately needed, in addition to the use of appropriate procurement policies and practices, to prevent medicines of unassured quality from reaching the field and patients.

This objective should be achieved, as described by Caudron and colleagues,[3] through a number of measures that are all based on the assumption that policy and decision makers must take responsibility for the quality of medicines that are supplied to vulnerable populations. Donors and major purchasers (eg, UN agencies, non-governmental organisations, profit and non-profit procurement agencies, and national purchase centres)

Mauro Fermariello/Science Photo Library

A pharmacist in Gulu, Uganda

should select only those producers and distributors that meet WHO standards. Highly regulated countries should enforce strict export policies for pharmaceuticals, to avoid double standards between medicines manufactured for the internal market and medicines manufactured for export (to our knowledge, Belgium is the only strictly regulated country that has recently adapted its legislation to enforce the quality of exported medicines).

Long-term, substantial investment will also be needed to strengthen regulatory authorities in resource-poor countries.[4] Meanwhile, to achieve a rapid improvement of the quality of medicines distributed in developing countries, proactive interagency collaboration should be enhanced, including the transparent exchange of technical information on the quality of pharmaceutical sources and suppliers among the competent bodies (like WHO prequalification).

As pointed out by Senior, we face a situation of double qualitative standards, which leaves vulnerable populations exposed to preventable, life-threatening risks due to the presence of substandard medicines.[5] It is a moral imperative to overcome this status quo, and to ensure that all patients worldwide can trust that the medicines they receive are safe.

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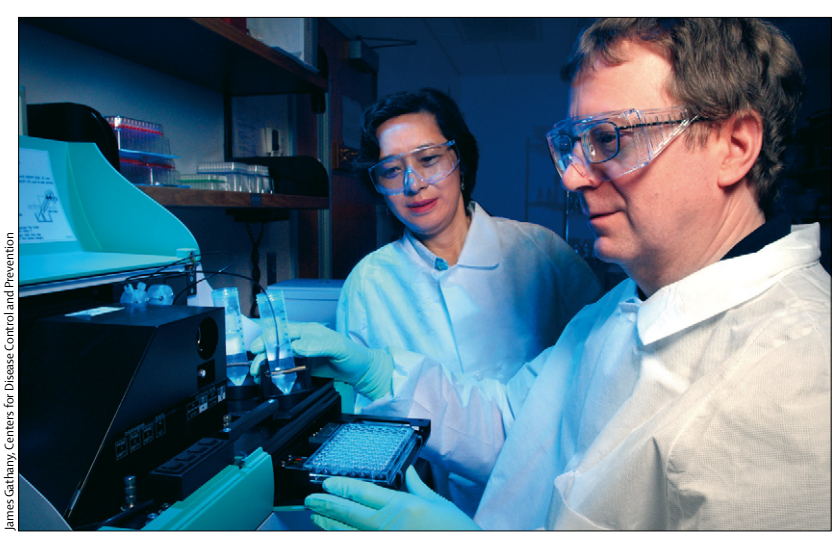
Not so SMART?

There are a number of issues with the published data from the SMART study[1] and a recently published follow-on paper by Kuller and colleagues[2] that merit further scrutiny. Kuller and colleagues detailed information about excess mortality in US patients in the SMART study that have not been previously reported, nor fully discussed. While these data have led to concern amongst physicians and patients alike, notably outside of the USA, we feel this is unnecessary.



James Gathany, Centers for Disease Control and Prevention

Scientists examine HIV samples, Atlanta, GA, USA

The follow-on case-control study by Kuller and colleagues showed that it is apparently safer to be off highly active antiretroviral therapy (HAART) outside of the USA rather than on HAART within the USA.[2] In the non-US participating countries responsible for randomising 45% of the total patients, only six deaths occurred. Assuming equal standards of health care inside and outside of the USA (and with more than 30 non-US centres being standard), less than 14 deaths should have occurred in the trial rather than the 85 observed. Kuller and colleagues do not explain why mortality is much more common in the USA. Thus, if one assumes that all six deaths outside of the USA were patients receiving HAART (an unlikely proposition), then the remaining 24 deaths on HAART occurred within the USA. Thus, patients on HAART in the USA had at least a minimum of a 228% increased risk of dying when compared with non-US patients, irrespective of whether the non-US patients were receiving HAART or not.