Requirements for Stability Studies of Finished Pharmaceutical Products

Principle

Stability data must demonstrate THE stability of the medicinal product throughout its intended shelf-life under the climatic conditions prevalent in the target countries. Merely applying the same requirements applicable to other markets could lead to substandard products, e.g. if stability studies were conducted for countries in Climatic Zone I/II when the products are for supply to Climatic Zones III and IV.

Background

The WHO Expert Committee on Specifications for Pharmaceutical Preparations decided to split Climatic Zone IV into Zone IVa (hot and humid) with storage conditions of 30°C/65% RH and Zone IVb (hot and very humid) with storage conditions of 30°C/75% RH.

Until September 2011 the WHO Prequalification Team: medicines (PQTm) encouraged the submission of long-term stability data at Zone IV conditions (30ºC/65% for IVa or 30ºC/75% for IVb, respectively), while still accepting data generated at Zone II (25ºC/60%) conditions.

Current requirement

When evaluating applications WHO assumes that all the medicines prequalified will be used in all sub-zones of Climatic Zones III and IV, unless otherwise properly justified by the applicant and confirmed by WHO (see diagram below with supply data per climatic zone). Therefore, in order to safeguard product quality throughout its entire intended shelf-life, stability studies under the conditions defined for Climatic Zones IVb should be performed and the data submitted, i.e. the shelf-life should be established based on complete long-term data at 30ºC ±2ºC/75% RH ±5% RH.[1] ("Complete" refers to the length of data required at the time of dossier submission.)

Furthermore, in order to facilitate procurement decisions, the accepted storage conditions and the established shelf-life are now included in the WHO List of Prequalified Medicinal Products for each prequalified product.

For detailed guidance on stability requirements for submission of dossiers to PQTm, the PQTm quality guideline should be consulted.[1] For more general guidance on conducting stability studies, the WHO guidelines on the stability testing of finished pharmaceutical products should be consulted.[2]

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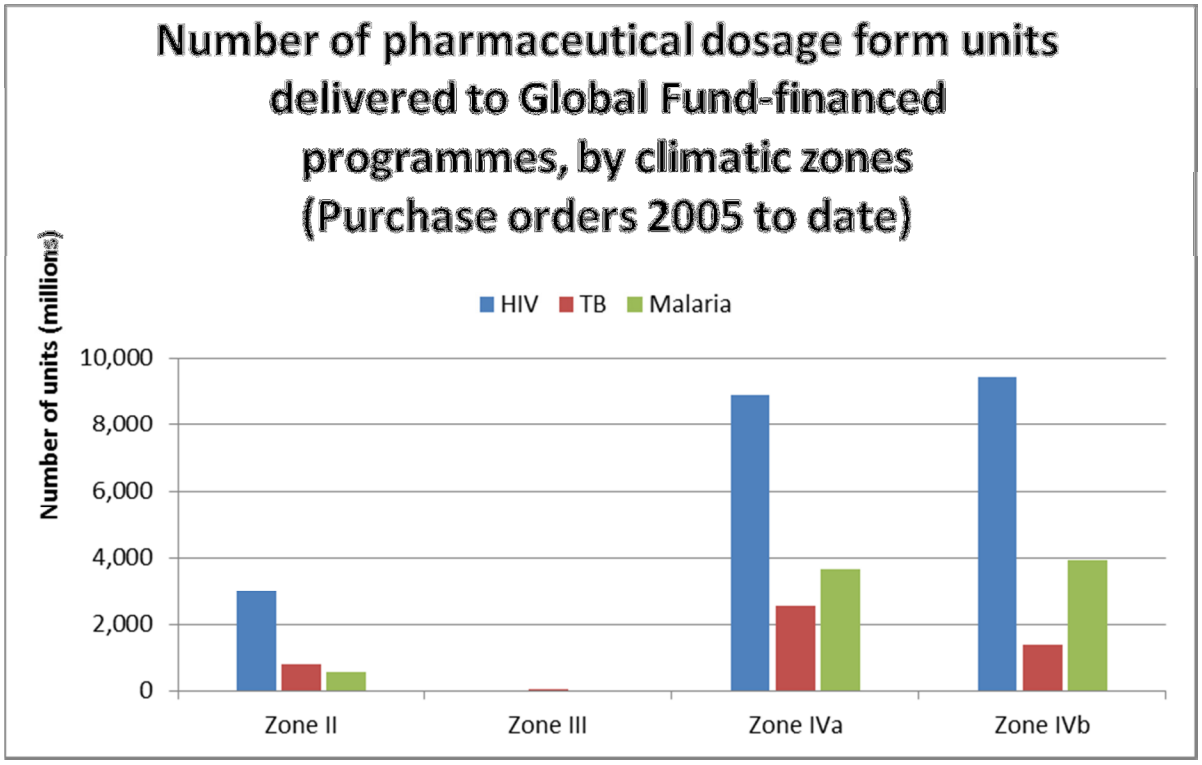
The diagram below shows the number of units of HIV, TB and malaria products supplied to Zones II, III, IVa or IVb countries during the period 2007 – March 2010 (based on data from the Price & Quality Reporting database of the Global Fund to Fight AIDS, Tuberculosis and Malaria).



References:

1. WHO Technical Report Series, No. 953, 2009, Annex 2: Stability testing of active pharmaceutical ingredients and finished pharmaceutical products.
2. WHO Technical Report Series, No. 970, 2012, Annex 4, 3.2.P.8: Guidelines on submission of documentation for a multisource (generic) finished pharmaceutical product for the WHO Prequalification of Medicines Programme: quality part.