Effect of storage conditions on locally made Paracetamol tablet

Reveng A Abdulkareem
University of Duhok, Iraq

Stability is a measure of the ability of tablet to maintain product quality, safety, and efficacy during the product shelf life, within its packaging system to maintain the physical, chemical, microbiological, therapeutic, and toxicological requirements and to have the same properties as the time of its manufacturer. The aim of this study was to study the influence of Kurdistan climate on dosage form storage as well as to know how much the labeled conditions are practical for Kurdistan climate. The sample is paracetamol newly released batch of a local company. The samples are stored in different conditions for about four months including room temperature of 25°, at temperature 40°, refrigerator (2-8°), freezer (-16°) and in room temperature but exposed to the sunlight. The evaluation tests including visual inspection, hardness, friability, disintegration, weight variation, drug content and dissolution. Tablets showed no variations in color, shape, texture and presence or absence of odor regardless the type of storage conditions. Tablets were within the standard weight variations limits (tablet more than 250 mg, ±5%). Friability was less than 0.5% w/w. Hardness values for the tablets were within the standard ranges of >4 Kg for conventional compressed tablet. The longest disintegration time is 2.83 minutes. The lowest value for drug content was 98.4%, and the release profile of all samples was within the accepted limits. Paracetamol tablet remained stable during the time specified for the research in all evaluation conditions. This product is synthesized to be suitable for Kurdistan environments in all season changes.

Biography
Reveng A Abdulkareem has completed his Master’s degree from Hawler Medical University, Iraq. He is the Assistant Dean of College of Pharmacy, University of Duhok, Iraq. He is interested in Research Field of Pharmacovigilance and Quality Control. He is a Member in Drug Authorization Committee in Ministry of Health, Kurdistan region governorate, Iraq.

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