



ORIGINAL RESEARCH

Comparative Quality of Different Brands of Metformin Tablet Marketed in Zaria, Nigeria.

Yushau FM*, Awwalu S and Musa A.

Department of Pharmaceutical and Medicinal Chemistry, Faculty of Pharmacy, Ahmadu Bello University, Kaduna State, Nigeria.

Address for correspondence:

Miss. Fauziyyah Muhammad Yushau
Department of Pharmaceutical and Medicinal
Chemistry, Faculty of Pharmacy, Ahmadu
Bello University, Kaduna State, Nigeria.
Email: yushmohfauzah@gmail.com

To cite this article: Yushau FM, Awwalu S and
Musa A. Comparative Quality of Different Brands of
Metformin Tablet Marketed in Zaria, Nigeria.
Journal of Basic and Social Pharmacy Research,
2021;2(1):20-25
ISSN: 2705-3245

ABSTRACT

Background: Metformin tablets are oral anti hyperglycaemic agents that are used as the first line agent in the management of type 2 diabetes mellitus. The proliferation of many brands of metformin tablets in the market has led to availability of different types; some of which may be substandard or counterfeit. Thus, the need to determine the quality of the various brands marketed in Zaria.

Objective: To compare the quality of different brands of metformin tablets that are available in Zaria using British pharmacopoeia standards.

Method: Seven brands of metformin tablet (500 mg) were randomly sampled from various community pharmacies within Zaria and analysed with respect to identification, weight variation, friability, disintegration time, dissolution and drug content assay using Pharmacopoeial standards.

Results: Except for the dissolution and assay tests, the results of all the other parameters for the various brands were within the Pharmacopoeial limits. The percentage content of metformin in brand 2 was 89.90 % which is outside the official range (95 – 105 %). Furthermore, only 70.61, 75.34 and 70.58 % of metformin dissolved from brands 2, 4 and 7 respectively, after 30 minutes of the dissolution test.

Conclusion: It can be concluded that of the seven brands evaluated, only four brands are interchangeable with each other and can be substitutes of each other.

Keywords: metformin tablets; quality control; physicochemical parameters; dissolution; interchangeable.