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One Day National Seminar on

Translational Research: From Bench to Bedside

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SOUVENIR & ABSTRACT BOOK

Organized by All Pharmacy Colleges
Affiliated to R.T.M. Nagpur University, Nagpur

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FORMULATION DEVELOPMENT AND EVALUATION OF STABLE INJECTABLE DOSAGE FORM CONTAINING ANTICANCER DRUG

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Abstract:

Aim: The present research work was aimed to develop a lyophilized injectable dosage form of drug cyclophosphamide. Objectives: The goal of the present project work was to envisage and overcome the drawbacks associated with drug cyclophosphamide and to formulate a stable formulation by lyophilization technique. Methodology: In thelyophilization method purified water was used as a solvent system which gives the stable bulk formulation. Product shows 08 hours stability of bulk solution, after the finalization of bulk formulation; process condition was optimized &taken at room temperature and at 2-8°C. Lyophilization development was carried out with 3different lyophilization run. Lyophilization cycle 3 gave best results. Accelerated stability study was done for 3 months. Result and discussions: The formulation was evaluated found satisfactory. Assay was found to be 99.3%, pH was within range of 3.0-5.0, water content was 0.7% w/w and reconstitution time was found to be 3 min. After performing the stability study the drug was found to be stable in injectable form. Conclusion: From the above results it was concluded that lyophilization technique is an advantageous tool for the development of stable injectable dosage form for the drug cyclophosphamide.

<u>Keywords</u>

Cyclophosphamide, Lyophilization, Injectable, Anticancer.

