

STARCH AS DRUG CARRIER

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ABSTRACT

In recent years, the pharmaceutical industry has seen a shift towards a greater emphasis on biologics as drugs. The study has carried out to determine the criteria to produce a great drug carrier. This study involves the investigation of different amount of drugs towards its solubility that can be related to efficiency. Tests that are conducted are on the effect different pH solution on the solubility of the drug, Starch gel-like substance was being produced as the drug carrier. Based on the tests carried out, the suitability of starch as drug carrier is determined. These Experiment is divided into three parts which are the test on different amount of drug, different type of pH and producing the drug carrier using starch. The product were analysed by observation method and the results will be recorded thus justification will be made. The results obtained from the experiment can be summarized as follows. The increasing of amount of drug increased the solubility, the increasing of pH number decreased the time for drug to settle down and starch can be concluded suitable to use as drug carrier. The objectives of the study were successfully achieved.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

The challenge of developing oral delivery for therapeutic molecules lacking optimal properties has stimulated much research in the pharmaceutical industry. Common problems that are continually faced in developing oral dosage forms of active pharmaceutical ingredients include very low aqueous solubility, high polarity or high molecular weight, resulting in a lack of permeability, and degradation due to high acidity or enzymatic activity.

Over the years, chemists and pharmaceutical scientists have been able to massage some formulations to overcome these issues to develop oral products. On the other hand, many molecules have been limited to dosing or, in some cases, shelved because they did not have the ‘druglike’ properties to be orally absorbed.

In recent years, the pharmaceutical industry has seen a shift towards a greater emphasis on biologics as drugs. Biologics are usually more specific in their targeting than small molecules, resulting in fewer safety issues. These peptides, proteins, oligosaccharides and nucleic acid derivatives are more polar, often readily degraded in the gut and typically much larger than small molecule drugs. The challenges of making these biologics orally available have been daunting, but much progress has been made.