
Drug's Excipient

Their Purpose and Possible Health Effect in Different Form of Medication Dispense in the Drug Stores

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Introduction



- Pharmaceutical excipients are substances used in drug formulations that are not active pharmaceutical ingredients (APIs). While ideally inert, some excipients have been linked to adverse reactions. They play crucial roles in various dosage forms—like tablets, capsules, and injections—by aiding manufacturing, enhancing stability, bioavailability, and patient acceptability, and ensuring safety during storage and use.

- Excipients are classified based on their functions (e.g., antioxidants, and emulsifiers) and chemical properties. Although they should ideally be non-toxic and inactive, recent findings suggest that some excipients can interact with APIs, potentially affecting drug absorption and bioavailability. For instance, certain carbohydrates and acids can alter gastric emptying, impacting drug absorption rates.

Aim of study



Determine the types
of excipients present
in drug formulation

Known purpose of
adding the
pharmacological
excipients

Study the health
effect of different
drugs excipients

Material & method



Study periods


- This descriptive cross-sectional study was conducted in a number of drug stores and private pharmacies from the beginning of November 2021 to end of April 2022 to different drugs marketing for gathering information on excipients of systemic drugs and excipients have been collected from the medications leaflets of the different drugs.

Types of data

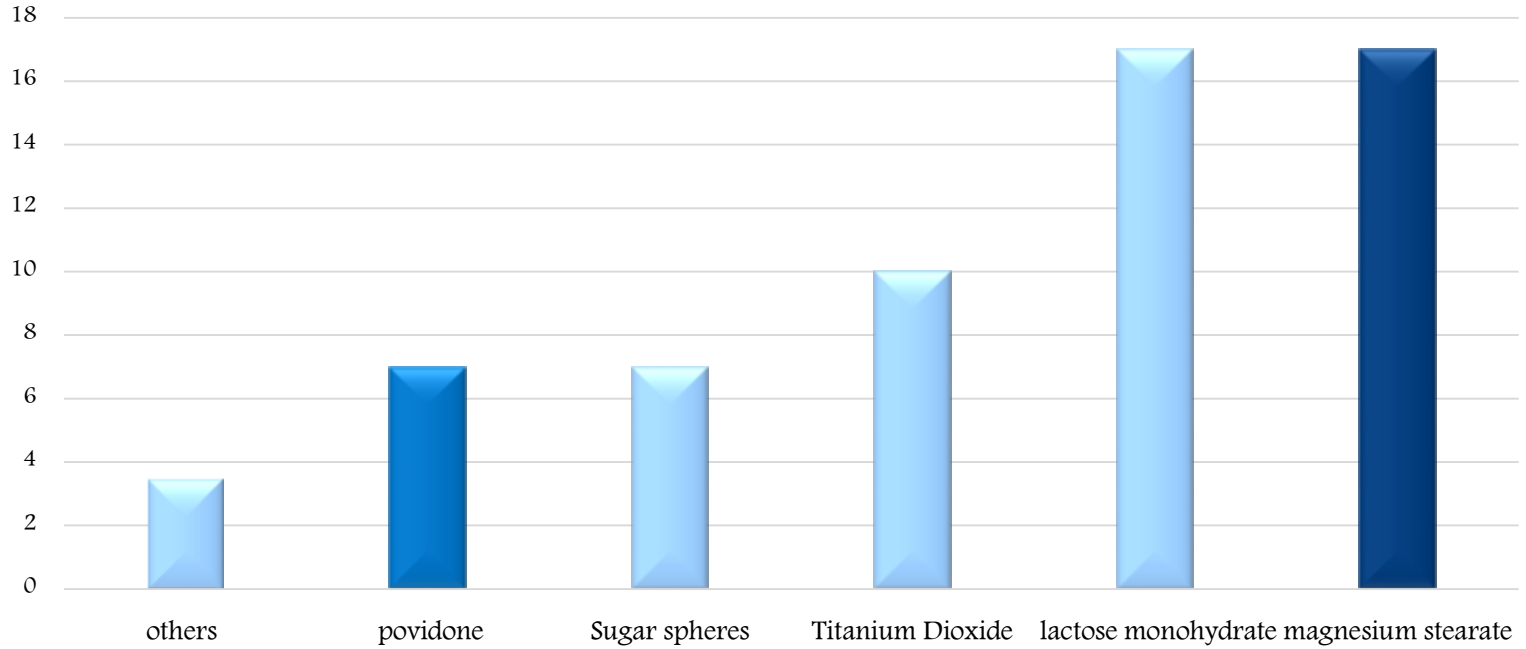


- All systemic drugs were included from different brands and companies. The drugs in this study were drugs for CNS, GIT, CVD, blood, and respiratory disease, DM , lipid lowering agents and kidney diseases.
- These drugs used for collected data for pharmacological excipients present. Furthermore, the purpose of excipients present in the drug formulation and possible health effect were collected from the literatures on the PubMed, google scholar and web of sciences

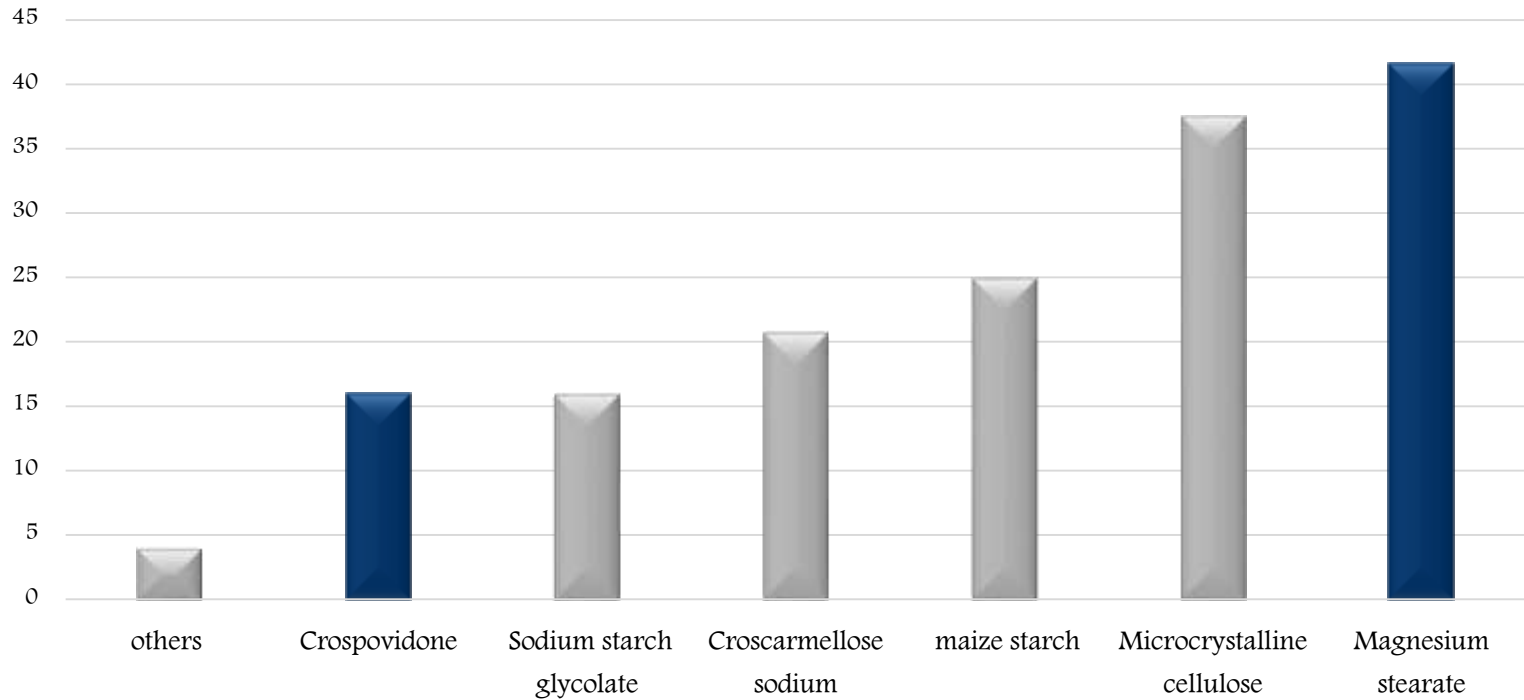
Results



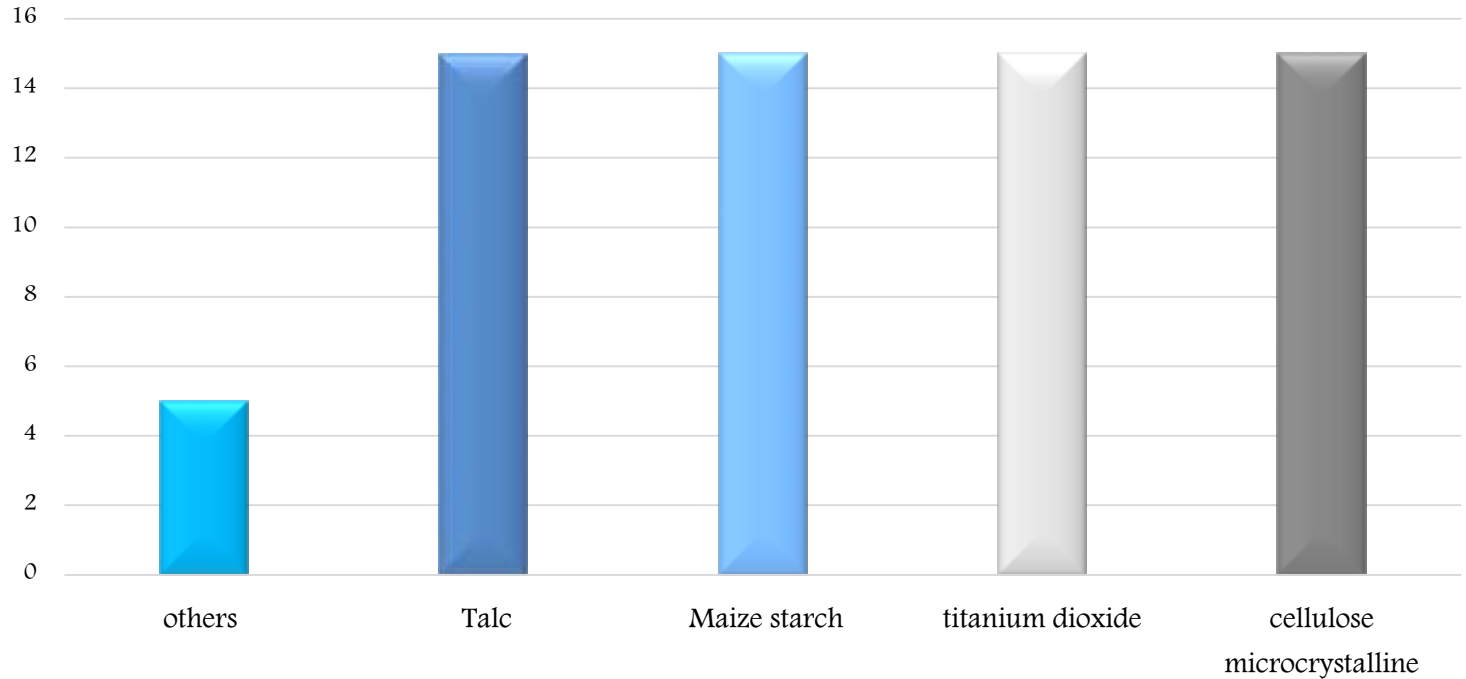
Types of most common excipients found in CNS drugs



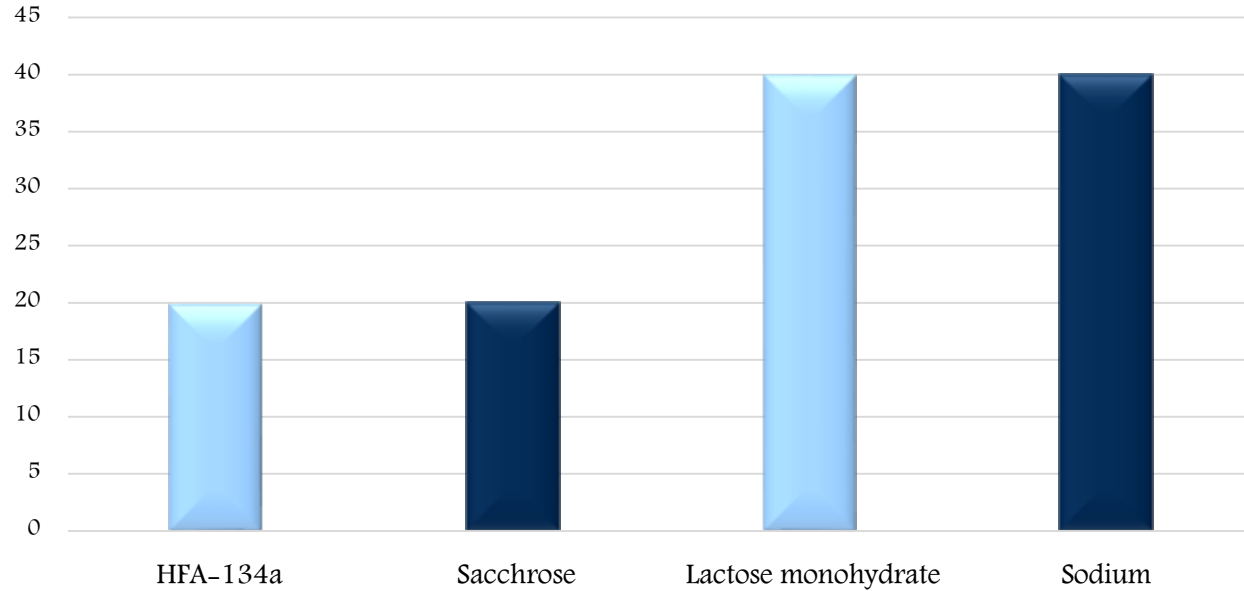
Types of most common excipients found in CVD drugs



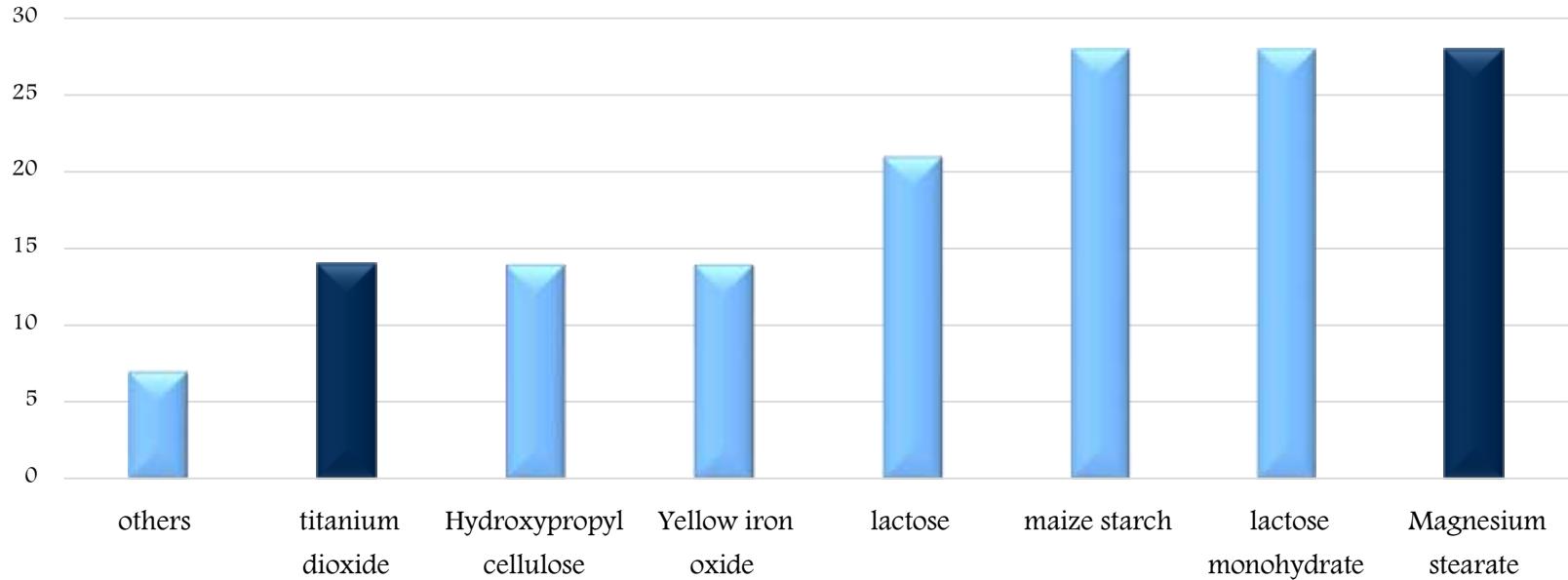
Types of most common excipients found in GIT drugs



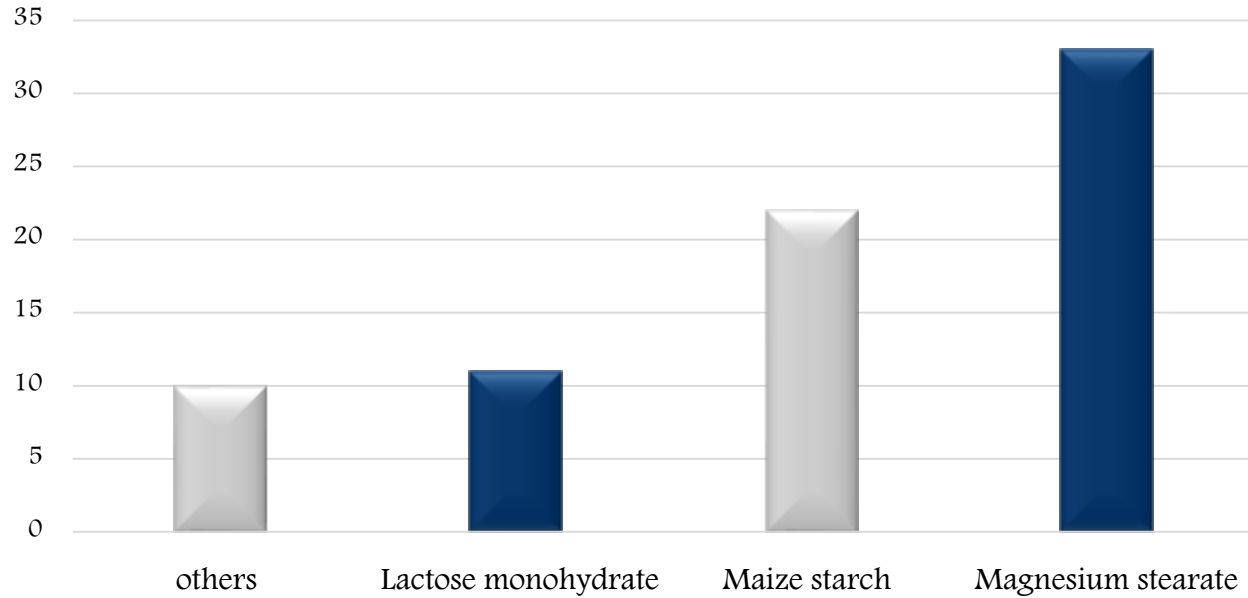
Types of most common excipients found in respiratory disease drugs



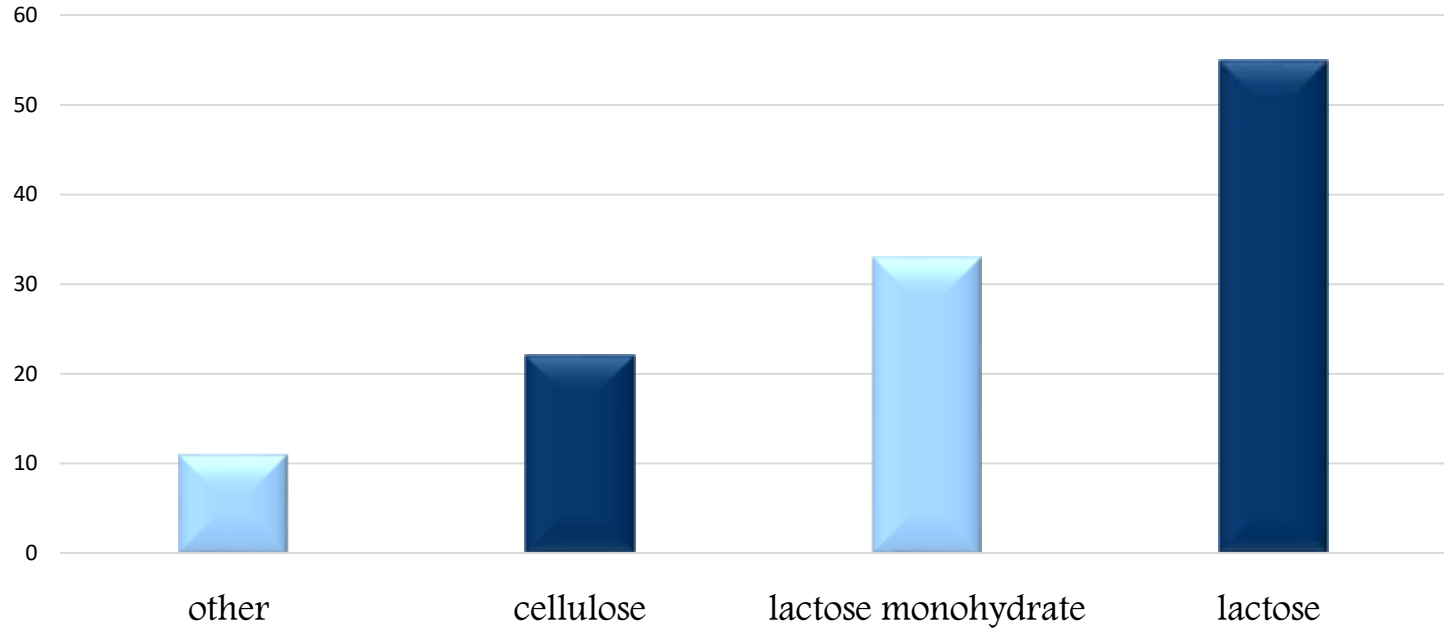
Types of most common excipients found in kidney diseases drugs



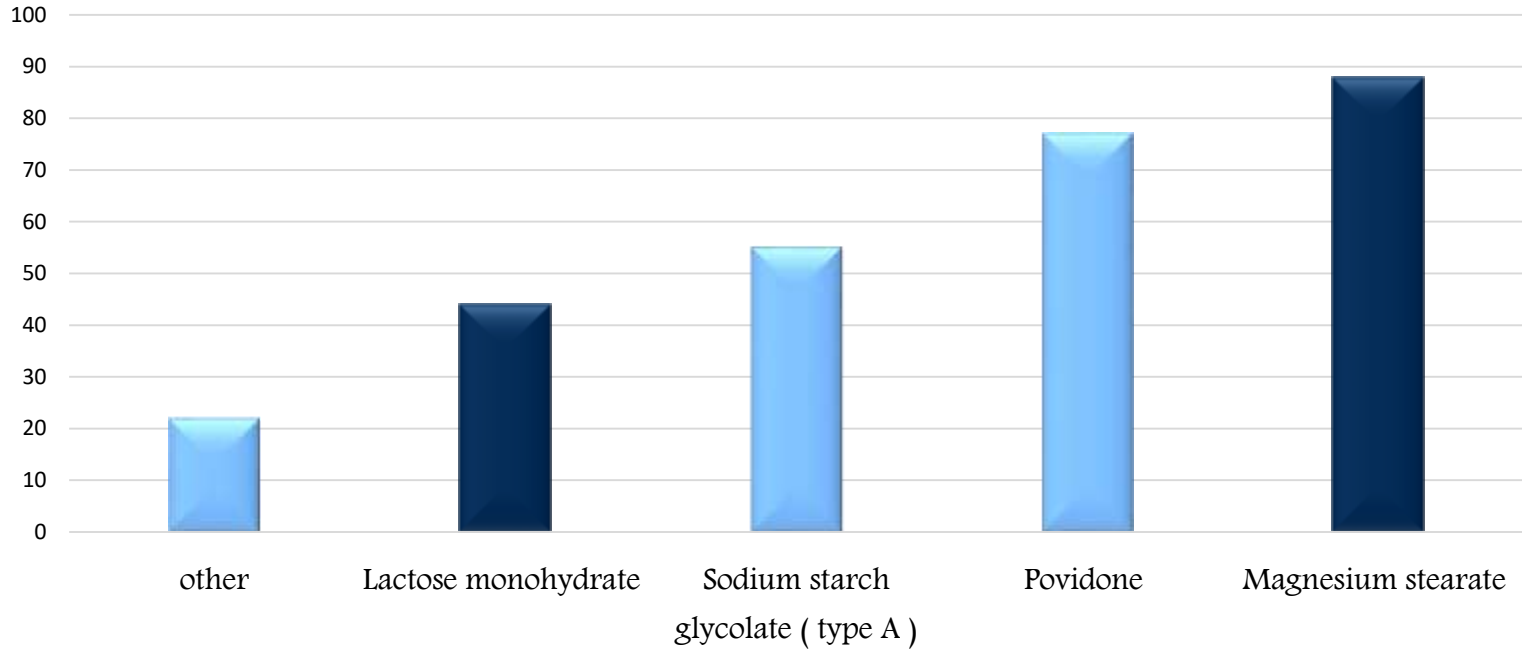
Types of most common excipients found in blood diseases drugs



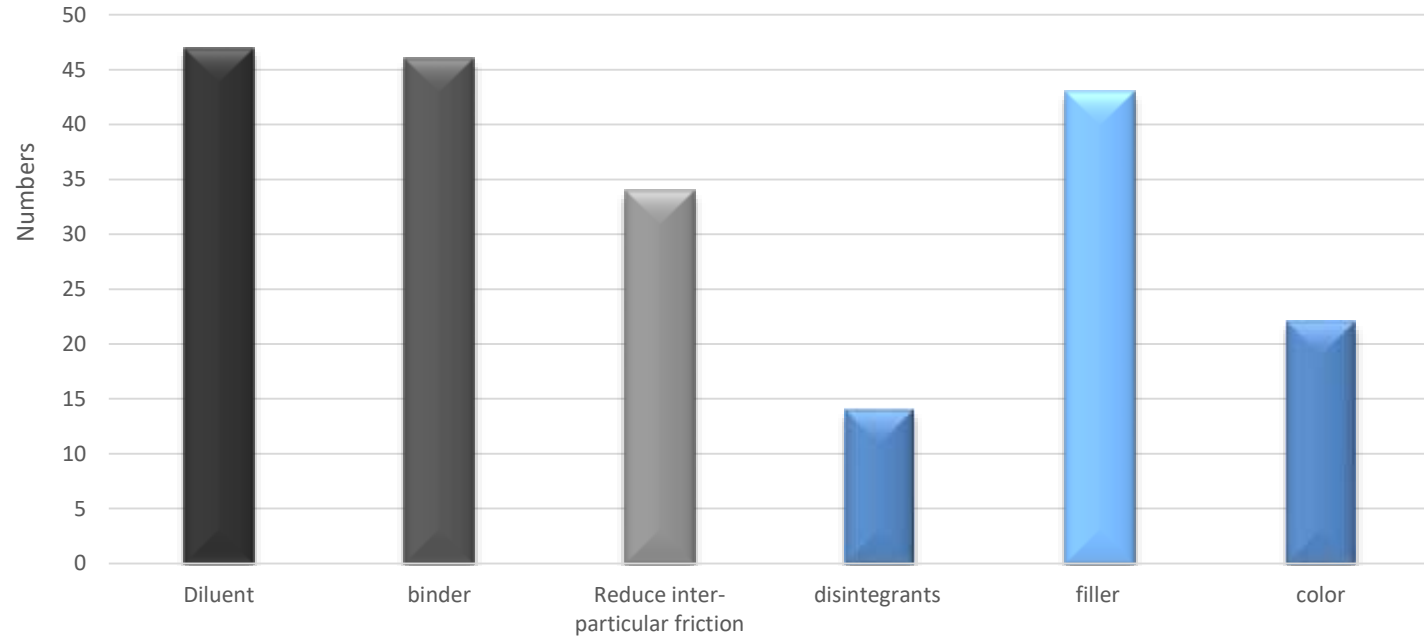
Types of most common excipients found in lipid lowering drugs



Types of most common excipients found in oral anti-diabetic drugs



Common purpose of excipients used in different medications



Conclusion



- The present study showed that lactose cellulose and magnesium stearate can have nutritive values or help disintegrate particles to reach bloodstream more quickly but could also have side effects for lactose intolerant patients.
- Preservative function – protect stability of products to maximize effectiveness. Some health problems include causing intestines not to absorb certain antibiotics.
- The excipients may interfere with other excipients e.g. absorption of other drugs in the intestines, causing elevated blood pressure or allergy or blood glucose or carcinogenic effects.

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THANK YOU!

