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(54) Title: RAPID ACTING INJECTABLE INSULIN COMPOSITIONS

(57) Abstract: Injectable insulin formulations with improved stability and rapid onset of action are described herein. The formulations may be for subcutaneous, intradermal or intramuscular administration, In the preferred embodiment, the formulations are administered via subcutaneous injection. The formulations contain insulin in combination with a chelator and dissolution agent, and optionally additional excipients. In the preferred embodiment, the formulation contains human insulin, a zinc chelator such as EDTA and a dissolution agent such as citric acid. These formulations are rapidly absorbed into the blood stream when administered by subcutaneous injection, In the preferred embodiment, the insulin is provided as a dry powder in a sterile vial. This is mixed with a diluent containing a pharmaceutically acceptable carrier, such as water, a zinc chelator such as EDTA and a dissolution agent such as citric acid shortly before or at the time of administration. In another embodiment, the insulin is stored as a frozen mixture, ready for use upon thawing.

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