Journal Article

Cernadas, JR; Brockow, K; Romano, A; Aberer, W; Torres, MJ; Bircher, A; Campi, P; Sanz, ML; Castells, M; Demoly, P; Pichler, WJ; European Network of Drug Allergy and the EAACI interest group on drug hypersensitivity

General considerations on rapid desensitization for drug hypersensitivity - a consensus statement.

Drug hypersensitivity reactions can occur with most drugs, are unpredictable, may affect any organ or system, and range widely in clinical severity from mild pruritus to anaphylaxis. In most cases, the suspected drug is avoided in the future. However, for certain patients, the particular drug may be essential for optimal therapy. Under these circumstances, desensitization may be performed. Drug desensitization is defined as the induction of a temporary state of tolerance of a compound responsible for a hypersensitivity reaction. It is performed by administering increasing doses of the medication concerned over a short period of time (from several hours to a few days) until the total cumulative therapeutic dose is achieved and tolerated. It is a high-risk procedure used only in patients in whom alternatives are less effective or not available after a positive risk/benefit analysis. Desensitization protocols have been developed and are used in patients with allergic reactions to antibiotics (mainly penicillin), insulins, sulfonamides, chemotherapeutic and biologic agents, and many other drugs. Desensitization is mainly performed in IgE-mediated reactions, but also in reactions where drug-specific IgE have not been
demonstrated. Desensitization induces a temporary tolerant state, which can only be maintained by continuous administration of the medication. Thus, for treatments like chemotherapy, which have an average interval of 4 weeks between cycles, the procedure must be repeated for every new course. In this paper, some background information on rapid desensitization procedures is provided. We define the drugs and drug reactions indicated for such procedures, describe the possible mechanism of action, and discuss the indications and contraindications. The data should serve as background information for a database (accessible via the EAACI-homepage) with standardized protocols for rapid desensitization for antibiotics, chemotherapeutic agents, monoclonal antibodies/fusion proteins, and other drugs.