Formulation and evaluation of orodispersible film of levocetrizine dihydrochloride

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The aim of present investigation was to develop orodispersible film of levocetrizine for increasing bioavailability and patient acceptance. It was prepared by solvent casting method by different polymer and plasticizer. The taste masking was carried out by Drug Resin complex using Kyron T 134 with 1:3 ratio with drug. A 32 factorial design was applied for optimization. Prepared film were evaluated for their drug content uniformity, Thickness, Folding endurance, Tensile strength, Percentage elongation, Disintegration time, In vitro drug release and Stability study. The drug resin complex with Kyron T 134 show good taste masking with ratio 3:1. The formulation F5 shows higher drug content 96.54±1.59%, less disintegration time 32±1 sec, Tensile strength and folding endurance respectively 0.237±0.067 N/mm² and 120±3. Film of batch F5 was release 94.3% within 20 min during the in vitro dissolution test. These studies indicate that development of orodispersible film with view to patient compliance and to obtain faster onset of action. According to 32 full factorial designs, F5 proved as an optimized batch. Batch F5 remain stable after 1 month accelerated stability study. Drug excipients are compatible to each other was confirmed by FTIR study.

Pre-exposure prophylaxis (PrEP) accessibility research and evaluation 2 (PrEPARE 2): HIV risk perception among men who have sex with men (MSM)

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Background: Despite greater access to PrEP, a barrier to HIV prevention is inaccurate risk perception by MSM. PrEPARE2 is a randomized controlled trial to determine if providing at-risk HIV-uninfected MSM with a calculated risk score affects PrEP uptake.

Objective: Our objective is to compare self-perceived risk (SPR) to an objective HIV risk score (UCSD score).

Methods: HIV-uninfected, at-risk MSM were recruited from San Diego testing sites. At-risk for HIV can be defined as having one or more episodes of insertive or receptive condomless anal intercourse (CAI) with a HIV-infected partner or partner of unknown status within 6 months. Enrolled subjects received an iPad survey to assess baseline characteristics including demographics and risk behaviors. SPR score was the subject's perceived likelihood of becoming HIV-infected. The survey also generates the UCSD score, which calculates an individual's risk of becoming infected over one year and places individuals into risk categories, calculated from event frequencies of UAI, history of sexually transmitted infections and shared needle events. SPR and UCSD score categories include low, medium, high and very high. Cohen's kappa coefficient evaluated the agreement between the two measures.

Results: Of 78 participants enrolled, median age was 32, 31% identified as Latino, 67% as white, 13% as black. Most subjects had heard of PrEP (78%), and 53% thought they were good candidates for it. Overall, the group had a median of 5 sexual partners in the last 6 months (IQR: 3-10) and 72% had at least one receptive CAI within the past 6 months. The SPR had poor agreement with the objective score (kappa=0.009). Most subjects (55%) underestimated their HIV risk, 36% had concordant predictions, and 9% overestimated their risk. 15 of 16 subjects with a high UCSD score underestimated their risk. Underestimation of risk was not associated with any demographic or risk factors, including number of sex partners and drug use.

Conclusions: In this sample of HIV-negative MSM, there was high discordance between self-perceived and actual HIV risk and a tendency to underestimate risk, particularly in high-risk individuals. Greater emphasis on objective HIV risk may be an important component of successful PrEP uptake.