ABSTRAK

Sediaan racikan pulveres pada umumnya sering diresepkan pada pasien pediatrik yang mengalami kesulitan dalam menelan sedian seperti tablet. Sediaan racikan pulveres kombinasi ambroxol HCl dan sertirizin HCl diresepkan untuk mengatasi gangguan pernafasan akibat lendir yang dikeluarkan secara berlebihan dan *rhinitis* alergi. Tujuan dilakukan penelitian ini untuk mengetahui stabilitas sediaan racikan pulveres yang mengandung ambroxol HCl dan setirizin HCl yang disimpan selama 28 hari melalui uji organoleptis, *moisture content* dan uji penetapan kadar sampel.

Pada penelitian ini, uji stabilitas fisika dengan pengujian organoleptis yang dilakukan secara visual oleh peneliti seperti mengamati warna, bentuk dan uji *moisture content* untuk melihat kadar kelembaban menggunakan *oven dryer*. Sedangkan pengujian kimia dilakukan dengan penetapan kadar senyawa aktif menggunakan metode spektrofotometri UV-Vis dengan pendekatan teknik kemometrik. Analisis senyawa dilakukan menggunakan metode statistik multivariat PLS, agar dapat menganalisis campuran senyawa multikomponen dengan spektra saling tumpang tindih. Pengujian stabilitas dilakukan pada hari ke-0, 7, 14, 21 dan 28.

Hasil penelitian uji satbilitas sediaan racikan pulveres dengan kombinasi ambroxol HCl dan setirizin HCl tidak memenuhi uji stabilitas fisika dan kimia yang dilihat dari adanya perubahan kondisi organoleptis yang mengumpal, peningkatan kandungan lembab lebih dari 5% sebesar 7,0637% dan penurunan kadar ambroxol HCl 19,2669% dan setirizin HCl 18,8661% selama waktu penyimpanan 28 hari. Hasil sediaan racikan pulveres ambroxol HCl dan setirizin HCl diperoleh waktu kedaluwarsa paling singkat yaitu 7 hari dari awal dilakukan peracikan.

Kata kunci: pulveres, ambroxol HCl, setirizin HCl, dan kemometrik.

ABSTRACT

Pulverized concoctions are generally prescribed for pediatric patients who have difficulty swallowing preparations such as tablets. Pulveres mixed with ambroxol HCl and certirizin HCl are prescribed to treat respiratory problems due to excessive mucus production and allergic rhinitis. The aim of this study was to determine the stability of the pulveres compound containing ambroxol HCl and cetirizine HCl, which were stored for 28 days, through organoleptic tests, moisture content tests, and sample assay tests.

In this study, the physical stability test by organoleptic testing was carried out visually by researchers by observing color, shape, and moisture content using an oven dryer. While chemical testing is carried out by determining the levels of active compounds using the UV-Vis spectrophotometry method with a chemometric technique approach, Compound analysis was carried out using the PLS multivariate statistical method in order to be able to analyze mixtures of multicomponent compounds with overlapping spectra. Stability testing was carried out on days 0, 7, 14, 21, and 28.

The results of the stability test of the pulveres preparation with the combination of ambroxol HCl and cetirizine HCl did not meet the physical and chemical stability tests as seen from changes in the organoleptic conditions, which clumped, an increase in the moisture content of more than 5% by 7.0637%, and a decrease in the level of ambroxol HCl 19, 2669%, and cetirizine HCl 18.8661% for 28 days of storage. The results of the preparation of pulverized ambroxol HCl and cetirizine HCl preparations obtained the shortest expiration time, namely 7 days from the start of compounding.

Keywords: Pulverized, ambroxol HCl, cetirizine HCl, and chemometric