

ABSTRAK

MUTHIA NISRINA NABILA, 2024, FORMULASI TABLET EFFERVESCENT PARASETAMOL KOMBINASI VARIASI PVP K-30 DAN SUKROSA TERHADAP MUTU FISIK DAN TANGGAPAN RASA, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dibimbing oleh Dr. apt. Ilham Kuncahyo, M.Sc. dan apt. Drs. Widodo Priyanto, M.M.

Pemberian obat dengan rute oral merupakan pemberian obat paling populer dan paling dapat diterima oleh pasien. Sediaan obat oral yang paling populer adalah tablet dan kapsul. Beberapa pasien mengalami kesulitan menelan sediaan tablet dan kapsul, terutama bagi pasien pediatri dan geriatri. Tablet *effervescent* menjadi alternatif untuk mengatasi masalah kesulitan menelan karena dikonsumsi dalam bentuk larutan. Tujuan penelitian ini untuk mengetahui pengaruh variasi kadar PVP K30 dan sukrosa terhadap mutu fisik dan tanggapan rasa tablet *effervescent* parasetamol, serta untuk mengetahui formula yang menghasilkan mutu fisik dan tanggapan rasa yang paling baik dari beberapa formula yang diuji.

Penelitian ini menggunakan empat formula dengan kombinasi variasi kadar PVP K30 1%, 2%, 3%, dan 4%, ditambah variasi kadar sukrosa 29%, 28%, 27%, dan 26%. Tablet *effervescent* dibuat dengan metode granulasi basah dengan bobot rata-rata 1500 mg. Dilakukan uji mutu fisik granul dan mutu fisik tablet *effervescent* meliputi waktu alir, sudut diam, indeks kompresibilitas, kadar air, organoleptik, keseragaman bobot dan ukuran, kekerasan, kerapuhan, waktu larut, pH, dan uji tanggapan rasa. Hasil data dianalisis dengan metode *one way ANOVA*.

Hasil penelitian menunjukkan formula 1 sampai formula 4 memenuhi persyaratan uji mutu fisik dan tanggapan rasa. Terdapat pengaruh kombinasi variasi PVP-K30 terhadap mutu fisik tablet meliputi kekerasan, dan waktu larut tablet *effervescent*. Formula terbaik tablet *effervescent* parasetamol kombinasi variasi PVP dan sukrosa terhadap mutu fisik dan tanggapan rasa adalah formula 1 dengan konsentrasi PVP 1% dan Sukrosa 29% yang memiliki waktu larut tercepat dan tanggapan rasa yang paling banyak disukai.

Kata kunci: Parasetamol, PVP K30, Sukrosa, Tablet *effervescent*, Tanggapan rasa.

ABSTRACT

MUTHIA NISRINA NABILA, 2024, PARASETAMOL EFFERVESCENT TABLET FORMULATION WITH COMBINATION OF PVP-K30 AND SUCROSE VARIATIONS ON PHYSICAL QUALITY AND TASTE RESPONSE, SKRIPSI, FACULTY of PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by Dr. apt. Ilham Kuncahyo, M.Sc. and apt. Drs. Widodo Priyanto, M.M.

Oral route of drug administration is the most popular and most acceptable to patients. The most popular oral drug preparations are tablets and capsules. Some patients have difficulty swallowing tablet and capsule preparations, especially for pediatric and geriatric patients. *Effervescent* tablets are an alternative to overcome the problem of swallowing difficulties because they are consumed in the form of a solution. The purpose of this study was to determine the effect of varying levels of PVP K30 and sucrose on the physical quality and taste responses of paracetamol *effervescent* tablets, as well as to determine the formula that produces the best physical quality and taste responses from several formulas tested.

This study used four formulas with a combination of variations in PVP K30 levels of 1%, 2%, 3%, and 4%, plus variations in sucrose levels of 29%, 28%, 27%, and 26%. *Effervescent* tablets were made using wet granulation method with an average weight of 1500 mg. Physical quality tests of granules and physical quality of *effervescent* tablets were carried out including flow time, angle of repose, compressibility index, moisture content, organoleptic, weight and size uniformity, hardness, friability, dissolving time, pH, and taste response test. The data results were analyzed using the one way ANOVA method.

The results showed that formula 1 to formula 4 met the requirements of the physical quality test of granules and taste responses. There is an effect of PVP-K30 variation combination on the physical quality of tablets including hardness, and dissolving time of *effervescent* tablets. The best formula for the combination of PVP and sucrose variations on physical quality and taste responses is formula 1 with a concentration of 1% PVP and 29% sucrose.

Keywords: Paracetamol, PVP K30, Sucrose, *Effervescent* tablets, Taste response.