PERBANDINGAN KUALITAS FISIKA KIMIA TABLET IBUPROFEN GENERIK DAN BERMEREK DI YOGYAKARTA

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INTISARI

Latar Belakang: Bentuk sediaan tablet ibuprofen, baik generik maupun bermerek adalah salah satu bentuk sediaan yang cukup banyak beredar di indonesia dan merupakan salah satu obat yang paling umum digunakan sebagai obat antiinflamasi, analgesik serta antipiretik. Pengawasan mutu tablet terhadap sifat fisik dan penetapan kadar perlu dilakukan untuk membuktikan mutu tablet ibuprofen generik tidak berbeda dengan bermerek yang beredar di masyarakat. Kontrol kualitas tablet meliputi uji keseragaman bobot dan ukuran, uji waktu hancur, uji kekerasan tablet, uji kerapuhan dan penetapan kadar.
Tujuan Penelitian: Membandingkan sifat fisika kimia tujuh tablet ibuprofen generik dan bermerek menurut standar yang ditetapkan.
Metode Penelitian: Tablet ibuprofen generik dan bermerek diuji keseragaman bobot, keseragaman ukuran, kerapuhan, kekerasan, waktu hancur dan kadar menurut prosedur kerja yang ditetapkan. Kandungan ibuprofen dalam tablet ditentukan menggunakan metode spektrofotometri UV-Vis.
Hasil Penelitian: Keseragaman bobot tujuh sampel berkisar antara 0,519 mg - 0,637 mg. Diameter tablet berkisar antara 1,114 mm - 1,310 mm dan tebal tablet berkisar antara 0,369 mm - 0,596 mm. Nilai kerapuhan tablet < 1 %, sedangkan kekerasan tablet berkisar antara 5,261 kg - 6,827 kg. Waktu hancur tablet ibuprofen bersalut berkisar antara 2,75 menit – 20,32 menit. Kadar ibuprofen dalam tablet menggunakan metode spektrofotometri UV-Vis memenuhi rentang antara 90 % - 110 %.
Kesimpulan: Hasil penelitian menunjukkan bahwa tujuh tablet ibuprofen (400 mg) generik dan bermerek memenuhi persyaratan sifat fisika kimia yang telah ditetapkan meskipun antara sampel bervariasi sifat fisika kimianya saat dianalisis statistik

Kata kunci: Tablet, Ibuprofen, Generik, Bermerek.

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COMPARATIVE OF PHYSICOCHEMICAL QUALITY OF GENERIC AND BRANDS OF IBUPROFEN TABLETS IN YOGYAKARTA

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ABSTRAK

Background: The dosage form of ibuprofen tablets, both generic and branded, is one of the most widely circulated dosage forms in Indonesia. It is one of the most commonly used as anti-inflammatory, analgesic and antipyretic drugs. Quality control of tablets on physical and chemical properties need to be done to prove the quality of generic ibuprofen tablets is no different from branded ones circulating in the community. The quality control of tablets includes a weight and size uniformity test, disintegration time test, hardness test, friability test and content of active ingredient assay.
Objective: To compare the physicochemical properties of seven ibuprofen tablets (generic and branded) according to established standards.
Method: Generic and branded ibuprofen tablets were tested for uniformity of weight, uniformity of size, friability, hardness, disintegration time and content according to established working procedures. The ibuprofen content in tablets was determined using the UV-Vis spectrophotometric method.
Result: uniformity of seven sample weight ranged from 0,519 mg – 0,637 mg. Tablet diameter ranged from 1,114 mm – 1,310 mm and tablet thickness ranged from 0,369 mm - 0.596 mm. Tablet friability value < 1%, white tablet hardness ranged from 5,261 kg – 6,827 kg, the disintegration time of coated ibuprofen tablets ranged from 2,75 minutes to 20,32 minutes. The amoune of ibuprofen in tablets using UV-Vis spectrophotometry met the range between 90% - 110%.
Conclusion: The results showed that seven generic and branded ibuprofen tablets (400 mg) met the physicochemical properties requirements, although the physicochemical properties varied between samples when statistically analyzed.

Keywords: Tablet, Ibuprofen, Generic, Branded.

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