INTISARI

SIMATUPANG SSR. 2016. FORMULASI DAN UJI MUTU FISIK SUSPENSI ERITROMISIN MENGGUNAKAN VARIASI *SUSPENDING AGENT* PGA (*Pulvis Gummi* Arabic) DAN Na- CMC (*Natrium Carboxymethylcellulosum*), KARYA TULIS ILMIAH, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Suspensi adalah sediaan yang mengandung bahan obat padat dalam bentuk halus dan tidak larut, terdispersi dalam cairan pembawa. Eritromisin adalah salah satu antibiotik golongan makrolida yang tidak larut dalam air sehingga dibuat dalam sediaan suspensi. Penelitian ini bertujuan untuk mengetahui bagaimana pengaruh *suspending agent* PGA dan Na-CMC terhadap sifat fisik eritromisin, serta mengetahui konsentrasi berapakah yang dapat memberikan mutu fisik yang paling baik diantara kelima formula yang dibuat.

Sediaan suspensi eritromisin dibuat dalam lima formulasi yang berbeda. Perbedaan formulasi terletak pada konsentrasi *suspending agent* yang digunakan. Variasi konsentrasi PGA dan Na-CMC berturut- turut dari formula 1, 2, 3, 4 dan 5 adalah (4% dan 0%); (2,75% dan 0,25%); (1,5% dan 0,5%); (0,25% dan 0,75%); (0% dan 1%). Suspensi yang telah dibuat kemudian di uji mutu fisik sediaan yang meliputi: uji volume sedimentasi, viskositas, pH, mudah tidaknya dituang, dan redispersibilitas. Hasil pengujian dibandingkan dengan formula yang lain dan di analisis menggunakan uji *One Way Anova* dilanjutkan *Post Hoc Test Tukey* taraf kepercayaan 95% untuk mengetahui formula suspensi yang paling baik dan stabil selama penyimpanan.

Hasil penelitian menunjukkan bahwa variasi suspending agent berpengaruh terhadap uji mutu fisik suspensi. Formula nomor 4 berdasarkan hasil pengujian mutu fisik suspensi mempunyai stabilitas terbaik dari lima formula suspensi yang dibuat dengan konsentrasi suspending agent PGA dan Na-CMC adalah 0,25% dan 0,75%.

Kata kunci: Suspensi, Eritromisin, *Suspending agent*, PGA, Na-CMC.

ABSTRACT

SIMATUPANG SSR. 2016. FORMULATION AND PHYSICAL QUALITY TEST SUSPENSION OF ERYTHROMYCIN WITH A VARIATION SUSPENDING AGENT PGA (*Pulvis Gummi* Arabic) AND Na- CMC (*Natrium Carboxymethylcellulosum*). SCIENTIFIC PAPERS. FACULTY OF PHARMACY. SETIA BUDI UNIVERSITY. SURAKARTA.

Suspension is a medicinal preparation containing solid material in the form of subtle and insoluble, dispersed in a liquid carrier. Erythromycin antibiotics is one of Makrolida which is not dissolves in water so that it is made in preparation of the suspension. This study was aimed to find out how was the influence of suspending agent PGA and Na-CMC on the physical properties of Erythromycin, as well as to find out what concentration that could provide the most excellent physical quality among five formulas.

Erythromycin suspension was made preparations in five different formulations. The difference of the formulations was on the concentrations of suspending agent that used. Variation of the concentration of the PGA and Na-CMC from formula 1, 2, 3, 4 and 5 are (4% and 0%); (2.75% and 0.25%); (1.5% and 0.5%); (0.25% and 0.75%); (0% and 1%). Suspension which has been created then done physical quality testing includes of: volume of sedimentation, viscosity, pH, easily whether or not the cast, and redispersibility. The test results are compared with other formulas and in analysis using One Way Anova test followed Post Hoc Tukey Tests 95% confidence levels to find out the best suspension formula and stable during storage.

The results showed that the variation of the suspending agent affected on physical quality test suspension. Formula no. 4 based on results of testing physical quality cream has the best stability of five suspension formula made with concentrations of suspending agent PGA and Na-CMC are 0.25% and 0.75%.

Keyword: Suspension, Erythromycin, Suspending agent, PGA, Na-CMC.