

FORMULASI SIRUP PEMBAWA UNTUK SEDIAAN RACIKAN SERBUK

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ABSTRAK

Upaya untuk mempersingkat waktu peracikan obat di rumah sakit atau puskesmas, telah dilakukan penelitian untuk membuat suatu sirup pembawa. Dalam mendapatkan formula yang tepat, dilakukan pengamatan stabilitas fisika dan kimia terhadap sirup pembawa tersebut sebelum dan sesudah dicampur dengan bahan isi kapsul tiamfenikol yang dipilih sebagai model obat. Sirup pembawa dibuat dengan bahan pensuspensi CMC Na konsentrasi 1,5% (formula "A") dan 1% (formula "B") disimpan pada lemari pendingin ($5^{\circ}\text{C} \pm 2^{\circ}\text{C}$) dan suhu kamar ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$) selama 30 hari dan suspensi tiamfenikol disimpan selama 7 hari. Parameter evaluasi stabilitasnya yaitu yaitu, organoleptis, pH, berat jenis, viskositas, sifat alir, ukuran partikel, volume sedimentasi dan kadar tiamfenikol. Hasil evaluasi, pada sirup pembawa formula "A" dan "B", stabil pada parameter organoleptis, viskositas, sifat alir, berat jenis, dan pH. Suspensi tiamfenikol formula "A" dan "B" yang disimpan pada lemari pendingin ($5^{\circ}\text{C} \pm 2^{\circ}\text{C}$) dan suhu kamar ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$), stabil pada parameter organoleptis, viskositas, sifat alir, pH, ukuran partikel dan kadar tiamfenikol, tidak stabil pada parameter berat jenis dan volume sedimentasi. Kesimpulannya bahwa sirup pembawa formula "A" dan "B" memenuhi persyaratan mutu sediaan farmasi. Setelah dicampurkan dengan isi kapsul tiamfenikol menjadi suspensi, t_{90} suspensi tiamfenikol formula "A" ($5^{\circ}\text{C} \pm 2^{\circ}\text{C}$) 17 hari. t_{90} suspensi tiamfenikol formula "A" ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$) 31 hari. t_{90} suspensi tiamfenikol formula "B" ($5^{\circ}\text{C} \pm 2^{\circ}\text{C}$) 19hari dan t_{90} suspensi tiamfenikol formula "B" ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$) 17 hari.

Kata Kunci : sirup pembawa, suspensi tiamfenikol, stabilitas.

FORMULATION VEHICLE SYRUP FOR COMPOUNDING POWDER

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ABSTRACT

As an effort to reduce time consuming on making an extemporaneous formulation in hospital, it has been done a study to make a vehicle syrup. For obtain the formula properly, physical and chemical stability must be determined for the vehicle syrup (content of thiamphenicol capsule as a drug model). The vehicle syrup is formulated using the suspending agent CMC Na concentrate 1,5% (formula "A") and 1% (formula "B"), those vehicle syrups are stored at $5^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 30 days. The parameters of stability studies are organoleptic, pH, density, viscosity, and rheologic properties. While, the thiamphenicol suspensions are stored at temperature $5^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 7 days, with organoleptic, pH, density, viscosity, rheologic properties, particle size, and sedimentation volume as the parameters of stability studies. The result from those stability studies are both of the vehicle syrups and thiamphenicol suspensions formula "A" and "B" were stable in parameter organoleptic, viscosity, rheologic properties, pH and particle size, but it wasn't stable in parameter density and sedimentation volume. The results are syrup vehicle formula "A" and "B" was able to fulfill the grade rules of pharmacy. However, vehicle syrup when mixed content of thiamphenicol capsule to be suspensions, t_{90} suspension formula "A" ($5^{\circ}\text{C} \pm 2^{\circ}\text{C}$) is 17 days. t_{90} suspension formula "A" ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$) is 31 days. t_{90} suspension formula "B" ($5^{\circ}\text{C} \pm 2^{\circ}\text{C}$) 19 is days and t_{90} suspension formula "B" ($25^{\circ}\text{C} \pm 2^{\circ}\text{C}$) is 17 days.

Key Words: syrup vehicle, thiamphenicol suspension, stability.