PENGEMBANGAN FORMULA PEMBAWA SEDIAAN CAIR PER ORAL UNTUK PELAYANAN KEFARMASIAN DI RUMAH SAKIT

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Pembimbing: (I) Christina Avanti, (II) NI Luh Dewi Aryani

ABSTRAK

Dalam upaya untuk mempersingkat waktu peracikan obat di rumah sakit atau puskesmas, telah dilakukan penelitian untuk membuat suatu pembawa suspensi. Untuk mendapatkan formula yang tepat, dilakukan pengamatan stabilitas fisika dan kimia terhadap pembawa tersebut sebelum dan sesudah dicampur dengan bahan obat (kapsul tiamfenikol dipilih sebagai model obat). Sediaan pembawa suspensi dibuat dengan bahan pensuspensi CMC Na konsentrasi 1,5% (formula "X") dan 1% (formula "Y") lalu disimpan pada suhu 5°C dan 25°C selama 30 hari. Parameter uji stabilitasnya yaitu organoleptis, pH, berat jenis, viskositas, dan sifat alir sediaan. Sedangkan suspensi tiamfenikol disimpan pada suhu 5°C dan 25°C selama 7 hari dengan parameter uji stabilitas yaitu kadar tiamfenikol, organoleptis, pH, berat jenis, viskositas, sifat alir, ukuran partikel, dan volume sedimentasi. Dari hasil pengujian, diperoleh hasil bahwa pada sediaan pembawa suspensi maupun suspensi tiamfenikol formula "X" dan "Y" yang disimpan pada suhu 5°C dan 25°C, stabil pada parameter organoleptis, viskositas, sifat alir, berat jenis, dan ukuran partikel. Namun tidak stabil pada parameter pH dan volume sedimentasi. Kadar tiamfenikol dalam suspensi formula "X" tidak memenuhi kriteria stabil, sedangkan kadar tiamfenikol formula "Y" memenuhi kriteria stabil selama penyimpanan. Dari keseluruhan data yang telah didapat dapat disimpulkan bahwa pembawa "X" dan "Y" harus direformulasi karena tidak dapat digunakan sebagai pembawa suspensi untuk peracikan obat di rumah sakit.

Kata Kunci: pembawa suspensi, suspensi tiamfenikol, suhu, formula, CMC Na, stabilitas.

THE DEVELOPMENT OF ORAL LIQUID VEHICLE FOR PHARMACEUTICAL SERVICES IN HOSPITAL

Ratna, 2008
Pembimbing: (I) Christina Avanti, (II) NI Luh Dewi Aryani

ABSTRACT

As an effort to reduce time consuming on making an extemporaneous formulation in hospital, it has been done a study to make a suspension vehicle. In order to obtain the formula properly, physical and chemical stability must be determined for the suspension vehicle (thiampenicol capsule as a drug model). The suspension vehicle is formulated using the suspending agent CMC Na concentrate 1,5% (formula "X") and 1% (formula "Y"), those suspension vehicles are stored at temperature 5°C and 25°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°C and 25°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 suspension vehicles and thiamphenicol suspensions formula "X" and "Y" which stored at temperature 5°C and 25°C were stable in parameter organoleptic, viscosity, rheologic properties, density, and particle size, but it wasn't stable in parameter pH and sedimentation volume. The thiamphenicol degree in suspension formula "X" wasn't stable during storage under 5°C and 25°C for 7 days. While, the thiamphenicol degree in suspension formula "Y" was stable during storage under 5°C and 25°C for 7 days. From the results of those stability studies, the suspension vehicle should be reformulated because it can't be used as a suspension vehicle for extemporaneous formulation in hospital.

Key Words: suspension vehicle, tiamphenicol suspension, temperature, formula, CMC Na, stability.