Pengaruh polivinil pirolidon terhadap laju disolusi furosemid dalam sistem dispersi padat

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Abstrak

The research to accelerate furosemide dissolution rate has been done through physical property modification by solid dispersion forming polyvinylpyrolidone (PVP) carrier with solvent method. Pure furosemide posses property of being practically insoluble in water and has low bioavailability. In current research, six weight ratio
of furosemide to PVP being used are 1:1; 1:3; 1:5; 1:9 and 1:15. Physical mixtures are made in equivalent weight ratio. The dissolution rate was examined by paddle method in phosphat buffer pH 5,8. Solid dispersion caracterised with in vitro dissolution
study, X-ray diffraction, infra red spectrophotometer and differential scanning calorimetric. The result shows that solid dispersion of furosemide with PVP carrier is higher compare to physical mixture dissolution rate and pure furosemide.
The ratio furosemide to PVP who has the highest dissolution rate is 1:15. The analyzing shows the existing of altering crystalline to amorphous state.