CHAPTER IV

CONCLUSION

The penetration characteristics of piroxicam from various gel bases through silastic® and pig skin were investigated. The effects of various additives on piroxicam flux were also studied. The conclusions of this study can be summarized as follows :

1. Silastic® could be used instead of pig skin for comparison of piroxicam flux from various gel bases not containing any additives that affected the membranes.

2. Type of gelling agents appeared to influence piroxicam flux.

3. Type and concentration of additives used in the preparation could alter the piroxicam penetration rate in an unpredictable fashion.

4. Silastic® had an obvious advantage over pig skin in that it was more reproducible than pig skin.

Significance of this study.

1. Measurement of skin permeation using in-vitro diffusion cells is a useful technique to apply during the development process of transdermal products.

2. The desired permeation rate of piroxicam from gel preparations can be improved by adding suitable additives with suitable concentrations.

3. Lower pH of piroxicam gel preparation should yield higher flux through skin since the unionized form penetrated faster than the ionized form.

4. Silastic® may be used for some in-vitro diffusion studies with caution.