

Also it is important that the compounds initially investigated to establish the empirical parameters were nonelectrolytes. Thus, drug molecules that will dissociate should be evaluated with reservation. As seen in Table 1, the computational methods can be predictive for drugs that dissociate. However, predictions for compounds that fall outside of the assumptions of the models must be considered suspect. Likewise, use of these techniques to predict the percutaneous delivery of polypeptides is probably unfounded. Octanol/water partition coefficients, for polypeptides are often larger than would be expected compared with non-hydrogen-bonding solvent/water partition coefficients. The use of mineral oil/water, or alkane/water partition coefficients may be more predictive of the actual percutaneous flux values. Finally, remember that only the two models by Berner and Cooper utilize the molecular weight of the compound. For compounds of molecular weight above 1000, the resulting flux values from these two models might be more predictive of experimental results.

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