

## Poster Abstract

### **Intrinsic Factor Inhibition Due to the Use of Isotretinoin**

**Maikie S Sengdeng MLT(ASCP)<sup>CM</sup>**

Bahar Alimadadi MLT(ASCP)<sup>CM</sup>

Ashley R Rogers MLT(ASCP)<sup>CM</sup>

Weber State University

Ogden, UT

Isotretinoin (Accutane) is a therapeutic drug used for the treatment and prevention of severe acne. A previous study done on the effects of isotretinoin concluded that patients taking isotretinoin showed significantly prolonged activated partial thromboplastin times (aPTT). aPTT is a timed, clinical test assessing abnormalities in the intrinsic coagulation pathway. Objective of this study is to investigate which factor(s) of the pathway is inhibited. Normal patient plasma was collected, treated with a standardized concentration of isotretinoin, and an aPTT was performed. Collected plasma was then pooled and underwent a factor assay. The factor assay uses reagent factor deficient plasmas (XII, XI, IX, and VIII), mixes it with pooled plasma and an aPTT is measured. This was performed on pooled plasma as a control and then treated with isotretinoin. When treated with isotretinoin, results indicate significant prolonged aPTT times (p-values < 0.001). No significant prolonged times for factor deficient XII and VIII, which suggest that isotretinoin had no inhibitory affect on these factors. Therefore, we conclude isotretinoin prolongs aPTT times by inhibiting factors XI and IX *in vitro* in the intrinsic coagulation pathway.