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## PS025 DETERMINATION OF GLUCOSE IN DRIED BLOOD SPOTS COLLECTED ON FILTER PAPER BY GLUCOSE DEHYDROGENASE METHOD

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In order to enable a diabetic service to be incorporated into general public health programs, we developed a method for determination of blood glucose in dried blood spot specimens. A few drops of blood were collected on filter paper and dried at room temperature. The dried specimens could be sent to the laboratory by mail. For the glucose determination a 3 mm disc was punched from the center of the dried blood spot and was transferred to a test tube containing 20 uL deproteinising reagent (MeOH-acetone 1:1). After deproteinisation, the disc was eluted with 0.33 mmol/L perchloric acid. The glucose concentration in the eluate was determined spectrophotometrically (340 nm) at 37$^{o}$ by the glucose dehydrogenase method. The within run imprecision (CV) of duplicate spots was between 4.9-5.4%. Between run imprecision was between 7.3-9.5%. Recoveries of glucose in this assay were 97-99.5%. The correlation of this filter paper method and the whole blood glucose dehydrogenase method was good (r=0.812, n=112). The results indicate that this method may be useful for monitoring therapeutic control of diabetic out-patients and can be extended for mass screening of diabetes mellitus.

## PS026 EFFECT OF SHORT-TERM INSULIN INJECTION ON MILK YIELD AND COMPOSITION IN CALIFORNIA RABBITS

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NPH insulin was injected subcutaneously once a day for 2 days into ten California rabbits during three different lactation stages. Milk lactose and protein content both increased when insulin was injected during the lactation peak stage (2.4 vs. 3.1 and 14.1 vs. 15.1%, respectively). The calculated efficiencies of milk yield per kg body weight were improved by insulin injected during the late pregnancy stage as well as the lactation peak stage. Neither the milk yield nor the milk fat content were significantly changed at any of the injection periods. Major serum constituents remained statistically indistinguishable from their control counterparts after insulin injection. The mechanisms by which insulin increased the lactose and protein content of milk without concommitantly changing the blood constituents deserve further studies.



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