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WIPAPORN AKARAMANEE: AN APPLICATION OF CAPILLARY PUNCTURE
TECHNOLOGY FOR INFECTIOUS WASTE REDUCTION IN A MATERNAL AND
CHILD HOSPITAL, BANGKOK : CASE STUDIES OF THALASSEMIA AND
CHOLESTEROL DIAGNOSIS. THESIS ADVISORS : DEBHANOM MUANGMAN
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The project was undertaken to study the usage of capillary puncture in comparison with venepuncture, and to examine thalassemia disease and cholesterol levels in 100 pregnant women who attended the antenatal care clinic at Maternal and Child hospital, Bangkok, during the period December 1998 to April 1999. Amount of time required to conduct procedures, and effects of blood sample storage temperature were monitored. Attitudes of technicians and clients were assessed using questionnaires. Quantities of waste produced were compared. The study showed that thalassemia cases can be diagnosed using the capillary puncture method, with confidence levels of $p < 0.001$. The capillary puncture method was not suitable for determining cholesterol levels. Capillary puncture was 3 times faster than routine venepuncture. Capillary blood could be stored at 4°C for 28 days without any effect on the result. With regard to attitude, both technicians and clients prefer capillary puncture technique due to the shorter time that it takes, the convenience, the small size of blood sample, and the minimal risk of infection. The capillary puncture method produces 13 times less waste. Following this study, all medical centres should be encouraged to adopt the new technology in blood examination, to reduce the amount of infected waste product for the betterment of our environment.