Revolutionary Blood Test Tube 2.0

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The newly designed test tube presented in this abstract would improve on the design of blood test tubes commonly used by hospitals, clinics, and both research and commercial laboratories all over the world. The design allowed drawn blood samples to stand warm climate over an extended period of time exceeding current commonly used blood-collecting test tubes. Since warm temperature alters and affects accuracy of blood test results, the currently used test tubes require refrigeration until blood is tested. The importance of current design would save the cost of refrigeration and transportation of refrigerated blood samples. The test tube is made of 3 sealed test tubes encasing each other with a gradual increase in diameter with the outermost tube having the biggest diameter. The space between the inner tube and intermediate tube contains Ammonium Thiocyanate and water to generate an endothermic reaction. The space between the intermediate and the third/outermost tube would contain a thin layer of insulation. The temperature of the blood sample of the experimental blood test tube was tested using electronic thermometer and an infrared gun. The results showed that the proposed experimental test tube, when compared to currently used tubes, successfully lowered the temperature of collected blood sample almost 9 to 11 degrees Celsius for about 4 to 5 hours longer. This design would save the cost of refrigeration and would allow delivery of adequate health care at a lower cost especially in locations with warm climates and 3rd world countries.

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