Experiment 29: Blood Sampling

SYNOPSIS Blood samples are taken for measurement of lead. The method used was that recommended by the CDC in 1991.

Material

Soap
Alcohol swabs
Sterile cotton balls
Silicone spray or swabs
Examination gloves (powderless)
Capillary fingerprick (Drummond Sci.)
Bandages

PROCEDURE

1. Rinse gloves to remove powder and put on.
2. Wash the childs hands with soap and dry.
3. Use the middle finger and check that it has no visible infection or wound.
4. Massage the finger to increase blood circulation.
5. Grasp the finger between the thumb and index finger with the palm of the child's hand up.
6. Clean the ball or pad of the finger with alcohol swab. Dry with sterile cotton ball.
7. Apply the silicone barrier.
8. Puncture with the capillary fingerprick - using potassium EDTA treated wiretol micropipettes (Drummond Sci.).
9. To get blood flowing massage finger gently.
10. Seal one end with Critoseal (Thomas Co. Phil, Pa.) cap and one end a critocap.
11. Store < 8 weeks at 8^{o}C or 10 days at ambient temp.
12. Stop bleeding and cover fingertip with bandaid.

REPORT In addition to materials, methods, and results, your report should include the following information:

1. How were your samples randomized?
2. What efforts were taken to avoid contaminating the sample?
3. How were the samples labeled in order to achieve good quality control?
4. How was the sample stabilized to prevent losses in transit and storage? Be specific for the type of sample you have.