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Method Change: Homocysteine

Effective September 2, 2003, homocysteine (HCY) testing will be changed to the DPC Immulite 2000. As a result of the change, **the new reference interval for homocysteine will be changed to 4 - 15 mmol/L.**

Method Comparison

The DPC Immulite 2000 homocysteine assay was compared to the current method (Abbott AxSYM) on 102 samples (concentration range: 5 to 36 U/mL). The comparative results obtained by both methods are shown in the figure. A linear regression analysis showed:

$$\text{Immulinite} = 0.924 * \text{AxSYM} - 0.48.$$

The reference interval of HCY was verified and changed to 4 - 15 $\mu\text{mol/L}$ for both males and females using 42 female and 39 male samples with normal HCY levels.

Please note:

1. HCY levels increase with age.
2. Post-menopausal women tend to have higher levels than pre-menopausal women.
3. Plasma HCY levels are approximately 25% higher in man vs. age-matched pre-menopausal women.

Specimen Collection

Heparinized and EDTA plasma are the samples of choice. Serum is also acceptable. It is important to separate the plasma or serum from the cells as soon as possible after collection, as synthesis of HCY will take place in red cells after sampling. Samples should be stored on ice between the time of sampling and centrifugation. After separation, samples are stable for 14 days at 2-8^oC, or 6 month at -20^oC.

Laboratory Contact: Lu Song, Ph.D. , DABCC, Technical Director, 717-851-1422

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For question about this, and other, information, call Central Pennsylvania Laboratory at 1-888-480-1422

