



# QUALITY UPDATE

A regular publication providing information and updates to CompuNet Clients  
Mission: To provide excellence in medical laboratory testing to our community.

Volume 15. Issue 3

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March 2008

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## Vitamin D in the News

*By Mark Shearer, MCLT, MT(ASCP).*

It is hard to pick up any medically related publication without seeing some reference to Vitamin D. Much of the emphasis started with introduction of the osteoporosis treatments and studies to determine if vitamin D would enhance the effectiveness of these medications. Since that time, vitamin D has been included in any number of studies and has been found to have a preventative effect for such diseases as hypertension, cancer, Multiple Sclerosis, osteoporosis, and some autoimmune diseases. It has also been suggested as a means to reduce falls in the elderly. Many of these studies have been small and further research will be needed to determine the extent of the impact of vitamin D on overall health.

Vitamin D aids in the absorption of calcium and thus is instrumental in bone formation and maintenance. It is also important in the regulation of blood levels of calcium and phosphorous. There are several dietary sources of vitamin D including fish, eggs, fortified milk, and several other fortified products as well as most multivitamins. Given all the attention being given to vitamin D, additional fortified foods will likely hit the grocery shelves in the coming months.

Another key source of vitamin D is sunlight. As little as 10 minutes a day of sun exposure to *unprotected* skin can help ensure adequate vitamin D levels. As some groups have been promoting that individuals should never be exposed to sunlight without some form of sunscreen, it has become clear that strictly following this advice may have unintended consequences. An SPF value as low as 15 can result in a 99.9% reduction in the production of vitamin D<sup>1</sup>. Moderation is the key with only limited amounts of unprotected skin exposure helping to maintain vitamin D levels without a significant increase in the risk of skin cancer.

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In children, vitamin D deficiency is seen as Rickets and is associated with slow growth, restlessness and potentially bone deformities. In adults, vitamin D deficiency is associated with osteomalacia which is seen as a weakness of both bones and muscles. It is likely this weakness that results in the increased number of falls seen in the elderly who have lower vitamin D levels.

The majority of the vitamin D in the blood is seen as ergocalciferol (D<sub>2</sub>) and cholecalciferol (D<sub>3</sub>). The ergocalciferol (D<sub>2</sub>) is formed by the ultraviolet irradiation of ergosterol which occurs in molds, yeasts and higher plants.<sup>2</sup> Vitamin D<sub>3</sub> occurs in human bodies by the ultraviolet irradiation of the provitamin in the skin.<sup>2</sup>

As more and more information has become available as to the importance of Vitamin D in a number of conditions, the number of patients being tested for Vitamin D has also increased. CompuNet is pleased to announce that we will be bringing this testing in-house in the very near future. This will provide you with a more rapid turn around time as well as local expertise in this testing. Should you have any questions regarding vitamin D testing, please feel free to contact Mark Shearer at (937) 297-8236 or at [mark.l.shearer@questdiagnostics.com](mailto:mark.l.shearer@questdiagnostics.com).

<sup>1</sup> Holick MF and Jenkins M, *The UV Advantage: The Medical Breakthrough That Shows How to Harness the Power of the Sun for Your Health*, New York, NY: ibooks, 2003.

<sup>2</sup> Burtis, Carl Ph.D. and Ashwood, Edward M.D., *Tietz Textbook of Clinical Chemistry*, third edition, W.B. Saunders Company, 1999, pg 1004

## Something About A Name

*By Cynthia Prince, Referral Testing*

A patient ID error may occur at the time of collection due to incorrect labeling of samples or when the incorrect patient is entered into the computer system. Occasionally, the name on the specimen and the requisition match, but at a later date it is determined that the specimen submitted belongs to someone else. CompuNet Client Services should be made aware of the mis-identification as soon as possible. In most cases, a recollection will be necessary. Results can not be changed unless the specimen is considered non-recollectable; a specimen that would be considered irretrievable or would cause too great a discomfort for patients at recollection, or would significantly delay treatment such as urine cultures, arterial blood specimens, bone marrows, spinal fluids, etc.

If a specimen is recollectable the following steps are taken:

- Notification from the physician staff,
- Results removed from incorrect patient report,
- Report reflecting changes made to patient record is issued to client,
- Manual billing adjustment to credit payer is sent to billing.

If the specimen is considered non-recollectable the following steps are required:

- Statement on physician script or office letterhead indicating the error must be signed by a physician in the practice,
- A properly completed requisition for the correct patient with all the demographic information, testing and billing information,
- Requisition will be logged in. The results will be transferred to the correct patient,

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- A new report will be issued to the client reflecting the authorization to report the results.

This policy is based on CAP, CLIA 88, and JCAHO recommendations for quality and patient safety.

If you have any questions, you may contact myself or your Marketing Representative.  
Cynthia Prince, Referral Testing, 937-296-0844 Ext. 3527

## **Prompt Pay Discount**

*By Cindy Alexander*

Effective January 1, 2008, CompuNet is offering a prompt pay discount to uninsured patients. When services are paid in full at the time of specimen collection, we avoid billing costs and are able to pass those savings along to the patient. Listed below is a brief outline of how the prompt pay program works.

- The prompt pay discount is 25%.
- The patient must have his/her specimen collected at a CompuNet patient service center.
- The patient must pay the bill in full at the time of specimen collection.
- Payment may be made by check, money order, or credit card (Visa, MasterCard, Discover, or American Express). CompuNet PSCs do not accept cash payments.

This discount is only available through CompuNet’s patient service centers. We are unable to discount deductibles, copays, or coinsurance for insured patients due to insurance regulations.

If you have questions regarding this program, contact your account representative or call our reimbursement department at 937-297-8253.

## **Communication is the Key!**

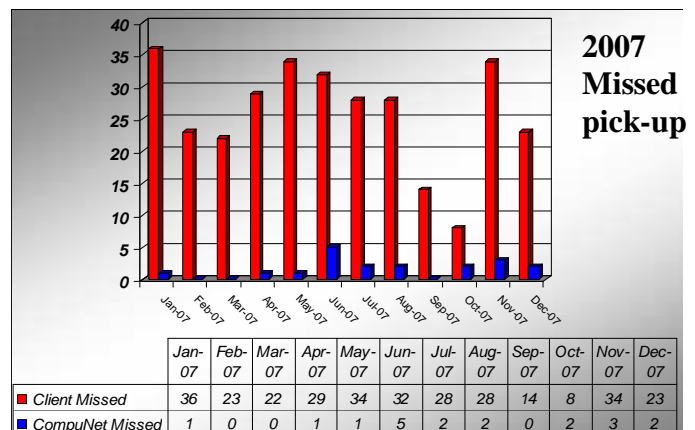
*By Paul Labbe, Vice President of Operations*

Operational logistics plays a large part in ensuring quality patient specimens from our customers offices reach the laboratory in a timely and efficient manner, so that testing may proceed, and return an accurate result back to the ordering clinician.

At CompuNet Clinical Labs, we have a staff of professional client distribution representatives that cover our 15 county southwestern Ohio area, averaging 67,000 miles a month to ensure that the 15,000 deliveries and 11,000 office pick-ups are performed consistently, safely, and accurately.

One of our process improvement initiatives early in 2008, will be to reduce the “missed pick-ups” that occur generally due to misunderstanding or miscommunication. As seen by the chart below, this missed pick-up rate is very small (0.3%), but we want to approach a near perfection, six sigma target.

To do that we’ve already identified the root causes of these missed pick-ups and will partner with the identified clients to enhance communication processes, and utilize additional reminders on who or when to call for a specimen pick-up, or reminders on placing specimen in lock boxes after hours, and helpful aids to place those lock boxes where our couriers can access them. If you have a specific idea for improvement for your specific office, please feel free to call our dispatchers at 937-297-8262 or our transportation team leaders, Dave Waldman: 937-297-8355 or Jim Kerivan: 937-297-8256.





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## ***Hemoglobinopathies***

***by Daniel Hood, MD, CompuNet Medical Director***

Testing for abnormal hemoglobins may be done as part of newborn screening, prenatal testing, evaluation of anemia, or as follow-up testing following detection of a hemoglobin variant discovered during testing for hemoglobin A1c. Over 800 hemoglobin variants have been described. Identification of abnormal hemoglobins has traditionally utilized gel electrophoresis in both alkaline and acid pH environments. CompuNet Clinical Labs utilizes two newer methods: high performance liquid chromatography (HPLC) and capillary zone electrophoresis (CZE). Both of these methods are semi-automated and provide better separation of hemoglobin variants than traditional electrophoresis. Moreover, both HPLC and CZE instrumentation provide databases of abnormal hemoglobins to aid in the identification of uncommon variants. Both CZE and HPLC are used by CCL in the identification process because good laboratory practice requires the use of two methods for confirmation of abnormal hemoglobins. When an abnormal hemoglobin variant is reported, it is important to remember that less than a dozen are clinically significant. If you have any questions regarding a hemoglobin variant or testing for abnormal hemoglobins, contact Dr. Daniel Hood at 208-2447.