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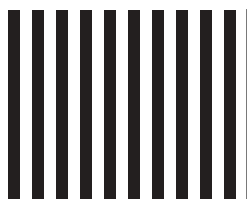
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We Need Your Feedback

Sebia's Hemoglobin A1c Assay NGSP Certified!



Today, the main challenge facing clinicians treating diabetic patients is the prevention of the microvascular and macrovascular complications of the disease. The Diabetes Control and Complications Trial, DCCT, clearly demonstrated that diabetic complications are related to how adequately plasma glucose is controlled on a long-term basis. Moreover, periodic measurement of hemoglobin A1c (Hb A1c) concentrations is the best tool for monitoring patients over the course of this disease.

Before 1996, there was no standardization between A1c methods worldwide. The lack of internal standardization limited the clinical usefulness of the A1c assay since patient results could not be compared between laboratories. In 1996 the International Federation of Clinical Chemistry (IFCC) established a working group and project on glycohemoglobin standardization. The result was the establishment of the National Glycohemoglobin Standardization Program (NGSP). The network interacts with manufacturers of A1c methods, such as Sebia, to assist them in standardizing their methods and then in providing comparison data for certification of traceability to the DCCT. Sebia is pleased to announce that our Hb A1c assay has been NGSP certified. For more information on Sebia's Hb A1c assay, please circle 141 on your Reader Response Card.

Ask Borek (continued)

lipid/cholesterol profile and overall health status that provide no obvious reason for the failure
• renal failure patients whenever etiology of the failure is unknown or uncertain

Some MGUS, monoclonal gammopathy of undetermined significance, may take many years to progress into a significant lymphoproliferative or a plasma cell proliferative process. Detailed clinical information on the patient, together with serum and urine follow-up testing, is essential for monitoring the disorder. Quantification of BJP in urine might appear essential for monitoring the progress of the disease or its treatment. However, variability of tubular re-adsorption and metabolism of BJP by the kidney reduces the significance of such measurement particularly at low BJP concentrations.

OCCURRENCE OF BJP IN SERUM AND URINE

Depending on the progress of the condition producing BJP, they may be found in urine, serum or both. Presence of BJP in urine provides valuable information about the patient's status. Unfortunately, it generally indicates a grimmer prognosis. Approximately 40% of patients with BJP eventually progress to renal failure. The mechanisms that can account for the presence of BJP in urine include:

- overflow proteinuria,
- primary tubular damage or, more commonly,
- secondary damage due to the toxicity of BJP.

In the early stages of the disease, only low amounts of BJP are produced. BJP and other small size proteins filter through the glomeruli and are easily reabsorbed by the tubules of a healthy kidney. Typically, all BJP are cleared from the serum although small amounts may be detected; they are absent in urine. As the disease progresses, BJP is produced in quantities exceeding the re-absorption capacity of the tubules. BJP may be detected in both serum and urine. This is typical for BJP overflow proteinuria. In the advanced stages of the disease still more BJP is produced and the kidney becomes damaged by the deposition and toxicity of BJP. Large amounts of BJP are excreted into the urine while serum may not show any significant quantities. Instead, the normal polyclonal immunoglobulins might be considerably suppressed as a result of pronounced production and effects of monoclonal immunoglobulins.

The search for BJP might be complicated by their avidity for polymerization. Monoclonal free lambda polymerizes more readily than monoclonal free kappa. The monomers and dimers filter through the glomerulus while larger ones are rejected. The most nephrotoxic form of monoclonal free light chains appears to be high polymers, which can reach up to 900 kD. BJP may also bind to other proteins, which results in additional bands and complicates interpretation.

So that wraps up our four part series on urines. Look for a new topic in the next issue of "Separations". If you would like to receive additional information on Sebia's IF assay, circle number 138 on your Reader Response Card and for information on Sebia's Bence Jones assay, circle number 139.

Image obtained from www.keratin.com.



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Separations

Sebia Extranet Launched!

By: Lydia Dodson-Lehrer, Vice President, Marketing and Customer Support



As part of Sebia's ongoing commitment to our customers, we are pleased to announce the launch of the Sebia Extranet. The Sebia website at www.sebia-usa.com is a source of information about our company, products, and services, and now it will also host our Customer Extranet. This has been designed exclusively for current Sebia customers as part of an outstanding value added opportunity.

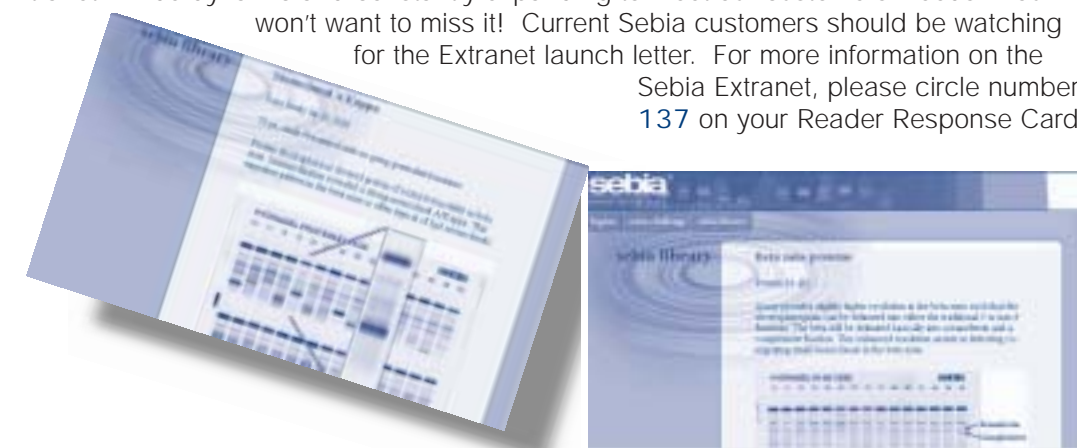
On the Extranet, Sebia customers will now have access to a number of educational resources such as:

• **The Sebia Library.** The Library is an ongoing collection of unusual samples and their interpretations for your use as invaluable training aids.

• **The Sebia Challenge.** The Challenge is a quarterly proficiency survey designed as an interactive continuing education program. Participants will read and interpret various agarose gels, submit their results, and receive feedback to their responses—all online! Additionally, participants who complete the Challenge will be eligible to receive continuing education credits.

• **The Sebia Files.** The Files will be updated on a regular basis so that they contain the latest versions of our Quick Reference Guides, Material Safety Data Sheets, and Customer Updates.

The Extranet will be dynamic and constantly expanding to meet our customers' needs. You won't want to miss it! Current Sebia customers should be watching for the Extranet launch letter. For more information on the Sebia Extranet, please circle number 137 on your Reader Response Card.



Clearly Superior...

AUTOMATICALLY BETTER™

