



## MINNTECH: ENHANCEMENTS & EVOLUTION Meeting our customer's needs!

**Enhancement** (en-hance-ment): to make better

**Evolution** (ev-o-lu-tion): a process of change and improvement

In the fast-paced world of hemodialysis, enhancement and evolution are two words that should be on the tip of everyone's tongue. Minntech, the world's leader in dialyzer reprocessing, fully embraces these two words.

Because Minntech is evolving and listening to you, our customers, we continue to make enhancements to our reprocessing products and systems. The end result of this evolution is to make hemodialyzer reprocessing even more effective, efficient, reliable and safe. Your goal is improved patient outcomes; our goal is to bring you products and services that will help you achieve your goal. You told Minntech what you need and we responded.

As part of this evolution, Minntech would like to highlight the following enhancements that will help meet your reprocessing needs.



The RenaClear® Dialyzer Cleaning System has been upgraded with a redesigned manifold and internal connections. These customer-led changes make the RenaClear fully field-serviceable. The new manifold incorporates the same technology, reliability and ease of use of the Renatron® Dialyzer Reprocessing Station. The quick-disconnect manifold is clear to aid in visual troubleshooting and uses the same easy-to-access valve stems and plungers as the Renatron station. This new manifold allows the user to perform troubleshooting, repairs and annual maintenance in the field resulting in increased productivity.

continued on page 2

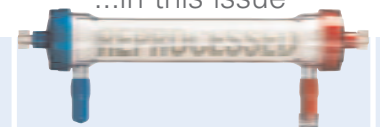
## Renalog® TM: A New Approach to Staff Training



Minntech Renal Systems is pleased to introduce a new comprehensive training program for dialyzer reprocessing. Proper training is vital to the success of every dialysis facility. CMS (Centers for Medicare & Medicaid Services) requires training of reprocessing personnel and documentation of that training. Renalog TM Dialyzer Reprocessing Training Manager was developed to ensure that each and every trainee receives the same in-depth information. Renalog TM, because it is computer based, delivers consistent training. This helps eliminate the possibility of the short-cuts and individual interpretations of policies and procedures that some trainers may pass along. Renalog TM ensures that trainees receive the best, most up-to-date training material.

continued on page 2

...in this issue



- Renalog TM Focus
- UVMC experience
- Troubleshooting
- Question & Answer
- Minntech Transitions
- Spotlight on the Technical Services Department
- Calendar of Events

continued from cover

## ENHANCEMENTS & EVOLUTION - Meeting our customer's needs!



New, improved reprocessing connectors are now available. The reprocessing connector has an enhanced o-ring that is more resilient, resistant to tears and deterioration and will increase the life of the connector. The transparent connector body that allows for easy visual inspection and cleaning

remains the same. The new connector can be easily identified by its durable white o-ring. The order number for the new connectors remains the same: 78397-699 for a bag of 100 or 78397-713 for a bag of 10.

Renalog<sup>®</sup> TM Dialyzer Reprocessing Training Manager has been launched. Renalog TM is a new comprehensive training program that ensures that trainees receive the best, most up-to-date reprocessing training (see article in this volume of ReNews).

"Rinsing a Renalin<sup>®</sup> Reprocessed Dialyzer" CD is one of our most recent publications and contains detailed

information and guidance for staff to safely and effectively rinse a Renalin-reprocessed dialyzer. The CD also contains a post quiz and an application for NANT-approved contact hours. This is a great tool for the educational department of any facility.

Minntech has recently developed a patient educational manual, "A Patient's Guide to Dialyzer Reprocessing," that gives patients valuable information on the history, safety, economics and a detailed look at the components that make up a successful dialyzer reprocessing program. This CD allows facilities to print copies of this guide in both English and Spanish (see ReNews Volume 9, 2006).

For anyone involved with hemodialysis, patients are the first and foremost concern. With that in mind, Minntech continues to evolve and enhance our current products and develop new products and services that will help you meet your goal of improved patient outcomes.

For more information please contact your Minntech Area Manager at 800-328-3345.

continued from cover

## Renalog<sup>®</sup> TM: A New Approach to Staff Training



While this program is aimed at training reprocessing staff, it is designed to be beneficial for both reprocessing and clinical staff members. Renalog TM is the next generation of Minntech's Renalliance<sup>®</sup> Training program. Renalog TM uses video, audio and graphic formats that provide staff with an engaging and easily accessible training program that can be completed on-site at your convenience.

Training is based on "best practices" and staff receives the most up-to-date information on dialyzer reprocessing. Renalog TM consists of three CDs with topics that include:

- Principles of the kidney, hemodialysis and infection control
- Operation of Renalog RM
- Daily startup of the Renatron<sup>®</sup> Dialyzer Reprocessing Station

- Reprocessing dialyzers
- Dialyzer inspection, labeling and storage
- Daily shutdown of the Renatron Dialyzer Reprocessing Station
- Renalog RM reports
- Patient and staff safety

Self-assessment quizzes at the end of each module allow trainees to gauge their level of understanding and comprehension. On a separate CD, quizzes and answer keys are provided in a PDF format. Clinics can print out hard copies of the quizzes, allowing them to test and self-certify their staff. These hard copies of quizzes can be included in personnel files to help document training. Additionally, trainees also have the option of obtaining valuable continuing education contact hours approved by NANT (National Association of Nephrology Technicians/Technologists).

For more information about Renalog TM Dialyzer Reprocessing Manager, please contact your Minntech Area Manager at 800-328-3345.

## RENALOG® TM FOCUS: UVMC EXPERIENCE:

Earlier this year the Renalog TM Dialyzer Reprocessing Training Manager was launched at the dialysis facility at Upper Valley Medical Center located in Troy, Ohio. Mark Parks CHT, OCDT Chief Dialysis Bio-Medical Technologist, was asked by ReNews about his experience with Renalog TM:

**1. ReNews:** What was your impression of Renalog TM?

**Mark Parks:** Renalog TM is great. I am on a dialysis focus group, and I have been asking for something like this for a long time.

**2. ReNews:** Would you recommend this training for a new staff person?

**Mark Parks:** Absolutely, this is cutting edge. It is broken down into modules that are easy to understand. There is better audio and visual comprehension than if a person is just reading an instruction book itself.

**3. ReNews:** What do you find will be the most important aspect of Renalog TM for a new staff member?

**Mark Parks:** I find there is more credibility when an independent outside source, such as Minntech, teaches the same principles that we are teaching in the dialysis facility.

**4. ReNews:** Did Renalog TM cover all aspects of training?

**Mark Parks:** Yes it did, and the staff could view it at a comfortable pace.

**5. ReNews:** Did Renalog TM go as in depth as you feel it needed to be?

**Mark Parks:** It covered what it should have covered.

**6. ReNews:** Was there a particular training module that you found most interesting or useful?

**Mark Parks:** I liked the module on Infection Control.

**7. ReNews:** Did you find information on Renalog TM that you did not know before?

**Mark Parks:** The staff does not utilize reports very much, and it was interesting for the staff to see the variety of reports that can be created and customized.



(Left to right) Mark S. Parks CHT, OCDT, Chief Dialysis Bio-Medical Technologist  
John Marshall CHT, OCDT, Assistant Bio-Medical Technologist  
Stan Street CHT, OCDT, Assistant Bio-Medical Technologist

**8. ReNews:** Did the Renalog TM format fit your needs?

**Mark Parks:** Yes. We were able to watch it on a laptop and overhead projector in a classroom-type setting.

**9. ReNews:** How many staff members have seen Renalog TM so far?

**Mark Parks:** So far three staff have viewed Renalog TM.

**10. ReNews:** What were their thoughts?

**Mark Parks:** The staff liked it. They were happy because it provides three continuing education contact hours, and the staff can apply it towards their annual competency training.

**11. ReNews:** Has anyone used the certificates/vouchers for CEUs?

**Mark Parks:** One of the staff here is actually the very first person that was issued CEU's through NANT and the Renalog TM program.

**12. ReNews:** What would you tell others about Renalog TM?

**Mark Parks:** I do know some clinics that would benefit from this and am already talking to those clinics about Renalog TM.

## Q & A

### **Q: What kinds of studies have been done regarding exposure to Renalin®/Renalin® 100 Cold Sterilant?**

**A:** Exposure or contact with Renalin in the clinical setting can sometimes raise concerns about possible negative effects. The primary toxicity concern, expressed by workers when using Renalin, is inhalation of the vapors and splashing on the skin or in the eyes. Studies on test animals, as well as observed human exposures, have shown that Renalin at use concentrations, while an irritant requiring proper personal protective equipment (PPE), is not a severe health hazard and is not associated with long-term health effects.

Rats exposed to vapors from 5% Renalin (in an inhalation chamber) showed no toxic symptoms. In a follow-up test, exposure to vapors from concentrated Renalin also showed no toxic symptoms. Spraying the undiluted Renalin on their skin resulted in short-term (1 hour) discomfort, but no lasting symptoms. In studies of human exposure, atmospheric concentrations of 0.5 mg PAA/m<sup>3</sup> are well tolerated by humans.

Skin sensitivity testing on mice showed very little effect (skin reddening) and only after four consecutive treatments. Yet, even these slight reactions disappeared by the eighth treatment. Skin sensitivity testing in

human volunteers using 3% Renalin did not produce any visible effects. Long-term use of solutions with 0.2% PAA (equivalent to 4% Renalin) has been reported to result in no irritation to the skin, except in exposure to small wounds (cuts, abrasions). Still, proper use of gloves is prudent when handling disinfectant chemicals.

Mucous membrane testing on rabbits with 3% Renalin indicates that contact with mucous membranes (e.g., the eye) should be avoided; if contact occurs, immediate rinsing should be applied.

Dermatological testing on guinea pigs shows that 1% Renalin does not have any hypersensitivity effect on the skin. Studies with solutions as high as 12% PAA have not shown any sensitizing reactions. At the concentrations of PAA in 1% Renalin, it is not expected to cause hypersensitivity.

Proper safety eyewear and other PPE should effectively reduce the possibility of splashing Renalin in the eyes and reduce skin contact.

John Matta, Ph.D  
Senior Scientist  
Minntech Corporation

## MINNTECH TRANSITIONS:



Diana Bolton

Tia Sabin

Both Tia Sabin and Diana Bolton have transitioned from the Clinical Services Group at Minntech to exciting new positions with DaVita Healthcare. Tia has accepted a position as the Reuse Trainer for the Eastern United States; Diana will become the Divisional Reuse Training Coordinator for the Heartland Division. We are sad to see both of these outstanding individuals leave but are happy knowing that they are continuing to share their knowledge of and expertise in reprocessing. A word to DaVita: You have acquired two of the most knowledgeable reuse trainers in the country. Best of luck to Tia and Diana!

## TROUBLESHOOTING:

**Question: What is an Add Chemical alarm and what can cause it?**

**Answer:** An **Add Chemical** alarm occurs when the Renatron® Station does not draw up the proper amount of Renalin®/Renalin® 100 Cold Sterilant in the given amount of time. An **Add Chemical** alarm can occur in Step 9 or 45 in the reprocessing program, or Step 67 or 77 in the sanitize program.

The most likely cause of an **Add Chemical** alarm would be that the Renalin container is empty and needs to be replaced.

If the container is not empty or has been replaced and the alarm continues, remove the cover of the Renatron Station and watch the mixing tank during Step 67:

- **If you see a steady stream of bubbles entering the tank in Step 67**, then there is an air leak in the Renalin Cold Sterilant path. The most likely cause would be a cracked or loose fitting on the uptake tube assembly or a damaged V15 diaphragm.

- **If the water level in the tank does not change during Step 67**, a bad check valve could be the cause. The check valve can be inspected (*see Renatron Service Manual, Section 2.5: Uptake Tube Assembly Inspection*) and/or replaced. If the check valve is OK then either V13 or V15 may not be opening. V13 can be checked for magnetism in Step 67. V15 will have to be removed and inspected.

- **If the water level in the tank increases very slowly** it could be a sign of a weak jet pump. The jet pump should be tested (*see Renatron Service Manual Section 2.8: Jet Pump Assembly Test Procedure*) and/or replaced.

Greg Pielow  
Senior Technical Service Representative  
Minntech Renal Systems Group

**Question: Occasionally my Renatron Station will get a Tank Volume alarm in Step 17. What could cause this?**

**Answer:** Generally speaking, a **Tank Volume** alarm in Step 17 is not caused by a Renatron Station failure. During Step 17 the Renatron Station will draw a 2% Renalin Cold Sterilant solution into the blood side of the dialyzer from venous to arterial. If the dialyzer is clotted, this will not be accomplished.

If your clinic has more than one Renatron Station, run the suspect dialyzer on a different Renatron Station. If you get a **Tank Volume** alarm in Step 17 discard the dialyzer because it is most likely clotted.

If you have only one Renatron Station at your clinic, remove the dialyzer, connect the calibration cell and run a regular reprocessing cycle. If the calibration cell passes Step 17, discard the dialyzer because it is most likely clotted.

Greg Pielow  
Senior Technical Service Representative  
Minntech Renal Systems Group

### Service/Maintenance Seminar Opportunities:

Minntech Renal Systems offers a comprehensive technical training seminar to qualify you to service and maintain the RS-8300 and RS-8330 Renatron® II Dialyzer Reprocessing Systems. The information gained in this seminar will aid in optimizing your dialyzer reprocessing program and complies with CMS regulations and AAMI dialyzer reprocessing guidelines. The two-day seminar is held periodically throughout the year at various locations and qualifies the attendee for 16.8 NANT approved contact hours.

**Future seminar dates are:**

August 1-2, 2006 in Charlotte, NC  
August 3-4, 2006 in Charlotte, NC  
December 5-6, 2006 in Atlanta, GA  
December 7-8, 2006 in Atlanta, GA

For more information contact Stephanie Frankhouser at (800) 328-3345 Ext. 504

## SPOTLIGHT ON THE:

### Technical Services Department:

Minntech Renal Systems Technical Services group supports all technical and operational requirements of our customers. The group was created over twenty-two years ago to support dialyzer reprocessing. Because of its close, ongoing contact with Minntech customers, the Technical Services Group is a major contributor of ideas for the enhancement of current products and the development of new technologies.

The main activities of the Technical Services group falls into three general categories:

- Technical support
- Equipment maintenance and repair
- In-service and training

#### **TECHNICAL SUPPORT**

The Technical Services group offers telephone support 24 hours a day, seven days a week. The veteran support staff is able to handle problems presented by a broad range of customers, from novice users to seasoned biomedical engineers and is noted for its comprehensive troubleshooting guidance.

Technical support is offered both on equipment function and performance as well as for the comprehensive Renalog® Reprocessing Data Management software.

#### **EQUIPMENT MAINTENANCE AND REPAIR**

All electronic and mechanical repairs to Minntech Renal Systems products are carried out by the Technical Services group at their Minnesota-based facility. In addition to repairs, many customers use the Technical Services group to perform annual preventative maintenance. The Technical Services group offers a unique equipment loaner program to customers while their own equipment is being serviced.

#### **IN-SERVICE AND TRAINING**

The Technical Services unit routinely offers training seminars for troubleshooting and repair for the Renatron® Dialyzer Reprocessing System. This includes the function and repair of the Renatron station as well as the integration of the Renatron and Renalog software.

The Technical Services group also provides on-site and telephone services for installations and conversions.

#### **TECHNICAL SERVICES TEAM MEMBERS**

The Technical Services group collectively represents over seventy-seven years of service with Minntech Renal Systems and fifty years dedicated solely to technical service and support. The group is recognized nationally for its fast and comprehensive response to customer needs.



**MIKE NEARY - TECHNICAL SERVICES MANAGER**

After receiving his associates degree in electronics, Mike joined the Minntech Technical Services Group in 1986. As manager of the Technical Services Group Mike's responsibilities range from device development and validation to equipment and software support. He has traveled extensively in Asia conducting seminars on equipment operation and has presented well over 100 Renatron maintenance and repair seminars. Mike's leadership abilities and solid background with Minntech products makes him the guiding force of the Technical Services Group.



**TONY HOULE - TECHNICAL SERVICE TEAM LEAD**

Tony achieved his associate's degree in electronics from Anoka Technical College and began his career with Minntech in 1989. In the Technical Service Department he has a wide range of responsibilities including in-house repairs and telephone support. Telephone support ranges from troubleshooting device issues to helping customers during CMS inspections. Additionally, Tony has conducted on-site troubleshooting of reuse problems.

Tony has conducted reprocessing equipment training seminars and presentations for NANT and CANNT. Tony's expertise has helped countless customers through a wide range of electronic and mechanical issues. Tony was instrumental in the development and testing of Renalog RM. He is an expert in Renalog III to Renalog RM software conversions including combining data from multiple locations to one system. Tony is an invaluable member of the Technical Services team.



**GREG PIELOW -  
SENIOR TECHNICAL  
SERVICE REPRESENTATIVE**

After receiving an associates degree in electronics, Greg began his Minntech career in 1979 and transferred to Technical Services in 1992. Greg was the key Technical Services

Representative for the Unitrol Endoscope Reprocessing System. Greg is now a member of the Minntech Renal Systems Technical Support group. He provides phone support for Renal Systems customers as well as teaching at many of the Renatron Technical Service Training Seminars. Greg is noted for his extreme patience when working with customers to solve complex equipment or software issues.



**STEPHANIE FRANKHOUSER -  
TECHNICAL SERVICE  
COORDINATOR**

Stephanie joined Minntech in 1999 as a Customer Service Representative where she was responsible for assisting customers in placing orders for the full range of Minntech products.

In 2001 Stephanie joined the Technical Services Group as a Service Assistant. She is responsible for all Renatron repair contracts and Renatron training seminars arrangements. She provides back-up phone coverage and administrative support for the Technical Services Group.



**MARK D. WILKINSON -  
SERVICE TECHNICIAN**

Mark began his electronics career with an associates degree in electronics and has worked for a major computer manufacturer, a medical device manufacturer as well as the US Postal Service as an electronics technician.

Mark has over twenty-seven years of electronics troubleshooting and repair experience and is knowledgeable in medical terminology and procedures.

Mark joined Minntech in 1999 as an electronics technician in the production area and moved to the Technical Services Group in 2003.



**LEE SMITH -  
SERVICE TECHNICIAN**

Lee joined Minntech in 2002, working in the Shipping and Receiving Department. In 2004, he joined the Technical Services Group as a Service Technician. He specializes in equipment maintenance and repair. Lee just finished his certification in electronics and will be starting his Bio-Medical Technician training classes this fall.

## CALENDAR OF EVENTS:

**National ESRD Education Week  
American Nephrology Nurses' Association**  
August 7-11, 2006

**AAKP (American Association of Kidney Patients)  
2006 Annual Convention**  
August 31-September 3, 2006  
Orlando, FL

**American Nephrology Nurses' Association (ANNA)  
Nephrology Nurses Week**  
September 10-16, 2006

**American Nephrology Nurses' Association (ANNA)  
Fall Meeting 2006**  
September 22-24, 2006  
Boston, MA

**National Renal Administrators Association (NRAA)  
29th Annual Fall Conference 2006**  
October 4-7, 2006  
Philadelphia, PA

**ESRD Network 1 Annual Meeting**  
October 12, 2006  
Sturbridge, MA

**ESRD Network 11 2006 Annual Meeting**  
October 13, 2006  
Milwaukee, WI

**2006 Kidney Disease Economics Conference**  
October 27-29, 2006  
Baltimore, MD

**ESRD Network 8 2006 Annual Meeting**  
November 8-10, 2006  
Nashville, TN

**American Society of Nephrology (ASN)  
39th Annual Meeting & Scientific Exposition**  
November 14-19, 2006  
San Diego, CA

# Realize the difference



Customer Service (800) 328-3340

Technical Service (800) 328-3324

Clinical Service (800) 328-3345

## ...it's your choice



[www.minntech.com](http://www.minntech.com)



Minntech Corporation  
14605 28th Avenue North  
Minneapolis, Minnesota 55447-4822 USA  
Telephone: (763) 553-3300  
Fax: (763) 553-3387