
Updates and Information from Rex Healthcare and Rex Outreach

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Helpful hints for orders/ results for Microbiology tests in hospital computer system

ORDERS: At 'ITEM' prompt....

1. Type 'Culture' to get list of all cultures, this list will not be in alphabetical order, OR
2. Type test code. Refer to Ancillary Handbook, OR
3. Enter the first few characters of the test name (i.e., fungus) <enter>, this will display a list of possible choices (i.e., fungus culture).

Specimen type:

1. To see all specimens, press F11 at specimen prompt. Use <down arrow> or <page down> to navigate to appropriate specimen, OR
2. Type first letter of specimen. This will display all specimens beginning with that letter.

Additional comments field:

1. This field allows entry of free text. This must be used if specimen is 'Miscellaneous'.

RESULTS REVIEW: To review Microbiology results on screen, type 601 then <enter>, results display in reverse chronological order. If results take up more than one screen, use <down arrow> to view.

To print: Type P601

**Date range:

Incorrect date range is most common problem in looking for Micro results
Date range is based on collection date
Use F8 key to change date range
Usually M for month is sufficient.

Sheila McMahan, MT

New CDC guidelines for HIV prevention after occupational exposure

The June 7, 1996 issue of the CDC Morbidity and Mortality Weekly Report included a provisional Public Health Service recommendation for chemoprophylaxis after exposure to HIV. This recommendation is for an aggressive approach using multi-drug prophylactic treatment depending on the nature of the exposure. The Rex Medical Staff Infection Control Committee has agreed to adopt these CDC recommendations and is in the process of revising the hospital occupational HIV post-exposure procedures.

In summary, CDC has classified exposures with regard to the type of body fluid and the mode of exposure and made recommendations with regard to whether chemoprophylaxis is indicated. The recommended chemoprophylaxis may consist of zidovudine alone, zidovudine plus lamivudine, or those two drugs plus indinavir depending upon the assessment of risk. The drugs are to be administered within 1-2 hours of exposure and are to be given in the usual doses for four weeks.

The logistics of implementing this complex scheme are formidable. The laboratory is looking into the potential for making a reliable STAT HIV test available that could be

used to assess the status of the source patient. This would have to be a screening test with final confirmation of positives requiring several days.

For further details, contact Infection Control Services at 783-3219.

Karl T. Kleeman, Ph.D.

Adsol Now Used for Red Blood Cell Storage

Rex Blood Services has begun collecting blood products in Adsol additive solution for blood storage which will increase red blood cell shelf life from 35 to 42 days. The new additive solution will also produce units that are less viscous, do not require dilution prior to transfusion and will have improved transfusion flow rates.

Red Blood Cells collected for transfusion are stored in one of several available solutions. All of the solutions function as anticoagulants and preservatives. Red Blood Cells undergo a number of chemical changes during storage in blood bags. Certain nutrients are required for ongoing metabolic needs and a delicate biochemical balance must be maintained for continued viability of these living cells. Citrate is the anticoagulant of choice, and acts by binding calcium which is required for several key steps in the coagulation cascade. Citrate also retards glycolysis. Sodium biphosphate is added to maintain pH during storage. In addition, some type of additive solution is used to supply adenine for ATP production and glucose to supply metabolic needs. These additives are essential for red blood cell survival and function even after prolonged storage.

Rex Blood Services has traditionally collected blood in CPDA-1 (Citrate Phosphate Dextrose with Adenine). This storage solution allows good red blood cell viability for up to 35 days shelf life. We have recently implemented the necessary manufacturing steps to collect blood in Adsol, which is a special additive solution containing dextrose, adenine, mannitol and sodium chloride in concentrations sufficient to allow red cell viability for up to 42 days of storage. Therefore, we have gained an additional 7 days of shelf life for our red cell products.. The added dextrose provides a supplemental source of energy to support red cell metabolism. Mannitol reduces hemolysis by acting as a red cell membrane stabilizer. The concentrations of dextrose and mannitol in transfused products are easily handled by patients even with diabetes and impaired renal function. We will also make packed red blood cells, and other components including platelets and fresh frozen plasma from all units collected. This will essentially eliminate an already small percentage of whole blood units, which is a more efficient use of the resource and provides the most functional component therapy directed at specific patient needs. We will continue to collect a few units in CPDA-1 for use in newborns since these are preferable to Adsol units for small, ill neonates receiving a proportionately large quantity of blood.

Timothy R. Carter, M.D.

New PCR test available for Ehrlichiosis

In the March issue of the Laboratory Bulletin, we reviewed tests to be used for the diagnosis of tick borne diseases including the Human Ehrlichiosis. Ehrlichiae are obligate intracellular parasites which reside in phagosomes or vacuoles in host hematopoietic cells. The Lone Star tick and the wood tick, both of which are found in North Carolina, have been implicated as vectors for human monocytic ehrlichiosis.

Clinical signs and symptoms of human ehrlichiosis (similar to those of Rocky Mountain spotted fever) include malaise, fever, headache, arthralgia, myalgia, anorexia, nausea, vomiting, chills, sweats and at times confusion. Laboratory findings include leukopenia, thrombocytopenia and elevated liver enzymes.

ViroMED in Minneapolis, MN is now offering a new PCR test for the rapid detection of Ehrlichia in peripheral blood leukocytes collected during the acute phase of disease. 1-5 ml of EDTA or ACD whole blood is required. Specimens must be stored at room temperature and rapidly transported by overnight air for testing. The cost is \$160, which includes the shipping. Call ViroMED at (800)582-0077 for details.

Karl T. Kleeman, Ph.D.

For further information, call the Laboratory (783-3040). Telephone extensions are: Dr. Benson (3059), Dr. Brainard (3056), Dr. Carter (3058), Dr. Chiavetta (3040), Dr. Kanich (3057), Dr. Kleeman (3063), Dr. Nance (3286), Dr. Sorge (3062), Barbara Wetherbee (Director 3055), Robin Ivosic (Core Lab Manager 3053), Linda Lompa (Blood Services Manager

781-0220), Lynn Nichols (Rex Outreach 783-4488), Rex Outreach Couriers (783-4400), Karen Sanderson (Lab Compliance Specialist 3396), Greg Wilson (Customer Services Manager 3318).