UnityPoint Health PEKIN	Page 1 of 3	Section: Pekin UA	Policy #: UPPK UA-0648
URINALYSIS LABORATORY	Approved by: see signature block at end of document		Date: 2/10/2019
	Date Created: 02/20/2019		
	Primary Responsible Parties: Suzanne Behle		
	CAP Standard:		
SUBJECT: URINE BILIRUBIN - ICOTEST			

I. Principle

The test is based on the coupling of a unique solid diazonium salt with bilirubin in an acid medium to give the blue or purple color.

II. Clinical Significance

Bilirubin excretion in the urine will reach significant levels in any disease process that increases the amount of conjugated bilirubin in the blood. In some liver diseases, liver cells are unable to secrete all of the conjugated bilirubin in the bile so that sufficient amounts are returned to the blood. In obstructive biliary tract disease, biliary stasis interferes with the normal excretion of conjugated bilirubin via the intestinal tract, thus causing a buildup in the blood stream.
An Ictotest will be performed when a bilirubin result of 1.0 or greater is found on urinalysis specimens.

III. Specimen

A. Freshly voided urine specimen (first morning specimen if possible) placed in a clean container and labeled with patient name, hospital number and date of birth, collection time and date.
B. Urine for bilirubin must be transported to the laboratory immediately and refrigerated if not examined within one hour.
C. Specimen stability is up to 24 hours at 2-8° C.
D. Criteria for rejection of urine specimens:
    1. improper identification or no identification
    2. quantity not sufficient to perform testing procedure
    3. specimen known to have been at room temperature for more than 1 hour
    4. specimen that has been frozen
    5. specimen containing a preservative
    6. specimen contaminated with fecal material.

IV. Reagents

A. Ictotest Reagent Tablets
B. Ictotest Absorbent Mats
C. Dropper
D. Water

V. Quality Control

A. Bio-Rad qUAntify level 1 and level 2 controls are run on the Ictotest tablets weekly, with each new lot number and for each shipment of tablets
B. Results are recorded on Urine QC Record Form. If control results are "out-of-control', a new bottle of reagent tablets should be opened and QC repeated.
C. Log steps taken on action log.

VI. Procedure

A. Place a square of absorbent test mat onto a paper towel.
B. Place 10 drops of urine onto the center of the test mat.
C. Shake one Ictotest Reagent Tablet into the bottle cap and transfer the tablet to the center of the moistened mat. Do not handle tablet with the fingers. Recap the bottle promptly.
D. Place one drop of NERL water onto the tablet.
E. Wait 5 seconds, and then place a second drop of NERL water onto the tablet so that the water runs off tablet onto the mat. Read after 60 seconds.
F. Results are negative if no blue or purple color develops on the mat within 60 seconds.
G. The presence of a blue or purple color on the mat indicates that bilirubin is present.
H. A slight pink or red color should be ignored and reported as negative.

VII. Reporting Results in Sunquest

A. Result as negative or positive in Sunquest.
B. A bilirubin result of 1.0 or greater will require the Ictotest to be performed. Remove the bilirubin result and replace with the Icotest result. Correlate with macroscopic results before verifying.
C. Make sure that controls have been performed and are in-control prior to verifying results.
D. Take the following steps to report Icto:
    1. Result entry
    2. Remove Bilirubin dipstick result:
        a. Highlight result
        b. Select test—top tool bar
        c. Select override instrument results
        d. Highlight result
        e. Remove result
    3. Negative result: Replace result with NEG, tab to the next line and add BNI.
    4. Positive result: Replace result with BPIC.

VIII. Procedural Notes/Problem-Solving Tips

A. Metabolites of Pyridium give bright red-orange colors which may mask the reaction of small amounts of bilirubin. If reaction is a bright red-purple color it is probably due to a drug; NA results and footnote as "Results inaccurate due to possible drug interference".
B. False positive result may be caused by large amounts of Chlorpromazine as well as metabolites of Iodine. Store at 15-30°C
C. Protect against exposure to light, heat and moisture. Do not use tables that are damaged.
D. Stable until expiration date on original container
E. Replace cap on container promptly and tightly after using tablets

IX. References

A. Siemens Healthcare Diagnostics Inc.
B. Ictotest Reagent Insert, Siemens Healthcare Diagnostics Inc. Tarrytown, NY, 05-2016

POLICY CREATION :		Date
Author:	Angie Guppy, MLT (ASCP)	02/14/19
Medical Director:	Lori, Racsa, DO	02/14/19

MEDICAL DIRECTOR		
DATE	NAME	SIGNATURE
SECTION MEDICAL DIRECTOR		

REVISION HISTORY (began tracking 2011)			
Rev	Description of Change	Author	Effective Date
2/14/19	New procedure for Pekin	Angie Guppy	2/14/19

Reviewed by:

Lead	Date	Coordinator/ Manager	Date	Medical Director	Date