Specimen Collection Procedure Guideline

PHC has adopted a standard specimen collection procedure complying with the ISO 15189 requirements. Your cooperation would be much appreciated to facilitate our daily operation.

Request form requirements
a. Request form for testing should be accompanied with each specimen
b. The request form accompanied with the specimen should have the patient’s name, sex, age and ID, case ID, referring doctor or laboratory information and date and time of specimen collection.

Specimen labeling requirements
A legible handwritten or typed label must be adhered onto the specimen container. The label should at least contain any one of the following information:

a. Patient’s name and identifier
b. Patient’s name and referring laboratory identifier.

Ketamine Test Available

What is Ketamine?

Ketamine is a dissociative anesthetic developed in 1963 to replace PAC (Phencyclidine). While Ketamine is still used in human anesthesia and veterinary medicine, it is becoming increasingly abused as a street drug.

Ketamine is molecularly similar to PCP and thus creates similar effects including numbness, loss of coordination, sense of invulnerability, muscle rigidity, aggressive/violent behavior, slurred or muffled speech, exaggerated sense of strength, and a blank stare. There is depression of respiratory function but not of the central nervous system, and cardiovascular function is maintained.

The effects of Ketamine generally last 4-6 hours following use. Ketamine is excreted in the urine as unchanged drug (2.3%) and metabolites (96.8%).

Ketamine in Hong Kong

In Hong Kong, Ketamine, along with other ‘club drugs’, has become popular among teenagers and young adults at disco and rave parties. In addition, cases of students suspected abusing drugs in school were reported recently.

According to the quarterly meeting of the Action Committee Against Narcotics (ACAN), the number of ketamine abusers increased to 1,184 (or 36.9%) in the first quarter of 2007, compared with that of the same period of 2006 (865).

Among the abusers, 64.6% of them were aged under 21.

PHC Ketamine Test

Intended Use
Detection of Ketamine in human urine at a cut-off concentration of 1,000 ng/mL.

Method
An immunoassay based on the principle of competitive binding.

Sensitivity
>99% accuracy at 50% above and 50% below the cut-off concentration of 1,000ng/mL.

Specificity
Our test will detect other related compounds of certain concentrations. Our test provides a qualitative, preliminary analytical result. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method. Clinical consideration and professional judgment should be applied to any drug of abuse test result, particularly when preliminary positive results are used.

Reference:
1. ACON KET One Step Ketamine Test Device (Urine) Package Insert, ACON Laboratories, Inc., San Diego, CA 92121, USA
New Prenatal Profile

**PROFILE A**  Code: PNAS1
1. CBC
2. Grouping (ABO+Rh-D)
3. VDRL / RPR
4. Rubella, IgG
5. HBsAg

List Price HK$1650

**PROFILE B**  Code: PNAS2
1. CBC
2. Grouping (ABO+Rh-D)
3. VDRL / RPR
4. Rubella, IgG
5. HBsAg
6. HbBa
7. Chlamydia Antibody
8. HIV (AIDS)

List Price HK$1030

Please feel free to contact our sales & marketing representatives for further inquiry.

---

**SYMPHILIS TP vs VDRL**

PHC is pleased to share more information about Syphilis TP and VDRL tests with you.

**VDRL ADVANTAGES**
- Relatively inexpensive
- Screening
- Treatment monitoring: Revert to non-reactive following treatment

**VDRL DISADVANTAGES**
- Non-specific, high rate of biological false positive (specificity <25-50%) (autoimmune disease, acute viral infections, recent vaccination, pregnancy)
- Not all false-positives are low titered (<1:8)
- Sensitive to room temperature
- <20°C may give negatives, >28°C may give false positives
- Prozone reactions when Ag in excess
- False negative in late latent or late syphilis

**Total Antibody detection (Syphilis TP)**
- More specific/sensitive
- Good for screening in order to “catch” all suspected cases especially important for pregnant women
- Detect latent syphilis which RPR/VDRL cannot detect

**Syphilis TP**

**Hepatitis A Testing**

For a more specific investigation for Hepatitis A virus (HAV) infection, our laboratory shall follow a new guideline as following.

**Intended Use for anti-HAV IgG**
- Pre-vaccination screening for past infection/immunity to HAV
- Qualitative determination of IgG antibody to Hepatitis A virus

**Intended Use for anti-HAV IgM**
- As an aid in the diagnosis of acute Hepatitis A infection

**Method**
- Anti-HAV IgG, Chemiluminescent Microparticle Immunoassay (CMIA)
- Anti-HAV IgM: Enzyme Linked Fluorescent Assay (ELFA)

**Hepatitis A Testing**

- Specificity: 99.17% for anti-HAV IgG, 99.44% for anti-HAV IgM
- Sensitivity: ≥98% for anti-HAV IgG, 96.1% for anti-HAV IgM

**References:**
1. Architect system HAVAb-IgG Package Insert, Abbott Laboratories, 100 Abbott Park Road, Abbott Park, Illinois 60064-3500, USA.
3. VIDAS HAV Ab IgG Package Insert, Biomerieux SA, France.

**Specimen Container for Special Assay**

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Abbreviation</th>
<th>Color Top</th>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CB</td>
<td>Red</td>
<td>Clotted Blood</td>
<td>Biochemistry, Serology and Immunoassays and HIV DNA</td>
</tr>
<tr>
<td>2</td>
<td>Cit B</td>
<td>Blue</td>
<td>Citrated Blood</td>
<td>Prothrombin Time, Partial Thromboplastin Time and Other Coagulation Assays</td>
</tr>
<tr>
<td>3</td>
<td>SB</td>
<td>Purple</td>
<td>EDTA</td>
<td>CBC, ESR, Reticsocyte count, Hb Pattern and HbA1c</td>
</tr>
<tr>
<td>4</td>
<td>ES R</td>
<td>Pink</td>
<td>Citrated Blood</td>
<td>Erythrocytes Sedimentation Rate (ESR) only</td>
</tr>
<tr>
<td>5</td>
<td>FB / OB</td>
<td>Grey</td>
<td>Fluoride / Oxalate Blood</td>
<td>Glucose</td>
</tr>
<tr>
<td>6</td>
<td>HB</td>
<td>Deep Blue</td>
<td>Heparinized Blood</td>
<td>Chromosome Analysis</td>
</tr>
<tr>
<td>7</td>
<td>AOD</td>
<td>Pale Yellow</td>
<td>Acid Citrate Dextrose</td>
<td>HLA Typing and Flow Cytometry, Store Tube at Ambient Temperature</td>
</tr>
</tbody>
</table>

**Comparison of RPR / VDRL vs. Syphilis TP**

<table>
<thead>
<tr>
<th>Detection</th>
<th>VDRL/RPR latex agglutination</th>
<th>Architect Syphilis TP</th>
</tr>
</thead>
<tbody>
<tr>
<td>specificity</td>
<td>Total antibody detection by recombinant antigen</td>
<td></td>
</tr>
<tr>
<td>sensitivity</td>
<td>False negative in late latent or late syphilis; 100% sensitivity in 2nd syphilis</td>
<td></td>
</tr>
<tr>
<td>performance</td>
<td>Affected by room temp; excess Ag caused prozone effect; false negative ~30%</td>
<td></td>
</tr>
</tbody>
</table>

**Specimen Required:** 3mL clotted blood

**List Price:**
- HAG for anti-HAV IgG: HK$100
- HAM for anti-HAV IgM: HK$100

**Report Turnaround Time:**
- 1 day for anti-HAV IgG; 2 days for anti-HAV IgM

**Summary and Explanation**

The presence of anti-HAV IgG in human serum is indicative of past infection to HAV or vaccination against HAV. Anti-HAV is detectable during the acute stage of illness (anti-HAV IgM) and may persist for years after recovery (anti-HAV IgG). Virus-specific anti-HAV IgM is the most reliable marker for determining the acute stage of disease. The test for anti-HAV IgG is primarily used to determine previous exposure to HAV.

**New Guidelines on Hepatitis A Testing**

**Introduction**

For a more specific investigation for Hepatitis A virus (HAV) infection, our laboratory shall follow a new guideline as following.

**Summary and Explanation**

The presence of anti-HAV IgG in human serum is indicative of past infection to HAV or vaccination against HAV. Anti-HAV is detectable during the acute stage of illness (anti-HAV IgM) and may persist for years after recovery (anti-HAV IgG). Virus-specific anti-HAV IgM is the most reliable marker for determining the acute stage of disease. The test for anti-HAV IgG is primarily used to determine previous exposure to HAV.

**References:**
1. Architect system HAVAb-IgG Package Insert, Abbott Laboratories, 100 Abbott Park Road, Abbott Park, Illinois 60064-3500, USA.
3. VIDAS HAV Ab IgG Package Insert, Biomerieux SA, France.

**Helicobacter Pylori Urea Breath Test**

Please be informed the Helicobacter Pylori – Urea Breath Test kit is temporarily not available and we will keep you updated for the progress.