Exp.17 Urine test for Uric acid

Introduction:

In clinical laboratory, samples of blood and urine from patients are routinely subjected to many kinds of chemical analysis.

Uric acid is the end product of purine metabolism in the human body. The concentration of uric acid in the urine of healthy person ranges between 18 and 72 mg per 100mL. The healthy adult excretes approximately 250 to 750 mg of uric acid per 24 hours in the urine. If the uric acid level is high, you may have "gout". If uric acid is often deposition of crystalline, you may have "tophi" or "kidney stones".

Reagents:

1. standard uric acid solutions
2. 10% Sodium Carbonate
3. Phosphotungstic acid

Procedure:

A. Prepare standard uric acid solutions.

B. Delivery exactly 2 mL of urine into a 10 mL volumetric flask and dilute to the mark with distilled water.

C. Pipette 3 mL of diluted urine sample, standard uric acid solutions and water (for a blank) into separate photocells. Add 1.5 mL of 10% Na_2CO_3 and 2 mL of phosphotungstic acid

reagent, invert to mix well. Stand for 5 min. Read absorbance of sample and standard uric acid solutions in the spectrophotometer at 660nm (correct the spectrophotometer).

Results：

1. Record your observations.
2. Calculate the concentration.

Discussions：