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U Mass - Urea/BUN

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Protocol status: Working
We use this protocol and it's working

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Keywords: Serum Urea/BUN levels, kidney failure, renal complications of diabetes, bun level, bun summary, serum urea, using roche cobas clinical chemistry analyzer, roche cobas clinical chemistry analyzer, alterations in systemic protein, renal complication, nitrogen metabolism, systemic protein, urea, spectrophotometric measurement, diabetes, serum

Abstract

Summary:

This experiment involves a spectrophotometric measurement using Roche Cobas Clinical Chemistry Analyzer. Serum Urea/BUN levels are affected by alterations in systemic protein and nitrogen metabolism. Serum Urea/BUN levels are altered in kidney failure and renal complications of diabetes.

Materials

MATERIALS

- Urea/BUN **Roche Catalog #**04657616 190
- Calibrator f.a.s. **Roche Catalog #**10759350 360
- Precinorm U plus **Roche Catalog #** 12149435 160
- Precipath U plus **Roche Catalog #**12149443 160
- NaCl Diluent 9 % **Roche Catalog #**04774230 190
- Chimneys **Roche Catalog #**11930630 001
- Cleaner **Roche Catalog #**04774248 190
- Micro Sample cups **Roche Catalog #**11406680 001
- NERL High Quality Water **Fisher Scientific Catalog #**9805

Note:

Roche, RRID:SCR_001326
Fisher Scientific, RRID:SCR_008452

Troubleshooting

Before start

Notes:

√ Try to use freshly prepared serum and plasma samples for this assay.

√ No dilution or treatment of the sample is required, but plasma samples should be centrifuged to remove any fibrin/fibrinogen clumps.

√ Samples should be stored at 2-8°C for 24 hours prior to analysis. For longer periods, store samples at -70°C, and avoid repeated freeze/thaw cycles.

√ A 50 µl dead volume is required in addition to sample volume for multi-protein analysis (typically 1-5 µl).

1 Perform daily quality control assessment of instrumentation before analysis.

2 Load each sample into a specialized micro-sample cup for the clinical chemistry analyzer.

3 Select Urea/BUN test on display and run the analysis.

4 Collect and analyze the data.