# Urea/BUN

Version: 1
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*(note that the following list should be linked to the appropriate location.)*



## Summary: *(This area will include a brief description of what the protocol is used for and why someone would need to use it.)*

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.

## Reagents and Materials: *(This should be a comprehensive list of stock solutions and material. The reagent list for the stock solutions is included in the reagent preparation area that is included at the end of this SOP.)*

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

# Protocol:

**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.