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| Morphologic Assessment in Hematology and Urinalysis | | | |
| **Purpose** | The hematology laboratory at least annually assesses morphologic observations among personnel performing blood cell microscopy and urine sediment microscopy to ensure consistency. | | |
| **Policy Statements** | This procedure applies to all employees working in the hematology department | | |
| **Materials** | Suggested methods to accomplish this include:   1. Circulation of blood films with defined leukocyte differential distributions and specific qualitative abnormalities of each class of cells (WBC, RBC, PLT). 2. Circulation of preserved urine sediments with defined abnormalities involving leukocytes, erythrocytes, casts, bacteria, yeast, etc. 3. Multi-headed microscopy. 4. Use of blood or marrow photomicrographs with referee and consensus identifications (eg, former CAP surveys photomicrographs). 5. Use of digital images. | | |
| **Procedure** | **Step** | Action | **Related Document** |
|  | 1 | Hematology Assessment; Staff will be assigned photos which will be graded by using CAP referee and consensus identifications.  Differentials on peripheral smears will be assigned and graded using the method of Rümke to define statistical agreement between observers.  Semi quantitative results will be graded based on quantity modifier definitions that are used in our laboratory. | [Table I - Manual Differential Confidence Table](https://starnet.childrenshc.org/References/labsop/heme/res/table-i-manual-differential-confidence-table.pdf)  [Flow Chart A - RBC Sizing and qualitative abnormalities](https://starnet.childrenshc.org/References/labsop/heme/res/flow-chart-a-rbc-sizing-and-qualitative-abnormalities.pdf) |
|  | 2 | **Urinalysis Assessment;**  Staff will be assigned photos which will be graded by using CAP referee and consensus identifications.    Semi quantitative results will be graded based on quantity modifier definitions that are used in our laboratory. | [Table Y - Quantity Modifier Definitions](https://starnet.childrenshc.org/References/labsop/ua/res/table-y-quantity-modifier-definitions.pdf)  [Table Z - Numeric Codes for WBCs and RBCs](https://starnet.childrenshc.org/References/labsop/ua/res/table-z-numeric-codes-for-wbcs-and-rbcs.pdf)  [Table D - Clarity Definitions](https://starnet.childrenshc.org/References/labsop/ua/res/table-d-clarity-definitions.pdf) |
|  | 3 | Scores of less than 100% on assigned photos will be documented and results will be discussed with each individual technologist. |  |
|  | 4 | Records of performance will be kept on file by the Technical Specialist. |  |
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| **References**  **Historical Record** | 1 | CAP Inspection Checklist, Hematology Section, # HEM.34400,  Urinalysis Section, URN.30800, 8/22/18 Revision. |  |

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| **Version** | **Written / Revised by** | **Effective Date** | **Summary of Revisions** |
| 1 | Al Quigley | 11/25/19 | Initial Version |