|  |  |  |
| --- | --- | --- |
| **St. Anthony**  **Regional Hospital**  POLICY/PROCEDURE | Lab Director |  |
| Lab Manager |  |
| Laboratory | Department: Hematology | |
| **Title: SOP.HEME.008 Manual Differentials 20220920** | | |

**Procedure**

1. Place the stained slide on the stage and focus under low power. Move the objective to 40X for estimations. Use 50X or 100X for manual differentials.
2. Position the slide to the spot where the red blood cells are evenly distributed within the feathered edge of the slide. Count the appropriate number of white blood cells accordingly based on the patient’s white blood cell count.
   1. ≤ 0.4 K/mm3 WBC – count 25 white blood cells.
   2. 0.5 – 1.0 K/mm3 WBC – count 50 white blood cells.
   3. > 1.0 K/mm3 WBC – count 100 white blood cells.
3. For identification of cells refer to the reference manuals located in hematology. If there are questionable cells then refer them to the laboratory supervisor, manager, or pathologist.
4. The following results must be referred to the pathologist following *SOP.HEME.019*
5. *Pathologist Review*:
   1. When there are very immature white blood cells.
   2. When the smear reveals unidentifiable white blood cells.
   3. When the smear reveals an apparent, but previously undiagnosed leukemia.
   4. When the smear reveals more than an occasional hypersegmented neutrophil.
   5. Anytime the hematology tech feels uncertain about the differential.