RBC count using Hemocytometer

Prepared by
Hadeel Al Sadoun
Preparation of the slide

Step 1
Place the cover slip

Step 2
Dilute the sample 1:200

Step 3
load

Step 4
Count in the small 5 center squares for RBC
Sample Dilution

- Dilution is made 1:200 with normal saline

  - 1:200 dilution
    - To reduce the total number of RBC to a be able to count it manually.
    - N.R: (RBC **M:** 4.3-6.2 x 10⁶/µL) (F: 3.8-5.5 x 10⁶/µL)

- Dilution with normal Saline:
  - Maintain the normal disk shape of the RBC
  - Prevents autoagglutination
Count the number of cells in the small 5 squares in the center of hemocytometer

These 5 squares equals to 1/5 of the whole center square ⇒ \( \text{no. of cells counted} \times \text{dilution factor} \times (200) \)

\[
1/5 \times \text{volume (0.1)}
\]

OR: \( \text{number of cell counted} \times \text{dilution factor} \times 5 \)

\[
\text{volume (0.1)}
\]

\[= \text{cell/µL} \]