

Procedure: Hematology Reference Ranges	Section: HCO100
Site: Main Laboratory	Manual: Hematology Rev. 5
Distribution: Kelowna, Penticton	KE Control Documents 1 of 4
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**TITLE: VML Hematology- Adult Reference Intervals**

WBC	4.0 – 10.0 x 10 <sup>9</sup> /L
RBC –Male RBC-Female	4.4 – 5.8 x 10 <sup>12</sup> /L 3.9 – 5.2 x 10 <sup>12</sup> /L
Hgb- Male Hgb- Female	135 – 170 g/L 120 – 160 g/L
Hct- Male Hct- Female	0.41 – 0.51 L/L 0.37 – 0.47 L/L
MCV	80 – 97 fl
MCH	26 – 32 pg
MCHC	320 – 360 g/L
Platelets	150 – 400 x 10 <sup>9</sup> /L
ESR Male ESR Female ESR Children	0 – 10 mm/ 1hr 0 – 20 mm/ 1hr 0 – 10 mm/ 1hr
Reticulocyte Count	35 – 120 x 10 <sup>9</sup> /L (0.5 – 2.0%) Manual Method  25 – 100 x 10 <sup>9</sup> /L Automated Method
Eosinophil Count	0.04 – 0.50 x 10 <sup>9</sup> /L

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<u>WBC Differential</u>	<u>Absolute x 10<sup>9</sup>/L</u>
Neutrophils	2.0 – 7.5
Bands	0.0 – 0.4
Lymphocytes	1.5 – 4.0
Monocytes	0.2 – 0.8
Eosinophils	0.0 – 0.5
Basophils	0.0 – 0.1
IG's	0.0 – 0.1

<b>Adult Normal Range</b>	
<b>INR-Non-anticoagulated patient</b>	0.8 – 1.2
PT (Prothrombin Time)	9.6-11.6 secs
APTT	23-36 secs
<b>Children: INR</b>	
Male age 1 – 5 years	0.8 – 1.1
Female age 1 – 5 years	0.8 – 1.1
Male age 6 – 17 years	0.8 – 1.2
Female age 6 – 17 years	0.8 – 1.2

### **Anticoagulated patient**

Target INR is 2.5 with a range of 2.0-3.0 for most indications for Warfarin therapy.

Target INR is 3.0 with a range of 2.5-3.5 for the following indications:

- Mechanical heart valves in mitral position
- Non-bileaflet valve in aortic position (establish desired range with specialist)

**Note:** Please follow local cardiologist's recommendations if different from above.

**A printed copy of this document may not be the most recent. The most current version is available at:** P:\HEMATOL\Procedure Manuals\Hematology Procedure Manual\HCO100 Hematology Reference Ranges.doc NEW NOV.doc

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### **Manual Methods**

ANA	Negative
Mono Test	Negative
Blood Parasites	Negative (none seen)
Eosinophil Smears(nasal/sputum)	Negative (none seen)
TTG	< 16 units – Negative

**Note:** This TTG assay is an IgA based method and may be falsely negative in IgA deficient patients.

### **FIT**

FIT	Negative- 0 – 49ng/ml
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**Note:** Patients who are average risk should be re-screen in two years

### **References**

1. Sysmex XN-2000 *Instructions for Use* (North American Edition), Sysmex Corporation, Kobe, Japan. “p.14-15”
2. BCGuidelines.ca: Warfarin Therapy Management (2015)
3. BC Children’s Hospital
4. Bio-Rad Manufacturer’s Reference Range
5. BC Colon Screening Program 2015
6. BC Guideline for Warfarin (April 2015)
7. Sources of Adult CBC/WBC Differential data;
  - VML local population study July 1, 2016 – January 31, 2017
  - Manufacturer’s reference intervals (Sysmex)
  - Comparison with IHA/Lifelabs

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