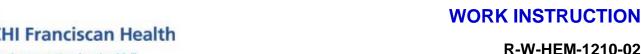
# WORK INSTRUCTION



EOSINOPHILS IN NASAL AND BODY FLUIDS					
St. Joseph Medical Center, Tacoma, WA	St. Anthony Hospital Gig Harbor, WA	Harrison Medical Center, Bremerton, WA			
St. Francis Hospital, Federal Way, WA	St. Elizabeth Hospital Enumclaw, WA	Harrison Medical Center, Silverdale, WA			
St. Clare Hospital Lakewood, WA	Highline Medical Center Burien, WA	☐ PSC			

### **PURPOSE**

Allergic and atopic conditions such as bronchial asthma and seasonal rhinitis (hay fever) are characterized by eosinophilia. In asthma, absolute eosinophil counts have been useful in management because the level of eosinophils positively correlates with pulmonary performance, indicates the adequacy of steroid therapy, and may indicate the presence of complicating infections.

#### SPECIMEN REQUIREMENT

Our best care. Your best health."

- Sputum and bronchial washing- Collect in a wide mouth plastic container.
- Nasal specimens Collect using a sterile swab.
- Stool Submitted on slide or swab.

### **REAGENTS**

- Glass slides
- Microscope
- Wright-Geimsa stain (Gram stain smears cannot be used as it will not stain eosinophils)
- Sterile cotton-tipped swab

### **QUALITY CONTROL**

- All slides must be reviewed by a second tech within 24 hours.
- Secondary review must agree within one grade of primary evaluation.

#### **PROCEDURE**

# Prepare slides

- Nasal swab roll swab across glass slide.
- Sputum, bronchial wash, and stool specimens use a sterile cotton tipped swab to transfer sample to glass slide.

Note: Eosinophils are very fragile. Preparation of the smear must be done carefully.

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- 1. Air dry the smears.
- 2. Process slides following manual Wright-Giemsa staining procedure.
- 3. Microscopically 50x (oil) Examine smears for eosinophils and neutrophils.
- 4. Slide must be reviewed by a second tech within 24 hours. Secondary review must agree within one grade of primary evaluation.

### **RESULTS/INTREPRETATION**

Result	Observed
Absent	No cells of either type seen
1+	Scattered eosinophils single, or in small clumps in at least one field per ten fields examined.
2+	(5 – 10 cells) in at least on field per 10 fields examined.
3+	(10 – 20 cells) or clumps or (30 – 50 cells) in at least one field
4+	(50 or more cells) or large clumps of cells of (100) or more in at least one filed per 10 fields examined.

# **NORMAL VALUES**

Nasal - Neutrophils: 1+ or Few Seen

Eosinophils: Absent

Sputum/Stool: Absent - No cells of either type seen

# **REFERENCES**

- John Bernard Henry, M.D., Clinical Diagnosis and Management by Laboratory Methods, 20<sup>th</sup> Ed., 2001, W.B.Saunders Company.
- David S Jacobs, M.D., Laboratory Test Handbook Concise with Disease Index, 3<sup>rd</sup> Ed., 2004, Lexi-Comp, Inc.

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