Leukocytes [#/volume] in Blood

Entity: Cluster

Concept description:	**Identification:**
Leukocytes [#/volume] in Blood test results as a single value.	*Id*: openEHR-EHR-CLUSTER.laboratory_test_panel-leucocytes.v0 *Reference model*: openEHR_EHR

Purpose	**Use**	**Misuse**	**Copyright**	**References**	**Contact**
To record Leukocytes [#/volume] in Blood test results as a single value. LOINC 26464-8 Leukocytes [#/volume] in Blood Leukocytes or white blood cells (WBCs) are immune cells that fight infection, neoplasms and other inflammatory conditions, and mediate allergic responses. There are five types of WBCs normally present in the circulation that are all derived from a similar stem cell in the bone marrow. The five type of WBCs are divided into two groups based on the presence or absence of granules in the	To record Leukocytes [#/volume] in Blood test results as a single value. Normally used in conjunction with a parent Laboratory test result (Observation) archetype.	Should not be used to record Anatomical pathology macroscopic/microscopic findings.	© openEHR Foundation	Based on NEHTA 'Pathology Test' archetype. Available from: http://dcm.nehta.org.au/ckm/OKM.html#showarchetype_1013.1.839_8 Pathology (Data Specifications) Version 1.0 [Internet]. Sydney, Australia: National E-Health Transition Authority; 2007 May 29 [cited 2011 Jul 11]; Available at http://www.nehta.gov.au/component/docman/doc_download/962-pathology-v10. Laboratory Technical Framework, Volume 3: Content, Revision 3.0 [Internet]. USA: IHE International; 2011 May 19; [cited 2011 Jul 11]. Available from: http://www.ihe.net/Technical_Framework/index.cfm#laboratory Hl7 FHIR Observation resource: HL7 FHIR; Available from http://www.hl7.org/implement/standards/fhir/observation.html	

cytoplasm. The granulocytes include the neutrophils, basophils and eosinophils. The non-granulocytes include the lymphocytes and the monocytes. The neutrophils fight infection by ingesting and digesting bacteria. Eosinophils and basophils respond to allergic reactions and are capable of ingesting antigen-antibody complexes. Monocytes phagocytose bacteria and release interferon to stimulate the immune system. Lymphocytes are divided into T-cells and B-cells. T-cell immunity is cellular and involves the activation of phagocytes and B-cell immunity uses antibodies to fight infection. Both elevated and low leukocyte counts can be markers of infection and malignancy, and low leukocyte counts are associated with a variety of primary							

and secondary immunodeficiencies, depending on the WBC type(s) that are out of range. (Mosby's manual of diagnostic and laboratory tests, Kathleen Deska Pagana; Timothy James Pagana, Elsevier St. Louis, Mo ©2010) Source: Regenstrief LOINC NB: This is not cloned in templates from laboratory-tests but specialized. The reason for this is that maintainability becomes hard when there are changes in the model, but the correspondending constraint can occur in more templates (which will happen because, ET decided to have archetypes which can occur in several templates.					

Concept	Description	Constraints	Values
Laboratory result	Specific detailed result, including both the value of the result item, and additional information that may be useful for clinical interpretation.	***Cluster*** 0..*	
Result value	Actual value of the result.	***Quantity*** 0..1	Property = Concentration Units = x 10^9/l; >=4; <=11;

Comment	Comment about the Result.	***Text*** 0..1	Text;
Reference range guidance	Additional advice on the applicability of the reference range.	***Text*** 0..1	Text;
Result status	The status of the result value.	***Text*** 0..1	Internal; 'Registered', 'Interim', 'Final', 'Amended', 'Cancelled/Aborted', 'Not requested'
Result status timestamp	The date and/or time that the entire result was issued for the recorded ‘Result status’.	***DateTime*** 0..1	Allow all
	Slot Result detail [Cluster]	Include : Cluster	Exclude : Cluster
	Slot Other detail [Cluster]	Include : Cluster	Exclude : Cluster