

Bilirubine, Total, test result

Entity: Cluster





| Concept description: | | | | Identification: | |
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| Bilirubine, Total, test results as a single value. | | | | Id: openEHR-EHR-CLUSTER.laboratory_test_panel-bilirubine_total.v0 Reference model: openEHR_EHR | |
| Purpose | Use | Misuse | Copyright | References | Contact |
| To record Bilirubine, Total test results as a single value. LOINC 1975-2 Bilirubin.total [Mass/?volume] in Serum or Plasma Component Bilirubin Property Time System Scale Method MCnc Pt Ser/Plas Qn Bilirubin is an orange-yellow pigment produced by the normal breakdown of heme, a component of the hemoglobin found in red blood cells. It is processed by the | To record Bilirubine, Total 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_H17 FHIR Observation resource: HL7 FHIR; Available from http://www.hl7.org/implement/standards/fhir/observation.html | |

liver and excreted in bile.
Conditions that cause red blood cell breakdown or interfere with liver or bile processing can cause elevated levels of bilirubin.
Bilirubin exists in many forms.
Non-glucuronidated bilirubin (also called unconjugated or indirect) is the breakdown product of heme and is not water-soluble.
Hemolytic anemias, which cause increased red blood cell breakdown, are one cause of elevated non-glucuronidated bilirubin.
Glucuronidated bilirubin (also called conjugated) is a water-soluble form of bilirubin that is made in the liver by the addition of sugar molecules to non-

glucuronidated bilirubin. Conditions that affect liver function (such as hepatitis, cirrhosis and liver tumors) or physically block the bile ducts (such as gallstones) can cause elevated levels of glucuronidated bilirubin. A third form of bilirubin is that which is bound to albumin, and it is also known as delta bilirubin because it was originally identified based on the unexpected difference between the total bilirubin level and the level of glucuronidated plus non-glucuronidated bilirubin in some patient samples. Prior to the discovery of albumin-bound bilirubin, the term "direct" bilirubin was

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| <p>used as a synonym for glucuronidated bilirubin, but direct bilirubin is actually glucuronidated PLUS albumin-bound bilirubin.</p> <p>Source: Regenstrief LOINC NB the unit umol/l is not in LOINC SNOMED 359986008 Bilirubin, total measurement (procedure) 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.</p> | | | | |
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| Concept | Description | Constraints | Values |
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|  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..* | |
| Q Result value | Actual value of the result. | Quantity 0..1 | Property = Concentration Units = mg/dl; >=0; <=1.8; Units = umol/l; >=0; <=30; |
| T Comment | Comment about the Result. | Text 0..1 | Text; |
| T Reference range guidance | Additional advice on the applicability of the reference range. | Text 0..1 | Text; |
| T 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 |