Measurement of renal clearance of creatinine (procedure)

Entity: Cluster

Concept description:	**Identification:**
Laboratory test result of the Creatinine clearance.	*Id*: openEHR-EHR-CLUSTER.laboratory_test_panel-creatinine_clearance.v0 *Reference model*: openEHR_EHR

Purpose	**Use**	**Misuse**	**Copyright**	**References**	**Contact**
To record the Creatinine clearance.	To record the Creatinine clearance rate (CCr or CrCl), the volume of blood plasma that is cleared of creatinine per unit time and is a useful measure for approximating the Glomerular filtration rate (GFR) (describes the flow rate of filtered fluid through the kidney). In order to standardize the entry of the creatinine clearance used for the kidney after other organ transplant bonus, the centers should enter the serum creatinine into the system. The system calculates the creatinine clearance using: - The Schwartz equation formula for recipients ≤18 years of age; - The MDRD for recipients >18 years of age. LOINC: The above mentioned measurement methods are not (yet) available in LOINC. Maybe we should consider to use the GFR (which is what Schwartz and MDRD seem to be intended for): http://loinc.org/reference/technical-	Should not be used to record test results of creatinine measures in serum, blood or urine.	© 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	Bert Verhees, ROSA Software

	briefs/gault-formula-for-estimating-creatinine-clearance.pdf 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..1	
Measurement of renal clearance of creatinine (procedure)	Actual value of the result, Flow Rate measured in ml/min.	***Quantity*** 0..1	Property = Flow rate, volume Units = ml/min; >=0; <=14;
Comment	Comment about the Result.	***Text*** 0..*	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	Include : Cluster	Exclude : Cluster

	Other detail [Cluster]		