

## Medtech32 Creatinine Clearance Calculator

In Medtech32 the Medical Calculator allows you to calculate patients Creatinine Clearance. (The Creatinine Clearance Calculator has been available in Medtech32 since November 2004).

The below guide has been provided to ensure this is setup correctly in Medtech32:

### Overview of Creatinine Clearance Equations

There are a number of equations that are used to estimate kidney function. The most used equations are the Cockcroft and Gault (Creatinine Clearance) and the MDRD (Glomerular Filtration Rate).

Medtech32 uses Cockcroft and Gault to calculate Creatinine Clearance, however there are different forms of the Cockcroft and Gault equations using different values for weight eg: kgs/lbs etc, therefore each form of Cockcroft and Gault equation will give a different calculation of Creatinine Clearance.

The calculation equations in Medtech32 have been clinically checked and verified for accuracy.

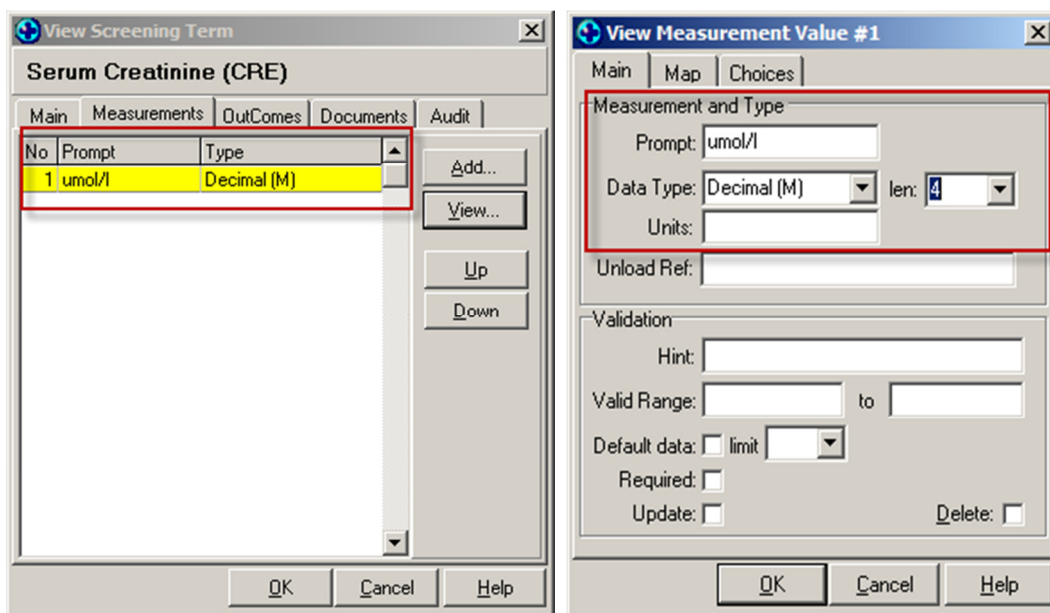
In Medtech32 any discrepancies in the calculation will be related to the measurement unit used by your lab to send through Serum Creatinine results i.e. do you receive these in umol/l, mmol/l or mg/dl. The Creatinine Clearance Calculator in Medtech32 requires mmol/l.

To ensure you get an accurate result from your Creatinine Clearance Calculator you must ensure that it is setup correctly in Medtech32. The following explains how to do this:

### Screening Term Setup

Setup ► Recall/Screening ► Screening Term

1. Confirm you have a Serum Creatinine Screening Term setup with the exact measurement unit as provided by your lab. If not please add one as demonstrated below.



2. To confirm your lab measurement unit please refer to a patients lab result.

Subject: Creatinine (Serum)	Date: 18 Jul 1998
Comment:	From:
Classification:	Status:

**Creatinine (serum):** 90 umol/L ( 60-110 )

**Ordered by:**

### Confirm your Medical Calculator Mappings are correct

Setup ► Recall/Screening ► Medical Calculator

Code	Description
AG	Age
ALC	Alcohol
HE	Height
CRE	Serum Creatinine
SMC	Smoking
WE	Weight

**View Calculator Mapping**

Main | **Audit**

Code: CRE

Description: Serum Creatinine

MedTech Units:

Screening Term: Serum Creatinine (CRE)

Calculation Ratio: 1:1

OK Cancel Help

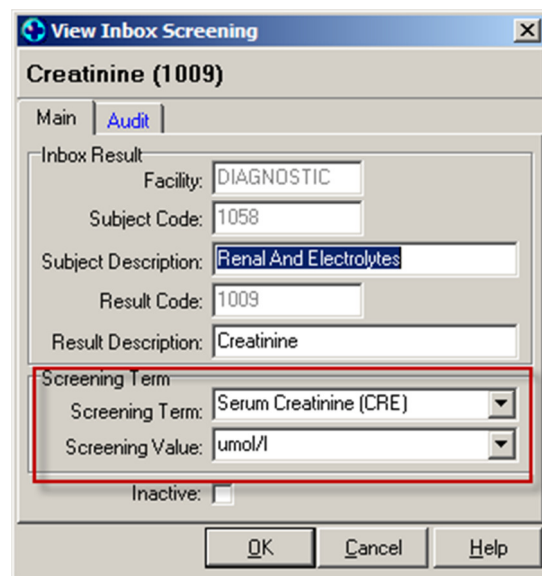
**Important Note:** The Screening Term mapped in the Calculator Mapping screen **MUST BE** your Serum Creatinine Screening Term (CRE) not the Creatinine Clearance (CRECLR) Screening Term.

## Inbox Screening Mappings

Setup ► In/Outbox ► Inbox Screening

To ensure your lab data maps into your Screening Terms, please confirm this is accurately mapped.

Facility	Subject Description	Result Description	Screening Term	Screening Value
DIAGNOSTIC	Proteins	Total protein		
DIAGNOSTIC	Renal And Electrolytes	Creatinine	Serum Creatinine (CRE)	umol/l
DIAGNOSTIC	Renal And Electrolytes	Potassium (K+)		



**View Inbox Screening**

**Creatinine (1009)**

Main | Audit

Inbox Result

Facility: DIAGNOSTIC

Subject Code: 1058

Subject Description: Renal And Electrolytes

Result Code: 1009

Result Description: Creatinine

Screening Term

Screening Term: Serum Creatinine (CRE)

Screening Value: umol/l

Inactive:

OK Cancel Help

### Run the Serum Creatinine Conversion Utility if required

Utilities ► Miscellaneous ► Serum Creatinine mgdl to mmol

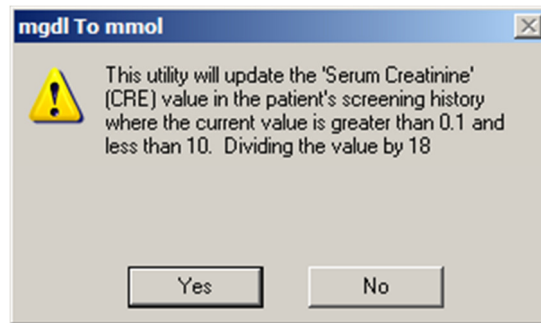
Or

Utilities ► Miscellaneous ► Serum Creatinine umol to mmol

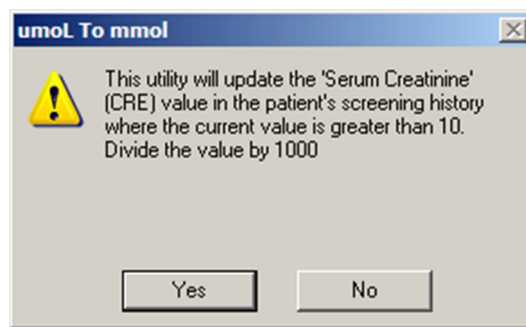
The Creatinine Clearance Calculator in Medtech32 requires mmol/l measurement units to accurately calculate Creatinine Clearance. Therefore if you are receiving results in any other format i.e. umol/L you will need to run the relevant Serum Creatinine Conversion utility.

Before running this utility, please ensure you have confirmed the measurement units your lab is sending. Please also read the explanatory screens carefully before running the conversion utility – **if in any doubt please ensure that you have a successful Medtech32 backup before you run the utility.**

1. If you are receiving Serum Creatinine lab results with the measurement unit of mg/dl, please run the *Serum Creatinine mg/dl to mmol* utility.



2. If you are receiving Serum Creatinine lab results with the measurement unit of umol/L, please run the *Serum Creatinine umol to mmol* utility.



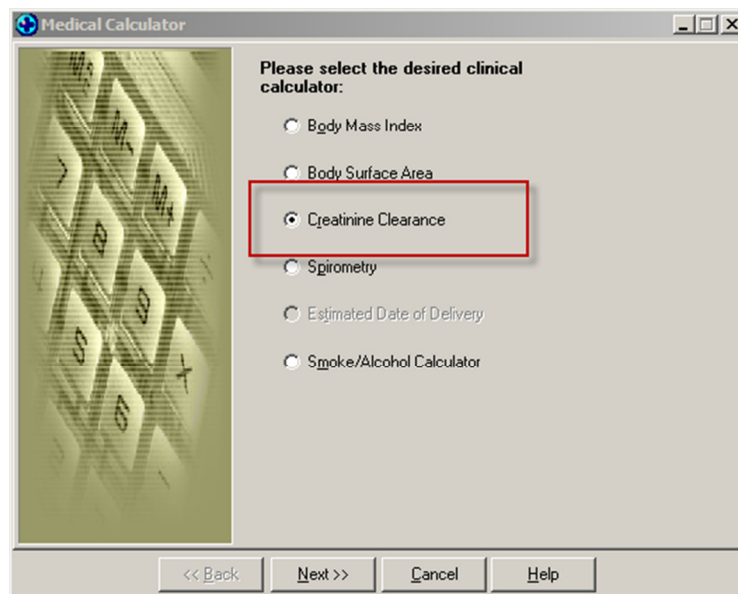
The two utilities will convert ALL entries with a **Serum Creatinine Screening Term (CRE)**

Once the above is completed you are now ready to use the Medical Calculator to calculate a Patients Creatinine Clearance.

## Using the Medical Calculator in Medtech32

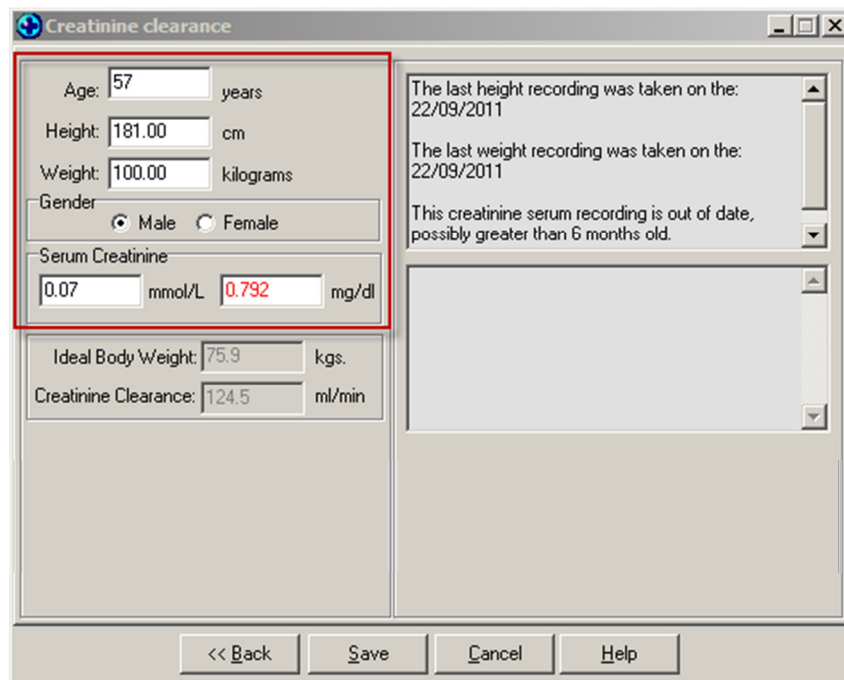


Module ► Recall/Screening ► Medical Calculator Or use the Medical Calculator icon

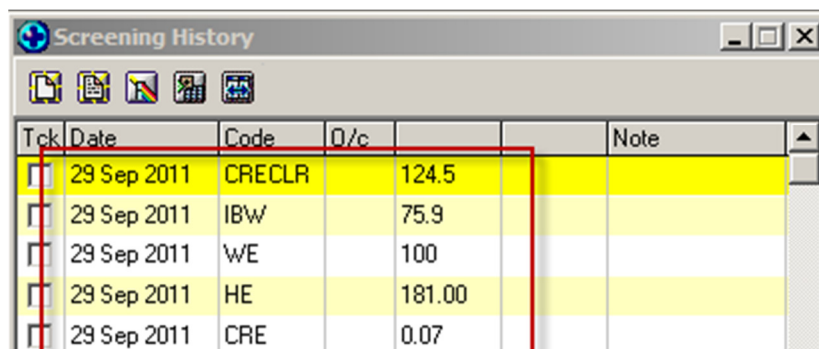


The following fields will pre populate. If the data has not pre populated, please enter the required information

- Age and Gender will pre populate from the Patient Register screen
- Height and Weight will pre populate from Patients Screening entries if available.
- Serum Creatinine mmol/L will pre populate from your Serum Creatinine Screening Term
- If the data has not pre populated, please enter the required information



Once you click on save the information will write back to patient screening, allowing you to chart and graph as required.



Tck	Date	Code	Q/c	Note
<input type="checkbox"/>	29 Sep 2011	CRECLR	124.5	
<input type="checkbox"/>	29 Sep 2011	IBW	75.9	
<input type="checkbox"/>	29 Sep 2011	WE	100	
<input type="checkbox"/>	29 Sep 2011	HE	181.00	
<input type="checkbox"/>	29 Sep 2011	CRE	0.07	

For further information on this feature, or any other query, please contact Medtech Support on 0800 2 MEDTECH (633 832) - Option 1 or send us a fax, toll free on 0800 MEDTECH (633 832) or email: [support@medtechglobal.com](mailto:support@medtechglobal.com).