*Briefing Note: 09*

*01/09/2022*

# CARBOplatin Dosing Formulae available in NCIS Med

**The implementation group have approved the following measures to facilitate NCCP recommendations for CARBOplatin dose calculations to include the use of GFR (isotope measurement), adjusted body weight and using a threshold creatinine value.**

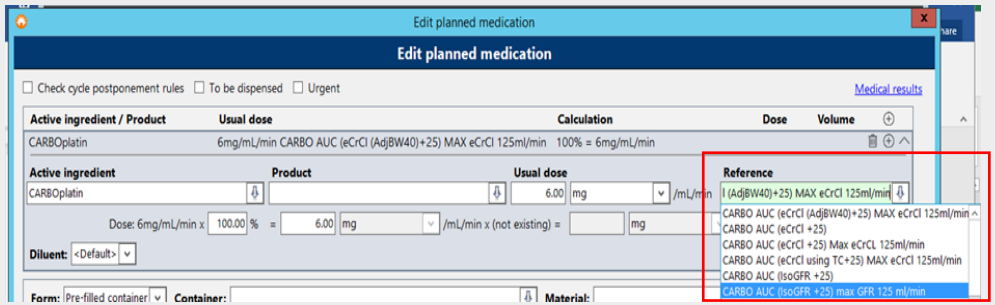
- **Note the default reference formula available at regimen level in NCIS Med is using the Calvert Formula with an estimated Creatinine Clearance based on the patient's actual weight and caps the dose at 125ml/min.**

## Medical Reference formulas

Medical reference formulae can be utilised for dose calculation in NCIS.Med
These formulae can be built at regimen level for all relevant medications for example all CARBOplatin medications in NCIS regimens are built with a medical reference GFR capping formula as standard. The reference formula can be changed during physician verification or planning by selecting another option in the reference formulae drop down list.

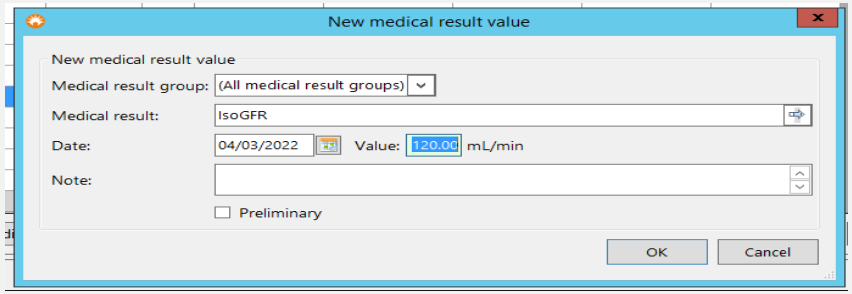
Note this process is essentially a means of calculating a dose (similar to what would normally be achieved with a calculator or on-line calculator). Subsequent doses will not be changed and consideration of the correct dose will still be needed for each cycle. This is distinct from using the modify function which changes the calculated dose and carries the change through the plan, e.g. reduce dose to 80%.

All medical reference formula that support CARBOplatin dosing now include CARBO so that they appear together in the reference formula drop down list to aid prescribing

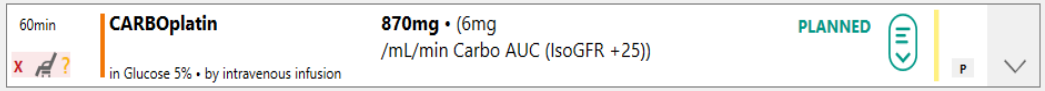


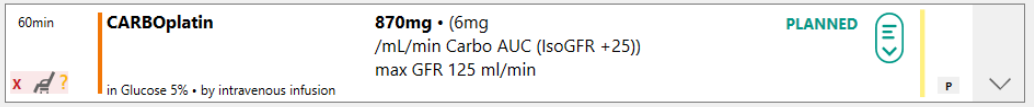

## IsoGFR

A new medical designation called IsoGFR is now available to allow the recording of the measured GFR (e.g. nuclear renogram). If this result is available, it can then be used as the reference formula for dose calculation.




Two formulas will be available to calculate CARBOplatin dose according to IsoGFR

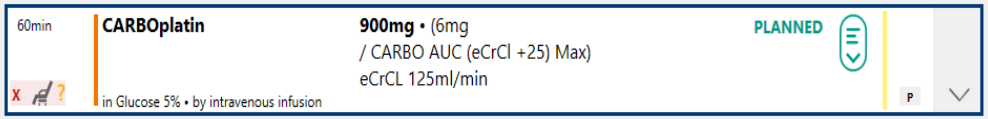



Note the orange line above indicates that a change has been made to the regimen medication

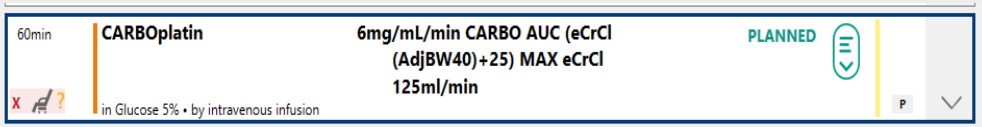
## Estimated Creatinine Clearance (eCrCl)

The designation GFR is now reserved only for measured Glomerular Filtration Rate (GFR) and where Cockcroft and Gault is used the medical designation contains eCrCl to indicate that an estimation of creatinine clearance is being used.
The reference capping formula built into regimens has now changed from AUC (GFR +25) Max GFR 125mL/min to CARBO AUC (eCrCl +25) MAX eCrCl 125 mL/min




## Adjusted Body weight (AdjBW40)

A new reference capping formula is available to accommodate dose calculation for obese or overweight patients which includes the estimated creatinine clearance calculated with adjusted body weight (note minimum height requirement of 152.4cm)

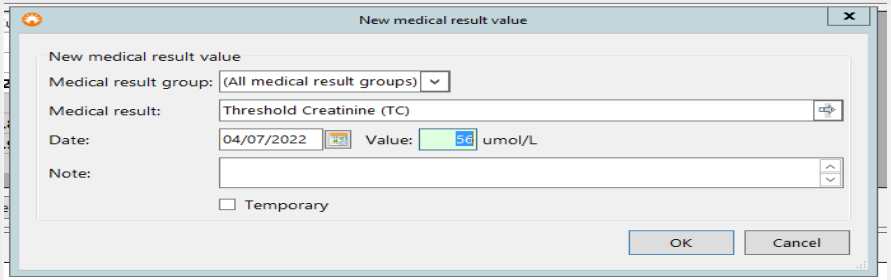



A new calculated medical result will be available to add in the medical results tab which will show the patient's Body Mass Index.

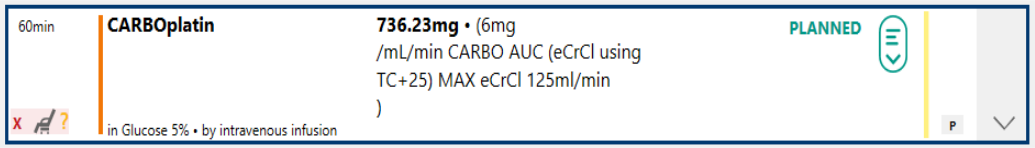
| | Current | | 04/10/2021 |
|---|---|---|---|
| **WBC** | | New | |
| **Weight** | **80kg** | New | 80kg |
| **Body Mass Index (BMI)** | **26.73m²** | Del | 26.73m² |

## Threshold creatinine (TC)

In order to accommodate using a threshold creatinine a new medical designation will be available to allow the recording of a threshold creatinine value and a new formula for calculating the estimated creatinine clearance based on a threshold creatinine value will be available.




The following capping formula is available to calculate carboplatin dose according to the inputted threshold creatinine value

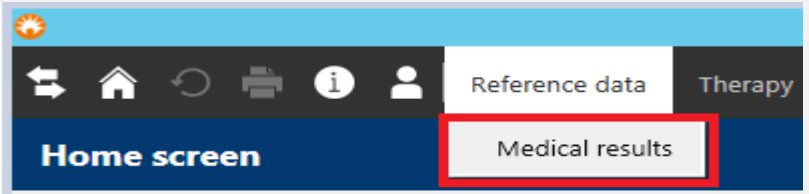



Note minimum value for threshold creatinine has been set to 50 µmol/L

## Summary

1. All medical reference formula that support carboplatin dosing will be prefixed with "CARBO" so that they appear together in the reference formula drop down list
2. A new medical designation called IsoGFR is available to allow the recording of the measured GFR (e.g. nuclear renogram). If this result is available, it can then be used as the reference formula for dose calculation.
3. The designation GFR is now reserved only for measured GFR, where Cockcroft and Gault is used the medical designation contains eCrCl to indicate that an estimation of creatinine clearance is being used.
4. For obese or overweight patients a new reference formula is available that uses adjusted body weight to calculate eCrCl
5. A new calculated medical result for Body Mass Index is available for the user in the medical results tab
6. A new medical designation is available to allow the recording of a threshold creatinine value along with a new formula for calculating the dose based on the threshold creatinine value.

Details of medical results available in NCIS Med can be viewed in read-only mode in the reference data – medical results section




### Further Information

Any comments or further information, please contact ncis@cancercontrol.ie