

NCCN Chemotherapy Order Templates (NCCN Templates®)
Appendix B

Appendix B: Carboplatin Dosing

Cockcroft-Gault Equation¹

- Substitute GFR with creatinine clearance that is calculated via Cockcroft-Gault equation

CrCl Calculation (Cockcroft-Gault Formula):

$$\text{CrCl (men; mL/min)} = (140 - \text{age}) \times (\text{weight in kg}) \div (\text{serum creatinine [mg/dL]} \times 72)$$

$$\text{CrCl (women; mL/min)} = 0.85 \times \text{CrCl (men)}$$

Calvert Equation³

- Calvert equation: Dose (mg) = Target AUC x (glomerular filtration rate [GFR]* + 25)

*GFR estimated by calculated creatinine clearance.

Maximum Carboplatin Dose Calculation²

- The FDA has recommended a maximum creatinine clearance (CrCl) for use in calculating carboplatin doses to minimize toxicity. The maximum dose is based on a GFR estimate that is capped at 125 mL/min for patients with normal renal function.

$$\text{Maximum Carboplatin Dose (mg)} = \text{Target AUC (mg} \cdot \text{min/mL)} \times (150 \text{ mL/min})$$

REFERENCES

1. Cockcroft DW, Gault MH. *Nephron*. 1976;16(1):31-41.
2. FDA Center for Drug Evaluation and Research. Carboplatin dosing. <https://wayback.archive-it.org/7993/20170113081146/http://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ucm228974.htm>. October 8, 2010. Accessed October 16, 2017.
3. Calvert AH, Newell DR, Gumbrell LA, et al. *J Clin Oncol*. 1989;7(11):1748-56.