Amikacin – Nomogram (November 2019)

An individualized pharmacokinetic dosing approach is recommended. A serum creatinine-based nomogram may be used only to guide initial dosing; however serum drug concentrations, not serum creatinine, must be used to determine subsequent dosage adjustments based on individualized pharmacokinetic dosing. Amikacin dosing recommendations in this guideline do not apply to the cystic fibrosis patient population.

Nomogram for empiric dosage interval - Extended Interval Dosing[7]

- Nomogram is to be **used only as** an initial guide to determine a dosage interval. Subsequent dosage adjustments should be made based on serum drug concentrations. Extended dosing method is not recommended in patients with unstable renal function (see other exclusions above).

CrCl (mL/min)	Dosing Interval
≥ 60	Q 24 h
40 – 59	Q 36 h
< 40	use traditional dosing method (see Part II)

Monitoring:

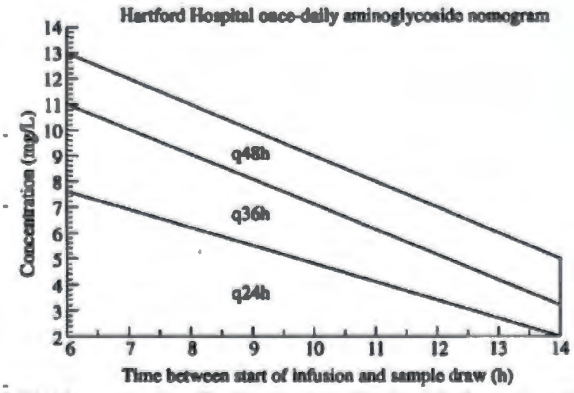
Dosage adjustment:

- **Divide the reported serum amikacin concentration by 2.** Then use that number to plot the serum concentration (y-axis) and the exact time of the concentration obtained (x-axis) on the Hartford Nomogram (see section 5.5). You may use a ruler or top straight edge of a piece of paper.

- The point of intersection will fall into one of 5 regions on the nomogram:
  - Q24h, Q36h or Q48h → continue same dose at indicated interval,
  - Above Q48h zone → discontinue and consult pharmacist for advice about dosing by traditional method,
  - Below nomogram (< 2mg/L) → give dose once-daily; if already on Q24h, assess amount of dose increase.
  - Intersection point falls on the line → choose the longer interval.

5.5 Nomograms for extended interval dosing

Hartford nomogram* for aminoglycosides[4, 7]



* Divide reported amikacin concentration by 2 before using this nomogram