

Q1 WHAT IS THE BEST INITIAL PD PRESCRIPTION?

- A. Four cycles with 2 L, 1.5% dextrose, over 9 hours. No last fill.
- B. Four cycles with 2 L, 1.5% dextrose, over 9 hours with 1.5 L, 1.5% dextrose, last fill.
- C. Four cycles with 2 L, 1.5% dextrose, over 9 hours with 1.5 L, 1.5% dextrose, last fill plus midday exchange.
- D. Four cycles with 2 L, 1.5% dextrose, over 9 hours with 1.5 L, icodextrin, last fill.

The correct answer is A.

There are several factors to consider when selecting the best prescription for a patient. These include adapting PD around one's lifestyle (patients should dialyze to live, not live to dialyze), ensuring adequate clearance, and optimizing fluid status.

This patient has significant residual function, so one way to look at this is to aim for least lifestyle-invasive PD prescription.

From a pure calculation perspective: the patient's total body water is $0.6 * \text{body weight}$ (70kg) = 42 L. For simplicity, assuming his D/P urea is 1.0 and net 0 ultrafiltration, his daily and weekly clearance of urea would be 8 L and 56 L, respectively. Therefore, his dialysis weekly Kt/V would be $56 \text{ L} / 42 \text{ L} = 1.33$. With the addition of his weekly renal Kt/V, his total Kt/V is over 1.7.

Further reading:

<https://journals.sagepub.com/doi/epub/10.1177/0896860819895364>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5967680/>

https://qxmd.com/wp-content/uploads/2017/10/USMP_76_14-00012_2-PD-Prescription-Management-Guide_FINAL.pdf