



Health Studies Collegium

Dedicated to Clinical Research & Health Policy

Intravenous Vitamin C Administration Protocol by Russell Jaffe MD, PhD

Target plasma Ascorbate Levels: Peak: 50-150 mg/dL Trough: 10-15mg/dL

One, two or three infusions per day may be necessary to reach both target peak and trough levels. Peak and trough blood ascorbate levels are drawn before (for trough) and after (for peak, from the contralateral arm) the 2nd infusion and sent for analysis for plasma ascorbate.

The infusion schedule (50 gm once or twice per day) is continued until the ascorbate results come back. Then the number of infusions per day (1-3) and the amount of ascorbate per infusion (25, 50, 75, 100, 125, 150 gm) are adjusted and peak and trough levels are tested again. This process is repeated until target levels are reached and then maintained through the program. Patient will have a peripheral vein for slow infusion over about 2 hours or through an implanted port put in for ease of administering infusions at home.

INFUSATE SOLUTION: The usual composition of the modified Myers Cocktail recommended is:

Magnesium Magnesium chloride hexahydrate 20%	2-5 mL
Calcium Calcium gluconate 10%: <i>(may be omitted in cardiac or in older patients; checking ionized calcium in plasma is suggested as guide to calcium management)</i>	1-3 mL
Vitamin B12 Hydroxocobalamin 1,000 mcg/mL	1 mL
Vitamin B6 Pyridoxine hydrochloride 100 mg/mL	1 mL
Vitamin B5 Dexpanthenol 250 mg/mL	1-2 mL
Vitamin B complex	1-2 mL
Vitamin C (Ascorbate) 500 mg/mL <i>(adjusted based on peak/ trough ascorbate levels),</i>	100-200 mL

Glyceron (deglycerolized licorice extract called glycerrhizin, if needed) 1-2mL
Glutathione, reduced (a detoxifying tripeptide, optional; not required). 1-2 mL

Q.S. final volume to one liter (1000 ml) and infuse over 2-2.5 hours or less if higher infusion rate is well tolerated

IMPORTANT NOTES:

- **If there is a standardized hyperalimentation kit, the 50g glucose can be replaced with 50g of ascorbate**
- **Peripheral vein can be used so long as the infusion is slow – over at least 2 hours**



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A TYPICAL INFUSION SCHEDULE

Day One: One or Two infusions (50 gms of sodium ascorbate in each infusion)

9 AM: First Infusion

4 PM: Second Infusion

Day Two: Two infusions (50 grams of sodium ascorbate in each infusion); peak and trough plasma ascorbate level obtained

8:30 AM Blood sample for trough level of ascorbate obtained
(e.g., sent to Nichol's Institute through Quest Labs)

9 AM: First Infusion

11 AM Blood sample for peak level of plasma ascorbate obtained (sent to Nichol's Institute through Quest Labs)

9 PM: Second Infusion

Day Three and until peak and trough blood ascorbate results are received:
Two infusions (50 grams of sodium ascorbate in each infusion)

9 AM: First Infusion

9 PM: Second Infusion

- When peak and trough ascorbate results are received, infusion ascorbate amount is adjusted to reach target peak and trough levels. Repeated peak and trough levels will be obtained until the target efficacy range is reached.
- After reaching the target range for three cycles, peak and trough levels will be checked when changing infusion parameters.
- Depending upon individual's condition, the infusion duration will be assessed.
- Any post infusion assessments that need to be conducted can be done at this time
- Dr Jaffe is available for consultation in this decision if required



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Termination: On the day planned to terminate IV ascorbate, the patient should be sure to continue oral ascorbate at sufficient daily intake to avoid rebound scurvy. Intake should be taken every six hours and once commenced should never be abruptly discontinued. The dose is based on an ascorbate calibration (C Cleanse) protocol described by **Jaffe**).

Background:

- Gaby AR. Intravenous Nutrient Therapy: the "Myers' Cocktail" Alternative Medicine Review. 2002; 7(5): 389-403.
- "How to Get Intravenous Vitamin C Given to a Hospitalized Patient: An Intravenous Vitamin C Checklist" posted at <http://www.doctoryourself.com/strategies.html> Information on the antibiotic, antiviral, antitoxin and antihistamine properties of vitamin C in large doses.
- Dr. Cathcart's comments on pH-neutral sodium ascorbate intravenous vitamin C <http://www.vitaminfoundation.org/docc.html> .
Instructions written by Dr. Cathcart to tell your doctor precisely how to make up a vitamin C IV solution:<http://www.doctoryourself.com/vitciv.html>