3% IV Acetylcysteine (NAC) Admixture Preparation Instructions

100 mL admixture

- Remove 15 mL from a 100 mL bag of D5W, NS, or 1/2 NS.
- Add 15 mL of 20% IV NAC (200 mg/mL) to the remaining 85 mL
- Calculation: 15 mL X 200 mg/mL = 3000 mg NAC
- Final volume 100 mL; concentration 3000 mg ÷ 100 mL = 30 mg/mL (3%)

250 mL admixture

- Remove 37.5 mL from a 250 mL bag of D5W, NS, or 1/2 NS.
- Add 37.5 mL of 20% IV NAC (200 mg/mL) to the remaining 212.5 mL
- Calculation: 37.5 mL X 200 mg/mL = 7,500 mg NAC
- Final volume 250 mL; concentration 7,500 mg ÷ 250 mL = 30 mg/mL (3%)

500 mL admixture

- Remove 75 mL from a 500 mL bag of D5W, NS, or 1/2 NS.
- Add 75 mL of 20% IV NAC (200 mg/mL) to the remaining 425 mL
- Calculation: 75 mL X 200 mg/mL = 15,000 mg NAC
- Final volume 500 mL; concentration 15,000 mg ÷ 500 mL = 30 mg/mL (3%)

1000 mL admixture

- Remove 150 mL from a 1000 mL bag of D5W, NS, or 1/2 NS.
- Add 150 mL of 20% IV NAC (200 mg/mL) to the remaining 850 mL
- Calculation: 150 mL X 200 mg/mL = 30, 000 mg NAC
- Final volume 1000 mL; concentration 30,000 mg ÷ 1000 mL = 30 mg/mL (3%)

Notes:

1. 20% IV N-Acetylcysteine is equivalent to 200 mg/mL.
2. The 3% solution is slightly hyperosmolar but still safe for peripheral vein administration.
3. Some IV fluid bags may contain slightly more volume than stated; this has minimal impact. Use the advertised volume for calculations.
4. Mix thoroughly after preparation to ensure uniform distribution of NAC.
5. Change each bag every 24 hours to guarantee solution stability.
6. Institutional guidance on admixture preparation may differ from the methods described above. Follow your local institutional guidelines where available.

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