

Sodium thiosulphate Intravenous for Adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- Unlicensed preparation

Available preparations

Sodium thiosulphate 25%, 50ml injection (12.5g in 50ml)

Reconstitution

Already in solution

Infusion fluids

Sodium chloride 0.9% or Glucose 5% ^(ref 1)

Methods of intravenous administration

Intermittent intravenous infusion (calciophylaxis) ^(ref 1,2)

- Dilute with infusion fluid (volume not critical)
- Administer over 30 to 60 minutes
- If on haemodialysis, administer during the last hour of, or after the haemodialysis session
- In patients who experience gastrointestinal side effects, the duration of infusion can be increased by an additional 30 to 60 minutes ^(ref 2)
- Administer via a large peripheral vein or a central line ^(ref 1)
- The residual volume in the infusion line must be flushed through at the same rate to avoid significant underdosing

Slow intravenous injection (for cyanide poisoning)

- May be administered undiluted over 10 minutes ^(ref 1, 2,3)
- Administer via a large peripheral vein or a central line ^(ref 1)

Dose in adults

Calciophylaxis ^(ref 2)

The dose of sodium thiosulphate is empiric

Dialysis patients	
Weight >60kg	The most commonly reported dose is 25 grams at each haemodialysis session (three times weekly) ^(ref 2,4)
weight <60kg	A reduction of dose to 12.5g is suggested ^(ref 2,4)
The dose may need adjustment if patient is on more frequent dialysis, or on continuous renal replacement therapies ^(ref 2,4)	

Non-HD patients- see below

Non dialysis patients		
eGFR 60mL/min/1.73m² (or more)	Less than 60kg	Give 12.5g twice weekly, initially Can be increased to five times weekly as required
	Greater than 60kg	Give 25g twice weekly, initially Can be increased to five times weekly as required
eGFR <60mL/min/1.73m²	Less than 60kg	Give 12.5g twice weekly initially Can be increased to four times weekly as required
	Greater than 60kg	Give 25g twice weekly initially Can be increased to four times weekly as required
Monitor serum bicarbonate weekly for two weeks for development of metabolic acidosis. In absence of overt metabolic acidosis (serum bicarbonate concentration below 18 mEq/L), or hypotension, increase gradually as per table above		

Cyanide poisoning ^(ref 3)

- Contact Poisons information service -see [TOXBASE](#)
- Give 25ml of 50% solution (12.5g) over 10 minutes
- In severe poisoning, a further dose may be given

Monitoring

- Monitor for injection site irritation ^(ref 1)
- Monitor for metabolic acidosis ^(ref 1)
- Monitor blood pressure ^(ref 1)
- Monitor for gastrointestinal adverse effects ^(ref 1)
- Monitor sodium levels - may cause hypernatraemia ^(ref 1)

Storage

Store at room temperature

References

1: Injectable Medicines information guide, downloaded from Medusa 29th March 2023

2: UpToDate- downloaded 29th March 2023

3: Toxbase -downloaded 29th March 2023

4:[Calciphylaxis; Risk Factors, Diagnosis and Treatment Am J Kidney Dis 2015;66\(1\) 133-146](#)