Albumin 5%

TRANSFUSION MEDICINE SERVICES

OTHER NAMES	CLASSIFICATION	ALERTS
Alburex 5% Plasbumin 5%	Plasma Substitute/Blood Derivative	Made from Human plasma

PREPARATION and ADMINISTRATION

Comes in 50 mL, 250 mL and 500 mL glass vials, ready to use solution

Intermittent Infusion	Continuous Infusion
IV Bag (large volume pump)	**IV Bag (large volume pump)**
Adults: 60-120mL/h for initial 15 min then increase to ordered rate Pediatrics: When appropriate, initiate at half the ordered rate for first 15 minutes. Increase rate if tolerating well	Adults: 60-120mL/h for initial 15 min then increase to ordered rate Pediatrics: When appropriate, initiate at half the ordered rate for first 15 minutes. Increase rate if tolerating well Subsequent vials may be hung without slowing the rate of infusion Burns (adults) – See Burn IV Fluid Resuscitation in Major Burns Order Set NS_OSICUMB

Infusion rate should normally not exceed 5 mL/min (300 mL/h)
Complete infusion within 4 hours of spiking the bottle

Requirements and Monitoring

Administration: Infusion device, IV tubing with vent

Keep unopened back up of NS with standard IV tubing nearby for prompt response if an adverse event (AE) presents.

Baseline vitals within 60 minutes before starting infusion, Reassess 15 minutes after starting infusion, Q1h (minimum), when infusion is complete and 20 minutes to 1h post completion. Q4hx24hours for inpatients **Document all vitals taken**.

Blood pressure via cuff or arterial line
Temperature
Heart Rate
Respirations
Lung sounds in non-verbal, non-oriented or pediatric patients and patients with CHF or pulmonary dysfunction

Assess patient for TACO* risk factors: Cardiac or renal dysfunction; infants/elderly; positive fluid balance; signs of cardio/pulmonary strain

*Transfusion Associated Circulatory Overload

INDICATIONS

- Restoring and maintaining circulating blood volume. The choice of albumin over colloid and crystalloid solutions will depend on the clinical situation of the individual patient.
- Shock: Emergency treatment of shock and other similar conditions involving hypovolemia. In conditions associated mainly with a volume deficit, albumin is best administered as a 5% solution; but an oncotic deficit may benefit from the 25% solution. **Note:** If there has been considerable loss of red blood cells, transfusion with packed red blood cells is indicated.
- Burn Therapy: During the first 24 hours after sustaining thermal injury, large volumes of crystalloids are infused to restore the depleted extracellular fluid volume. Beyond 24 hours Albumin 25% may be preferred for this purpose.

TRANSFUSION MEDICINE SERVICES

OTHER NAMES	CLASSIFICATION	ALERTS
Alburex 5% Plasbumin 5%	Plasma Substitute/Blood Derivative	Made from Human plasma

- Cardiopulmonary Bypass: With the relatively small priming volume required with modern pumps, preoperative dilution of the blood using albumin and crystalloid has been shown to be safe and well-tolerated.
- Acute Liver Failure: In the uncommon situation of rapid loss of liver function, with or without coma, administration of albumin may serve the double purpose of supporting the colloid osmotic pressure of the plasma as well as binding excess plasma bilirubin.
- Sequestration of Protein Rich Fluids: This occurs in such conditions as acute peritonitis, pancreatitis, mediastinitis, and extensive cellulitis. The magnitude of loss into the third space may require treatment of reduced volume or oncotic activity with an infusion of albumin.
- Hypoproteinemia: Albumin is indicated clinical situation usually associated with a low concentration of plasma protein and a resulting decreased circulating blood volume. Albumin is not indicated as a nutrient in the treatment of chronic hypoproteinemia.
- Therapeutic plasma exchange: In a therapeutic plasmapheresis (plasma exchange), a volume of circulating plasma is extracted to eliminate toxic compounds, and is usually substituted by a 5% albumin solution, or occasionally by fresh frozen plasma (from donors) to replace the plasma volume removed, and thereby maintain the blood volume.

CONTRAINDICTAED in patients at special risk of developing circulatory overload

ADVERSE EFFECTS

NEW onset of any of the following:

Hypertension/Hypotension	Significant change in cardiac rate/rhythm
Tachypnea/bradypnea/dyspnea	Severe headache
Fever/chills/rigors	Back/chest/flank pain
Puritis/urticaria/rash	Anuria/hematuria/oliguria
Bleeding/pain at IV site	Nausea/vomiting
Patient feels unwell	Unexplained anxiety

If an AE is suspected: stop the transfusion, disconnect and cap the blood tubing, initiate the backup line of NS and consult the authorized prescriber (AP) for medical management. Notify the TM lab of a suspected reaction.

- Review the product label, TM tag and patient ID to rule out a verification (clerical) error and that the expiry date and time have not passed.
- Resume transfusion cautiously as directed by AP. Directly observe patient x5min then closely observe x10min.
- Ensure TM tag, along with a copy of the documented clinical data and interventions are sent to TM lab once transfusion is discontinued or completed.

Note: AP may also require additional testing such as: blood cultures, chest x-ray, EKG, or urine specimen

COMPATIBILITY, STABILITY

- Compatible with standard electrolyte and carbohydrate IV solutions such as normal saline, Ringer's lactate, PlasmaLyte and D5W, but should not be co-infused with solutions containing alcohol or protein hydrolysates.

TRANSFUSION MEDICINE SERVICES

OTHER NAMES	CLASSIFICATION	ALERTS
Alburex 5% Plasbumin 5%	Plasma Substitute/Blood Derivative	Made from Human plasma

- Albumin **must not be diluted with hypotonic solutions such as sterile water for injection**, as it may lead to severe hemolysis.
- Do not store unused units. Return to TM

DOSAGE FORMS

- 50 mL, 250 mL and 500 mL glass vials, ready to use solution; Provided by TM

MISCELLANEOUS

- Ensure patient receives a blue transfusion notification card once per calendar year.

LIBRARIES

- Searchable Drug Library Document

REFERENCES

- CL-BP-030, IWK-625 Blood Component and Blood Product Administration – Policy and Procedure
- Canadian Blood Services. Professional Education, Albumin https://professionaleducation.blood.ca/en/transfusion/clinical-guide/albumin
- Albumin Product Monographs, found at https://www.cslbehring.ca/products/product-list; https://www.grifols.com/en/products-services/-/product-search/canada