

**Saskatchewan Association of Naturopathic Practitioners
Policies and Procedures**

Intravenous Therapy -
Adopted March 13, 2013

For the purpose of this policy, Intravenous (I.V.) Therapy refers to the use of injectable nutrients administered intravenously to supplement and support health.

**REQUIREMENTS FOR THE PRACTICE OF I.V. THERAPY IN
SASKATCHEWAN**

Registrants wishing to practice I.V. Therapy must comply with the following requirements:

- Successful completion of an approved course* on IV therapy technique and emergency medicine specifically related to I.V. Therapy, with written and practical exams (see course outline – prerequisite requirements, Appendix I). The Board must approve the course.
- A valid CPR Level-C and Emergency First Aid certification (Canadian Red Cross, St. John's Ambulance, or equivalent). This requirement applies to all registrants and is recommended for any staff working directly with I.V. Therapy in the clinic.
- One advanced emergency training course such as Advanced Medical Life Saving (AMLS), Dr. Prytula's Emergency Procedures Course for Clinic Setting, BDDT-N PT Emergency Medicine.
- Registrants who have passed the I.V. Therapy examinations must then apply to the Board by completing the I.V. Therapy Certification (Appendix II) application, within six months following completion of the I.V. Therapy examinations.
- Registrants must have malpractice insurance in place that will cover the N.D. and their staff for the practice of I.V. Therapy. Proof of this insurance coverage must be forwarded to the Board with the Application for Certification.
- A minimum of 10 hours of continuing education related to I.V. Therapy will be required within any two calendar years. These hours can be within the total number of continuing education hours required for members.
- In addition to the above, it is highly recommended that the Naturopathic doctor also hold an inactive license in another jurisdiction where I.V. therapy is regulated.

NOTE:

For Policy applying specifically to Chelation and Parenteral Therapy, please refer to the SANP REQUIREMENTS FOR THE PRACTICE OF CHELATION AND PARENTERAL THERAPY IN SASKATCHEWAN

TREATMENT OF PATIENTS USING I.V. THERAPY

I.V. Therapy poses significant risk for patients. The following comprise the basic standards of care for all patients. High-risk patients require extra vigilance due to their risk of contracting infection or having their condition exacerbated. High-risk patients include, but are not limited to, people with HIV/AIDS, hepatitis B or C; those undergoing chemotherapy, radiation, radiation over-exposure or receiving immunosuppressive medications; or having had an organ transplant, recent surgery, post-splenectomy or recent burns; or who are malnourished, severely debilitated or weakened, etc.

I.V. Therapy must not be performed on individuals under the age of fourteen (14) years.

- Written consent must be obtained for this procedure
- Change sheets or table examination paper
- Wash hands with disinfectant soap
- Explain procedure; ask for and receive verbal permission before proceeding
- Ask about possible allergic reaction to disinfectant, proposed IV therapy or diagnostic substance
- Swab insertion site with alcohol; betadine may be required first for high-risk patients
- Use only disposable needle or butterfly or IV catheter
- Apply tourniquet only as long as needed and if possible avoid the use of latex tourniquets
- Use only non-latex tape to secure needle and tubing
- Mark IV drip sets with starting time and each time patient is checked. Patients should be checked every 20 – 30 minutes
- Disposable gloves should be worn when inserting and removing needles and when handling needles or tubing during administration. A new pair of gloves must be used for each patient.
- All materials that come in contact with blood or other bodily fluids including swabs, needles, butterflies, etc. should be disposed of in biohazard containers.
- Biohazard containers should be covered when not in immediate use and disposed of according to local regulations.
- Monitor the patient's alertness and physical and mental capacity after each procedure. Do not release the patient until they are safely capable of leaving on their own.
- If the naturopathic doctor designates another person to perform any portion of the procedure, the naturopathic doctor must be present on site during the entire procedure.

CLEAN FIELD:

A clean field is required for the work surface prior to the procedure. The following items should be located within easy reach in the clean field:

- alcohol, cotton swabs
- needles/butterflies/ IV catheters, syringes, administration sets
- IV bags/bottles
- vials of substances to be used in the procedure
- tape
- disposable gloves
- marking pen, and other supplies that may be required.

Biohazard containers should be within easy reach of the clean field, but not in the clean field.

Other necessary procedures include the following:

- The written protocol must be posted near but not on the clean field
- Hands should be washed with a disinfectant soap
- Clean paper is laid out on the work surface
- Procedure equipment is placed within the clean field
- Each vial is disinfected with a separate alcohol-soaked cotton swab
- The precise amount of each substance is drawn into the syringe
- If the syringe contents will be placed in an IV bag or bottle, its port must be disinfected with an alcohol-soaked swab
- Once the clean field is completed, the administration set is assembled in the clean field.

INJECTION SITE:

1. Practitioners performing injections should wear non-latex gloves during the insertion and removal of the needle and for breakdown of the administration set.
2. The median cubital vein should be used as little as possible in order to prevent scarring that would limit its access for venipuncture. This may not be possible in all patients as each has a different vein pattern.
3. The injection site should be checked for scars, infection, skin abnormalities or conditions, cuts, irritations and vein valves. All of these should be avoided when finding an injection site.
4. Swab the insertion site with alcohol (betadyne may be required first for high-risk patients). A clean cotton swab should be used for each site
5. Injections are performed with the needle bevel up.
6. A needle that will remain in the patient for any length of time (e.g. an IV) must be secured in place with non-latex tape.
7. The injection site should be periodically monitored to ensure that the injection process is operating smoothly and there are no complications.
8. When the administration is complete, the needle should be removed and a clean cotton swab pressed on the site for a minimum of one minute. A longer time may be required for patients on anticoagulant therapy. The site should be covered with a bandage before the patient is allowed to leave.
9. All materials (e.g. needles, administration set, cotton swabs, etc.) that have come in contact with blood or body fluids must be disposed of in a biohazard container. The container must be disposed of according to local regulations.

EMERGENCY PREPAREDNESS AND HANDLING:

The practitioner must have a valid certificate in CPR Level-C and Emergency First Aid certification (Canadian Red Cross, St. John's Ambulance, or equivalent). This certification is recommended for any staff working directly with I.V. Therapy in the clinic.

Oxygen should be available on site in the procedure room and staff should be trained in its use.

Epi-pens must be available on site in the procedure room and the naturopathic doctor should be familiar in their use.

Any other appropriate antidote for the IV therapy or diagnosis procedures should be in the procedure room and the naturopathic doctor should be trained in its use.

Hot and cold compresses, stethoscope and sphygmomanometer should be on site in the procedure room.

A telephone for dialing emergency numbers should be located in the procedure room. Posted next to the telephone should be '911' and other appropriate local emergency numbers.

An emergency plan should be prepared, reviewed with staff monthly, modified as conditions change (with staff notified of any changes), and posted in the procedure room.

The emergency plan will indicate what tasks are to be performed and who will perform each task. It will also describe the best way to exit the building, and include directions for what to tell emergency personnel so they can find the street, building, and procedure room.

The office **must** be equipped with the following emergency supplies:

- Bag and mask for CPR
- Benadryl for early symptoms of respiratory distress and skin manifestations
- Normal saline bags
- Snacks - e.g. juice and crackers
- Large gauge catheters
- Oxygen tank
- Epi-Pen
- One separate 50 mL vial of Calcium gluconate or chloride
- One separate vial of Magnesium chloride
- Pillows and blankets

It is **highly recommended** that the office also be equipped with the following with the emergency supplies:

- Ammonia inhalants
- Smelling salts
- Water-soluble gel (xylocaine gel)
- Rescue remedy

All emergency supplies must be checked on a monthly basis to ensure proper functioning and that supplies are still effective within their expiry date.

STORAGE OF MATERIALS:

All materials used for IV therapy and diagnosis must be securely stored in order to restrict their access; stored in, or readily accessible to, the procedure room; and stored at the required temperature and away from light.

Injectable substances should be refrigerated if required, and stored away from light.

Administration sets, needles/butterflies, syringes, IV bags/bottles and any other supplies should be stored securely and away from light.

Nearly all IV inventory comes with an expiration date. The expiry date must be respected and all expired inventory should be disposed of in the appropriate manner.

PROCEDURE ROOM:

The practitioner may elect to perform IV therapy or diagnosis either in her/his regular office or in a separate procedure room.

The selected room should be well ventilated, temperature controlled, well lit, contain appropriate chairs or tables for performing IV therapy or diagnosis, and be easily accessible to emergency personnel should their assistance be required.

A separate refrigerator is required for storage of vials containing injectable substances that require refrigeration. Lockable cabinets should be used to store all other IV inventory.

Emergency supplies should be in the procedure room or on a moveable cart that can be placed in the office where the procedures will be performed.

A clean work surface is required, upon which a clean field can be prepared.

Biohazard containers should be available in the procedure room. When not in use they should be secured to prevent accidental exposure to staff.

VITAMINS, MINERALS AND COFACTORS:

The practitioner must know the following information and be able to correctly address any patient concerns:

- Indications and contraindications, allergic reactions, adverse reactions and antidotes for all substances and combination of substances used.
- Recommended dose for each substance used.
- Mixing “Dos and Don’ts” for all of the substances in the office.
- Rate of administration for each substance or combination of substances.
- Any other safety issues related to use of these substances.

I.V. THERAPY AUDITS

To ensure proper preparedness, the SANP I.V. Therapy Committee will conduct audits at random to ensure Emergency plans and safety handlings are in place and above procedures and policies are followed.

APPENDIX I

Prerequisite Course Outline for I.V. Therapy

The prerequisite course in I.V. Therapies must be a minimum of 16 hours, and must cover the following topics for Registrants to be eligible for certification in Saskatchewan:

1. Clinical rationale for IV therapy
2. Basic Science related to IV therapy
3. Equipment necessary to perform I.V. Therapy
4. Indications and Contraindications of I.V. Therapy
 - Subcutaneous
 - Intramuscular
 - Intravenous
 - Intradermal
5. Patient Assessment for I.V. Therapy
 - health history
 - blood work
 - urine analysis
6. Sterile Technique and Waste Disposal for I.V. Therapy
7. I.V. Therapy Techniques
8. I.V. Fluids
 - hypotonic, isotonic, hypertonic fluids
9. Calculation of Osmolarity
10. Rate and Administration of I.V. Infusions
 - determining factors for infusion rates
 - calculation of flow rates
 - factors affecting flow rates
11. Emergency Procedures for I.V. Therapy
 - including the use of oxygen, epinephrine, epi-pens
12. Charting and writing orders for I.V. Therapy
13. Formulas - Vitamins and Minerals, Homeopathics, Botanicals (see Appendix III attached), with appropriate dosages
14. Quality assurance of injectables
15. Each person must start a minimum of 5 intravenous lines and perform a minimum of 5 intravenous push.
16. References -- where to get injectables for I.V. therapy
17. Separate written and practical examination.

APPENDIX II
APPLICATION FOR CERTIFICATION TO PRACTICE
IV THERAPY IN SASKATCHEWAN

Please Type or Print Clearly

Surname: _____
First Name(s): _____
SANP Regis. # _____

As you would like it to appear on your Certificate

CLINIC ADDRESS

Name of Clinic (if any): _____
Street Address: _____
City: _____
Province: _____
Postal Code: _____
Phone: _____
Fax: _____
E-mail: _____

HOME ADDRESS

Street: _____
Apt. No.: _____
City: _____
Province: _____
Postal Code: _____
Phone: _____

Malpractice Insurance carrier:
Policy #

I, _____, hereby agree to the terms and conditions as outlined in
the I.V. Therapy policy.

Signature: _____
Date: _____

Please include proof of your valid CPR Level-C and Emergency First Aid certification, and
your malpractice insurance policy, which includes coverage for I.V. Therapy.

APPENDIX III

I.V. THERAPY INJECTABLES

The following substances are approved for use in I.V. Therapy. (The use of substances not included in this list is not permitted unless the member is certified to do so by the SANP under a separate policy).

VITAMINS

Cholecalciferol and Ergocalciferol - Vitamin D3 and D2

Alpha Tocopherol - Vitamin E (aqueous)

Ascorbic Acid - Vitamin C

B-Complex formulas

Biotin

Calcium Pantothenate/Dexpanthenol - Vitamin B5

Folic Acid

Methylcobalamin, Cyanocobalamin, Hydroxycobalamin - Vitamin B12

Niacin and Niacinamide - Vitamin B3

Phytonadione - Vitamin K1

Pyridoxine Hydrochloride - Vitamin B6

Retinol - Vitamin A - 10,000 IU's or less per dose

Riboflavin-5-Phosphate - Vitamin B2

Thiamine Hydrochloride - Vitamin B1

MINERALS

Boron

Calcium Gluconate, Calcium Chloride, Calcium glycerophosphate

Chromium

Copper Sulfate, Cupric Chloride

Iron derivatives

Magnesium Sulfate/Chloride

Manganese

Molybdenum

Potassium Chloride, Potassium Phosphate

****NEVER IV PUSH POTASSIUM****

Rubidium

Selenium

Sodium Bicarbonate

Sodium Iodide

Strontium

Vanadium

Zinc Chloride, Zinc Sulfate

AMINO ACIDS

Adenosine

Alanine

Arginine

Aspartic acid

Carnitine
Citrulline
Cystine
Glutamic acid
Glycine
Histidine
Isoleucine
Leucine
Lysine
Methionine
Mixed Amino Acids
Ornithine
Phenylalanine
Proline
Selenomethionine
Serine
Taurine
Threonine
Tryptophan
Tyrosine
L-Glutamine

BOTANICALS

Aesculus
Crataegus
Echinacea
Glycyrrhizic Acid
Viscum

IMMUNE AGENTS

Hydrochloric acid 1:1000, 1:500
Hydrogen Peroxide
Pycnogenol
Glutathione

MISCELLANEOUS

Bee Venom
Calcium 2-aminoethylphosphate (Ca-AEP or Ca-2AEP)
Carbohydrates in water
Carbohydrates in sodium chloride solution
Collagenase
D-alpha lipoic acid
Histamine
Homeopathic solutions
Hyaluronic acid
Methylsulfonylmethane (MSM, or dimethylsulfone)
Phosphatidylcholine

Pangamic acid

Plasma volume expanders (dextran, sodium, chloride)

Ringer's solution (sodium, chloride, potassium and calcium)

Saline solution

Sterile water (must be made isotonic prior to administration with addition of other ingredients)

Vitamin and Mineral Mixes