

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

Intravenous Therapy -

Adopted March 13, 2013, Revised November 18, 2014

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

REQUIREMENTS FOR THE CERTIFICATION AND 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.
- 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.
- One board-approved 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. This emergency training must be first completed within six months of IV certification and repeated once every three years.
- CPR Level-C/Health Care Provider Level (Canadian Red Cross, St. John's Ambulance, or equivalent) which must be renewed every two years. This requirement is also recommended for any staff working directly with I.V. Therapy in the clinic.
- Registrants must have malpractice insurance in place that will cover the N.D. and their staff for the practice of I.V. Therapy covering a minimum liability of \$3,000,000. Proof of this insurance coverage must be forwarded to the Board with the Application for Certification and Annual Renewal.
- A minimum of 10 hours of continuing education related to I.V. Therapy will be required within any two calendar years. These hours are in addition to I.V. emergency training, CPR re-certification and the total number of continuing education hours required for all members.
- In order to maintain I.V. Therapy Certification, the annual renewal form must be submitted to the SANP Registrar along with proof of CPR, emergency training, malpractice insurance, as well as completion of a self-audit (Appendix IV). This will be due with SANP annual membership renewal.
- It is also highly recommended that I.V. registrants have completed a prescriptive authority training course and have passed the exams. This will eventually become a mandatory requirement.

FAILURE TO MEET REQUIREMENTS FOR CERTIFICATION

- Failure to meet the above requirements by due date, or late application, will result in a fine. This sum will be payable to the SANP. If the application date is missed or incomplete, registrants will have a 6 month grace period to apply. The next application period will be due at the regular annual renewal date.
- Failure to comply and make application by the 6 month extension date will result in a cease and desist letter in regard to intravenous therapy. Such a letter is a revocation of IV certification.
- Failure to cease and desist after receiving such a letter will result in a suspension of licence to practice naturopathic medicine by SANP.

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, those under the age of 14, 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.

- Written consent must be obtained for this procedure
- Change sheets or table examination paper
- Explain procedure; ask for and receive verbal permission before proceeding
- Ask about possible allergic reaction to disinfectant, proposed IV therapy or diagnostic substance
- I.V solutions must be prepared by a licenced registrant with IV certification
- Wash hands with disinfectant soap
- Clean paper is laid out on the work surface to establish the clean field
- The following procedure equipment is assembled 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 each disinfected with a separate alcohol-soaked cotton swab
 - non-latex tape
 - disposable non-latex 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.
- The written protocol must be displayed near but not on the clean field
- 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
- Disposable non-latex 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
- 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
- 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
- Swab the insertion site with alcohol (betadine may be required first for high-risk patients). A clean cotton swab should be used for each site
- Use only disposable needle or butterfly or IV catheter
- Injections are performed with the needle bevel up
- Apply tourniquet only as long as needed and if possible avoid the use of latex tourniquets
- 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
- Mark IV bag with patient name and date. Appropriate records should be kept which include time and vitals (including pulse, BP, SpO₂) before, during and after I.V. administration
- The injection site should be periodically monitored to ensure that the injection process is operating smoothly and there are no complications Patients should be checked at least every 20 – 30 minutes
- Employees may monitor IV procedures, however it must be demonstrable that they have been trained to do so competently
- 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.
- 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.
- 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.
- If the I.V. certified registrant designates another person other than another licenced registrant with IV certification to perform any portion of the procedure, that registrant must be on the premise for the duration of the procedure.

EMERGENCY PREPAREDNESS AND HANDLING:

An Automated External Defibrillator (AED) must be available on site in the procedure room and all staff should be trained in its use.

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

Epi-pens or epinephrine vials with appropriate needles and syringes 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:

1. Oxygen tank with regulator and nasal cannula or mask
2. AED
3. Epinephrine ampoules and needles or an epi-pen
4. Magnesium chloride and/or magnesium sulphate - 50ml vial
5. Calcium gluconate or calcium chloride - 50ml vial;./
6. Dextrose 50% - 50 ml vial and/or D5W 500ml bag
7. Benadryl oral liquid or tablets
8. Aspirin tablets (chewable)
9. Surgical gloves
10. Micropore tape
11. Alcohol swabs
12. Band-aids
13. Scissors
14. Gauze and cotton swabs
15. Surgical steel clamping forceps
16. Tourniquet
17. Angiocath
18. Infusion set winged
19. Y port infusion set
20. Assorted needles and syringes, ie. 1,3,30,60 ml and 18,20,22,25g
21. Juice and snack and/or dextrose tablets
22. Hot and cold compresses
23. Stethoscope and sphygmomanometer
24. Notebook for vitals, meds given, etc in case of transfer of care

25. Pen
26. Checklist signed that dates are good and products in working order

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

- Ammonia inhalants/smelling salts
- Heparin
- Nitrospray and/or nitro pills
- Lasix
- Bag valve mask and assorted size airways
- 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.

A separate refrigerator is required for storage of vials containing injectable substances that require refrigeration.

Lockable cabinets should be used to store administration sets, needles/butterflies, syringes, IV bags/bottles and all other IV inventory.

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.

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 will conduct on-site audits by random selection to ensure Emergency plans and safety handlings are in place and above procedures and policies are followed. Submission of a completed self-audit form is also required with the Annual Renewal in order to maintain IV Certification.

Every new applicant will be audited within one year to ensure that they are in compliance with this policy and practicing safely.

Audits will be randomly assigned. Certified registrants will be given prior notice of an audit. If they do not allow for an audit an immediate cease and desist order will be given to the registrant by the SANP.

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. and Injection Therapy
(Subcutaneous, Intramuscular, Intravenous, Intradermal routes of administration)
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 Osmolality
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. 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: _____

I.V. Therapy Training Course: _____

Date: _____

(attach proof of course completion and passed exams achieved within the six months prior to this application)

Malpractice Insurance carrier: _____

Policy # _____ Extent of Coverage : \$ _____

(attach proof of insurance coverage – minimum \$3,000,000 liability)

CPR course/level: _____

Date: _____

(attach proof of valid CPR certificate – Level-C or Health Care Provider Level)

Emergency Training course: _____

Date (completed or scheduled): _____

(attach proof of Board-approved emergency training course completed within six months of I.V. therapy training course)

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

Signature: _____ Date: _____

APPENDIX III

I.V. THERAPY INJECTABLES

The following substances are approved for use in I.V. and Injection Therapy. It is expected that the registrant will have the training and competence specific to any injectable they chose to administer.

Registrants are responsible to keep abreast of current standards in regards to the medicines and procedures that they provide. It is the responsibility of the registrant to contact the SANP Best Practices Committee to help to develop policy pertaining to such medicines. ie Specifics around ALA for IV.

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
Ginseng (caraseng)
Glycyrrhizic Acid
Turmeric (curcumin)
Viscum

IMMUNE AGENTS

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

MISCELLANEOUS

Artesunate
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

APPENDIX IV

**ANNUAL RENEWAL 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: _____

Malpractice Insurance carrier: _____
Policy # _____ Extent of Coverage : \$ _____
(attach proof of insurance coverage – minimum \$3,000,000 liability)

CPR course/level: _____
Date last renewed: _____
(attach proof of valid CPR certificate – Level-C or Health Care Provider Level)

Emergency Training course: _____
Date last renewed: _____
(attach proof of Board-approved emergency training course)

I.V. Therapy Continuing Education:
(attach proof of completion of a minimum of 10 hours within any two calendar years -
courses must be Board-approved and are in addition to I.V. emergency training, CPR re-
certification and the total number of continuing education hours required for all members)

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Course: _____
Instructor: _____ Date: _____
CE hours: _____

Total CE hours: _____ (10 hours required with any two calendar years)

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

Signature: _____ Date: _____

SELF-AUDIT CHECKLIST

Please initial items to indicate your compliance with each requirement.

REQUIRED ON-HAND EQUIPMENT AND SUPPLIES:

- ___ Oxygen tank with regulator and nasal cannula or mask
- ___ AED
- ___ Epinephrine ampoules and needles or an epi-pen
- ___ Magnesium chloride and/or magnesium sulphate - 50ml vial
- ___ Calcium gluconate or calcium chloride - 50ml vial; /
- ___ Dextrose 50% - 50 ml vial and/or D5W 500ml bag
- ___ Benadryl oral liquid or tablets
- ___ Aspirin tablets (chewable)
- ___ Surgical gloves (non latex)
- ___ Micropore tape
- ___ Alcohol swabs
- ___ Band-aids
- ___ Scissors
- ___ Gauze and cotton swabs
- ___ Surgical steel clamping forceps
- ___ Tourniquet
- ___ Angiocath
- ___ Infusion set winged
- ___ Y port infusion set
- ___ Assorted needles and syringes, ie. 1,3,30,60 ml and 18,20,22,25g
- ___ Juice and snack and/or dextrose tablets
- ___ Notebook – for vitals, meds given, etc – transfer of care
- ___ Pen
- ___ Emergency supplies checklist signed that dates are good and products in working order
- ___ Biohazard/Sharps disposal containers
- ___ IV bags - sterile carrier solutions
- ___ Sterile solutions for injection
- ___ Hot and cold compresses
- ___ Stethoscope
- ___ Sphygmomanometer

Additional recommended supplies:

- ___ Ammonia inhalants/smelling salts
- ___ Heparin
- ___ Nitrospray and/or nitro pills
- ___ Lasix
- ___ Bag valve mask and assorted size airways
- ___ Water-soluble gel (xylocaine gel)
- ___ Rescue remedy
- ___ Pulse oximeter/heart rate monitor

IV FACILITY REQUIREMENTS:

- ___ Separate refrigerator for injectables
- ___ Lockable storage for all IV supplies
- ___ IV supplies stored at required temperature and away from light
- ___ All supplies readily accessible in the IV procedure room
- ___ Procedure room with appropriate lighting, temperature control and ventilation
- ___ Procedure room easily accessible to emergency personnel
- ___ Appropriate chairs or tables for performing IV therapy
- ___ Clean work surface for preparing IV solutions
- ___ Biohazard containers secured when not in use
- ___ Emergency supplies located in the procedure room
- ___ Telephone to activate emergency services if needed
- ___ '911' and other local emergency numbers posted next to the telephone
- ___ Emergency plan posted in the procedure room

EMERGENCY PREPAREDNESS AND QUALITY ASSURANCE:

- ___ Emergency plan indicating task to be performed and by whom
- ___ Emergency plan indicates best way to exit the building
- ___ Emergency plan includes directions for what to tell emergency personnel so they can find the street, building, and procedure room
- ___ Monthly review of emergency plan with staff and appropriately modified as needed
- ___ Monthly review of emergency kit supplies
- ___ Monthly review of IV supply inventory for expiry dates