Guidelines

Intravenous Therapies

QUALIFICATIONS

- Manitoba Naturopathic Association (MNA) approved intravenous course-See *MNA Advanced Certification Continuing Education Policy* for details
- *CPR for Health Care Providers Level C with AED*-recertification every two years
- Accessing Central Venous Access Devices (CVAD) such as Port-A-Caths and PICC Lines require proof of certification prior to access. See Continuing Education Policy.
- Emergency Intravenous Medicine training-recertification every three years
- Participation in at least one annual intravenous medicine in-service (see *Appendix I*)
- A list of Permissible Substances is located in *Appendix II*

IV CLINIC REQUIREMENTS

- A Naturopathic Doctor certified in IV Therapies must always be on site during the provision of IV therapies
- The practice of Intravenous Therapies (insertion and removal) including the preparation and compounding of IV bags are reserved acts. A Naturopathic Doctor may designate a regulated health professional who is registered in Manitoba and certified to prepare, compound and perform IV therapies. Clinic staff may observe patients undergoing treatments; they may not compound, insert or remove IV's
- An AED must be on the premises and in good working order at all times
- Liability insurance: $3-million policy per practice location. Delegating IV therapies to another regulated health professional should be disclosed with insurance providers prior to commencement

PROCEDURE ROOM:

- The naturopathic doctor 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
- 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.
- All surfaces and those that come into contact with patients (arm rests, door handles etc.,) should be sanitized with disinfectant regularly

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 (unless otherwise required) and stored away from light
- All expired inventory should be tracked and disposed of in the appropriate manner

IV PREPARATION AREA:

- The preparation area may be a separate room, or located in a low or controlled traffic area with limited access
- Inventory in the preparation area should be kept at minimal level. Materials such as needles, syringes and alcohol swabs can be kept in the preparation area but only at minimal levels
- A clean field is mandatory for IV bag preparation

PREPARATION OF IV SOLUTIONS:

- Maintain aseptic technique and establish a clean field
    - Wash hands
    - Wear gloves and mask
    - Wipe down mixing area with disinfecting solution
    - All IV bottles should be scrubbed with *Chlorascrub* OR 70% isopropyl alcohol and allowed to dry prior to each puncture
- Carefully inspect all IV ingredients for contamination, precipitation and date of expiry
- Label IV ingredients on date of opening
- If IV ingredient is one time use, it must be discarded 24 hours after first puncture
- Multi-use vials should be discarded 4 weeks after date of first puncture
- Multi-use dispensing pins are strongly recommended for multi-dose vials

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 OR *Chlorascrub* pads, cotton swabs
- needles/butterflies, syringes, administration sets
- IV bags/bottles
- vials of substances to be used in the procedure
- tape
- disposable gloves and masks
- 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.

ACCESSING PERIPHERAL VEINS:

- Ensure appropriate lab screening has been done prior to IV treatment
- Ensure proper identification of patient
- Explain procedure and obtain informed consent
- Rule out allergy to IV ingredients or equipment
- Perform hand hygiene before and after patient contact
- Gather equipment
    - 70% isopropyl alcohol pads OR betadyne pads/swabs OR Chlorhexidine and 70% isopropyl alcohol scrub pads (*Chlorascrub* pads)
    - Tourniquet
    - Appropriately sized PVAD (peripheral venous access device) ie. angiocather or winged infusion set
    - Dressing – transparent, semi-permeable membrane OR gauze and tape
    - Gloves

    - Primed IV admin set and IV solution to be administered

- Swab insertion site with 70% isopropyl alcohol, betadyne OR chlorhexidine and 70% isopropyl alcohol scrub pads (*Chlorascrub* pads)
- Select appropriate vein and apply tourniquet no longer than 1 minute
- Label IV bags with: solution type and name of patient. Solution recipe should be properly charted
- 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

EMERGENCY PREPAREDNESS AND HANDLING:

- Naturopathic doctors who practice intravenous therapies must be trained in *Emergency Intravenous Medicine* (re-certification every 3 years) and *CPR Level C for Healthcare Provider with AED* (with re-certification every 2 years)

- 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 also be equipped with the following emergency supplies:

- AED – check function and battery annually
- Oxygen tank with mask or nasal cannula
- Pulse Oximeter
- Blood Glucose monitor
- Oral diphenhydramine
- IM OR IV diphenhydramine
- IV epinephrine
- Smelling salts
- Magnesium chloride/sulfate
- Calcium gluconate
- 50% dextrose
- Heparin
- Nitrospray OR Nitro pills
- Normal saline bags
- Aspirin tablets
- 5% dextrose bags
- xylocaine gel (or equivalent)
- snacks - e.g. juice and crackers
- Band-aids/gauze and micropore tape
- Scissors
- Hot and cold compresses
- Notebook for vitals, meds given, therapeutic interventions in case of transfer of care
- Checklist signed that dates are good and equipment is in working order

APPENDIX I

IV INSERVICE

Each member is required to participate in an IV in-service at least once/year to maintain their IV certification. The MNA Standards Committee will provide members with several education opportunities throughout the year. In-services can consist of emergency medicine protocols/drills, case summaries/presentations, continuing education approved webinars. Members will have the option of phoning or *Skyping*-in to join these meetings.

APPENDIX II

VITAMINS, MINERALS, AMINO ACIDS and COFACTORS:

The naturopathic doctor must know the following information and be able to correctly address any patient concerns.

- Permissable substances administered are up to the discretion of the ND as per the following checklist:
    - Indications and contraindications, allergic reactions, adverse reactions and antidotes for all substances and combination of substances used
    - Recommended dose for each substance used
    - Mixing omissions and permissions for all of the substances used
    - Rate of administration for each substance or combination of substances
    - Any other safety issues related to use of these substances
- Naturopathic doctors administer a wide variety of naturally derived IV compounds including but not limited to the following:

VITAMINS

- Ascorbic Acid - Vitamin C
- Vitamin A
- Biotin
- Methylcobalamin, Cyanocobalamin, Hydroxycobalamin - Vitamin B12
- Folic Acid, 5-methyltetrahydrofolate – vitamin B9
- Niacin and Niacinamide – vitamin B3
- Calcium Pantothenate/Dexpanthenol - Vitamin B5
- Pyridoxine Hydrochloride - Vitamin B6
- Riboflavin-5-Phosphate - Vitamin B2
- Thiamine Hydrochloride - Vitamin B1
- B-Complex formulas

MINERALS

- Calcium Gluconate, Calcium Chloride, Calcium glycerophosphate
- Magnesium Sulfate/Chloride
- Zinc Chloride, Zinc Sulfate

- Chromium
- Selenium
- Manganese
- Molybdenum
- Potassium Chloride
- Sodium Bicarbonate

AMINO ACIDS

- Alanine
- Arginine
- Aspartic acid
- Carnitine
- Citrulline
- Cystine
- Glutamic acid
- Glycine
- Histidine
- Isoleucine
- Leucine
- Lysine
- Methionine
- Ornithine
- Phenylalanine
- Proline
- Selenomethionine
- Serine
- Taurine
- Threonine
- Tryptophan
- Tyrosine
- L-Glutamine
- Adenosine
- Amino Acid Complexes

BOTANICALS

- Echinacea
- Aesculus
- Viscum
- Crataegus
- Artesunate
- Curcumin
- Glycyrrhizin

IMMUNE AGENTS

- Hydrochloric acid 1:1000, 1:500
- Pycnogenol
- Glutathione
- Lipoic acid complex (PolyMVA)
- Alpha lipoic acid
- Salicinum

MISCELLANEOUS

- DMPS, NaEDTA, CaEDTA (only with approved intravenous chelation certificate and training)
- Methylene Blue (only with approved certificate of training)
- Ozone (only with approved intravenous oxidative therapy certificate and training)
- Phosphatidylcholine
- Glycerophosphocholine
- NAD+
- NAC – n-Acetyl cysteine
- Saline solution
- Sterile water
- Carbohydrates in water
- Carbohydrates in sodium chloride solution
- Ringer's solution (sodium, chloride, potassium and calcium)
- Plasma volume expanders (dextran, sodium, chloride)
- Vitamin and Mineral Mixes
- Injectable Homeopathic solutions