INJECTION

Intent

To advise Registrants who incorporate the controlled act of administering prescribed substances by injection in their naturopathic practice of the requirements to perform the procedure safely, ethically and competently.

Definitions

Prescribed Substance: For the purpose of this standard, is anything referred to in Table 2 (Appendix I) of the *General Regulation* at the moment it passes the dermis.

Injection: The act of administering a prescribed substance into a person's body using a needle and a syringe. For the purpose of this standard of practice, injection does not include intravenous therapy.

Non-Prescription Substance: Anything that is listed on Tables 1 or 2 of the General Regulation, regardless of which, if any, appear on the Schedules under the Drug and Pharmacies Regulation Act, R.S.O. 1990, c.H.4.

STANDARD 1

The Registrant who administers prescribed substances by injection within the context of their naturopathic practice has acquired and maintains the knowledge, skill and judgment necessary to perform the procedure safely, ethically, and competently.

A Registrant demonstrates the standard by:

- meeting the College's requirements for administering by injection the prescribed substances in Table 2 of the *General Regulation* through successful completion of the College approved prescribing and therapeutics course and examination,
- maintaining competency for performing the procedure by engaging in continuing education and/or incorporating administering prescribed substances by injection as a regular part of their practice, and
- ensuring that they are appropriately trained and competent in relevant emergency procedures and have appropriate risk management processes in place to manage any adverse reactions or complications resulting from administering a prescribed substance by injection.

STANDARD 2

The Registrant minimizes the risk to the patient, self and others that are associated with the administration of a prescribed substance by injection, before, during and after the procedure.

A Registrant demonstrates the standard by:

- only administering prescribed substances in accordance with any limitations in the Table.
- only administering a prescribed substance by injection within the context of a naturopathic doctor-patient relationship,
- considering the patient's condition, the risks and benefits and any other relevant circumstances specific to administering a prescribed substance by injection,
- assessing the patient for contraindications to the administration of a prescribed substance by injection,
- ensuring that necessary resources are available to manage potential adverse outcomes,
- obtaining and documenting informed consent for the course of treatment,
- complying with the *Standard of Practice: Compounding*, where applicable, when mixing, preparing, packaging or labelling two or more non-prescription substances listed in Table 2 of the *General Regulation* to administer a prescribed substance to a patient by injection,

- applying current evidence-based infection control protocols to minimize risk factors for infection and/or contamination when administering a prescribed substance by injection,
- administering a prescribed substance for therapeutic purposes when it is clinically indicated,
- administering a prescribed substance at a dosage determined by the Registrant to be clinically effective and safe,
- administering an emergency prescribed substance listed in Table 2 of the *General Regulation* only when necessary and only to stabilize the patient until emergency personnel can attend to the patient, and
- ensuring documentation in the patient record in accordance with the *Standard of Practice: Record Keeping*.

STANDARD 3

The Registrant ensures that all equipment and supplies used for administering a prescribed substance by injection are stored and maintained appropriately.

A Registrant demonstrates the standard by:

- storing and maintaining equipment and supplies according to manufacturers' specifications,
- ensuring that prescribed substances for injection are stored in a low traffic, controlled access location,
- ensuring that all prescribed substances administered by injection that require refrigeration are stored in a dedicated refrigerator that only contains injectable prescribed substance and non-prescription substances,
- using safety engineered needles when administering a prescribed substance by injection, and
- disposing of equipment and contaminated or expired prescribed substances in an appropriate manner.

APPENDIX I

TABLE 2
PRESCRIBED SUBSTANCES THAT MAY BE ADMINISTERED BY INJECTION

Substance	Route of Administration	Limitation
Acetylcysteine	Intravenous	Must be in combination with other amino acids.
Adenosine triphosphate	Intravenous	No limitation specified.
Alanine	Intravenous	Must be in combination with other amino acids.
Alpha Lipoic Acid	Intravenous	Maximum daily dose of 600 mg for racemic form or 300 mg for R form.
Arginine	Intravenous	Must be in combination with other amino acids.
Aspartic Acid	Intravenous	Must be in combination with other amino acids.
Atropine	Intravenous	Administered to a patient by the member in his or her office only in emergency circumstances. In an emergency, administer 0.5-1 mg q3-5 min. Dose must be 0.5 mg or higher but must not exceed 2 mg.
Biotin	Intravenous	No limitation specified.
Calcium Chloride	Intravenous	No limitation specified.
Calcium Gluconate	Intravenous	No limitation specified.
Calcium Glycerophosphate	Intravenous	No limitation specified.
Carbohydrates in sodium chloride solution	Intravenous	No limitation specified.
Chromium	Intravenous	No limitation specified.
Copper Sulfate	Intravenous	No limitation specified.
Cupric Chloride	Intravenous	No limitation specified.
Dextrose Injection	Intravenous	No limitation specified.
Diphenhydramine Hydrochloride	Intravenous, Intramuscular	Administered to a patient by the member in his or her office only in emergency circumstances with a maximum dose of 100 mg.
Epinephrine Hydrochloride	Intramuscular	Administered to a patient by the member in his or her office only in emergency

		circumstances with a maximum dose of 1.5 mg.
Ferrous Sulphate	Intramuscular	Must be administered by z-track only.
Folic Acid	Intravenous, Intramuscular	No limitation specified.
Glutamine	Intravenous	Must be in combination with other amino acids.
Glutamic Acid	Intravenous	Must be in combination with other amino acids.
Glycine	Intravenous	Must be in combination with other amino acids.
Glutathione	Intravenous, Intramuscular	No limitation specified.
Histidine	Intravenous	Must be in combination with other amino acids.
Hydrochloric Acid	Intravenous	In ratio of 1:1000 or 1:500.
Isoleucine	Intravenous	Must be in combination with other amino acids.
L-Tryptophan	Intravenous	No limitation specified.
Lactated Ringer's Solution	Intravenous	No limitation specified.
Leucine	Intravenous	Must be in combination with other amino acids.
Levocarnitine and its salts	Intravenous	No limitation specified.
Lysine	Intravenous	Must be in combination with other amino acids.
Magnesium Sulfate	Intravenous, Intramuscular	Must never be administered by the member for the treatment of eclampsia or pre-eclampsia.
Magnesium Chloride	Intravenous, Intramuscular	Must never be administered by the member for the treatment of eclampsia or pre-eclampsia.
Manganese	Intravenous	No limitation specified.
Methionine	Intravenous	Must be in combination with other amino acids.
Molybdenum	Intravenous	No limitation specified.
Ornithine	Intravenous	Must be in combination with other amino acids.
Phenylalanine	Intravenous	Must be in combination with other amino acids.
Potassium Chloride	Intravenous	In dosage form not more than 0.3 mEq/kg/hr. Must never

		be administered as a single agent or by intravenous push.
Potassium Phosphate	Intravenous	In dosage form not more than 0.3 mEq/kg/hr. Must never be administered as a single agent or by intravenous push.
Proline	Intravenous	Must be in combination with other amino acids.
Ringer's Solution (sodium, chloride, potassium and calcium)	Intravenous	No limitation specified.
Saline Solution	Intravenous, Intramuscular	No limitation specified.
Selenium	Intravenous	No limitation specified.
Serine	Intravenous	Must be in combination with other amino acids.
Sodium Bicarbonate	Intravenous	No limitation specified.
Sodium Iodide	Intravenous	Must be in combination with other minerals.
Sterile Water	Intravenous, Intramuscular	Must be in combination with other substances.
Strontium and its salts	Intravenous	No limitation specified.
Taurine	Intravenous	No limitation specified.
Threonine	Intravenous	Must be in combination with other amino acids.
Tyrosine (L-tyrosine)	Intravenous	Must be in combination with other amino acids.
Vanadium	Intravenous	Must be in combination with other minerals.
Viscum Album	Intravenous, Subcutaneous	No limitation specified.
Vitamin A	Intravenous	Maximum daily dose of 10,000 International Units.
Vitamin B1	Intravenous, Intramuscular	No limitation specified.
Vitamin B2	Intravenous, Intramuscular	No limitation specified.
Vitamin B3	Intravenous, Intramuscular	No limitation specified.
Vitamin B5	Intravenous, Intramuscular	No limitation specified.
Vitamin B6	Intravenous, Intramuscular, Subcutaneous	No limitation specified.
Vitamin B12	Intravenous, Intramuscular	No limitation specified.
Vitamin C	Intravenous	Must administer no more than 15 g per day when patient's G6PD is deficient.
Vitamin D	Intravenous, Intramuscular	No limitation specified.

Vitamin E	Intravenous	No limitation specified.
Vitamin K1	Intramuscular	No limitation specified.
Zinc Chloride	Intravenous	No limitation specified.
Zinc Sulphate	Intravenous	No limitation specified.