Thames Valley
Family Health Team

Medical Directive

Title:	**Injectable Substances**	**Assigned Number:**	**030**
Activation Date:	**November 2021**	**Review due by:**	**December 2025**

Approval Signature & Date

Medical Director: _____ Date Reviewed: Feb 23, 2024

Clinical Services Director: _____ Date Reviewed: Feb 23, 2024

Order and/or Delegated Procedure:

Appendix Attached: ☐ **Yes** ☒ **No**
Title:

The implementers may, in accordance with the conditions identified in this directive:

- Administer injectable substances

Recipient Patients:

Appendix Attached: ☒ **Yes** ☐ **No**
Title:

All active patients of Thames Valley Family Health Team who meet the conditions identified in this directive.

Authorized Implementers:

Appendix Attached: ☒ **Yes** ☐ **No**
Title:

Thames Valley Family Health Team Registered Nurses, and Registered Practical Nurses (RN/RPN)* herein referred to as implementer.

The implementer must receive orientation from the Educator with regards to the task. The implementer must have completed orientation and educational requirements of the Emergency Treatment of Anaphylaxis / Severe Allergic Reactions to Allergy Injections or Immunizations medical directive and is encouraged to review Emergency Treatment of Anaphylaxis / Severe Allergic Reactions to Allergy Injections or Immunizations medical directive to ensure all required supplies and reference materials are available in the case of an emergency. The implementer must sign the Implementer Performance Readiness Form electronically via HR Downloads after successful completion of the orientation (and quiz, if applicable) indicating acceptance of this medical directive

Indications:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

Verbal consent received from the patient, or substitute decision maker, for the implementer to administer one of the injectable substances below:

- Denosumab (Prolia®) 60mg per 1 mL administered subcutaneously
- Vitamin B12 dose varies by patient – administered intramuscularly
- Long-acting antipsychotics (paliperidone palmitate, risperidone prolonged-release, loxapine HCL, methotrimeprazine HCL, flupentixol decanoate, haloperidol decanoate, zuclopenthixol decanoate, aripiprazole extended-release) dose varies by patient and by medication - administered intramuscularly
- Leuprolide dose varies by patient – administered intramuscularly
- Methotrexate dose varies by patient – administered subcutaneously
- Darbepoetin alfa dose varies by patient – administered subcutaneously

Contraindications:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

1. No verbal consent from patient or substitute decision maker for RN/RPN to implement this directive.
2. Known hypersensitivity or history of severe previous reaction to the substance being given.
3. Patient has a contraindication specific to a particular injectable substance as per product monograph or appendices
4. Patient is possibly pregnant
5. Patient has a fever, or a fever in past 24-48 hours or other demonstrated signs of current illness

Consent:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

1. Patients of Thames Valley Family Health Team.
2. RN/RPN obtains verbal patient consent prior to the implementation of care.

Guidelines for Implementing the Order/ Procedure:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

1. Determine and confirm that:
    a. There is a current prescription from the treating provider for the injectable substance to be administered
    b. Ensure appropriate amount of time will have lapsed since the last administered dose according to available prescription information
2. Follow steps as per each injectable substances monograph to ensure proper administration of each substance.

Documentation and Communication:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

1. Documentation in the patient's medical record needs to include name and number of the directive, name of the implementer (including credential), and name of the authorizer responsible for the directive and patient. Specific site of injection and medication information including dose administered must also be noted along with **Lot Number and Expiration Date**.
2. Send a message through the EMR to the patient's most responsible provider notifying them the administration so that any necessary follow-up and monitoring can be arranged.
3. Information regarding implementation of the procedure and the patient's response should be documented in accordance with standard documentation practice*

∗ Potter, P.A. & Perry, A.G. (2006). Fundamentals of Nursing. St. Louis: Mosby. College of Nurses of Ontario (2008). CNO Practice Standard: Documentation

Review and Quality Monitoring Guidelines:	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

1. The Directive remains in force until and unless amendment occurs. Review will occur biennially. In case the Medical Director identifies the need to change the Medical Directive, at least one TVFHT member of the implementing disciplines will be consulted.
2. At any such time that issues related to the use of this directive are identified, the team must act upon the concerns immediately by identifying these concerns to the Medical Director. The Medical Director will review these concerns and consult with at least one TVFHT member of the implementing disciplines, before necessary changes are made.
3. If new information becomes available between routine renewals, and particularly if this new information has implications for unexpected outcomes, the directive will be reviewed by the Medical Director and a minimum of one TVFHT member of the implementing disciplines.

Approving Physician(s)/Authorizer(s):	**Appendix Attached:** ☐ **Yes** ☒ **No** **Title:**

Authorizer Approval Form signed in HR Downloads by Medical Director.

Thames Valley Family Health Team

Appendix ## - Injectable Substances for Administration and Associated Contraindications

In addition to the general contraindications mentioned within the directive, this table outlines additional contraindications that should be assessed prior to administering the medication*:

Medication	Contraindications to Administration
Vitamin B12 Monograph: pdf.hres.ca/dpd_pm/00026115.PDF	• Hypersensitivity to cobalt
Denosumab (Prolia®) Monograph: Microsoft Word - ~db5_Ocefcb3f3c0d8468893df9dc50445f515.docx (hres.ca)	• Solution may contain trace amounts of translucent to white protein particles; do not use if cloudy, discolored (normal solution should be clear and colorless to pale yellow), or contains excessive particles or foreign matter • Avoid invasive dental procedures during treatment with denosumab. For patients in whom invasive dental procedures cannot be avoided, the clinical judgment of the treating physician should guide the management plan of each patient based on individual benefit-risk assessment.
Leuprolide (e.g. Lupron®, Eligard®) Monograph: [Product Monograph Template - Standard] (hres.ca)	• Breast/chest feeding
Methotrexate Monograph: Microsoft Word - Methotrexate.apm.doc (hres.ca)	• Active infection • Fatal errors have occurred when methotrexate was administered as a **daily** dose instead of a **weekly** dose. Verify the indication before administration; methotrexate is typically only administered daily for an oncology-related indication
Darbapoetin Alfa (Aranesp®) Monograph: aranesp_pm.pdf (amgen.ca)	• Do not shake; vigorous shaking may denature darbepoetin alfa, rendering it biologically inactive. • Do not dilute or administer in conjunction with other drug solutions. • Uncontrolled hypertension – blood pressure should be monitored at each appointment

Long-Acting Antipsychotics

***** For all long-acting antipsychotics, patients should avoid use of strong CYP3A4 and/or P-gp inducers (e.g. St. John's Wort, carbamazepine, rifampin), advise them to discuss with their provider before starting any supplement products

For all antipsychotics, the following contraindications should be considered:

- Caution should be exercised in concurrent use of other drugs that are known to prolong QTc including Class 1A (e.g., quinidine, procainamide) or Class III (e.g., amiodarone, sotalol) antiarrhythmic medications, antipsychotic medications (e.g., chlorpromazine, thioridazine), antibiotics (e.g., gatifloxacin, moxifloxacin), or any other class of medications known to prolong the QTc interval. Discuss with provider if uncertain.
- Any signs of neuroleptic malignant syndrome – hold medication and consult with provider
- Any signs of tardive dyskinesia – hold medication and consult with provider
- Any signs of oculogyric crisis – hold medication and consult with provider

* Extrapyramidal symptoms (EPS) are more common in typical antipsychotics vs atypical antipsychotics; however, all patients should be monitored for signs and symptoms of EPS.
(Extrapyramidal Symptoms - StatPearls - NCBI Bookshelf (nih.gov))

Paliperidone Palmitate (Invega® Sustenna/Invega® Trinza) Monograph: pdf.hres.ca/dpd_pm/00040788.PDF (Sustenna) Microsoft Word - 217315 Invega Trinza.APM.doc (hres.ca) (Trinza)	• Hypersensitivity to risperidone • Invega Sustenna: greater than 6 weeks since last maintenance dose of Sustenna – consult monograph and provider * Monitor patients for orthostatic hypotension, especially if taking antihypertensive medications.
Risperidone Prolonged-release (Risperdal® Consta) Monograph: pdf.hres.ca/dpd_pm/00040784.PDF	• Hypersensitivity to paliperidone • Less than 2 weeks since last injection, dose should not exceed 50mg every two weeks * Monitor patients for orthostatic hypotension, especially if taking antihypertensive medications.
Loxapine HCL (Loxapac® IM)	• Acute alcohol, barbiturate, hypnotic or opiate intoxication • Patients taking concomitant metoclopramide

Monograph: [Product Monograph Template - Standard] (hres.ca)	
Methotrimeprazine HCL (Nozinan®) Monograph: Microsoft Word - Nozinan 107345 Oct 23 2006.apm.doc (hres.ca)	• Hypersensitivity to phenothiazines • Acute alcohol, barbiturate, hypnotic or opiate intoxication • Narrow angle glaucoma * Monitor patients for orthostatic hypotension
Flupentixol Decanoate (Fluanxol® Depot) Monograph: Microsoft Word - 209135 - FLUANXOL DEPOT - APM.doc (hres.ca)	• Hypersensitivity to thioxanthenes • Severe constipation – consult with provider • Acute alcohol, barbiturate, or opiate intoxication • Narrow angle glaucoma
Haloperidol Decanoate Monograph: pdf.hres.ca/dpd_pm/00025917.PDF	• Nut allergy (the medication contains sesame oil) • Acute alcohol intoxication
Zuclopenthixol Decanoate (Clopixol® Depot or Acuphase) Monograph: Clopixol_Product_Monograph_English.pdf (lundbeck.com)	• Hypersensitivity to thioxanthenes • Acute alcohol, barbiturate, or opiate intoxication • Narrow angle glaucoma * Injection volumes exceeding 2mL should be distributed between 2 injection sites
Aripiprazole Extended-release (Abilify® Maintena) Monograph: Microsoft Word - Approved Product Monograph 1.docx (hres.ca)	• Less than 26 days since last injection • Greater than 5 weeks since last injection – consult provider as the patient may require concomitant oral aripiprazole * Monitor for signs of orthostatic hypotension

All patients receiving long-acting anti-psychotics should be monitored for the following:

- Metabolic concerns (e.g. diabetes, metabolic syndrome, hyperlipidemia, hyperglycemia, etc.)
- Cardiovascular concerns (e.g. ECG changes)

It is especially important to follow up with the patient's provider following administration of these medications to ensure appropriate follow-up occurs.

∗ Please refer to individual product monographs for a full list of cautions, contraindications, and administration instructions.