Crosstown Clinic: Testosterone

Site Applicability:

PHC Crosstown Clinic

Scope:

Basic Skill: RN, RPN, LPN

Procedures:

The National Institute for Occupational Safety and Health (NIOSH) identifies testosterone formulations as a hazardous drug that must be managed under the guidance of the Hazardous Drug Exposure Control Program.

The latest version of the ECP and BC Provincial Hazardous Drugs List can be found here.

Testosterone vials and pre-drawn testosterone syringes MUST be labelled with a "Hazardous Drugs Group 2" label.

A medication weigh scale is required to weigh testosterone vials for inventory control. Weight is recorded in milligrams (mg). The medication scale needs to be calibrated annually by biomedical engineering, by filling out an online form (https://one.vch.ca/dept-project/Biomedical-Engineering/Pages/Online-BME-Service-Request.aspx).

Testosterone is supplied as 100 mg/mL, is dosed in mg and administered IM
For example: 200 mg or 2 mL

Narcotic Count

The range for discrepancies in testosterone count is 0.1 g (10 mg) at each count.

1. Testosterone is counted by weight.
2. Testosterone is counted and recorded by any two members of the following disciplines: RN, LPN, RPN, Pharmacist, NP, or MD.
3. Testosterone is counted (i.e. weighed) and recorded:
    a. At the start of the day shift, at shift change, and at the end of the evening shift
    b. When nurses receive vials from the Crosstown pharmacy, and
    c. At the time of removal from the narcotic cupboard and after the dose for administration is drawn, prior to being returned to the narcotic cupboard.

Procedures

Don appropriate Personal Protective Equipment.

Inventory Check

1. With another clinician, remove client specific testosterone vial from narcotic vault.
2. Place a dedicated empty vial (matching brand of client specific testosterone vial) onto an electronic medication scale and tare the scale.
3. Place client specific testosterone vial onto electronic medication scale to get weight (in milligrams).
4. Compare current weight (in milligrams) of vial to the documented weight recorded on the *Narcotics and Controlled Drugs Record.*
    a. A discrepancy is considered a measured value greater than 0.1 g (10 mg).
        i. If a count discrepancy is found, investigate further by looking at past client record values in the narcotic book and administration notes in the EMR, and report to the Patient Care Manager.
        ii. If a count discrepancy is found, complete a *Narcotic Controlled Drug Incident Report*. Any count discrepancies must be resolved before proceeding.
    b. If no discrepancies are found, the clinicians may proceed.

Preparation of Parenteral Testosterone

1. Multi-dose vials are client specific and must be labelled and used only for a single client.
2. Inspect the product visually for particulate matter and discolouration prior to administration.
3. Warm and rotate vial between palms of hands to re-dissolve crystals that may have formed after storage.
4. Follow Safe Work Procedure for Preparation of Parenteral Hazardous Drugs.
5. Affix an expiring label to the vial upon initial vial puncture and indicate the Beyond-Use Date (BUD).
    a. Multi-dose testosterone vials have a BUD of 28 days from initial vial puncture (unless a shorter BUD is specified by the manufacturer). Vials must be discarded when the BUD is reached.

Documentation

1. The following elements must be documented in the *Narcotics and Controlled Drugs Record*
    a. Date
    b. Client First and Last Name
    c. Dose (in milligrams) to be administered
    d. Amount (in milligrams) in client-specific vial after tare of medication scale
    e. Amount (in milligrams) in client-specific vial post retrieval of prescribed dose
    f. Time
    g. Signature with credentials of each clinician

Cleaning

1. After each procedure above the work surface must be cleaned and decontaminated using a two-step process using an accelerated hydrogen peroxide wipe (i.e. Accel Intervention).
2. Clean and decontaminate the outside of any multi-dose containers and place them in a zipper sealed plastic bag for storage.

Wastage and Disposal

1. All wastage of testosterone needs to be witnessed by two clinicians and documented in the *Narcotics and Controlled Drugs Record* (B-00-12-10123 Narcotics: Wastage).
2. All wastage of testosterone is to be disposed of in a pharmaceutical waste bin.
3. All empty testosterone vials are to be disposed of in regular sharps container.
4. Follow the PHC Control Matrix for spill and waste management of parenteral drugs (B-00-14-10023 Hazardous Drugs Group 2 Control Matrix).

Related Documents:

1. BD-00-11-40026 - Drug Diversion of Controlled Substances (Policy)
2. B-00-16-10031 - Crosstown Clinic: Medication Diversion (Staff)
3. B-00-16-10050 - Safe Work Procedure for Preparation of Parenteral Hazardous Drugs
4. B-00-12-10121 - Narcotics and Controlled Drugs: Counting and Auditing
5. B-00-12-10123 - Narcotics and Controlled Drugs: Wastage
6. B-00-14-10023 - Hazardous Drugs Control Matrix Group 2
7. BCD-11-11-41006 - Medication Administration Policy
8. B-00-07-10098 - Independent Double Check of Medication
9. Hazardous Drugs Exposure Control Program
10. BC Provincial Hazardous Drugs List (Updated 2022-02-01)

References:

1. Centers for Disease Control and Prevention (CDC). (2019). Multi-dose Vials. Retrieved from https://www.cdc.gov/injectionsafety/providers/provider_faqs_multivials.html
2. Field, M.J. & Lohr, K.N. (1990). Clinical practice guidelines: Directions for a new program. Washington, D.C. National Academy Press.
3. Lexicomp Online. (2022). Testosterone. Retrieved from http://online.lexi.com/lco/action/doc/retrieve/docid/patch_f/7742?cesid=7KOez8kmscZ&searchUrl=%2Flco%2Faction%2Fsearch%3Fq%3Dtestosterone%2Bcypionate%26t%3Dname%26acs%3Dtrue%26acq%3Dtestoster
4. Merriam-Webster. (2022). Tare. Retrieved from - https://www.merriam-webster.com/dictionary/tare#h2

Definitions:

"Tare" adjusting a scale on which an empty container has been placed so as to reduce the displayed weight to zero.

"Independent Double Check" (IDC) is a process by which two clinicians work **separately** to verify the accuracy of the order and medication related care to be delivered. The two clinicians perform the verification process independent of one another, without assistance from each other and without knowledge of the steps followed or conclusion arrived at by each other. Once verifications are complete, results are compared and discrepancies, if any, must be resolve before any action is taken, e.g. transcribing, preparing or administering.

APPROVALS		
Director, Urban Health and Addictions Services		*November 2 2023*
Professional Practice Standards Committee		*October 12 2022*
DEVELOPERS/OWNER		
Developer Team Members	Crosstown Clinic Coordinator Crosstown Patient Care Manager Crosstown Clinical Nurse Leader Crosstown Pharmacy Coordinator PHC Medication Safety Pharmacist PHC Practice Consultant - Medication Safety & Management PHC Nurse Educator - Medication Safety & Management	*Date (month/day/year)*

REVISION HISTORY			
Revision#	Description of Changes	Prepared by	Effective Date
OO	*Initial Release*		*November 2 2023*