

## Intramuscular Testosterone

### Intramuscular (IM) testosterone products marketed in Canada\*<sup>1</sup>

DIN	Manufacturer	Product	Active Ingredient	Strength
00029246	Valeant	Delatestryl	Testosterone Enanthate	200 mg/ml
00030783	Pfizer	Depo-Testosterone	Testosterone Cypionate	100mg/ml

\* Other products have been approved but are not currently being marketed.<sup>1</sup>

### Confirm that ongoing use of testosterone is indicated

- **Approved indication for IM testosterone therapy<sup>2</sup>:** androgen replacement therapy in adult males for conditions associated with a deficiency or absence of endogenous testosterone.
- **Off-label uses<sup>3</sup>:** hormone therapy for transgender males, sexual disorder, weight gain, others.

### Potential alternatives for IM testosterone\*<sup>1</sup>

DIN	Product	Strength	Dosage Form	Manufacturer
02322498	PMS-Testosterone	40mg	oral capsule	PMS
02421186	Taro-Testosterone	40 mg	oral capsule	TAR
02239653	Androderm	2.5 mg/24 h	transdermal patch	ALL
02239653		5 mg/24 h		
02249499	Androgel	1% (12.5 mg/actuation)	transdermal gel	BGP
02245345		1% (25 mg/pack)		
02245346		1% (50 mg/pack)		
02463792	Taro-Testosterone	1% (25 mg/pack)	transdermal gel	TAR
02463806	Gel	1% (50 mg/pack)		
02280248	Testim	1% (50 mg/tube)	transdermal gel	PAL
02450550	Natesto	4.5% (5.5 mg/actuation)	nasal gel	ACP

\* All doses expressed as amount of testosterone delivered

### Considerations when choosing an alternate form of testosterone:

- **GENERAL dosage recommendations for androgen deficiency**
  - Testosterone enanthate or cypionate<sup>4,5</sup>: various doses and frequencies may be used.
    - general: 75 -100 mg IM/subcutaneous (SC) every week
    - doses may range from 50 to 200 mg
    - frequencies may range from every 1 week to every 3-4 weeks (though the longer the interval, the greater the fluctuation in concentrations<sup>5</sup>)
  - Testosterone transdermal gel 1% 50 mg – 100 mg<sup>4,6</sup> applied daily to an area of skin that will be covered.
  - Testosterone transdermal patch usual dose 5 mg applied nightly.<sup>4,7</sup> Dose range: 2.5 mg to 7.5 mg nightly.<sup>4</sup>
  - Testosterone undecanoate 40-120-160 mg orally per day, divided in two doses RxFiles<sup>4,8</sup>
  - Testosterone intranasal gel 4.5%: 5.5mg (1 act.) into each nostril 2 or 3 times daily (total daily dose = 22 – 33 mg)<sup>9</sup>

- **GENERAL dosage recommendations for hormone therapy in transgender males<sup>10</sup>**
  - Testosterone enanthate or cypionate 100–200 mg IM every 2 weeks or 50% SC weekly
  - Testosterone gel 1% 50-100 mg daily
  - Testosterone patch 2.5-7.5 mg daily
  - Note: oral testosterone undecanoate results in lower serum testosterone levels than non-oral preparations and has limited efficacy in suppressing menses.<sup>11</sup>
- Testosterone enanthate and testosterone cypionate provide approximately the same amount of unesterified testosterone (~140 mg per 200 mg of enanthate/cypionate).
- Approximately 10% of testosterone in topically applied gels is absorbed.<sup>12</sup> (For example, 50 mg testosterone gel delivers approximately the same amount of testosterone as one 5 mg testosterone patch.)
- The bioavailability of oral testosterone undecanoate is about 7% provided it is taken with a meal.<sup>12</sup>
- Adjust the dose as needed to provide desired effect on symptoms of hypoandrogenism and serum testosterone levels.<sup>5</sup>
- Gel is generally better tolerated than patch.<sup>4</sup>

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