



### Introduction and Objectives

- Several testosterone delivery systems, including intramuscular (IM) injections, are currently available.
- Side effect profiles for the different dosing regimens of IM testosterone injections have not been investigated.
- We sought to compare outcomes using two different commonly used IM testosterone replacement therapy (TRT) regimens (Cypionate/Enanthate).

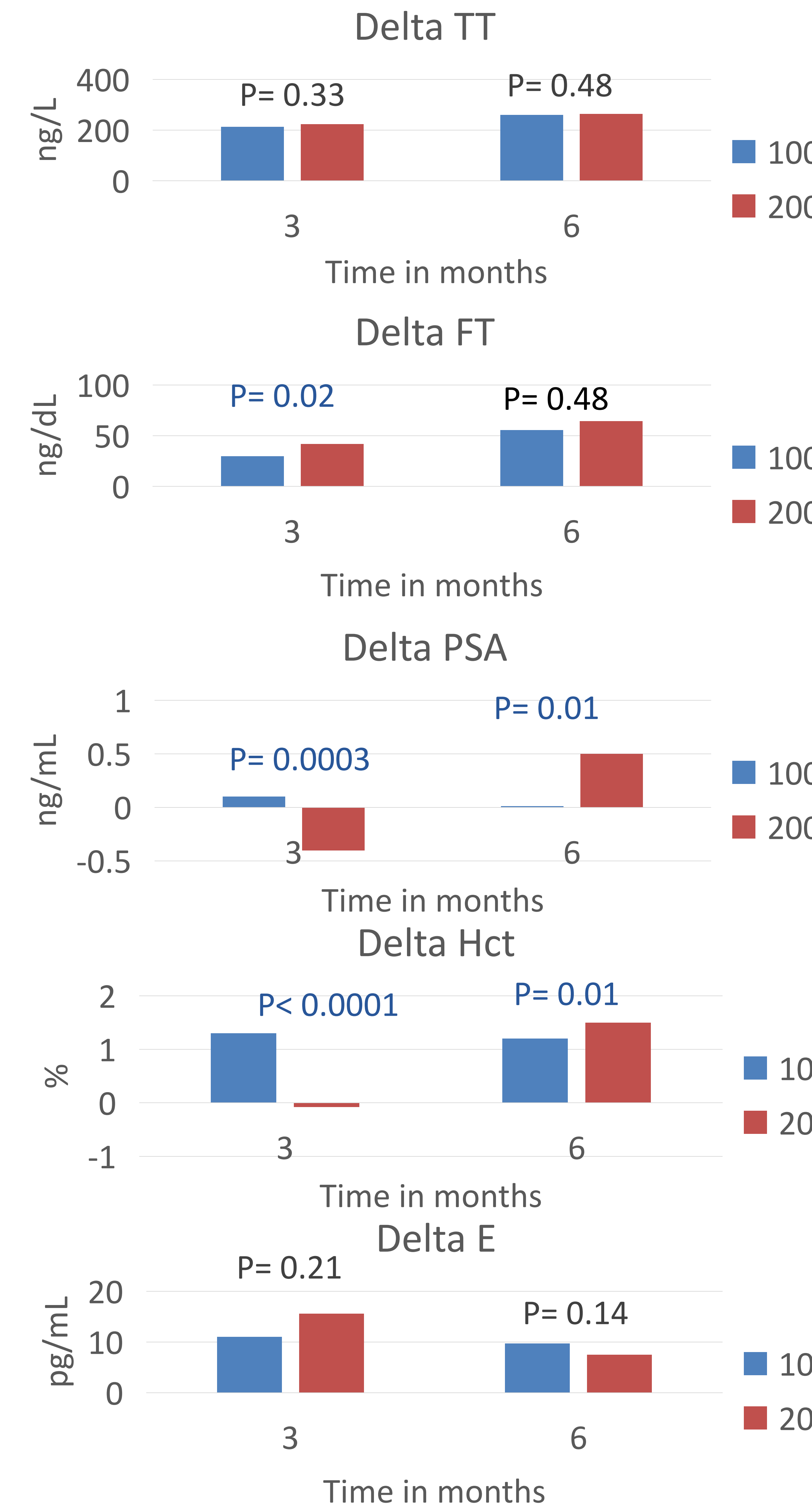
### Materials and Methods

- From 2015 to 2019, a multi-institutional (n=3) retrospective review of charts of men who presented was conducted.

Inclusion Criteria	Exclusion Criteria
18 years or older	Received non-TRT hormone replacement therapies in the last 6 months (hCG, SERM, aromatase inhibitors)
100mg IM once weekly OR 200mg IM once every other week	History of prostate cancer

Primary Outcomes	Secondary Outcomes
Changes in estradiol (E)	E rises more than 40pg/mL
Changes in PSA	PSA rises more than 4 ng/mL
Changes in hematocrit (Hct)	Hct rises more than 54%
Changes in total testosterone (TT)	Adverse events requiring cessation of TRT
Changes in free testosterone (FT)	

### Results



N= 263	100mg (N=169)	200mg (n=94)	P-value
Hematocrit > 54%	1/102 (1%)	4/51 (8%)	0.026
Estradiol > 40pg/mL	8/48 (17%)	5/22 (23%)	0.552
PSA > 4ng/mL	2/96 (2%)	1/42 (2%)	0.912
Adverse Events	0	0	
Phlebotomies	0	0	

- 1 patient stopped TRT due to fertility concerns.

### Conclusions

- No significant differences in TT, FT and E were seen at 6 months.
- 200mg IM every other week was more likely to cause significant erythrocytosis.
- 200mg IM every other week was more likely to cause higher changes in PSA but none of the patients required a biopsy.
- Further larger prospective studies are needed to validate these results.