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# Low T? Late Onset Hypogonadism

Cheng-Wei Huang, Class of 2016

Rotation 1

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# Problem Identification

- During my rotation at South Burlington Family Practice (SBFP), I had multiple encounters with adult male patient across all ages who asked about testosterone. They were more likely to connect their symptoms with low T before other potential causes. Complaints included:
  - “I feel like my sex life isn’t the same.”
  - “I feel more tired lately.”
- Recently, there has been an increase in commercials and ads by pharmaceuticals pushing for testosterone supplementation by capitalizing on the sensitive subject of “low T” or decreased manhood and vague non-specific symptoms of low T.
- The idea that testosterone is something that occurs within our natural body and that we are only supplementing what’s originally there can be misleading. Many may interpret this as there is no harm but good, but the latest studies have shown otherwise.
- It is clear that there is a lack of proper understanding regarding testosterone treatment in the public, from when treatment would be suitable to what the risks and benefits are.

# Public Health Cost

- Rates of testosterone therapy prescription have increased markedly in the United States over the past decade. Annual prescriptions for testosterone increased by more than 5-fold from 2000 to 2011, reaching 5.3 million prescriptions and a market of \$1.6 billion in 2011.
- Multiple research studies have shown that the use of testosterone therapy is associated with increased risk of mortality, myocardial infarction, or ischemic stroke.
- Heart disease and stroke are currently the leading and fifth leading cause of death in men, respectively.

# Community Perspective on Issue and Support for Project

- “My biggest concern is that the public is receiving their knowledge from TV and advertisements, and they come in with a biased opinion expecting something...educating people on the risks and benefits would be helpful.” – Dr. *[Name Withheld]*
- “There is unclear benefit with treatment of exogenous testosterone. Yet clearly established adverse side effects.... Low T has very vague nonspecific symptoms with billion dollar direct marketing by pharmaceuticals. It would be helpful to have public education...” –Dr. *[Name Withheld]*
- “There is little evidence that it [testosterone supplements] helps symptoms and it’s marketed heavily. Everyone in their 50s is not going to feel like their 20s. The ad is looking for anyone who is a little tired, and asking to get your T checked... it is important to help people understand the risk and benefits.” – Dr. *[Name Withheld]*

# Intervention and Methodology

- Create an easy to understand educational handout for the general public.
- The handout will focus on the basic definition of late onset hypogonadism (LOH) and include a breakdown of risks and benefits.
- Display the handout at the waiting room of SBFP and other clinics for interested patients to browse.
- Create a .dotphrase in PRISM so providers can print out the information out for patient education when patients inquire about low T.

# Results

- Discussed with multiple healthcare providers on key points to include in the handout.
- Educational handout was sent to healthcare providers for review and revised accordingly.
- Discussed with office manager of SBFP the feasibility of displaying education material or best way to have the material distributed for the public.
  - Public display may not be an option. Was told that the best way for distribution would be to integrate it into PRISM for doctor's to print out and give to patients.
- Currently working to implement .dotphrase and making providers aware to increase provider usage.

# Evaluation of Effectiveness and Limitations

- Evaluation
  - Survey providers whether they feel patient who received the information handout after inquiring about testosterone at a visit had an improved understanding of the risk and benefits of its use at the follow-up visit.
- Limitations
  - Material is distributed passively upon inquiry rather than actively promoted, which limits the audience.
  - People who have a lower than high school reading level may have trouble with document comprehension as mentioned by a reviewer.
  - Low T symptoms are vague. Patients may still readily relate to non-specific symptoms like fatigue despite proper education materials.



# Recommendations for Future

- As the topic is of current debate and research is being conducted on the subject, the handout should be updated accordingly in the future to reflect the latest studies.
- The education handout can be updated to use simpler language so that it is suitable for people of various educational background.
- Increase provider awareness on the document's existence to increase document usage.
- The topic is of public health importance, but due its specific population focus, the project may not be suitable for a community-wide approach. It may be of low relevance to some people and would not justify the cost in the process.
- A series of community education workshops based upon students' community health project topics that are public-oriented, and having the public self-select to attend, can be beneficial.

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