Meet The Speaker

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Michelle Fritsch, Pharm.D., BCGP, BCACP is a board certified geriatric clinical pharmacist with a passion for healthy aging and education. She is a specialist in medication use in people over 60. She is founder of Retirement Wellness Strategies strategizing a healthy transition to retirement for men defined by their careers and Meds MASH, LLC assuring safe medication regimens in older adults. She works with a broad definition of health – physical, mental, emotional, spiritual, and social.
Disclosure

I have no conflicts to disclose.

Note, this discussion does not include transgender males or any females.

Learning Objectives

Select
Select appropriate candidates for testosterone therapy with full description of any associated risks.

Initiate
Initiate appropriate prostate health therapies for associated type and degree of hypertrophy or cancer.

List and compare
List and compare men's health initiatives available for male patients and their partners.
Why this subject?

Midlife and beyond

Common Complaints

• fatigue
• low energy
• poor sleep
• weight gain
• lower libido
Self-Assessment Question #1

If your male patient over age 45 complains of symptoms like those in the last slide (fatigue, low energy, poor sleep, weight gain, lower libido), what is your FIRST thought of likely cause?

A. Diabetes
B. Heart disease
C. Lifestyle choices
D. Hormone depletion

Any of these would be reasonable thoughts and would guide our next steps in the conversation. Today we will focus on a growing industry targeting men in this vulnerable place with hormone replacement promises.
Androgen replacement

- Androgen prescribing quadrupled 2001 to 2011; now a billion dollar industry
- Testosterone decline is a natural part of aging, about 1% per year after age 30, plus with advancing age more testosterone is bound with an increase in sex hormone binding globulin
- True hypogonadism is the evidence-based indication for testosterone replacement therapy

So many other potential causes of these symptoms – cardiovascular, endocrine, neurological, emotional, social, and more.


Androgens

- Testosterone – monitor prostate cancer (avoid), infertility, testicular hypertrophy
  - human chorionic gonadotropin – monitor thromboembolism
  - clomiphene citrate – monitor mood (depression, mania, suicide)
  - Aromatase inhibitors; e.g. testolactone – monitor bones
- Growth Hormone – monitor metabolic syndrome
- Thyroid Hormone – monitor thyrotoxicosis
  - Levothyroxine (LT4)
  - Liothyronine (LT3)
  - Desiccated thyroid extract (*individualized therapy)
- Glucocorticoids – monitor the many risks of these

- “adrenal fatigue”
  - Saliva hormone panels for DHEA, pregnenolone, sex hormones
  - Online access to tests and ‘treatments’
Women’s HRT ➔ Made logical sense

Men’s HRT ➔ Makes logical sense ➔ ?
Testosterone Replacement Therapy (TRT)

Hypogonadism

- primary hypogonadism
  - low levels of testosterone
  - high-normal to high levels of luteinizing hormone (LH) and follicle-stimulating hormone (FSH)

- secondary hypogonadism
  - low levels of testosterone
  - normal to low levels of LH and FSH.

- For aging men
  - laboratory testing should include early morning (8:00–10:00 AM) measurement of serum testosterone;
  - levels (more than one) less than 300 ng/dL clearly indicate hypogonadism, and
  - If <300ng/dL typical benefit from TRT

‘Normal’ testosterone levels

- Massachusetts Male Ageing Study (MMAS)
- About ¾ of the men not included; only ‘healthy men’ for baseline
  - Predominantly white, married, educated men
  - For HEALTHY men proposed normal ranges
    - <251 ng/dL ages 40-49
    - <216 ng/dL ages 50-50
    - <196 ng/dL ages 60-69
    - <156 ng/dL ages 70-79
- American Urological Association (AUA) defines low testosterone as below 300 ng/dL
  - Some evidence of variance of ‘normal’ by decade of life; loss 1%/yr


Testosterone Replacement Therapy (TRT)

- Benefits
  - Lean muscle mass
  - Possible weight reduction
  - Lower LDL
  - Improved bone density and bone strength
  - Modest improvement physical function
  - Improved sexual function
  - Improved mood

- Concerns
  - MI risks higher with greater frailty and underlying cardiovascular risk
  - Erythrocytosis – risk of MI and CVA
  - Infertility
  - Acne
  - Less data and great concern with advancing age
  - Still unclear if can increase risk of prostate cancer; AVOID if known prostate cancer

Testosterone and the Heart

- Risks
- Benefits

TRT formulations

- Long acting intramuscular injection $ 
- Extra long acting intramuscular injection $$$$ 
- Subcutaneous injection $$$ 
- Gels/pumps* $$$-$$$$ 
- Nasal gel $$ 
- Patch $ 
- Pellets $$$$ 

* Avoid exposure in fertile females
Self-Assessment Question #2

A 45 year old man, former elite athlete, is noticing greater difficulty maintaining muscle mass, decreased stamina in workouts, and a drop in libido. His testosterone level is 425ng/dL. It was 530 ng/dL 7 years ago. He has no concomitant diagnoses or health issues. He has a strong family history of heart disease. Is he a candidate for TRT?

A. Yes, he will feel much better; prioritize quality of life right now
B. Yes, a brief trial will determine if this is the right course of action.
C. No, his risks are greater than any proposed benefit.
D. No, he is not a candidate since his testosterone is above 300ng/dL.
AACE Position Statement
Off-Label Use and Misuse of Testosterone, Growth Hormone, Thyroid Hormone, and Adrenal Supplements: Risks and Costs of a Growing Problem

• Growing problem
• Misguided to believe problems are hormone deficiency; need hormone treatment
• Testosterone and Growth Hormone do decrease with age
• No scientific evidence for use for anti-aging purposes
• Only prescribe if clearly established diagnoses of male hypogonadism, GH deficiency, hypothyroidism, adrenal insufficiency, and other conditions where these medications are an accepted standard treatment.

Erectile Dysfunction

- Inability to achieve and maintain an erection sufficient for satisfactory sexual intercourse.
  - 20-30 million men in the US
  - Can be from one or a combination of contributing factors – psychological, neurologic, hormonal, arterial, venous
  - Might be an early silent marker of cardiovascular disease
- Treatment
  - Underlying factors
    - Caused by medication? Antihypertensives, Antidepressants, Alcohol, Tobacco use, …
  - Phosphodiesterase – 5 – inhibitors
    - Do not use with nitrates
    - Caution with renal impairment
    - Adverse effects – flushing, nausea, headache, priapism
  - Vacuum device, transurethral Rx, intracavernous Rx
  - Specialist


Sexually Transmitted Infections

- Per the CDC, 20 million new cases in the US in 2016
- About 20% attributed to casual sex while traveling
  - ↑ potential pathogens
- Questions I’ve added to my data collection:
  - sexual partners past 12 months?
  - sex and gender of sexual partner(s)?
  - when last tested, ever diagnosed?
  - Has opened doors to conversations about marital discord, erectile dysfunction, risky practices, etc.

Can lead to infertility, organ damage, cancer, and more depending on pathogen.

Prostate Health

Prostatic Hypertrophy

- Common complaints
  - International Prostate Symptom Score
  - Visual Prostate Symptom Score

  - Incomplete emptying
  - Frequency
  - Intermittency

  - Urgency
  - Weak stream
  - Straining
  - Nocturia

- Treatments
  - Alpha blockers - relax the muscular stromal tissue of the bladder neck and prostatic urethra
    - First generation – monitor for orthostatic hypotension
  - 5-alpha-reductase inhibitors - reduction in the acinar-glandular volume of the prostate through reduced dihydrotestosterone (DHT) production
    - postural hypotension, impotence, gynecomastia, decrease PSA
    - avoid exposure with pregnant women

Prostate Cancer Screening

- Prostate Specific Antigen (PSA) – note this can be elevated with cancer, BPH, infection, catheter placement, anything that irritates the prostate
- Digital rectal exam – feeling for size or irregularity
- These together have decreased rates of prostate cancer deaths by 30% and greatly reduced progression to advanced prostate cancer.
  - Can be difficult to get men to the doctor for these exams
  - Health screenings to enhance prostate screenings with modest results
  - DO NOT take or trust a blood pressure taken before a DRE.

Practice assessment question

Do you alter the order of patient intake for men who know they are going to have a digital rectal exam during the appointment?

A. Yes, we hold off on detailed questions and blood pressure or pulse assessments until after the DRE.
B. No, all patients have the same initial intake routine with the blood pressure and pulse assessment prior to the clinician entering the room.
C. Wow, never really thought about it.
Self-assessment question #3

A 56 year old man is in your practice. When you start asking about urological health, you discover he has seen a change in his urine stream (reduced) and has had two episodes of inability to maintain an erection in the past 3 months. This has never happened before. What is the most appropriate referral?

A. Oncologist
B. Urologist
C. Endocrinologist
D. Psychologist

Way too little data to determine at this point. Let’s discuss next steps.
Beyond physical pathology

Beyond physical pathology

Mental
Emotional
Spiritual
Physical
Social
HEALTH
Boomer men – additional concerns

- Divorce rate increasing
  - ‘Gray divorce’ rates nearly doubled since 1990’s
  - Has decreased in those 25-39 and slight increase ages 40-49, so not just current societal change

- Suicide rates (note, data all pre-COVID)
  - Highest for men in their 50’s and those over 75
  - Higher in this Boomer generation than earlier generations
  - Rates increased 37% for men ages 45-64 from 2000 to 2016 (up 60% for women)
  - 70% US suicides by white men – highest rates in Montana, Alaska, Wyoming, New Mexico, Idaho, and Utah

- Sudden health decline
  - Cognitive decline
  - Health decline

Men’s Health websites

- Movember - [https://us.movember.com/](https://us.movember.com/)
- BetterMan - [https://betterman.com/](https://betterman.com/)
- The Good Men Project - [https://goodmenproject.com/](https://goodmenproject.com/)
- MenAlive - [https://menalive.com/](https://menalive.com/)
- Mens Health Netowrk - [https://www.menshealthnetwork.org/](https://www.menshealthnetwork.org/)

- hims - [https://www.forhims.com/](https://www.forhims.com/)
- roman - [https://www.getroman.com/](https://www.getroman.com/)
Self-Assessment Question #4

Men are typically quick to share their feelings and any personal concerns.

A. True, if anything is wrong, my patients will tell me right away.
B. True, I have a great pre-visit survey that asks all the right questions.
C. False, they just won’t talk no matter what I do.
D. False, but if I develop a relationship and ask the right motivational interviewing questions, I often learn more.
References

Androgen replacement/supplementation


Prostate health


Sexually Transmitted Infections

References

• **Broader health**


