The role of the general practitioner in men’s health

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The general practitioner (GP) is pivotally placed as an access point to provide holistic healthcare for men. GPs are the gateway to men’s health. It is the GP who has the power to impact on the present health and ameliorate the future health of men. With active health promotion and targeted advice and investigation, the healthcare shy man has the potential to look forward to a healthier, more fulfilled, and active life.

Why does the GP have such an important role to play in men’s health? To be blunt, men are unhealthier than their female counterparts. They take more risks, drink more, smoke more, and generally choose more unhealthy lifestyle options.

Men do not access healthcare in the same way as women. We know that women access their general practitioner regularly throughout their lifespan, for multiple reasons. One of these reasons is the fact that there is routine screening available for women, such as cervical smear testing, and the mammogram screening programme. No such routine screening programmes currently exist for men. Sexist as it may sound, women tend to be the ones who bring in the children for health issues and vaccinations, and, of course, women need to attend for contraception and maternity care. Women are, therefore, more familiar with using the health service as well as being the more health responsible sex. Men tend to leave it until they are older to access the general practitioner, often therefore, leaving only a small window of health promotion opportunity, or indeed too late for any opportunistic health promotion by the healthcare provider.

These attendance rates are reflected in life expectancy figures with men dying prematurely compared to women regardless of age. The gap between the sexes with respect to life expectancy continues, and is predicted to expand. The results of this are shown in data from the Health for All database 2003, which shows European male and female death rates from melanoma. We know that men get more cancers than women except for breast cancer and malignant melanomas. Even though women get more melanomas than men, more men die from them than women. One can reasonably conclude that this is as a consequence of their delayed presentation to the general practitioner.

It is absolutely imperative that when men do present to the GP they are proactively investigated and managed. GPs should also use the opportunity to promote future health strategies. Treatment seeking delay was demonstrated in an online survey, which looked specifically at testosterone deficiency (TD). The survey noted that over 35% of men took more than 2 years to seek advice regarding their symptoms of TD.

The European Men’s Health Forum (EMHF) Roundtable on Men’s Health and Primary Care concluded that as the population ages, we need to empower men and utilize targeted disease prevention to improve the health of the exponentially increasing ageing population. If we want a healthy elderly male population, or at least as healthy as possible, it is in part the responsibility of the GP to improve communication with men when they attend. For this to improve we need to consider adding physicians specifically in communication strategies for men and raise awareness of the barriers which prevent men from attending.

Looking back at the survey, it also discovered that it was not always sexual symptoms that catalyzed a man to attend regarding TD. Erectile dysfunction (ED) and decreased libido were, as expected, the most likely reasons to present; however, often men presented with more general symptoms, such as tiredness, lack of concentration, and even sleeping problems.

More often than not, it was the partner who suggested that the man should visit their doctor. Reasons stated for not presenting in the first place were that men thought their symptoms of TD were just a part of the normal ageing process, embarrassment or that they thought their symptoms were not a serious problem.

TESTOSTERONE DEFICIENCY IN GENERAL PRACTICE

Looking specifically at TD, as general practitioners, we need to be aware that it can present in so many ways and across many areas of medicine. As the ultimate generalist, we are in a privileged position to be mindful of this. For example, we need to consider adding in a testosterone blood test as part of the male type 2 diabetic workup, the “tired all the time” screen and obesity screen, and consider serum testosterone as a routine investigation for anaemia of unknown cause and as part of the screen for osteoporosis.

It is difficult however, as the general practitioner in the UK will regard National Institute for Clinical Excellence (NICE) as the gold standard as far as guidelines are concerned, and unfortunately there are no NICE guidelines on the umbrella of men’s health nor ED or TD specifically. NICE do mention assessing contributory factors in type 2 diabetic men presenting with ED, but that is the limit of the advice. There are a plethora of other respectable, highly regarded societies that have produced guidelines. In November 2017, The British Society for Sexual Medicine (BSSM) produced both a multidisciplinary and thoroughly referenced guideline with high grade evidence. The BSSM had the busy GP in mind so also produced a quick practical guide to TD.
of Clinical Endocrinologists (AACE) also have guidelines regarding potential patients to screen and how to manage TD.\textsuperscript{9,10} Bearing this in mind I decided to find out how many general practitioners were aware of these societies and their guidelines. None of the 33 had ever heard of EAU, AACE and the European Academy of Andrology (EAA). One GP out of the 33 knew of the BSSM and, as expected, all 33 were familiar with NICE. A problem! Education and dissemination of knowledge on men’s health from general practitioners with special interest as well as mentoring of interested colleagues is of paramount importance.

THE REAL WORLD – RESULTS FROM THE REVITALISE AUDIT

With all of this in mind and to emphasize the point, it is worth considering further what is currently happening in general practice, i.e., the real world, with regards to men’s health. I carried out a UK nationwide audit from October 2015 to April 2016 looking at how ED and TD were being managed in type 2 diabetic and non-diabetic men in primary care within the preceding 2 years.\textsuperscript{11} Were there any areas for improvement in their management?

The audit was carried out across 13 primary care centers across the UK and involved 43 633 patients. Male patients were divided into two groups - men with type 2 diabetes mellitus (T2DM) and men without T2DM.

Regarding the men with T2DM - the audit assessed how many of them had been asked about ED at their annual diabetic review. The men with a positive diagnosis of ED were further assessed to determine whether they had had a serum testosterone test in the past 2 years. If a T level had been recorded as below 12 nmol l\textsuperscript{-1}, a further assessment was carried out to establish whether those men were receiving T therapy (Figure 1).

Similarly, for men without T2DM, a coding of ED was searched for. Again, if the men had a positive ED coding, further assessment was made to determine whether they had had a serum testosterone test in the past 2 years. If a level had been recorded as <12 nmol l\textsuperscript{-1}, were these men receiving T therapy?

The audit also looked for a coding of “hypogonadism” and if this was found were these patients on testosterone therapy?

The results from the audit revealed that over two-thirds of men with T2DM and ED had not had a testosterone test within the last 2 years. 72.8% of men with T2DM and ED Figure 1: Overview of the Revitalise audit. The Revitalise audit was designed by Oberoi Consulting Ltd., and implemented with funding from Besins Healthcare (UK) Ltd. ED: erectile dysfunction; T2DM: type 2 diabetes mellitus.

Figure 2: Results from the Revitalise audit – men with T2DM. Over two-thirds of men with T2DM and ED had not had a testosterone test within the last 24 months. ED: erectile dysfunction; T2DM: type 2 diabetes mellitus.

Figure 3: Results from the Revitalise audit – men without T2DM. ED: erectile dysfunction; T2DM: type 2 diabetes mellitus.
and total testosterone level <12 nmol l\(^{-1}\) were not receiving T therapy (Figure 2). Similarly, 60% of nondiabetics with ED had not had a testosterone level checked in the previous 2 years and of those that had been tested 93.2% of men with ED and T level <12 nmol l\(^{-1}\) were not on T therapy. Perhaps even more surprising was that 57.4% of men that had a diagnostic coding of “hypogonadism” were not receiving T therapy (Figure 3).

To conclude from the audit, a third of men with T2DM had not been asked about erectile dysfunction; this is despite it being part of the well-recognized NICE guidelines stating that it should be. Men who had been diagnosed with ED or TD were often not receiving the necessary screening or treatment in line with current evidence-based guidelines. Primary care providers should be aware of the common cluster of erectile dysfunction, testosterone deficiency, and type 2 diabetes and the diagnosis of one of these conditions should prompt enquiry about the others.

**ACTION LIMITS VERSUS REFERENCE RANGES**

To take this a step further, if we do manage to create patient awareness to improve the frequency by which men present to the GP, there are other major issues that need to be addressed. One major issue is the variation in testosterone level reporting by laboratories.

As part of the BSSM committee, we are strongly encouraging a move toward ‘action levels’ as opposed to laboratory reference ranges. This is being further evaluated via a national audit. Results of this are expected to be published in late 2019. The action levels that are recommended by the BSSM are as follows:7

- Total T level <8 nmol l\(^{-1}\) or free T <0.180 nmol l\(^{-1}\) – usually requires T therapy
- Total T level >12 nmol l\(^{-1}\) or free T >0.225 nmol l\(^{-1}\) – does not require T therapy
- Total T 8–12 nmol l\(^{-1}\) or free T 0.180–0.225 nmol l\(^{-1}\) – may require a trial of T therapy for a minimum of 6 months.

**WHO SHOULD BE TREATING MEN WITH TD?**

The International Society for Sexual Medicine (ISSM) suggests that the great majority of men with TD can be effectively assessed and managed by the generalist.12 Exceptions would be for those with a secondary hypogonadal picture and serum total T levels below 5.2 nmol l\(^{-1}\), those with fertility issues, raised hematocrit, and those with active breast cancer, prostate cancer, or an abnormal digital rectal examination (DRE).

**CASE HISTORIES**

As a specific action from the Revitalise audit results in my own practice, I added a serum testosterone check to the annual diabetic bloods review as per the audit follow up plan. His initial serum total testosterone was 5.6 nmol l\(^{-1}\); consequently, I saw him to discuss this. On further questioning, he mentioned in greater detail his marital problems due to his lack of libido and his ED. He was also complaining of tiredness and lack of concentration at work with a diminished performance in the office. I repeated his testosterone which remained in the hypogonadal range. He was therefore started on testosterone gel. Two years later, he now has a testosterone of 15.9 nmol l\(^{-1}\), his Ageing Male Symptom (AMS) score is 32 (at initial presentation 48), and from a metabolic point of view his haemoglobin A1c (HbA1c) has reduced from 68 mmol mol\(^{-1}\) to 57 mmol mol\(^{-1}\) and his waist circumference from 42 inches to 38 inches. I think one of the most significant and satisfying results with Chris, however, was the improvement in his marriage. His wife pronounced to me one day “Thank you so much for helping Chris, he is like the man I fell in love with.” A stark reminder that by positively improving the health and quality of life of men we can also significantly and positively improve the well-being and quality of life of the partner.

Case 2 – Brian, a 63-year-old semi-retired plumber was also picked up in the diabetic screening post-audit intervention program. His initial serum total testosterone was 2.9 nmol l\(^{-1}\) with a significantly raised luteinizing hormone (LH). On further consultation, it transpired that Brian had a primary gonadal insufficiency due to the fact that sadly aged 19 he had been involved in a work accident with a conveyor belt and his left testicle had been ripped out. He had never had his testosterone level checked. He had severe loss of libido, yet again, however did not think anything could be done about it. With Brian, two factors were working to diminish his testosterone. Firstly, the lack of primary testosterone production post living the majority of his life having half the potential to produce testosterone normally. Secondly, the T2DM pushed his testosterone down further resulting in a profoundly low testosterone with life changing decreases in both libido and lack of energy. Following treatment with T therapy, Brian improved dramatically. Two years later (Figure 4), his testosterone is now 28.1 nmol l\(^{-1}\), his AMS has reduced from 45 to 29, and his waist circumference from 40 inches to 37 inches. His HbA1c, again as with Chris in case one, has also reduced from 55 to 49 mmol mol\(^{-1}\). He was so pleased that he had been screened. “Thank you so much for checking my testosterone, I had never considered that it was a cause for my lack of interest in sex” he told me during one of our follow-up consultations. At this point, I feel it is pertinent to note that it is of utmost importance that we stress the benefits of long-term use of T therapy, which will be lifelong in most cases. As per a study by Saad et al.,\(^{13}\) we know it takes years for metabolic parameters to improve.
to improve, but these improvements can have significant effects on long-term morbidity and indeed mortality.

HOW WE ARE IMPROVING MEN’S HEALTH PROVISION IN THE UK
Noting the benefits of correctly identifying and treating men with TD, how are we addressing the issues of lack of primary care awareness in the UK?

Several fellow minded doctors and practitioners with a special interest in men’s health have formed a group, known as the Primary Care Testosterone Advisory Group (PCTAG). Our aim is to educate and support general practitioners with educational and mentorship programs in men’s health. We have developed a Men’s Health Handbook for General Practice which covers many topics including prostate disease, lower urinary tract symptoms (LUTS), testosterone deficiency, depression, cardiovascular health, metabolic syndrome, and others. We use case-based discussion workshops to help teach these subjects to GPs and hold regular training events around the country. These materials and teaching sessions were developed in association with Dr. David Greenberg and MUMS Health (www.mumshealth.com). We have developed a website www.pctag.uk so patients and professionals can access further information with links to the BSSM etc.

Hopefully, with this increased level of education and supportive activity, we can improve the knowledge and communication skills of GPs so that when men do present, they will receive the best possible consultation.

CONCLUSIONS
The health of men, in particular the ageing male, will be a global financial burden if the health inequalities are not remedied, and it is our responsibility to ameliorate the situation. As GPs we are in a privileged position to be able to help men use the health service more effectively, promote better health seeking behavior, and improve the perception of a healthy lifestyle. We need to encourage men to seek help and remove the stigma men often associate with ill health and vulnerability. This will improve the health of the entire population, as it will have benefits for the man’s partner and family alike.

General practitioners need to take ownership of men’s health issues and be proactive in tackling health promotion in order to prevent the increasing premature morbidity and mortality in men. General practitioners with advanced knowledge need to educate, empower, and build confidence in fellow GPs to ensure patients are treated early and optimally. GPs need to be made aware of current societies and their guidelines as current adherence and awareness is lacking. Ultimately, the GP may only get one chance to positively impact the health of any given male patient and we must not waste that opportunity.

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