New guidelines for testosterone prescription

The Pharmaceutical Benefits Advisory Committee (PBAC) is expected to announce in April new guidelines for prescription of testosterone on the Pharmaceutical Benefits Scheme (PBS). The PBAC started the review process in 2013 following an article published in the Medical Journal of Australia the previous year, which showed that total annual expenditure on testosterone products increased ninefold to $12.7 million in twenty years. The new guidelines contain two major changes to the way testosterone is currently prescribed. The first is that local doctors will no longer be able to continue to prescribe testosterone therapy without having the prescription validated by a specialist (endocrinologist, urologist, or member of the Australasian Chapter of Sexual Health Medicine). At the time of authority being obtained a date for an appointment and the name of a specialist must be included by the local doctor.

The second change relates to the prescription of androgens for men over the age of 40 who do not have a defined pituitary or testicular disorder. For these men to receive PBS support, the threshold testosterone level in the bloodstream has been lowered from 8nmol per litre to 6 nmol per litre, effectively tightening the criteria. The conditions covered by the testosterone guidelines are: androgen deficiency due to a pituitary or testicular disorder, androgen deficiency in men over 40 years of age who do not have a pituitary or testicular disorder, micropenis, constitutional delay of growth or puberty, and circumstances where induction of puberty is required. 1


Andrology Australia has received correspondence critical of our decision to publish the article “Canadian review recommends against PSA screening.” In issue 53 of The Healthy Male, The Issues around prostate cancer screening, diagnosis, possible overtreatment, and treatment are complicated. Even more so when a man tries to make sense of population-level recommendations for his own circumstances.

Screening for prostate cancer with the PSA test

PSA testing can be very beneficial to men in whom aggressive prostate cancer that otherwise may have remained undiagnosed, is found and treated effectively.

There is a large number of PSA guidelines from various urological, cancer, and public health associations from around the world, including Australia, that all aim to make recommendations for the population as a whole, rather than individual men. As the studies that provide the evidence base for PSA guidelines have not been conclusive about the pros and cons of screening, there is a lot of conflicting information available.

To try to make some sense of this, Andrology Australia developed a summary statement of the main guidelines, pointing to areas of agreement and disagreement between organisations. The report was released in June 2014 and is available at www.andrologyaustralia.org/position-statement/. We have committed to update this report when the source documents are released or revised, including the guidelines by the Canadian Task Force on Preventive Health Care and the Cancer Council Australia/Prostate Cancer Foundation of Australia.

We found that most of the guidelines agree that population screening [that is, an organised, state-based screening program] using the PSA test is not warranted; however, most also agree that a well-informed man, in consultation with his doctor, may choose to have a PSA test and that can be a reasonable decision to make. One of the main arguments against routine PSA testing is that sometimes cancers that are found are not aggressive (low risk cancers) and might not have caused the man harm in his lifetime. However, because they are found, and it is difficult to tell how much they will cause problems, they are then treated. Although it doesn’t happen in all cases, a substantial proportion of men have serious side effects from treatments such as prostatectomy. One way to avoid these side effects is for men diagnosed with low risk cancers to adopt an active surveillance approach, rather than going straight to active treatment. However, there is a possibility that living with ‘untreated’ cancer may cause a man to feel anxious and affect his quality of life. Therefore, studies are following up men using this approach to see if that is really the case. The paper we reviewed in Research round-up column in issue 53 of The Healthy Male showed that many men are able to follow this approach without any ill effects on their psychological wellbeing, which is good news for the many men undergoing PSA testing who are found to have a low risk cancer.

When talking about PSA testing it is always difficult to align the information from population-based studies with the best options for individual men and their specific circumstances.

We try to present information from both perspectives across our various publications and we appreciate hearing the views of our readers in response to our articles on this and other topics.
A theme that we often return to in *The Healthy Male* is the importance of men being informed about their health. ‘Being informed’ can mean knowing about your own body and what is ‘normal’, so that you have a good idea when something has gone wrong. Being informed is also knowing about specific diseases that may impact on your health. Then there is being informed about risks for health problems. Some risks we are born with, other risks are raised or lowered by our lifestyle choices, and other risks may come about because of our line of work. In this issue we focus on occupational risk, and in particular the health risks specific to firefighters that were investigated in the recently released Australian Firefighters’ Health Study.

**What was the Australian Firefighters’ Health Study?**

The Firefighters’ Health Study was the first large scale study of incidence of cancers and causes of death in Australian paid and volunteer firefighters.

The study was conducted by the Monash University School of Public Health and Preventive Medicine, with statistical assistance by the University of Melbourne. Representatives of fire agencies, trade unions and volunteer associations joined a Stakeholder Advisory Committee, and a Technical Reference Group provided advice to the research team on the conduct of the study.

The study included 17,394 male full-time paid firefighters, 12,663 male part-time paid firefighters and 163,159 male volunteer firefighters. Women were also included in the study but the numbers were much lower; here we only present findings for the men. The study covered firefighters who started work from the 1950s onwards including those currently employed. The fire agencies were able to supply information about the number and type of incidents attended on a personal basis from 1990 for some firefighters. Causes of death and incidence of various cancers were obtained from the National Death Index and the Australian Cancer Database, up to the end of 2011.

**Why study firefighters?**

There is scientific evidence from around the world that firefighting is associated with an increased risk of some cancers in men, including testicular cancer, prostate cancer, non-Hodgkin lymphoma and multiple myeloma.

When you think about the work of firefighting, it is easy to see how firefighters could be exposed to a range of hazards. Airborne particles and toxic gases are present in their work environment and smoke contains carcinogens (substances that increase the risk of cancer). Protective breathing apparatus (BA) is standard safety equipment for firefighters, but inhaling toxic substances is not the only way that firefighters can be affected—uncovered skin may also be an entry point. In the past, BA was more commonly used in the ‘knock down’ phase (flame and heat reduction) but there is evidence that it should also be used in the ‘overhaul’ phase (search for hidden fire) too.

**What did the study find about causes of death?**

The good news is that, on the whole, firefighters are healthy. When compared to the general population, firefighters have a lower risk of death from almost all causes. This is probably due to the ‘healthy worker effect’, in which people who are working tend to be healthier than the population as a whole (partly because people with serious illnesses or disability are often excluded from the workforce). This effect is even stronger in paid firefighters who need to meet strict fitness standards before they are recruited. It is also likely that firefighters have lower smoking rates compared with the Australian population, with all of the associated health benefits.

When specific causes of death were examined, paid firefighters still had a lower risk of dying from cancer than the general Australian male population, but the comparative reduction in death rates for cancer was not as great as that seen for the other major causes of death.

**What did the study find about cancer?**

Among male full time paid firefighters, incidence of all cancers combined was higher than that of the Australian population. There was an increase in prostate cancer, with a trend of increasing risk with increasing years of service and number of fire incidents attended. The risk of melanoma was increased, particularly among those who were employed for more than 10 years. There may be a higher risk of kidney cancer, male breast cancer and testicular cancer, but the numbers were small.

Findings were slightly different for male volunteer firefighters. There was no increased incidence of all cancers combined compared to the Australian population and no trend of increasing cancer incidence with duration of service. However, there was a trend of increasing risk with the number of incidents attended. An increased risk of prostate cancer was detected, which was most strongly associated with those with more than 10 years of service. There was no more testicular cancer than in the general population but longer serving volunteers were at higher risk than those who had served for less than 10 years. It is important to note that most volunteers attend fewer incidents than do paid firefighters.

**What does this tell me if I am (or have been) a firefighter?**

The important thing to remember about research of this type is that it is historical—it can only ever tell us about how things have been in the past. Getting information about the health impacts of operating procedures in the past helps to guide improvements in how things should be done now and in the future. For example, protective gear including BA have long been standard equipment for firefighters, but there is now a better understanding of the need to keep using this gear through the post-extinguishment overhaul phase of an operation. Equally importantly, firefighters now have strict operating procedures for the correct handling of contaminated protective gear.

If you have been a firefighter in the past, remember that this is a large survey that looks at health risk very generally. So it cannot make any specific predictions about likely health outcomes for you individually. The best advice is to make sure that your GP is aware of your work history so that this information can be factored into health assessments and diagnoses.

**What does this tell me if I am not a firefighter?**

The story for everyone, whether or not you have been a firefighter, is that your work environment can have health impacts, and some of these impacts may not become obvious until years later. People may be aware of risks posed by biological and chemical hazards. Other health risks are less obvious and not as well recognised or extensively researched—for example, workplace bullying, stress, hearing loss, shift work, and sedentary work may all have long-term health impacts.

**Where can I find out more information?**

The final study report is available at the Monash University website [www.coeh.monash.edu.au/fire horr/](http://www.coeh.monash.edu.au/fire horr/). The report is detailed and with numerous analyses included, it is important to look at the overall patterns of results when interpreting the findings, rather than focusing on a single finding.

This article is for educational purposes only. If you have any concerns about your occupational exposure to hazards Andrology Australia recommends that you seek the advice of your doctor.

Andrology Australia acknowledges the assistance of Professor Deborah Glas of Monash Centre for Occupational and Environmental Health (MonCOEH) for her assistance in preparation of this article.
What role for social media in communicating sexual health information?

Social Media is expanding from the role of connecting individuals to becoming a mainstream communications channel. It has long been assumed that younger people rely on social media for connectivity and information sharing.

A study recently published by researchers at Monash University and the Burnet Institute looked at whether the reach and popularity of social media can be used in the promotion of sexual health, safe sex practices, and the reach and popularity of social media networks. They were also asked about their social media habits, such as sexually transmitted infections.

A group of 620 people 16-29 years of age were questioned regarding their social media habits, such as how much time they spent accessing networks. They were also asked about their level of comfort in accessing information about sexual health from different channels.

A majority of individuals indicated being comfortable with receiving information on sexual health via websites (85%), a doctor (81%), school (73%) and mainstream media networks (67%). Interestingly, a smaller number of participants were comfortable accessing such information via social media: 52% of participants accessed data via Facebook, 51% through online applications, 44% used text messages, and 36% of individuals accessed information via Twitter.

Previous studies have shown that health promotion programs on social media have been effective, in contrast with this finding about younger individuals’ level of comfort directly accessing this information via such channels.

Social media is still an emerging form, and further research may help develop strategies for optimal use of social media in health promotion. In the meantime, the challenge for organisations like Andrology Australia is to find effective ways to use social media to raise awareness, to talk authentically about topics that people can find sensitive or difficult, and to engage with people from any level of comfort and wellbeing.

We encourage our readers to join the discussion on social media. Contact us on Facebook (facebook.com/AndrologyAustralia) or Twitter (@AndrologyAust).


Research round-up

Links between chronic health conditions and semen quality

Research is showing links between reproductive health and general health. Studies have shown that male infertility is linked with health problems such as obesity but looking at a range of chronic health problems within one study can be difficult. Men seeking help for infertility are relatively young and chronic conditions tend to be less common in this age group, meaning large studies are needed.

Data from 9,387 men evaluated for infertility at a clinic in the USA were analysed to assess the relationship between semen quality and current health status. An index of the number of health conditions a man had (Charlon Comorbidity Index, CCI) was compared to measures of semen quality. Forty-four percent of men had at least one health condition not specifically related to infertility. Men with a higher CCI on average had lower semen volume, and concentration, less moving sperm, lower total sperm count and less normally-shaped sperm. Particular conditions including cardiovascular disease and hormonal problems showed links with semen abnormalities.

The study was not able to assess the cause of the links seen between specific chronic conditions and measures of semen quality. More research is needed to look at how chronic conditions might affect semen quality and whether these impacts cause infertility. However, knowing that a man’s current health status is associated with semen quality could provide motivation for men to improve general health to give their fertility the best chance.