European Association of Urology – press release

**Major study shows x5 greater suicide rate in patients with urological cancers**

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A major UK survey has shown that patients with urological cancer such as prostate, bladder or kidney cancer are five times more likely to commit suicide than people without cancer. The analysis also shows that cancer patients generally are around three times more likely to commit suicide than the general population, and that the proportion of attempted suicides which result in a completed or successful suicide was higher in cancer patients, with a higher proportion still in patients with urological cancers.

Severe psychological stress is one of the main side-effects of both a diagnosis of cancer and cancer treatment, with depression affecting between 5 and 25% of cancer patients\(^1\):\(^2\); many are also affected by Post-Traumatic Stress Disorder (PTSD)\(^3\). Previous research has shown that the vast majority of cancer patients who have symptoms of depression often go untreated\(^2\). This study shows a substantial increase in suicide attempts and successful suicides in cancer patients. The work is presented at the European Association of Urology conference in Copenhagen.

This is the largest UK study looking at suicide in cancer patients (see below). The research team led by Mr Prashant Patel at the University of Birmingham retrospectively examined the records from the England and Wales Hospital Episode Statistics database, from the period 2001 to 2011. They linked this with cause of death statistics from the Office of National Statistics.

This is also the first time that a major study has examined suicidal intent in cancer patients – which they defined as the ratio of successful suicides to the rate of attempted suicides. They found that this rate was far higher (1 to 7) in patients with prostate cancer than in the general population (1 to 25), which may show a greater determination to commit suicide in cancer patients. “This is important” said first author Dr Mehran Afshar (St George’s Hospital, London), “as we know that people who attempt suicide are at higher risk of subsequently being successful in completing a suicide, and we have shown this ‘intent’ to commit to be far higher in our cancer population, thus confirming a real need to address psychological issues early on in the management of these patients.”

Dr Afshar continued

“Our data confirms research from other countries that suicide rates are higher in cancer patients, and we show this to be higher particularly in patients with urological cancers. There are particular issues which are specific to this cancer group - for example, men with prostate cancer undergo treatment which can affect their bladder function, their bowel function, erectile function and libido, can result in symptoms similar to the female menopause, and entirely alter the personality, leading to relationship problems, anxiety, depression and post-traumatic stress disorder.

We know from a 2014 study\(^2\) by Cancer Research UK that the vast majority of cancer patients who have symptoms of depression go untreated. We can see from the results of our study that although
All cancers have a higher suicide rate, inferring a higher level of psychological distress, there are disparities between cancers. This needs to be addressed within our healthcare systems, and more focus is needed on integrating the robust and specialist assessment and treatment of mental health needs in cancer care.”

The study also showed significant differences between the time to a successful suicide, which means that some cancer patients are more vulnerable in certain periods.

The numbers

- The researchers identified a total of 980,761 (493,234 males and 487,094 female) cancer patients which meant that 13.4 million-person years were included in the final data analysis. The team identified 162 suicides and 1222 suicide attempts.
- In the general population, the suicide rate is 10 per 100,000 people. The team found that the all-cancer suicide rate was 30 per 100,000 people. In the urological cancers the figures are 36 per 100,000 people in kidney cancer, 48 suicides per 100,000 in bladder cancer, and 52 per 100,000 people in prostate cancer.
- In the general population, there is an average of 25 suicide attempts for each successful suicide. In kidney cancer this ratio is 1 suicide for every 10 attempts. In bladder and prostate cancer, this ratio drops to one suicide for every 7 attempts.
- The time taken to commit suicide also varies substantially: median time to suicide is 175 days from diagnosis for kidney cancer, 846 days for prostate cancer, and 1037 days for bladder cancer.

Commenting, EAU Adjunct Secretary General, Prof Hein van Poppel (Leuven) said:

“This important work shows just how distressing cancer can be, but it also shows that there may be special factors associated with urological cancers which make them even more stressful than other cancers. It looks like urological cancers can affect patients’ sense of self in a way that many cancers don’t.

The work implies that some urological cancers, such as kidney cancer, can lead to fairly immediate distress, whereas the distress associated with prostate and bladder cancer may take a while to hit home – perhaps when patients begin to take up some of the problems associated with returning to normal life.

We also need to put things in context: many patients recover well, and don’t reach the stage of despair or distress which brings them to think of suicide. Nevertheless, this is a real problem. We need to recognise that the figures presented here are for suicides, which means that they are at the ‘sharp end of emotional distress’. For every suicide or attempted suicide, there will be many more patients who find difficulty in coping.

This distress does not stop when the cancer is removed or contained, and we owe it to patients to ensure that ongoing emotional support and mental health care is fully integrated in cancer care.”

Professor van Poppel was not involved in this work. He is a specialist in urological cancers.
The team noted a limitation of the study: they looked at the general suicide rate, not at the rate of suicides according to age (age-standardised suicide rate), however a comparison to baseline population suicide rates could only be made using crude suicide rates per 100,000 as this is population level data available.

There was no specific funding for this research.

Notes for editors

PLEASE MENTION THE EUROPEAN ASSOCIATION OF UROLOGY CONGRESS IN ANY STORY RESULTING FROM THIS PRESS RELEASE

The 33rd European Association of Urology conference takes place in Copenhagen from 16th to 20th March. This is the largest and most important urology congress in Europe, with up to 14,000 expected to attend. Conference website http://eau18.uroweb.org/

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Abstract: Patients with urological malignancy are 5 times more likely to commit suicide: A large national cohort study

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Introduction & Objectives
Suicide has been shown to have a higher incidence in populations with cancer in several countries. However no national study has investigated this in the UK, and none specifically looking at disparities in urological malignancies. We aimed to identify all patients diagnosed with prostate, bladder or kidney cancer from 2001-2011 in England, and analyse incidence of suicide, suicide attempts, time to suicide and potential predisposing factors for suicidality.

Materials & Methods
We retrospectively analysed the records of patients diagnosed with cancer from the Hospital Episode Statistics database from 1st April 2001 to 31st January 2011. Office of National Statistics data was used to identify suicide as a cause of death. After data exclusion, from the initial 3,520,638 records, we identified 980,761 cases of the 10 commonest cancers, of which 328,372 had a diagnosis of urological malignancy at final data review.

Results
We identified 1,222 suicide attempts, and 162 completed suicides. Suicide incidence was 49/100,000 in this cohort (48/100,000 in bladder, 36/100,000 in kidney, and 52/100,000 in prostate cancer), whereas population rates in England are 10/100,000. For non-urological cancers incidence was 30/100,000. Ratio of suicide/attempt was 1/7 for bladder and prostate, and 1/10 for kidney cancer, whereas in the general population it is thought to be 1/25. Median time to suicide
was shortest for kidney cancer at 175 days, 1037 days for bladder, and 846 days for prostate. There was no disparity in suicide rates between genders, but older patients with prostate and bladder cancer were more likely to attempt suicide ($p<0.01$), whereas more suicide attempts were seen in those under 50 for kidney cancer ($p=0.01$). There was no disparity in suicide attempts between Charlson comorbidity scores in prostate or bladder, but for kidney cancer there were more suicide attempts in those with fewer comorbidities ($p=0.04$). Analysing the index of multiple deprivation, there were more attempted suicides in those from lower socioeconomic groups.

**Conclusions**

Patients with urological cancers are five times more likely than the general population, and 63% more likely than other cancer patients to commit suicide. Also the ratio of attempt to suicide is lower than the general population, indicating more suicidal intent. The cause for the disparity with other cancers may be multifactorial including the possible social stigma associated with cancer of the urological tract. Formal identification of those at risk and early intervention should form the standard of care for patients diagnosed with urological cancers.