

Case for removing Anal Cancer from the UK NSC review list

Introduction & Background

The aim of this note is to present the information necessary for the ARG and UK NSC to consider whether screening for anal cancer should be removed from the UK NSC recommendation list. The immediate background to this issue is that an update review of this topic is now required as part of the UK NSC's 3 year review cycle. A decision is needed on this before commissioning an update review.

Previous review

The previous review was undertaken by SERIO, Plymouth University in 2012. This is attached for information. The review recommended against the introduction of a screening programme due to the following:

1. Epidemiology and natural history. Although Anal Intraepithelial Neoplasia (AIN) is the known precursor to anal cancer, the rate of progression from AIN to invasive anal cancer is not known.

Studies that have shown human papilloma virus (HPV) is a causal agent of anal cancer and is present in 76-97% of all cases. This has led to the identification of high risk groups in which the risk of HPV infection is highest. These high risk groups are defined as:

- Men who have sex with men
 - HIV- positive men and women
 - Women with a history of genital dysplasia
 - Women who have anal sex
 - People with immunosuppression (eg. post-transplant patients)
2. Test: there has been no research assessing screening methods and test performance in the general population. In high risk groups, the most studied tests were anal-rectal cytology and high-resolution anoscopy. Both produced variable rates of sensitivity and specificity.
 3. Treatment: due to improvements in disease staging and diagnostic techniques there has been a reduction in anal cancer deaths, however there is not an agreed policy covering which individuals should be offered treatment, and the appropriate/optimum treatment to be given.

Additionally, the benefits of screening to survival rates are not known.

Evidence Map

For the purpose of this discussion an evidence map was produced to gauge the volume of evidence in relation to the key questions identified in the table below. This is attached for information.

Key question identified from the previous UK NSC review (2013)	UK NSC Criterion	Volume of evidence identified since 2013
What is the distribution of anal cancer in the general population?	1. ...The epidemiology, incidence, prevalence and natural history of the condition should be understood...	The majority (80/119) of epidemiological studies retrieved focussed on epidemiology in high-risk groups.
Has a screening test for anal cancer been evaluated in the general population?	4. There should be a simple, safe, precise and validated screening test.	No studies validating the test in the general population were retrieved with this search.
Do any anal cancer screening guidelines recommend screening outside the usual *high-risk groups?		No national or international guidelines on screening for anal cancer in the general population retrieved.

*The high-risk groups being defined as: men who have sex with men (MSM), those people who are HIV positive, post-transplant patients or other immunocompromised populations, women who have anal sex, people with genital dysplasia

Summary of findings of the evidence map

- Anal cancer has a very low incidence in the general population with 1,307 new cases registered in the UK in 2014. Of these, 434 were in men and 873 were in women. This accounted for less than 1% of all new cases of cancer.

The evidence map found that the age-standardised rate in the general population was 2.2 per 100,000 of the population in 2014. The rate was slightly higher in women (2.7 per 100,000) than in men (1.5 per 100,000). Although no data specific to the UK for high-risk groups was found, meta-analyses have found that the rate increases to 131 per 100,000 in HIV positive MSMs, 46 per 100,000 in HIV positive men and 30 per 100,000 HIV positive women. The risk of anal cancer is also five times higher in transplant recipients.

- No studies were found assessing the test in the general population.
- No new guidelines have been published in the context of the general population. This indicates little interest in screening as understood by the UK NSC.

Recommendation

Anal cancer remains a rare but important condition. However an update review is not recommended at this time due to the lack of evidence in the key area of the test.

It is also recommended that anal cancer be removed from the UK NSC's list of topics because the condition is overwhelmingly confined in high risk groups . As such the population of interest is outside the remit of the UK NSC.