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## Media Release

## HPV associated oesophageal cancer patients live longer

Sydney scientists have found people with oesophageal cancer from human papilloma virus (HPV) have better survival outcomes than those with more traditional cancer of the gullet, and that they may benefit from less harsh treatment.

The HPV-linked tumours in the tube between the throat and the stomach are less aggressive, don't spread as far and are easier to suppress, concluded the study ("Barrett High-grade Dysplasia and Esophageal Adenocarcinoma With or Without Human Papillomavirus Infection") led by Professor Shan Rajendra, Director of the Gastro-Intestinal Viral Oncology Group at the Ingham Institute for Applied Medical Research and Professor of Medicine at UNSW. The results suggest a different, and less toxic, treatment may be suitable for the HPV-related version, compared with the oesophageal cancer caused by smoking, reflux or obesity.

It could also lead to a widening of the HPV vaccine program in Australia — to include teenaged boys, and adult men and women.

A separate recently released study published in *Diseases of the Esophagus*, also designed and led by Prof. Rajendra, found that the HPV virus was likely transmitted to the oesophagus due to oral sex.

Hollywood actor Michael Douglas famously blamed cunnilingus on his contracting HPVrelated throat cancer in 2008. Subsequent studies revealed that indeed oral sex was the culprit in the transmission of the virus, causing lesions and tumours in the tonsils and throat.

Now Prof. Rajendra's research shows HPV is more likely to have caused cancer or a precondition to it (Barrett's dysplasia) further down the food tube among patients with multiple sexual partners. That world first study set out to test the hypothesis that oral sex was partly to blame for one of the fastest growing cancer rates in the world.

"There's a number of reasons why the type of cancer caused by HPV is on the rise, including increased sexual freedoms and participation in oral sex," said Prof. Rajendra, adding, "It's a by-product of the sixties sexual revolution."

Oesophageal cancer rates have quadrupled in the last 50 years, Prof. Rajendra said. He said HPV accounted for about one-quarter of new cases.

"HPV has got there (to the oesophagus) either by gravity, or by swallowing," Prof. Rajendra said.



When HPV was found to be a cause of cervical cancer, a vaccine was produced and Australia responded by being the first country in the world to unveil a vaccination program for teenaged girls.

These new studies suggest a wider application of the vaccine may be a good investment to stanch the climb of oesophageal cancers.

The studies also raise questions around the need for a detection program for HPV-related oesophageal cancer. Presently, in Australia, women are recommended to have a so-called pap smear every two years to detect cervical cancer. Should there be a national program, which would likely involve an endoscopy, for oesophageal cancer detection in the adult population?

"We have routine breast checks and colonoscopies for bowel cancer detection, so we shouldn't let the cost of an endoscopy be a barrier," said Prof. Rajendra.

He said almost half of patients with oesophageal cancer report no symptoms.

For now, the most important work to do, said Prof. Rajendra, is to have larger, more geographically diverse studies, that test his and his colleagues' conclusions, and which could lead to even better outcomes for HPV-related oesophageal cancer patients — less invasive, less costly, treatments.

"Treatment shouldn't have to be aggressive radiotherapy or chemotherapy in all cases of oesophageal cancer, a subset could potentially benefit from treatment de-escalation," he said. "That's the hope. Others have to confirm our findings in larger numbers and in different parts of the world."

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## ABOUT THE INGHAM INSTITUTE

The Ingham Institute is a not-for-profit research organisation in Sydney's south west established to undertake medical research that specifically addresses and can be applied to the needs of the local population and wider Australia.

The Ingham Institute is changing the way medical research is done in Australia by transferring research into practice across its five research streams, enabling the swift transfer of findings into day-to-day medical practice.

The Institute's research team are focused on exploring new medical approaches across Cancer, Clinical Science (comprising Cardiovascular Disease, Diabetes and Infectious and Inflammatory Diseases), Population & Health Services, Injury and Rehabilitation and Mental Health. They are at the forefront of the most advanced medical breakthroughs and clinical discoveries and are committed to saving and improving lives.

