



# SEMINAR

## Introduction

**Prof. Vincenzo Baldo**

Full Professor

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## Speakers

**Libera Clemente**

Azienda Sanitaria Universitaria  
Giuliano Isontina

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Università degli Studi di Padova

## Identifying Predictors of Anal HPV Status in HPV-Vaccinated MSM: A Machine Learning Approach

### Abstract

Anal human papillomavirus (HPV) infection has a high prevalence in men who have sex with men (MSM), resulting in an increased risk for anal cancer.

This work aims to identify factors associated with HPV in a prospective cohort of HPV-vaccinated MSM.

This observational study enrolled MSM patients admitted to an Italian (sexually transmitted infection) STI-AIDS Unit.

Two random forest (RF) algorithms were applied to evaluate predictors that were most associated with HPV. The cohort included 135 MSM, 49% of whom were HIV-positive with a median age of 39 years. In model 1 (baseline), age, age sexual debut, HIV, number of lifetime sex partners, STIs, were most associated with the HPV. In model 2 (follow-up), age, age sexual debut, HIV, STI class, and follow-up.

Traditional risk factors for anal HPV infection, such as drug use, receptive anal intercourse, and multiple sexual partner, were found to have low importance in predicting HPV status.

**Wednesday**  
**23 November**  
**2022**



**01:30-03:00 PM**



**Aula Cardiologia**  
**Centro Gallucci**  
**via Giustiniani, 2 -**  
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