



# UNIVERSITÀ DEGLI STUDI DI MILANO

**SELEZIONE PUBBLICA, PER TITOLI ED ESAMI PER IL RECLUTAMENTO DI N. 2 UNITÀ DI TECNOLOGO DI PRIMO LIVELLO CON RAPPORTO DI LAVORO SUBORDINATO A TEMPO DETERMINATO E PARZIALE AL 70% DELLA DURATA DI 18 MESI PRESSO L'UNIVERSITÀ DEGLI STUDI DI MILANO - DIPARTIMENTO DI SCIENZE CLINICHE E DI COMUNITÀ - CODICE 22032**

La Commissione giudicatrice della selezione, nominata con Determina Direttoriale n. 2594 del 28.2.2022, composta da:

Prof.ssa Bravi Francesca	Presidente
Dott. Alicandro Gianfranco	Componente
Dott. D'Errico Gerardo	Componente
Dott.ssa Bersani Serena	Segretaria

comunica i quesiti relativi alla prova orale:

## **BUSTA 1**

### **Lista dei quesiti n. 1**

Il/La candidato/a spieghi la differenza tra le operazioni set e merge di due data set

Il/La candidato/a descriva i principali indicatori di tendenza centrale

Il/La candidato/a legga ad alta voce e traduca la sezione "Participants and methods" e riassume in italiano i risultati principali:

Ferro A et al. Sex differences in the prevalence of Helicobacter pylori infection: an individual participant data pooled analysis (StoP Project). Eur J Gastroenterol Hepatol. 2019 May;31(5):593-598. doi: 10.1097/MEG.0000000000001389.

TESTO IN INGLESE : Abstract

Background: Helicobacter pylori (H. pylori) infection is more frequent among men, though the magnitude of the association might be inaccurate due to potential misclassification of lifetime infection and publication bias. Moreover, infection is common, and most studies are cross-sectional. Thus, prevalence ratios (PRs) may be easier to interpret than odds ratios (ORs).

Aim: The aim of this study was to quantify the association between sex and H. pylori infection using controls from 14 studies from the Stomach Cancer Pooling (StoP) Project.

Participants and methods: H. pylori infection was defined based on IgG serum antibody titers or multiplex serology. Participants were also classified as infected if gastric atrophy was present, based on histological examination or serum pepsinogen (PG) levels (PG I $\leq$ 70 and PG I/II ratio $\leq$ 3). Summary ORs and PRs, adjusted for age, social class and smoking, and corresponding 95% confidence intervals (CIs), were estimated through random-effects meta-analysis.

Results: Men had significantly higher OR (OR: 1.33, 95% CI: 1.04-1.70) and PR (PR: 1.05, 95% CI: 1.00-1.10) of infection, with stronger associations among hospital-based or older controls. Results were similar when considering the presence of gastric atrophy to define infection status, particularly among participants older than 65 years.

Conclusion: This collaborative pooled-analysis supports an independent effect of sex on the prevalence of H. pylori infection, while minimizing misclassification of lifetime infection status and publication bias.

## **BUSTA 2**

### **Lista dei quesiti n. 2**



Il/La candidato/a spieghi l'utilità e le modalità di armonizzazione dei dati negli studi multicentrici

Il/La candidato/a descriva i principali indicatori di dispersione

Il/La candidato/a legga ad alta voce e traduca la sezione sottolineata e riassume in italiano i risultati principali:

Ferro A et al. Smoking and Helicobacter pylori infection: an individual participant pooled analysis (Stomach Cancer Pooling- StoP Project). Eur J Cancer Prev. 2019 Sep;28(5):390-396. doi: 10.1097/CEJ.0000000000000471.

TESTO IN INGLESE : Abstract

Smoking has been associated with acquisition and increased persistence of Helicobacter pylori infection, as well as with lower effectiveness of its eradication. A greater prevalence of infection among smokers could contribute to the increased risk for gastric cancer. We aimed to estimate the association between smoking and seropositivity to H. pylori through an individual participant data pooled analysis using controls from 14 case-control studies participating in the Stomach Cancer Pooling Project. Summary odds ratios and prevalence ratios (PRs), adjusted for age, sex and social class, and the corresponding 95% confidence intervals (CIs) were estimated through random-effects meta-analysis. Heterogeneity was quantified using the I statistic and publication bias with Egger's test. There was no significant association between smoking (ever vs. never) and H. pylori seropositivity (adjusted odds ratio = 1.08; 95% CI: 0.89-1.32; adjusted PR = 1.01; 95% CI: 0.98-1.05). The strength of the association did not increase with the intensity or duration of smoking; stratified analyses according to sex, age, region or type of sample did not yield a consistent pattern of variation or statistically significant results, except for participants younger than 55 years and who had been smoking for more than 30 years (adjusted PR = 1.08; 95% CI: 1.02-1.15). This is the first collaborative analysis providing pooled estimates for the association between smoking and H. pylori seropositivity, based on detailed and uniform information and adjusting for major covariates. The results do not support an association between smoking and H. pylori infection.

### BUSTA 3

#### Lista dei quesiti n. 3

1. Il/La candidato/a spieghi le modalità di gestione dei dati mancanti in un data set
2. Il/La candidato/a descriva le caratteristiche principali delle diverse tipologie di variabili che possono essere contenute in un data set
3. Il/La candidato/a legga ad alta voce e traduca la sezione "Methods" e riassume in italiano i risultati principali:

Giraldi L et al. Adult height and risk of gastric cancer: a pooled analysis within the Stomach cancer Pooling Project. Eur J Cancer Prev. 2020 Sep 10. doi: 10.1097/CEJ.0000000000000613.

Abstract

Background: The association between height and risk of gastric cancer has been studied in several epidemiological studies with contrasting results. The aim of this study is to examine the association between adult height and gastric cancer within a large pooled analysis of case-control studies members of the Stomach cancer Pooling (StoP) Project consortium.

Methods: Data from 18 studies members of the StoP consortium were collected and analyzed. A multivariable logistic regression model was used to estimate the study-specific odds ratios (ORs) and 95% confidence intervals (CIs) for the association between 10-cm increase in height and risk of gastric cancer. Age, sex, tobacco smoking, alcohol consumption, social class, geographical area and Helicobacter pylori (H. pylori) status were included in the regression model. Resulting estimates were then pooled with random-effect model. Analyses were conducted overall and in strata of selected variables.



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Results: A total of 7562 cases and 19 033 controls were included in the analysis. The pooled OR was 0.96 (95% CI 0.87-1.05). A sensitivity analysis was performed restricting the results to the studies with information on H. pylori status, resulting in an OR of 0.97 (95% CI 0.79-1.20).

Conclusion: Our study does not support a strong and consistent association between adult height and gastric cancer.

Milano, 12 aprile 2022

La Commissione

Prof.ssa Bravi Francesca - Presidente .....

Dott. Alicandro Gianfranco - Componente .....

Dott. D'Errico Gerardo - Componente .....

Dott.ssa Bersani Serena - Segretaria .....