**SUPPLEMENTARY TABLE 1:** The correlation coefficients for CRC, advanced CRN and CRN

| **COEFFICIENTS** | **CRC** | **ADVANCED CRN** | **CRN** |
| --- | --- | --- | --- |
| Intercept | -9.555 ( -15.751 : -3.728 ) | -4.599 ( -6.911 : -2.344 ) | -4.682 ( -6.634 : -2.774 ) |
| Sex-female | -0.769 ( -1.62 : 0.038 ) | -0.916 ( -1.252 : -0.585 ) | -0.959 ( -1.248 : -0.673 ) |
| Age | 0.079 ( 0.034 : 0.126 ) | 0.045 ( 0.027 : 0.063 ) | 0.039 ( 0.024 : 0.054 ) |
| Cholesterol | 0.003 ( -0.007 : 0.012 ) | 0.001 ( -0.003 : 0.005 ) | 0.004 ( 0 : 0.007 ) |
| BMI | 0.013 ( -0.086 : 0.103 ) | -0.012 ( -0.052 : 0.027 ) | 0.018 ( -0.015 : 0.051 ) |
| HDL-Cholesterol | 0.003 ( -0.025 : 0.028 ) | 0.002 ( -0.009 : 0.013 ) | 0.001 ( -0.009 : 0.01 ) |
| Systolic blood pressure | 0.005 ( -0.026 : 0.034 ) | 0.003 ( -0.011 : 0.017 ) | 0.006 ( -0.006 : 0.018 ) |
| Diastolic blood pressure | -0.001 ( -0.049 : 0.047 ) | 0.009 ( -0.01 : 0.029 ) | 0.005 ( -0.012 : 0.022 ) |
| Diabetes | 0.013 ( -1.18 : 1.034 ) | 0.504 ( -0.001 : 0.997 ) | 0.391 ( -0.083 : 0.865 ) |
| Current smokers | -0.064 ( -1.197 : 0.885 ) | 0.44 ( 0.068 : 0.806 ) | 0.319 ( -0.008 : 0.645 ) |
| Antihypertensive treatment | 0.099 ( -0.793 : 0.965 ) | -0.193 ( -0.589 : 0.195 ) | -0.332 ( -0.679 : 0.012 ) |
| First-degree family history of CRC | -0.758 ( -1.87 : 0.161 ) | -0.015 ( -0.351 : 0.316 ) | -0.246 ( -0.535 : 0.041 ) |

BMI:Body Mass Index; HDL-cholesterol:High-density lipoproteins cholesterol;CRC: Colorectal cancer

**SUPPLEMENTARY TABLE 2:** Epidemiological characteristics of the validation cohort.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CHARACTERISTICS** | **TOTAL COHORT** *(N=308)* | **NO NEOPLASIA** *(n=213)* | **NON-ADVANCED CRN** *(n=55)* | **ADVANCED CRN** *(n=40)* | *p-*value |
| Age ( years)Median(Q1-Q3) | 60.16(50.47 -67.65) | 58(47.96 -66.64) | 61.64(55.71 -68.76) | 63.51(58.69 -69.51) | **<0.001** |
| Sex-Male | 148 (48%)  | 97 (46%) | 25 (45%) | 26 (65%) | 0.071 |
| Tobacco Current smoker Former smoker | 52 (17%) 76 (25%)  | 33 (15%)48 (23%) | 11 (20%)13 (24%) | 8 (20%)15 (38%) | 0.191 |
| Alcohol consumption | 52 (17%)  | 36 (17%) | 8 (15%) | 8 (20%) | 0.782 |
| Obesity | 89 (29%)  | 59 (28%) | 17 (31%) | 13 (33%) | 0.775 |
| Hypertension | 119 (39%)  | 71 (33%) | 28 (51%) | 20 (50%) | **0.017** |
| Diabetes | 54 (18%)  | 30 (14%) | 15 (27%) | 9 (23%) | **0.049** |
| Hypercholesterolemia | 139 (45%)  | 93 (44%) | 29 (53%) | 17 (43%) | 0.454 |
| Hypertriglyceridemia | 94 (31%)  | 64 (30%) | 17 (31%) | 13 (33%) | 0.951 |
| NSAID use  | 21 (7%)  | 13 (6% | 6 (11%) | 2 (5%) | 0.406 |
| Antiplatelet use | 37 (12%)  | 27 (13%) | 7 (13%) | 3 (8%) | 0.685 |
| First-degree family history of CRC | 53 (17%)  | 36 (17%) | 13 (24%) | 4 (10%) | 0.216 |
| Second-degree family history of CRC | 16 (5%)  | 12 (6%) | 2 (4%) | 2 (5%) | 0.923 |

NSAID:Nonsteroidal Anti-Inflammatory Drugs. CRN: Colorectal neoplasia. CRC: Colorectal cancer

Bold indicates *p*-value <0.05.

*n*: number of individuals.

Values expressed as n (%) unless otherwise indicated.

**SUPPLEMENTARY TABLE 3:** Comparative table between the derivation and validation populations.

|  |  |  |  |
| --- | --- | --- | --- |
| **CHARACTERISTICS** | **DERIVATION COHORT** *(n=1049)* | **VALIDATION COHORT** *(n=308)* | *p-*value |
| Age (years)Median (Q1-Q3) | 57.96 (51.3 - 64.5) | 60.16 (50.5 - 67.7) | **0.031** |
| Male | 463 (44%) | 148(48%) | 0.225 |
| Tobacco Current smoker Former smoker | 246 (23%)216 (21%) | 52 (17%)76 (25%) | **0.034** |
| Alcohol consumption | 368 (35%) | 52 (17%) | **<0.001** |
| Obesity | 243 (25%) | 89 (29%) | 0.151 |
| HTA | 260 (25%) | 119(39%) | **<0.001** |
| Diabetes | 92 (9%) | 54 (18%) | **<0.001** |
| Hypercholesterolemia | 567 (54%) | 139 (45%) | 0.365 |
| Hypertriglyceridemia | 115 (11%) | 94 (31%) | **<0.001** |
| NSAID use  | 484 (46%) | 21 (7%) | **<0.001** |
| Antiplatelet use | 82(8%) | 37(12%) | **0.022** |
| First-degree family history of CRCSecond-degree family history of CRC | 375 (36%)133 (13%) | 53 (17%)16 (5%) | **<0.001****<0.001** |
| Colorectal neoplasia | 379 (36%) | 95 (31%) | 0.087 |
| Advanced colorectal neoplasia | 228(22%) | 40(13%) | **<0.001** |

HTA: Hypertension. NSAID:NonSteroidal Anti-Inflamatory Drugs. CRN: Colorectal neoplasia. CRC: Colorectal cancer

Bold indicates *p*-value <0.05.

*n*: number of individuals.

Values expressed as n (%) unless otherwise indicated.