Table S2. Korean recommendations and operational definition of appropriate cancer screening used in this study

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Stomach cancer screening** | **Colorectal cancer screening** | **Breast cancer screening** | **Cervical cancer screening** |
| **National Cancer Screening Guideline**20 | * Male and female ≥40
* Every 2 years
* Gastrofibroscopy or UGIS
 | * Male and female ≥50
* Every 5-10 years
* Colonoscopy or barium enema and sigmoidoscopy
* Earlier and more frequent screening for high risk groups
 | * Female ≥40
* Every 1-2 years
* Mammogram and clinical breast exam
 | * Female ≥20
* Every year
* Papanicolau tests
 |
| **National Cancer Screening Program**19 | * Male and female ≥40
* Every 2 years
* Gastrofibroscopy or UGIS
 | * Male and female ≥50
* Every year
* FOBT; if positive, colonoscopy or barium enema follows
 | * Female ≥40
* Every 2 years
* Mammogram and clinical breast exam
 | * Female ≥30
* Every 2 years
* Papanicolau test
 |
| **Lifetime health promotion for Koreans**21 | * Male ≥40, Female ≥50
* Every 2 years
 | * Male and female ≥50
* FOBT every year, or barium enema or sigmoidoscopy every 5 years, or colonoscopy every 10 years
 | * Female ≥40
* Every 2 years (40 – 49 years of age) or every 3 years (≥50 years of age)
* Mammogram
 | * Female with history of sexual contact
* Every 3 years
* Papanicolau test
 |
| **Screening guideline for seven major cancers**22 | * Male and female ≥40
* Every 2 years
* Gastrofibroscopy or UGIS
 | * Male and female ≥50
* Every 5-10 years
* Colonoscopy or barium enema and sigmoidoscopy
* Earlier and more frequent screening for high risk groups
 | * Female ≥40
* Every 1-2 years
* Mammogram and clinical breast exam
 | * Female ≥20
* Every year
* Papanicolau test
 |
| **Other considerations** | 　 | * Korean male cancer survivors have 4.0 times the risk of colorectal cancer than the general population2
* Colonoscopy every 3 years has been suggested as the most cost effective strategy for male cancer survivors24
 | * Korean women have the peak incidence of breast cancer in their forties15
* Asian women have high prevalence of dense breasts25, 26
* Breast sonography is commonly practiced in combination with or as a replacement of mammography in Korea26
 |  |
| **Operational definition of appropriate cancer screening used in the current study** | * Within 2 years
* Gastrofibroscopy or UGIS
 | * Within 2 years
* FOBT or sigmoidoscopy or colonoscopy or barium enema
 | * Within 2 years
* Mammography or breast sonography
 | * Within 2 years
* Papanicolau test
 |

UGIS: Upper gastrointestinal series; FOBT: Fecal occult blood testing