**Supplementary Table 1.** Results of leave-one-out meta-analyses

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **First author and year of study *left out*, stratified by CRC stage** | **Pooled sensitivity** **(%, 95% CI)** | **Pooled specificity** **(%, 95% CI)** | **Hetero­geneity (I², %)** | **P value of hetero­geneity (Q)** |
| **Stage I** | **73 (65-79)** | **88 (83-92)** | **0%** | **0.66** |
| Thomas 1992 | 72 (64-79) | 88 (83-92) | 0% | 0.63 |
| Yoshinaga 1995 | 72 (64-79) | 88 (83-92) | 0% | 0.64 |
| Nakama 1997 | 72 (64-79) | 88 (83-91) | 0% | 0.63 |
| Sieg 1998 | 72 (64-78) | 88 (84-92) | 0% | 0.64 |
| Wong 2003 | 73 (65-80) | 88 (83-92) | 0% | 0.66 |
| Morikawa 2005 | 74 (66-80) | 88 (83-92) | 0% | 0.71 |
| Sohn 2005 | 73 (65-80) | 87 (83-91) | 0% | 0.56 |
| Li 2006 | 74 (66-80) | 88 (83-92) | 0% | 0.68 |
| Smith 2006 | 72 (64-79) | 88 (84-92) | 0% | 0.62 |
| Lohsirivat 2007 | 73 (65-80) | 88 (83-92) | 0% | 0.64 |
| Karl 2008 | 73 (64-80) | 88 (83-92) | 0% | 0.67 |
| Oono 2010 | 72 (63-78) | 88 (84-92) | 0% | 0.65 |
| Parra-Blanco 2010 | 72 (64-79) | 88 (83-91) | 0% | 0.73 |
| Kalimutho 2008  | 73 (64-79) | 88 (84-92) | 0% | 0.62 |
| Tao 2012 | 74 (67-80) | 88 (83-92) | 0% | 0.61 |
| Kaul 2013 | 73 (65-80) | 88 (83-92) | 0% | 0.62 |
| Cubiella 2014 | 72 (64-79) | 88 (84-92) | 0% | 0.64 |
| Hernandez 2014 | 72 (64-79) | 89 (86-92) | 0% | 0.70 |
| Imperiale 2014 | 73 (65-80) | 88 (83-92) | 0% | 0.70 |
| Johnson 2014 | 73 (65-80) | 88 (83-91) | 0% | 0.67 |
| Elsafi 2015 | 73 (65-80) | 88 (83-92) | 0% | 0.63 |
| Wakamura 2015 | 72 (64-79) | 89 (84-92) | 0% | 0.62 |
| Baxter 2016 | 72 (64-79) | 88 (83-92) | 0% | 0.68 |
| Symonds 2016 | 73 (65-80) | 88 (83-92) | 0% | 0.66 |
| Brenner 2017 | 72 (64-79) | 88 (83-92) | 0% | 0.65 |
| Chang 2017 | 73 (65-80) | 88 (83-91) | 0% | 0.63 |
| Suehiro 2017 | 75 (67-81) | 88 (83-92) | 0% | 0.68 |
| Wong 2017 | 73 (65-80) | 88 (83-92) | 0% | 0.66 |
| Xie 2018 | 73 (64-79) | 89 (84-92) | 0% | 0.65 |
| **Stage II** | **80 (74-84)** | **89 (84-92)** | **0%** | **0.88** |
| Thomas 1992 | 79 (73-84) | 89 (84-92) | 0% | 0.87 |
| Yoshinaga 1995 | 79 (74-84) | 89 (84-92) | 0% | 0.86 |
| Nakama 1997 | 79 (73-84) | 88 (83-92) | 0% | 0.89 |
| Sieg 1998 | 80 (74-85) | 89 (84-93) | 0% | 0.87 |
| Wong 2003 | 80 (74-84) | 89 (84-92) | 0% | 0.86 |
| Morikawa 2005 | 80 (74-85) | 89 (84-92) | 0% | 0.87 |
| Sohn 2005 | 80 (74-85) | 88 (83-91) | 0% | 0.66 |
| Li 2006 | 79 (73-84) | 89 (84-92) | 0% | 0.86 |
| Smith 2006 | 80 (74-85) | 89 (84-93) | 0% | 0.86 |
| Lohsirivat 2007 | 79 (73-84) | 89 (84-92) | 0% | 0.87 |
| Karl 2008 | 80 (74-84) | 89 (84-92) | 0% | 0.88 |
| Parra-Blanco 2010 | 80 (74-84) | 88 (84-92) | 0% | 0.86 |
| Kalimutho 2011  | 79 (74-84) | 89 (84-93) | 0% | 0.85 |
| Tao 2012 | 80 (74-85) | 89 (84-92) | 0% | 0.87 |
| Kaul 2013 | 80 (74-84) | 89 (84-92) | 0% | 0.85 |
| Cubiella 2014 | 79 (73-83) | 89 (84-93) | 0% | 0.86 |
| Hernandez 2014 | 80 (74-85) | 90 (87-93) | 0% | 0.95 |
| Imperiale 2014 | 80 (74-85) | 89 (84-92) | 0% | 0.88 |
| Johnson 2014 | 80 (74-85) | 88 (83-92) | 0% | 0.88 |
| Elsafi 2015 | 81 (75-85) | 89 (84-92) | 0% | 0.87 |
| Wakamura 2015 | 80 (74-85) | 89 (85-93) | 0% | 0.90 |
| Baxter 2016 | 79 (73-83) | 89 (84-92) | 0% | 0.88 |

**Supplementary Table 1, continued**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **First author and year of study *left out*, stratified by CRC stage** | **Pooled sensitivity** **(%, 95% CI)** | **Pooled specificity** **(%, 95% CI)** | **Hetero­geneity (I², %)** | **P value of hetero­geneity (Q)** |
| **Stage II, continued** |  |  |  |  |
| Symonds 2016 | 81 (75-85) | 89 (84-92) | 0% | 0.88 |
| Aniwan 2017 | 80 (74-84) | 89 (84-92) | 0% | 0.87 |
| Brenner 2017 | 80 (74-84) | 89 (84-92) | 0% | 0.85 |
| Chang 2017 | 80 (74-85) | 88 (84-92) | 0% | 0.85 |
| Wong 2017 | 80 (74-85) | 89 (84-92) | 0% | 0.88 |
| Xie 2018 | 82 (77-86) | 89 (85-93) | 0% | 0.76 |
| **Stage III** | **82 (77-87)** | **88 (81-92)** | **0%** | **0.97** |
| Thomas 1992 | 82 (76-86) | 88 (82-92) | 0% | 0.96 |
| Yoshinaga 1995 | 82 (77-87) | 88 (82-92) | 0% | 0.95 |
| Nakama 1997 | 81 (76-86) | 87 (81-91) | 0% | 0.98 |
| Sieg 1998 | 82 (76-86) | 88 (82-92) | 0% | 0.96 |
| Wong 2003 | 83 (77-87) | 88 (82-92) | 0% | 0.95 |
| Sohn 2005 | 83 (77-88) | 86 (81-91) | 0% | 0.81 |
| Li 2006 | 82 (76-86) | 88 (82-92) | 0% | 0.96 |
| Smith 2006 | 82 (77-87) | 88 (82-92) | 0% | 0.96 |
| Karl 2008 | 82 (76-87) | 88 (82-92) | 0% | 0.96 |
| Graser 2009 | 83 (77-87) | 88 (82-92) | 0% | 0.96 |
| Kalimutho 2011 | 82 (77-87) | 88 (82-92) | 0% | 0.96 |
| Kaul 2013 | 82 (77-87) | 88 (82-92) | 0% | 0.96 |
| Cubiella 2014 | 82 (76-86) | 88 (82-92) | 0% | 0.96 |
| Hernandez 2014 | 80 (76-83) | 89 (85-92) | 0% | 0.99 |
| Imperiale 2014 | 82 (77-87) | 87 (81-92) | 0% | 0.96 |
| Johnson 2014 | 83 (77-87) | 87 (81-91) | 0% | 0.97 |
| Elsafi 2015 | 83 (77-87) | 88 (82-92) | 0% | 0.96 |
| Wakamura 2015 | 83 (77-87) | 88 (83-92) | 0% | 0.96 |
| Baxter 2016 | 82 (76-86) | 88 (82-92) | 0% | 0.97 |
| Symonds 2016 | 83 (78-88) | 87 (82-92) | 0% | 0.96 |
| Aniwan 2017 | 82 (77-87) | 87 (81-92) | 0% | 0.96 |
| Brenner 2017 | 82 (76-86) | 88 (82-92) | 0% | 0.97 |
| Chang 2017 | 83 (77-87) | 87 (81-91) | 0% | 0.96 |
| Wong 2017 | 83 (77-88) | 88 (82-92) | 0% | 0.97 |
| Xie 2018 | 84 (81-87) | 88 (83-92) | 0% | 0.91 |
| **Stage IV** | **79 (70-86)** | **89 (85-91)** | **0%** | **0.57** |
| Thomas 1992 | 78 (69-86) | 89 (85-92) | 0% | 0.50 |
| Yoshinaga 1995 | 79 (69-86) | 89 (85-92) | 0% | 0.49 |
| Sieg 1998 | 78 (68-85) | 89 (86-92) | 0% | 0.51 |
| Wong 2003 | 79 (69-86) | 88 (85-91) | 0% | 0.52 |
| Li 2006 | 78 (69-86) | 89 (86-92) | 0% | 0.50 |
| Karl 2008 | 78 (67-86) | 89 (85-91) | 0% | 0.52 |
| Parra-Blanco 2010 | 79 (70-86) | 88 (85-91) | 0% | 0.51 |
| Kaul 2013 | 79 (69-86) | 89 (85-92) | 0% | 0.50 |
| Cubiella 2014 | 77 (68-85) | 89 (86-92) | 0% | 0.49 |
| Imperiale 2014 | 79 (70-86) | 88 (85-91) | 0% | 0.50 |
| Johnson 2014 | 80 (71-87) | 88 (85-90) | 0% | 0.53 |
| Elsafi 2015 | 79 (69-86) | 89 (85-91) | 0% | 0.51 |
| Baxter 2016 | 78 (68-86) | 89 (85-91) | 0% | 0.54 |
| Symonds 2016 | 79 (70-87) | 88 (85-91) | 0% | 0.50 |
| Brenner 2017 | 79 (69-86) | 89 (85-91) | 0% | 0.51 |
| Wong 2017 | 80 (71-87) | 88 (85-91) | 0% | 0.53 |
| Xie 2018 | 82 (72-89) | 89 (86-92) | 0% | >0.99 |
| T stages | 75 (60-85) | 93 (89-96) | 0% | 0.78 |
|  ***T stage I*** | **40 (21-64)** | **94 (86-98)** | **0%** | **0.44** |
| Sohn 2005 | 41 (18-70) | 92 (83-97) | 6% | 0.38 |

**Supplementary Table 1, continued**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **First author and year of study *left out*, stratified by CRC stage** | **Pooled sensitivity** **(%, 95% CI)** | **Pooled specificity** **(%, 95% CI)** | **Hetero­geneity (I², %)** | **P value of hetero­geneity (Q)** |
| ***T stage I, continued*** |  |  |  |  |
| Hirata 2007 | 46 (24-70) | 95 (85-98) | 0% | 0.68 |
| Parra-Blanco 2010 | 37 (18-61) | 94 (83-98) | 0% | 0.44 |
| Chiu 2013 | 34 (23-45) | 95 (84-98) | 0% | 0.44 |
| Kim 2014 | 41 (33-50) | 93 (83-97) | 6% | 0.38 |
| Wakamura 2015 | 36 (18-58) | 96 (90-98) | 9% | 0.36 |
| Xie 2017 | 43 (18-72) | 95 (85-98) | 0% | 0.50 |
| ***T stage II*** | **79 (51-93)** | **98 (94-99)** | **0%** | **0.60** |
| Sohn 2005 | 71 (28-94) | 95 (94-96) | 0% | 0.67 |
| Parra-Blanco 2010 | 68 (40-87) | 98 (94-100) | 0% | 0.42 |
| Kim 2014 | 85 (69-93) | 97 (92-99) | 0% | 0.67 |
| Chang 2017 | 78 (37-95) | 99 (94-100) | 0% | 0.54 |
| ***T stage III*** | **83 (68-91)** | **96 (87-99)** | **0%** | **0.45** |
| Sohn 2005 | 80 (60-91) | 94 (83-98) | 0% | 0.65 |
| Parra-Blanco 2010 | 82 (65-92) | 96 (84-99) | 0% | 0.43 |
| Kim 2014 | 85 (79-90) | 94 (84-98) | 0% | 0.45 |
| Wakamura 2015 | 84 (68-93) | 97 (93-99) | 0% | 0.82 |
| Aniwan 2017 | 79 (63-90) | 96 (85-99) | 0% | 0.45 |
| Chang 2017 | 83 (66-92) | 96 (84-99) | 0% | 0.43 |
| ***T stage IV*** | **66 (45-82)** | **96 (79-99)** | **34%** | **0.21** |
| Sohn 2005 | 57 (26-83) | 93 (62-99) | 0% | 0.38 |
| Kim 2014 | 58 (28-83) | 93 (65-99) | 0% | 0.40 |
| Wakamura 2015 | 78 (68-85) | 98 (92-99) | 0% | 0.49 |
| Aniwan 2017 | 66 (36-87) | 96 (70-100) | 49% | 0.14 |

**Bold:** Estimates when including all studies for the respective stage.