## Nontraumatic abdominal pain evidence project – Evidence-based Guidelines Included in the Recommendation Matrix

Mean Guideline Scores and Scaled Scores across Domains of the AGREE II Instrument

| AGREE II Domain           | AGREE II Domain<br>Topics  | Gans SL et al.<br>Guideline for<br>the diagnostic<br>pathway in<br>patients with<br>acute<br>abdominal<br>pain. Digestive<br>surgery.<br>2015;32(1):23-<br>31. | Dillehay G, et al. Appropriate use criteria for hepatobiliary scintigraphy in abdominal pain. Reston, VA: Society of Nuclear Medicine and Molecular Imaging; 2017. p. 11. | Dahabreh IJ et al. AHRQ Comparative Effectiveness Reviews. Diagnosis of Right Lower Quadrant Pain and Suspected Acute Appendicitis. Rockville (MD): Agency for Healthcare Research and Quality (US); 2015. | Howell JM et al. Critical issues in the evaluation and management of emergency department patients with suspected appendicitis. Annals of emergency medicine. 2010;55(1):71-116. | National Institute<br>for Health and Care<br>Excellence (NICE).<br>Gallstone disease.<br>London UK:<br>National Institute<br>for Health and Care<br>Excellence (NICE);<br>2014. | European<br>Association for the<br>Study of the Liver<br>(EASL). EASL Clinical<br>Practice Guidelines<br>on the prevention,<br>diagnosis and<br>treatment of<br>gallstones. Journal<br>of hepatology.<br>2016;65(1):146-81. | Williams E et al. Updated guideline on the management of common bile duct stones (CBDS). Gut. 2017;66(5):765-82. |
|---------------------------|--|--|---|--|--|---|---|--|
| Total Score EXCLUDING     | overall assessment score   | 107.5  | 103   | 118.5  | 102.5  | 143   | 121   | 118  |
| Scaled Total Score Exclud | ing overall assessment score   | 61%  | 58%   | 69%  | 58%  | 87%   | 71%   | 69%  |
| Overall Assessment Score  | Rate the overall quality of the guideline (Scale of 1 to 7)  NOTE: The overall assessment score is not included in the total score | 4.5  | 4.5   | 5  | 4.5  | 6   | 5.5   | 5  |
|                           | Domain Score   | 16   | 15.5  | 18   | 17.5   | 17.5  | 17.5  | 17   |
| Scope and Purpose         | Scaled Domain Score<br>Percentage  | 72%  | 69%   | 83%  | 81%  | 81%   | 81%   | 78%  |
| Stakeholder Involvement   | Domain Score   | 15   | 12.5  | 16.5   | 6.5  | 19  | 16.5  | 16   |
|                           | Scaled Domain Score<br>Percentage  | 67%  | 53%   | 75%  | 19%  | 89%   | 75%   | 72%  |
| ni (n. l                  | Domain Score   | 40   | 39.5  | 43.5   | 36   | 52  | 41  | 43   |
| Rigor of Development      | Scaled Domain Score<br>Percentage  | 67%  | 66%   | 74%  | 58%  | 92%   | 67%   | 73%  |
| a                         | Domain Score   | 14.5   | 10  | 12   | 15.5   | 19  | 17.5  | 16   |
| Clarity and Presentation  | Scaled Domain Score<br>Percentage  | 64%  | 39%   | 50%  | 69%  | 89%   | 81%   | 72%  |
|                           | Domain Score   | 16   | 16  | 17   | 12   | 24.5  | 18  | 16   |
| Applicability             | Scaled Domain Score<br>Percentage  | 50%  | 50%   | 54%  | 33%  | 85%   | 58%   | 50%  |
|                           | Domain Score   | 6  | 9.5   | 11.5   | 8.5  | 11  | 11.5  | 10   |
| Editorial Independence    | Scaled Domain Score<br>Percentage  | 33%  | 63%   | 79%  | 54%  | 75%   | 79%   | 67%  |

<sup>\*</sup>Mean guidelines scores across domains of the AGREE II instrument. Each question was rated on a Likert scale with a maximum of 7 points. The scaled domain score is calculated as follows: (obtained score – minimum possible score) ÷ (maximum possible score – minimum possible score)

| AGREE II Domain           | AGREE II Domain<br>Topics  | IAP/APA evidence-based guidelines for the management of acute pancreatitis. Pancreatology. 2013;13(4 Suppl 2):e1-15. | Kiriyama et al (2013);<br>Yokoe et al (2013);<br>Japanese Society of<br>Hepato-Biliary-<br>Pancreatic Surgery.<br>Tokyo Guidelines<br>2013. Japan:<br>Japanese Society of<br>Hepato-Biliary-<br>Pancreatic Surgery;<br>2013. | Maung AA et al. Evaluation and management of small-bowel obstruction: An Eastern Association for the Surgery of Trauma practice management guideline. The journal of trauma and acute care surgery. 2012;73(5 Suppl 4):S362-9. | Vogel JD et al. Clinical Practice Guidelines for Colon Volvulus and Acute Colonic Pseudo- Obstruction. Diseases of the colon and rectum. 2016;59(7):589-600. | Lamb et al 2019. BSG consensus guidelines on the management of inflammatory bowel disease in adults. Gut. 2019; 68(Suppl 3):s1-s106. | Ueno F et al Evidence-based clinical practice guidelines for Crohn's disease, integrated with formal consensus of experts in Japan. Journal of gastroenterology. 2013;48(1):31-72. | Brandt LJ et al. ACG clinical guideline: epidemiology, risk factors, patterns of presentation, diagnosis, and management of colon ischemia (CI). The American journal of gastroenterology. 2015;110(1):18-44; |
|---------------------------|--|--|--|--|--|--|--|---|
| Total Score EXCLUDING     | 3 overall assessment score   | 104  | 122  | 94.5   | 91   | 101  | 116  | 94.5  |
| Scaled Total Score Exclud | Scaled Total Score Excluding overall assessment score  |  | 72%  | 52%  | 49%  | 57%  | 67%  | 52%   |
| Overall Assessment Score  | Rate the overall quality of the guideline (Scale of 1 to 7)  NOTE: The overall assessment score is not included in the total score | 4.5  | 5.5  | 4  | 4  | 4.5  | 5  | 4   |
| Scope and Purpose         | Domain Score   | 16   | 16.5   | 12   | 16   | 16   | 19   | 14  |
|                           | Scaled Domain Score<br>Percentage  | 72%  | 75%  | 50%  | 72%  | 72%  | 89%  | 61%   |
| Stakeholder Involvement   | Domain Score   | 10   | 16   | 8.5  | 8  | 11   | 16   | 6.5   |
|                           | Scaled Domain Score<br>Percentage  | 39%  | 72%  | 31%  | 28%  | 44%  | 72%  | 19%   |
| Rigor of Development      | Domain Score   | 41   | 43.5   | 36.5   | 34   | 38   | 39   | 37  |
|                           | Scaled Domain Score<br>Percentage  | 69%  | 74%  | 59%  | 54%  | 63%  | 65%  | 60%   |
| Clarity and Presentation  | Domain Score   | 15   | 18   | 17   | 19   | 14   | 16   | 17.5  |
|                           | Scaled Domain Score<br>Percentage  | 67%  | 83%  | 78%  | 89%  | 61%  | 72%  | 81%   |
| Applicability             | Domain Score   | 17   | 18.5   | 12   | 11   | 14   | 16   | 9   |
|                           | Scaled Domain Score<br>Percentage  | 54%  | 60%  | 33%  | 29%  | 42%  | 50%  | 21%   |
| Editorial Independence    | Domain Score   | 4  | 9.5  | 8.5  | 3  | 8  | 10   | 10.5  |
|                           | Scaled Domain Score<br>Percentage  | 17%  | 63%  | 54%  | 8%   | 50%  | 67%  | 71%   |

<sup>\*</sup>Mean guidelines scores across domains of the AGREE II instrument. Each question was rated on a Likert scale with a maximum of 7 points. The scaled domain score is calculated as follows: (obtained score – minimum possible score) ÷ (maximum possible score – minimum possible score)

| AGREE II Domain                                | AGREE II Domain<br>Topics  | Bjorck M et al<br>Management<br>of the Diseases<br>of Mesenteric<br>Arteries and<br>Veins: Clinical<br>Practice<br>Guidelines of<br>the European<br>Society of<br>Vascular<br>Surgery (ESVS).<br>Eur J Vasc<br>Endovasc Surg<br>2017;<br>53(4):460-510. | Tilsed JV et al. ESTES guidelines: acute mesenteric ischaemia. Eur J Trauma Emerg Surg. 2016 Apr;42(2):253-270. | Lichtenstein GR et<br>al. ACG Clinical<br>Guideline:<br>Management of<br>Crohn's Disease in<br>Adults. Am J<br>Gastroenterol.<br>2018;113(4):481-<br>517. | Chaikof EL et al. The Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm. Journal of Vascular Surgery. 2018;67(1):2-77.e2. | Scheirey et al [ACR]<br>2018. ACR<br>Appropriateness<br>Criteria®. Acute<br>nonlocalized<br>abdominal pain. | Earle et al 2016. SAGES Guidelines Committee. Guidelines for laparoscopic ventral hernia repair. Surg Endosc. 2016; 30(8):3163- 3183. | Hindman et al [ACR] 2019. ACR Appropriateness Criteria® <b>Jaundice</b> . |
|--|--|---|---|---|--|---|---|---|
| Total Score EXCLUDING overall assessment score |  | 111   | 96  | 104   | 116  | 103   | 101   | 96  |
|  | ling overall assessment score  | 64%   | 53%   | 59%   | 67%  | 58%   | 57%   | 53%   |
| Overall Assessment Score                       | Rate the overall quality of the guideline (Scale of 1 to 7)  NOTE: The overall assessment score is not included in the total score | 5   | 4   | 4.5   | 5  | 4.5   | 4.5   | 4   |
| Scope and Purpose                              | Domain Score   | 14.5  | 15  | 15  | 16   | 15  | 16  | 11  |
|  | Scaled Domain Score<br>Percentage  | 64%   | 67%   | 67%   | 72%  | 67%   | 72%   | 44%   |
| Stakeholder Involvement                        | Domain Score   | 14  | 8   | 13  | 14   | 12  | 8   | 12  |
|  | Scaled Domain Score<br>Percentage  | 61%   | 28%   | 56%   | 61%  | 50%   | 28%   | 50%   |
| Rigor of Development                           | Domain Score   | 39.5  | 32  | 33.5  | 38.5   | 34.5  | 36  | 33  |
|  | Scaled Domain Score<br>Percentage  | 66%   | 50%   | 53%   | 64%  | 55%   | 58%   | 52%   |
| Clarity and Presentation                       | Domain Score   | 16.5  | 16  | 14.5  | 17   | 18  | 16  | 19  |
|  | Scaled Domain Score<br>Percentage  | 75%   | 72%   | 64%   | 78%  | 83%   | 72%   | 89%   |
| Applicability                                  | Domain Score   | 15.5  | 15  | 17  | 20.5   | 15.5  | 17  | 14  |
|  | Scaled Domain Score<br>Percentage  | 48%   | 46%   | 54%   | 69%  | 48%   | 54%   | 42%   |
| Editorial Independence                         | Domain Score   | 11  | 10  | 11  | 10   | 8   | 8   | 7   |
|  | Scaled Domain Score<br>Percentage  | 75%   | 67%   | 75%   | 67%  | 50%   | 50%   | 42%   |

<sup>\*</sup>Mean guidelines scores across domains of the AGREE II instrument. Each question was rated on a Likert scale with a maximum of 7 points. The scaled domain score is calculated as follows: (obtained score – minimum possible score) ÷ (maximum possible score – minimum possible score)

| AGREE II Domain           | AGREE II Domain<br>Topics   | Porter et al [ACR] 2019. ACR Appropriateness Criteria® Acute pancreatitis. | Garcia et al [ACR]<br>2018. ACR<br>Appropriateness<br>Criteria® Right<br>lower quadrant<br>pain-suspected<br>appendicitis. | Galgano et al [ACR]<br>2019. ACR<br>Appropriateness<br>Criteria® Left lower<br>quadrant pain-<br>suspected<br>diverticulitis. | Chang et al [ACR]<br>2020. ACR<br>Appropriateness<br>Criteria® Suspected<br>small-bowel<br>obstruction. | Kim et al [ACR]<br>20120 ACR<br>Appropriateness<br>Criteria® <b>Crohn</b><br><b>disease.</b> | Ginsburg et al [ACR] 2018. ACR Appropriateness Criteria® Mesenteric ischemia. | Francois et al [ACR] 2017. ACR Appropriateness Criteria® Abdominal aortic aneurysm: Interventional planning and follow-up. |
|---------------------------|---|--|--|---|---|--|---|--|
| Total Score EXCLUDING     | 3 overall assessment score  | 99   | 109  | 94  | 94  | 97   | 107.5   | 109.5  |
| Scaled Total Score Exclud | ling overall assessment score   | 55%  | 62%  | 51%   | 51%   | 54%  | 61%   | 63%  |
| Overall Assessment Score  | Rate the overall quality of the<br>guideline (Scale of 1 to 7)<br>NOTE: The overall assessment<br>score is not included in the<br>total score | 4.5  | 4.5  | 4   | 4   | 4  | 4.5   | 5  |
| Scope and Purpose         | Domain Score  | 11   | 16   | 10  | 10  | 11   | 14.5  | 14   |
|                           | Scaled Domain Score<br>Percentage   | 44%  | 72%  | 39%   | 39%   | 44%  | 64%   | 61%  |
| Stakeholder Involvement   | Domain Score  | 12   | 14   | 13  | 13  | 12   | 13  | 14   |
|                           | Scaled Domain Score<br>Percentage   | 50%  | 61%  | 56%   | 56%   | 50%  | 56%   | 61%  |
| Rigor of Development      | Domain Score  | 34   | 36.5   | 32  | 34  | 34   | 37.5  | 38.5   |
|                           | Scaled Domain Score<br>Percentage   | 54%  | 59%  | 50%   | 54%   | 54%  | 61%   | 64%  |
| Clarity and Presentation  | Domain Score  | 21   | 17.5   | 19  | 19  | 19   | 17.5  | 18   |
|                           | Scaled Domain Score<br>Percentage   | 100%   | 81%  | 89%   | 89%   | 89%  | 81%   | 83%  |
| Applicability             | Domain Score  | 14   | 17.5   | 14  | 14  | 14   | 17.5  | 16.5   |
|                           | Scaled Domain Score<br>Percentage   | 42%  | 56%  | 42%   | 42%   | 42%  | 56%   | 52%  |
| Editorial Independence    | Domain Score  | 7  | 7.5  | 8   | 6   | 7  | 7.5   | 8.5  |
|                           | Scaled Domain Score<br>Percentage   | 42%  | 46%  | 50%   | 33%   | 42%  | 46%   | 54%  |

<sup>\*</sup>Mean guidelines scores across domains of the AGREE II instrument. Each question was rated on a Likert scale with a maximum of 7 points. The scaled domain score is calculated as follows: (obtained score – minimum possible score) ÷ (maximum possible score – minimum possible score)

| AGREE II Domain           | AGREE II Domain<br>Topics  | Peterson et al [ACR] 2019 ACR Appropriateness Criteria® Right upper quadrant pain. | Gardner et al 2020.<br>ACG clinical<br>guideline: chronic<br>pancreatitis. Am J<br>Gastroenterol.<br>2020; 115(3):322-<br>339. | Hall et al 2020. The<br>American Society of<br>Colon and Rectal<br>Surgeons clinical<br>practice guidelines<br>for the treatment<br>of left-sided<br>colonic<br>diverticulitis. Dis<br>Colon Rectum;<br>63(6):728-747. | National Institute<br>for Health and Care<br>Excellence (NICE).<br>2019. <b>Diverticular</b><br><b>disease</b> : diagnosis<br>and management. | Wanhainen et al 2019. European Society for Vascular Surgery (ESVS) 2019 clinical practice guidelines on the management of abdominal aorto- iliac artery aneurysms. Eur J Vasc Endovasc Surg. 2019; 57(1)8- 93. | National Institute<br>for Health and Care<br>Excellence (NICE).<br>2020. Abdominal<br>aortic aneurysm:<br>diagnosis and<br>management. | National Institute<br>for Health and Care<br>Excellence (NICE).<br>2018. Pancreatitis. |
|---------------------------|--|--|--|--|---|--|--|--|
| Total Score EXCLUDING     | Total Score EXCLUDING overall assessment score   |  | 94   | 116  | 138   | 115  | 141  | 144.5  |
| Scaled Total Score Exclud | ling overall assessment score  | 52%  | 51%  | 67%  | 83%   | 67%  | 86%  | 88%  |
| Overall Assessment Score  | Rate the overall quality of the guideline (Scale of 1 to 7)  NOTE: The overall assessment score is not included in the total score | 4  | 4  | 5  | 6   | 5  | 6  | 6.5  |
| Scope and Purpose         | Domain Score   | 11   | 14   | 18   | 21  | 18.5   | 14.5   | 18   |
|                           | Scaled Domain Score<br>Percentage  | 44%  | 61%  | 83%  | 100%  | 86%  | 64%  | 83%  |
| Stakeholder Involvement   | Domain Score   | 12   | 11   | 14   | 18  | 17   | 19.5   | 18.5   |
|                           | Scaled Domain Score<br>Percentage  | 50%  | 44%  | 61%  | 83%   | 78%  | 92%  | 86%  |
| Rigor of Development      | Domain Score   | 32   | 31   | 42   | 49  | 34   | 52.5   | 52   |
|                           | Scaled Domain Score<br>Percentage  | 50%  | 48%  | 71%  | 85%   | 54%  | 93%  | 92%  |
| Clarity and Presentation  | Domain Score   | 19   | 14   | 19.5   | 19  | 18.5   | 18   | 19   |
|                           | Scaled Domain Score<br>Percentage  | 89%  | 61%  | 92%  | 89%   | 86%  | 83%  | 89%  |
| Applicability             | Domain Score   | 14   | 16   | 12.5   | 23  | 20   | 25.5   | 26   |
|                           | Scaled Domain Score<br>Percentage  | 42%  | 50%  | 35%  | 79%   | 67%  | 90%  | 92%  |
| Editorial Independence    | Domain Score   | 7  | 7  | 10   | 8   | 7  | 11   | 11   |
|                           | Scaled Domain Score<br>Percentage  | 42%  | 42%  | 67%  | 50%   | 42%  | 75%  | 75%  |

<sup>\*</sup>Mean guidelines scores across domains of the AGREE II instrument. Each question was rated on a Likert scale with a maximum of 7 points. The scaled domain score is calculated as follows: (obtained score – minimum possible score) ÷ (maximum possible score – minimum possible score)

|                           |   | Simons et al.       | Tenner et al.       | Chaikof et al. The   | Conwell et al.       | Greenberg et al.    |
|---------------------------|---|---------------------|---------------------|----------------------|----------------------|---------------------|
|                           |   | European Hernia     | American College of | care of patients     | American             | Clinical practice   |
|                           |   | Society guidelines  | Gastroenterology    | with abdominal       | Pancreatic           | guidelines:         |
|                           |   | on the treatment of | guideline:          | aortic aneurysm:     | Association Practice | Management of       |
| AGREE II Domain           | AGREE II Domain   | inguinal hernia in  | · ·                 | The Society for      | Guidelines in        | •                   |
| AGREE II Domain           | Topics  |                     | Management of       | •                    |                      | acute pancreatitis. |
|                           | 10,110  | adult patients.     | acute pancreatitis. | Vascular Surgery     | chronic              | Can J Surg. 2016;   |
|                           |   | Hernia. 2009;       | Am J Gastroenterol. | practice guidelines. | pancreatitis.        | 59(2):128-140.      |
|                           |   | 13(4):343-403.      | 2013; 108(9):1400-  | J Vasc Surg. 2009;   | Pancreas. 2014;      |                     |
|                           |   |                     | 1415.               | 50(4 Suppl):S2-S49.  | 43(8):1143-1162.     |                     |
| Total Score EXCLUDING     | G overall assessment score                                | 126                 | 92.5                | 92.5                 | 91                   | 94                  |
| Scaled Total Score Exclud | ling overall assessment score                             | 75%                 | 50%                 | 50%                  | 49%                  | 51%                 |
| Overall Assessment Score  | Rate the overall quality of the                           |                     |                     | _                    |                      |                     |
|                           | guideline (Scale of 1 to 7)  NOTE: The overall assessment | 5.5                 | 4                   | 4                    | 4                    | 4                   |
|                           | score is not included in the                              | 5.5                 | 4                   | 4                    | 4                    | 4                   |
|                           | total score   |                     |                     |                      |                      |                     |
| Scope and Purpose         | Domain Score  | 18                  | 16                  | 15                   | 15                   | 15                  |
|                           | Scaled Domain Score                                       | 83%                 | 72%                 | 67%                  | 57%                  | 67%                 |
| Stakeholder Involvement   | Percentage  |                     |                     |                      |                      |                     |
| Stakenoider involvement   | Domain Score  | 15                  | 8                   | 11.5                 | 12                   | 12                  |
|                           | Scaled Domain Score                                       | 67%                 | 28%                 | 47%                  | 50%                  | 50%                 |
| Rigor of Development      | Percentage<br>Domain Score                                | 46                  | 25.5                | 25.5                 | 28                   | 31.5                |
|                           | Scaled Domain Score                                       |                     |                     |                      |                      |                     |
|                           | Percentage  | 79%                 | 46%                 | 36%                  | 42%                  | 49%                 |
| Clarity and Presentation  | Domain Score  | 16                  | 16.5                | 17                   | 14                   | 16                  |
|                           | Scaled Domain Score                                       | 72%                 | 75%                 | 78%                  | 61%                  | 72%                 |
| Applicability             | Percentage<br>Domain Score                                | 24                  | 45.5                | 4.6                  | 42                   | 44                  |
| Applicability             |   | 21                  | 15.5                | 16                   | 13                   | 11                  |
|                           | Scaled Domain Score<br>Percentage                         | 71%                 | 48%                 | 50%                  | 38%                  | 29%                 |
| Editorial Independence    | Domain Score  | 10                  | 11                  | 7.5                  | 9                    | 8.5                 |
|                           | Scaled Domain Score                                       | 67%                 | 75%                 | 46%                  | 58%                  | 54%                 |
|                           | Percentage  |                     |                     |                      |                      |                     |

<sup>\*</sup>Mean guidelines scores across domains of the AGREE II instrument. Each question was rated on a Likert scale with a maximum of 7 points. The scaled domain score is calculated as follows: (obtained score – minimum possible score) ÷ (maximum possible score – minimum possible score)