# American College of Radiology
# ACR Appropriateness Criteria®

## Nonvariceal Upper Gastrointestinal Bleeding

**Variant 1: Adult. Suspected nonvariceal upper gastrointestinal bleeding; no endoscopy performed. Initial imaging.**

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| CTA abdomen and pelvis without and with IV contrast | Usually appropriate | Moderate | ☢☢☢☢ 10-30 mSv | | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 7 |

| References | Study Quality |
|---|---|
| 22 (25023179) | 3 |
| 19 (23192375) | M |
| 18 (28754326) | 3 |
| 24 (31987743) | 4 |
| 21 (25650332) | 1 |
| 7 (29883267) | 4 |
| 20 (31346741) | 4 |
| 25 (31363814) | 3 |
| 23 (33449577) | 3 |

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Arteriography visceral | May be appropriate | Limited | ☢☢☢ 1-10 mSv | | 6 | 6 | 0 | 0 | 0 | 0 | 5 | 5 | 1 | 4 | 0 |

| References | Study Quality |
|---|---|
| 2 (26303132) | 4 |
| 16 (33893060) | Inadequate |
| 17 (32650690) | 3 |
| 14 (30115434) | 4 |
| 15 (33317472) | 3 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT abdomen and pelvis without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 3 | 3 | 1 | 5 | 8 | 1 | 0 | 0 | 0 | 0 | 0 |
| CTA abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 3 | 3 | 2 | 4 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| CTA abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 3 | 3 | 0 | 4 | 7 | 1 | 2 | 1 | 0 | 0 | 0 |
| CT enterography | Usually not appropriate | Limited | ☢☢☢☢ 10-30 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 0 | 1 | 0 | 0 |

| References | Study Quality |
|---|---|
| 5 (34597220) | 4 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTA chest without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 3 | 3 | 2 | 3 | 4 | 0 | 4 | 0 | 0 | 0 | 0 |
| RBC scan abdomen and pelvis | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 3 | 3 | 2 | 3 | 4 | 2 | 1 | 1 | 0 | 0 | 0 |
| CTA abdomen without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 3 | 3 | 2 | 4 | 4 | 1 | 3 | 1 | 0 | 0 | 0 |
| CT abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 3 | 4 | 1 | 3 | 1 | 0 | 1 | 0 | 0 |
| CT abdomen without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 4 | 4 | 4 | 1 | 0 | 0 | 0 | 0 | 0 |
| CT abdomen without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 2 | 2 | 3 | 4 | 1 | 2 | 2 | 0 | 1 | 0 | 0 |
| CT abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 2 | 5 | 1 | 2 | 2 | 0 | 1 | 0 | 0 |
| CT abdomen and pelvis without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 4 | 4 | 3 | 1 | 1 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTA chest with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 3 | 4 | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
| MR enterography | Usually not appropriate | Expert Consensus | O 0 mSv | O 0 mSv [ped] | 2 | 2 | 5 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| Fluoroscopy upper GI series | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢ 0.3-3 mSv [ped] | 1 | 1 | 7 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

**Variant 2: Adult. Endoscopy confirms nonvariceal upper gastrointestinal bleeding with a clear source, but treatment not possible or continued bleeding after endoscopic treatment. Initial imaging.**

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Arteriography visceral | Usually appropriate | Limited | ☢☢☢ 1-10 mSv | | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 6 |

| References | Study Quality |
|---|---|
| 27 (26912065) | 4 |
| 31 (26190186) | 4 |
| 4 (26987672) | 4 |
| 34 (27178757) | 4 |
| 38 (32274535) | 4 |
| 30 (32282712) | 2 |
| 29 (34022402) | 4 |
| 26 (34313237) | 4 |
| 28 (27812392) | 4 |
| 35 (28270041) | 3 |
| 40 (30033142) | 4 |
| 39 (26766321) | 4 |
| 33 (31877509) | 4 |
| 37 (25319738) | 4 |
| 36 (25581622) | 3 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 32 (25712846) | | 4 | | | | | | | | | | | | |
| CTA abdomen and pelvis without and with IV contrast | Usually appropriate | Limited | ☢☢☢☢ 10-30 mSv | | 8 | 8 | 1 | 0 | 0 | 0 | 1 | 0 | 5 | 8 | 0 | |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 43 (28248993) | | 4 | | | | | | | | | | | | |
| | | 42 (27469919) | | 4 | | | | | | | | | | | | |
| | | 7 (29883267) | | 4 | | | | | | | | | | | | |
| CTA abdomen without and with IV contrast | May be appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 6 | 6 | 0 | 0 | 0 | 1 | 5 | 8 | 1 | 0 | 0 | |
| CTA chest without and with IV contrast | May be appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 4 | 4 | 2 | 0 | 3 | 3 | 5 | 0 | 0 | 0 | 0 | |
| CT abdomen without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 3 | 3 | 2 | 4 | 2 | 3 | 1 | 0 | 0 | 0 | 1 | |
| CT abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 2 | 4 | 4 | 1 | 1 | 0 | 1 | 0 | 0 | |
| CT abdomen and pelvis without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 3 | 3 | 2 | 4 | 2 | 3 | 1 | 0 | 0 | 0 | 1 | |
| CTA abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 3 | 3 | 3 | 3 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | |
| CTA abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 3 | 3 | 2 | 2 | 6 | 5 | 0 | 0 | 0 | 0 | 0 | |
| CTA chest with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 2 | 2 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | |
| CT enterography | Usually not appropriate | Limited | ☢☢☢☢ 10-30 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 3 | 2 | 4 | 1 | 3 | 0 | 0 | 0 | 0 | |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 41 (23789659) | | 4 | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 (34597220) | | | | 4 | | | | | | | | | | |
| CT abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 2 | 5 | 3 | 2 | 0 | 0 | 1 | 0 | 0 |
| CT abdomen without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 3 | 7 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| CT abdomen and pelvis without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 3 | 6 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| MR enterography | Usually not appropriate | Expert Consensus | O 0 mSv | O 0 mSv [ped] | 2 | 2 | 3 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| RBC scan abdomen and pelvis | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 2 | 2 | 5 | 5 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| Fluoroscopy upper GI series | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢ 0.3-3 mSv [ped] | 1 | 1 | 7 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

**Variant 3: Adult. Endoscopy confirms nonvariceal upper gastrointestinal bleeding without a clear source. Initial imaging.**

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| CTA abdomen and pelvis without and with IV contrast | Usually appropriate | Limited | ☢☢☢☢ 10-30 mSv | | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 4 |
| | | References | | | Study Quality | | | | | | | | | | |
| | | 43 (28248993) | | | 4 | | | | | | | | | | |
| | | 46 (28189213) | | | 4 | | | | | | | | | | |
| | | 48 (25782338) | | | 4 | | | | | | | | | | |
| | | 47 (31786734) | | | 4 | | | | | | | | | | |
| Arteriography visceral | May be appropriate | Limited | ☢☢☢ 1-10 mSv | | 6 | 6 | 0 | 0 | 0 | 0 | 5 | 3 | 1 | 1 | 3 |
| | | References | | | Study Quality | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 46 (28189213) | | 4 | | | | | | | | | | | | |
| | | 44 (32405731) | | 3 | | | | | | | | | | | | |
| | | 45 (24143308) | | 4 | | | | | | | | | | | | |
| RBC scan abdomen and pelvis | May be appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 5 | 5 | 0 | 0 | 0 | 2 | 10 | 3 | 0 | 0 | 0 |
| CT enterography | May be appropriate | Limited | ☢☢☢☢ 10-30 mSv | ☢☢☢☢ 3-10 mSv [ped] | 4 | 4 | 1 | 1 | 4 | 1 | 5 | 1 | 0 | 0 | 0 |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 41 (23789659) | | 4 | | | | | | | | | | | | |
| CTA chest without and with IV contrast | May be appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 4 | 4 | 2 | 3 | 1 | 3 | 3 | 1 | 0 | 0 | 0 |
| CT abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 3 | 3 | 4 | 1 | 0 | 2 | 0 | 0 | 0 |
| CT abdomen and pelvis without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 3 | 3 | 2 | 4 | 1 | 3 | 2 | 0 | 0 | 1 | 0 |
| CTA abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 3 | 3 | 1 | 3 | 7 | 4 | 0 | 0 | 0 | 0 | 0 |
| CTA chest with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 2 | 4 | 3 | 2 | 2 | 0 | 0 | 0 | 0 |
| CTA abdomen without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 3 | 3 | 3 | 3 | 4 | 1 | 3 | 1 | 0 | 0 | 0 |
| CT abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 3 | 4 | 4 | 0 | 1 | 1 | 0 | 0 | 0 |
| CT abdomen without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 3 | 4 | 5 | 1 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT abdomen without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 2 | 2 | 2 | 5 | 1 | 3 | 1 | 0 | 1 | 0 | 0 |
| CT abdomen and pelvis without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 3 | 4 | 5 | 1 | 0 | 0 | 0 | 0 | 0 |
| CTA abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 2 | 2 | 3 | 6 | 5 | 1 | 0 | 0 | 0 | 0 | 0 |
| MR enterography | Usually not appropriate | Expert Consensus | O 0 mSv | O 0 mSv [ped] | 2 | 2 | 2 | 6 | 4 | 0 | 1 | 0 | 0 | 0 | 0 |
| Fluoroscopy upper GI series | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢ 0.3-3 mSv [ped] | 1 | 1 | 8 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Variant 4: Adult. Nonvariceal upper gastrointestinal bleeding; negative endoscopy. Initial imaging.**

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| CTA abdomen and pelvis without and with IV contrast | Usually appropriate | Strong | ☢☢☢☢ 10-30 mSv | | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 4 | 4 |

| References | Study Quality |
|---|---|
| 57 (20621429) | 2 |
| 19 (23192375) | M |
| 55 (25141313) | 3 |
| 56 (25248830) | 2 |
| 58 (22363142) | 3 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT enterography | Usually appropriate | Moderate | ☢☢☢☢ 10-30 mSv | ☢☢☢☢ 3-10 mSv [ped] | 7 | 7 | 0 | 0 | 0 | 2 | 0 | 3 | 7 | 3 | 0 |

| References | Study Quality |
|---|---|
| 54 (21642417) | 2 |
| 52 (22098076) | 2 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5 (34597220) | | 4 | | | | | | | | | | | | |
| | | 53 (26858753) | | 4 | | | | | | | | | | | | |
| MR enterography | May be appropriate | Strong | O 0 mSv | O 0 mSv [ped] | 6 | 6 | 0 | 0 | 0 | 2 | 4 | 2 | 4 | 3 | 0 |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 60 (20132082) | | 3 | | | | | | | | | | | | |
| | | 61 (22528671) | | 2 | | | | | | | | | | | | |
| | | 59 (28668417) | | 2 | | | | | | | | | | | | |
| RBC scan abdomen and pelvis | May be appropriate | Limited | ☢☢☢ 1-10 mSv | | 6 | 6 | 0 | 0 | 0 | 3 | 3 | 2 | 4 | 0 | 1 |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 62 (23407907) | | 3 | | | | | | | | | | | | |
| | | 63 (21757912) | | 4 | | | | | | | | | | | | |
| | | 64 (30526506) | | 3 | | | | | | | | | | | | |
| CT abdomen and pelvis without and with IV contrast | May be appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 5 | 5 | 0 | 1 | 2 | 3 | 7 | 1 | 1 | 0 | 0 |
| CTA abdomen without and with IV contrast | May be appropriate (Disagreement) | Expert Opinion | ☢☢☢☢ 10-30 mSv | | 5 | 5 | 2 | 4 | 6 | 0 | 1 | 0 | 2 | 0 | 0 |
| CT abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 2 | 4 | 4 | 1 | 2 | 0 | 0 | 0 | 0 |
| CT abdomen without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 3 | 3 | 2 | 4 | 2 | 3 | 0 | 2 | 0 | 0 | 0 |
| CT abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 2 | 1 | 6 | 1 | 2 | 0 | 1 | 0 | 0 |
| CT abdomen and pelvis without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 4 | 2 | 5 | 1 | 1 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTA abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 3 | 3 | 3 | 4 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| CTA abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 3 | 3 | 1 | 3 | 10 | 0 | 0 | 0 | 1 | 0 | 0 |
| Arteriography visceral | Usually not appropriate | Limited | ☢☢☢ 1-10 mSv | | 3 | 3 | 1 | 4 | 4 | 2 | 3 | 1 | 0 | 0 | 0 |

| References | Study Quality |
|---|---|
| 51 (23754065) | 4 |
| 49 (22302119) | 4 |
| 50 (28278445) | 4 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTA chest without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 3 | 3 | 2 | 3 | 5 | 0 | 2 | 1 | 0 | 0 | 0 |
| CT abdomen without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 4 | 3 | 4 | 2 | 0 | 0 | 0 | 0 | 0 |
| CTA chest with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 3 | 4 | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
| Fluoroscopy upper GI series | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢ 0.3-3 mSv [ped] | 1 | 1 | 7 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Variant 5: Adult. Postsurgical or traumatic causes of nonvariceal upper gastrointestinal bleeding. Endoscopy is contraindicated. Initial imaging.**

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Arteriography visceral | Usually appropriate | Limited | ☢☢☢ 1-10 mSv | | 7 | 7 | 0 | 1 | 0 | 0 | 4 | 0 | 4 | 2 | 2 |

| References | Study Quality |
|---|---|
| 27 (26912065) | 4 |
| 4 (26987672) | 4 |
| 39 (26766321) | 4 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 65 (33861138) | | 3 | | | | | | | | | | | | |
| CTA abdomen and pelvis without and with IV contrast | Usually appropriate | Limited | ☢☢☢☢ 10-30 mSv | | 7 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 2 | 4 | |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 69 (21336192) | | 2 | | | | | | | | | | | | |
| | | 71 (27423720) | | 4 | | | | | | | | | | | | |
| | | 70 (33530944) | | 4 | | | | | | | | | | | | |
| CT abdomen and pelvis with IV contrast | May be appropriate | Limited | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 5 | 5 | 1 | 0 | 0 | 1 | 8 | 4 | 1 | 0 | 0 | |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 66 (34945741) | | Inadequate | | | | | | | | | | | | |
| CT abdomen and pelvis without and with IV contrast | May be appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 5 | 5 | 1 | 1 | 0 | 4 | 6 | 2 | 1 | 0 | 0 | |
| CTA chest without and with IV contrast | May be appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 5 | 5 | 0 | 2 | 0 | 5 | 8 | 0 | 0 | 0 | 0 | |
| CT enterography | May be appropriate | Limited | ☢☢☢☢ 10-30 mSv | ☢☢☢☢ 3-10 mSv [ped] | 4 | 4 | 1 | 2 | 2 | 3 | 3 | 2 | 0 | 0 | 0 | |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 5 (34597220) | | 4 | | | | | | | | | | | | |
| CT abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 4 | 2 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | |
| CT abdomen without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 2 | 4 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | |
| CT abdomen without and with IV contrast | Usually not appropriate | Limited | ☢☢☢☢ 10-30 mSv | ☢☢☢☢☢ 10-30 mSv [ped] | 3 | 3 | 3 | 3 | 5 | 3 | 1 | 0 | 0 | 0 | 0 | |
| | | References | | Study Quality | | | | | | | | | | | | |
| | | 67 (24381048) | | 4 | | | | | | | | | | | | |

| | | 68 (23392987) | | | 4 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CT abdomen and pelvis without IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 3 | 3 | 1 | 5 | 5 | 1 | 1 | 0 | 0 | 0 | 0 |
| CTA abdomen with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 3 | 3 | 3 | 3 | 8 | 1 | 0 | 0 | 0 | 0 | 0 |
| CTA abdomen and pelvis with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 3 | 3 | 1 | 2 | 10 | 0 | 1 | 1 | 0 | 0 | 0 |
| CTA abdomen without and with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢☢ 10-30 mSv | | 3 | 3 | 4 | 1 | 7 | 0 | 1 | 1 | 1 | 0 | 0 |
| CTA chest with IV contrast | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢☢ 3-10 mSv [ped] | 2 | 2 | 2 | 5 | 3 | 1 | 1 | 0 | 1 | 0 | 0 |
| Fluoroscopy upper GI series | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | ☢☢☢ 0.3-3 mSv [ped] | 2 | 2 | 5 | 6 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| RBC scan abdomen and pelvis | Usually not appropriate | Expert Consensus | ☢☢☢ 1-10 mSv | | 2 | 2 | 2 | 6 | 2 | 1 | 1 | 1 | 0 | 0 | 0 |

**Appendix Key**

A more complete discussion of the items presented below can be found by accessing the supporting documents at the designated hyperlinks.

**Appropriateness Category**: The panel's recommendation for a procedure based on the assessment of the risks and benefits of performing the procedure for the specified clinical scenario.

**SOE**: Strength of Evidence. The assessment of the amount and quality of evidence found in the peer reviewed medical literature for an appropriateness recommendation.

- **References:** The citation number and PMID for the reference(s) associated with the recommendation.
- **Study Quality**: The assessment of the quality of an individual reference based on the number of study quality elements described in the reference.

**RRL**: Relative Radiation Level. A population based assessment of the amount of radiation a typical patient may be exposed to during the specified procedure.

**Rating**: The final rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Median**: The median rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

**Final tabulations:** A histogram showing the number of panel members who rated the procedure as noted in the column heading (ie, 1, 2, 3, etc.).

Additional supporting documents about the AC methodology and processes can be found at **www.acr.org/ac.**