**Supplementary Appendix A.** PICO (Patient, Intervention, Comparison, Outcome) Questions

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| Section 1: Approach to Surveillance | | | | |
| Question | Population | Intervention | Comparison | Outcome |
| 1. Is repeat colonoscopy at 10 y preferred to earlier surveillance in patients with normal colonoscopy? | Patients with normal colonoscopy | Colonoscopy at 10 y | Colonoscopy in <10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 2. Is no repeat colonoscopy preferred to colonoscopy at 10 y or earlier in patients with normal colonoscopy? | Patients with normal colonoscopy | No colonoscopy | Colonoscopy in ≤10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 3. Is surveillance preferred to no surveillance in patients with 1–2 small (<10 mm) nonadvanced adenomas? | Patients with 1–2 small (<10 mm) nonadvanced adenomas | Colonoscopy surveillance | No surveillance | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 4. Is surveillance at 5 y preferred to surveillance at 10 y in patients with 1–2 small (<10 mm) nonadvanced adenomas? | Patients with 1–2 small (<10 mm) nonadvanced adenomas | Colonoscopy surveillance at 5 y | Colonoscopy surveillance at 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 5. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with sessile serrated adenoma/polyp size ≥10 mm and/or with dysplasia ? | Patients with sessile serrated adenoma/polyp size ≥10 mm and/or with dysplasia | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 6. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with sessile serrated adenoma/polyp size <10 mm with no dysplasia ? | Patients with sessile serrated adenoma/polyp size <10 mm with no dysplasia | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 7. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with advanced adenoma? | Patients with any advanced neoplasia advanced (defined as adenoma with ≥10 mm, villous histology, and/or high-grade dysplasia) | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 8. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with adenoma ≥10 mm in size? | Patients with any adenoma ≥10 mm | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 9. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with adenoma containing high-grade dysplasia? | Patients with adenoma containing high-grade dysplasia | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 10. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with adenoma containing villous histology? | Patients with adenoma containing villous histology | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 11. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with any proximal adenoma <10 mm? | Patients with any proximal adenoma <10 mm (proximal defined as proximal to descending colon or splenic flexure) | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 12. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with ≥3 adenomas all <10 mm? | Patients with ≥3 tubular adenomas all <10 mm | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 13. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with 3–4 adenomas <10 mm in size? | Patients with 3–4 adenomas <10 mm in size | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 14. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with 3–4 adenomas <6 mm in size? | Patients with 3–4 adenomas <6 mm in size | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 15. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with 5–9 adenomas <10 mm in size? | Patients with 5–9 adenomas <10 mm | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 16. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with 5–9 adenomas <6 mm in size? | Patients with 5–9 adenomas <6 mm | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 17. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with HP ≥10 mm in size? | Patients with any HP ≥10 mm in size | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 18. is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with proximal HP ≥10 mm in size? | Patients with proximal HP ≥10 mm | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 19. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with any proximal HP? | Patients with proximal HP | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 20. is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with a history of advanced adenoma? | Patients with a personal history of advanced adenoma, stratified by current finding (nonadvanced, advanced adenoma, normal) | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 21. is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with a history of nonadvanced adenoma? | Patients with a personal history of adenoma, stratified by current finding (nonadvanced, advanced adenoma, normal) | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 22. Is surveillance at <3 y preferred to surveillance at 3 y in patients with more than 10 non advanced adenomas? | Patients with >10 nonadvanced adenomas | Colonoscopy surveillance in <3 y | Colonoscopy surveillance at 3 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 23. Is surveillance at 3 y preferred to surveillance at 5 or 10 y in patients with high adenoma volume | Patients with high vs low adenoma volume | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 or 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 24. Is surveillance in 5 y preferred to surveillance in 10 y in patients with history of nonadvanced adenoma and follow-up normal colonoscopy? | Patients with baseline nonadvanced adenoma and normal colonoscopy at first surveillance | Colonoscopy surveillance at 5 y | Colonoscopy surveillance at 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 25. Is surveillance in 5 y preferred to surveillance in 10 y in patients with history of advanced adenoma and follow-up normal colonoscopy? | Patients with baseline advanced adenoma and normal colonoscopy at first surveillance | Colonoscopy surveillance at 5 y | Colonoscopy surveillance at 10 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| 26. Is surveillance in 3 y preferred to surveillance in 5 y in patients with history of advanced adenoma and follow-up advanced adenoma? | Patients with baseline advanced adenoma and advanced adenoma colonoscopy at first surveillance | Colonoscopy surveillance at 3 y | Colonoscopy surveillance at 5 y | 1. Detection of adenoma, advanced adenoma, and/or CRC 2. Reduction CRC incidence 3. Reduction CRC mortality |
| Section 2: Risk factors for adenoma, advanced adenoma, and CRC on follow-up | | | | |
| 1. Among patients with 1 or more colorectal polyps, does having 1 or more purported risk factors, compared with not having the risk factor confer increased risk for advanced neoplasia on follow-up colonoscopy? | Patients with a purported risk factor for advanced neoplasia on follow-up:   * Adenoma ≥10 mm * SSP ≥10 mm * SSP with dysplasia * Adenoma high-grade dysplasia * Adenoma with villous histology * >2 nonadvanced adenomas * 3–4 nonadvanced adenomas * SSP/polyp without size ≥10 mm or high-grade dysplasia * Proximal adenoma * Proximal HP * Proximal HP ≥10 mm * Distal HP ≥10 mm * History of advanced adenoma * History of adenoma * Family history of CRC * Family history of polyp * Total adenoma volume | Presence of risk factor | Absence of risk factor | Risk for adenoma, advanced adenoma, and/or CRC |