

September 2024

Promoting best practice colonoscopy

Recommendations report

OFFICIAL





To receive this publication in an accessible format [email Safer Care Victoria](mailto:info@safercare.vic.gov.au)
<info@safercare.vic.gov.au>

Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

© State of Victoria, Australia, Safer Care Victoria, September 2024.

ISBN/ISSN

Available at the [Safer Care Victoria website](https://www.safercare.vic.gov.au) <https://www.safercare.vic.gov.au>



Contents

Executive Summary	2
Colonoscopy recommendations	3
Background	5
Timeliness of colonoscopy	6
Consent	7
Scheduling of Colonoscopy Lists	7
Quality metrics	8
Communication of results surveillance	9
Assessment of competence and performance during and after training	9
Addressing inequity of access to colonoscopy	10
Next steps	13
Conclusion	13
References	14
Appendix 1	16

Executive Summary

Colonoscopy is accepted as the 'gold-standard' investigation for assessment of potential large bowel pathology, including colorectal cancers [\[1\]](#). Colorectal cancer is the fourth most common cancer diagnosed in Australia, and the second leading cause of deaths from cancer [\[2\]](#); the need for reliable, timely and complete colonoscopy is critical to detection of large bowel changes, including cancers to optimise treatment where required, and subsequent clinical outcomes.

Demand for colonoscopy in Australia has steadily grown, seeing more than 900,000 Australians undergoing the procedure annually. The National Bowel Screening Program (NBCSP) has contributed to increased demand for colonoscopy but has in turn effectively contributed to reducing colorectal cancer morbidity and mortality. As demand has grown for colonoscopy, so too has colonoscopy quality, but there are ongoing concerns associated with the procedure, including rare complications, unwarranted variations and suboptimal practice leading to failures in detecting cancers and polyps.

Challenges within the complex health system surround availability of timely and appropriate colonoscopy access; often amplified by individual factors including geographical location, socioeconomic status, ethnicity, including culture and linguistic diversity, and access to clinicians with appropriate training and expertise are well documented.

In March 2023, Safer Care Victoria (SCV) convened a roundtable discussion facilitated by subject matter experts Professor David Watters, SCV Director of Surgery, and Adjunct Professor Iain Skinner, colorectal surgeon, to identify and address quality and equity of colonoscopy provision in Victoria. The roundtable comprised vast representation from across the sector, including consumers, and public and private interdisciplinary clinicians from rural, regional, and metropolitan settings.

Colonoscopy roundtable participants were invited to explore a range of issues related to colonoscopy, including colonoscopy practice, training and clinician credentialing, colonoscopy preparation and planning, colonoscopy access and case selection appropriateness, including triaging for urgency categorisation, and colonoscopy reporting.

Roundtable discussions, contributions, and feedback provided by inter-jurisdictional colleagues, and professional bodies were themed to develop seven recommendations aimed at improving colonoscopy access and procedural practice. The recommendations were reviewed and refined after feedback from roundtable participants, the Gastroenterological Society of Australia, the Royal Australasian College of Surgeons, the surgical taskforce in Queensland and New South Wales, and the perioperative and surgical inter-jurisdictional meeting members before being finalised.

The key themes of the recommendations include timeliness of colonoscopy; consent; facility scheduling of colonoscopy lists; performance metrics; communication of results and appropriate surveillance after colonoscopy; addressing inequity of access to colonoscopy; and next steps, including an aspirational goal to develop a national approach to improving colonoscopy practice in Australia; the recommendations are explored in more detail throughout this report.

Colonoscopy recommendations

These priority recommendations have been made to improve the provision of high-quality colonoscopy:

1: Timeliness of colonoscopy:

1a: Following referral, triage and assessment, the booking of planned (elective) colonoscopies should follow the national elective (planned) surgical urgency categorisation of 30, 90 and 365 days.

1b: Patients with a positive faecal occult blood test (FOBT) should undergo diagnostic colonoscopy within a maximum of four months after the date of their FOBT test, as should patients referred with critical or red flag symptoms. Four months is a maximum and it is recognised that some symptomatic patients warrant much earlier colonoscopy.

2: Consent for colonoscopy:

Patients should be appropriately consented which includes an understanding of potential complications, factors relating to duration and technical performance of their procedure, and the timing of appropriate colonoscopy surveillance intervals in relation to any previous colonoscopy.

3: Facility Scheduling of Colonoscopy Lists:

Colonoscopy scheduling should occur at no less than 30-minute intervals to allow adequate time to complete a high-quality withdrawal protocol that ensures thorough inspection of the entire mucosal surface. Where a gastroscopy is also performed on the same patient, a minimum of 15 minutes should be scheduled for the gastroscopy.

4: Facility performance metrics:

That providers of colonoscopy continue to measure and review objective endoscopist and facility quality metrics for internal quality assurance and accreditation against national standards.

5: Communication of results and appropriate surveillance after endoscopy:

Colonoscopy findings and pathology should be communicated to patient and referring practitioner to facilitate further management and appropriate surveillance. Organisational support is required at hospital and health system level to ensure that surveillance intervals align with the established evidence-based standards.

6: Assessment of competence and performance during and after training:

Objective quality metrics and objective assessment tools should be utilised to assess progress during training, assess competence at completion of training, for re-certification of practice, to certify extended scopes of practice, and for ongoing clinical professional development (CPD).

7: Addressing inequity of access to colonoscopy:

That the needs and access to colonoscopy by indigenous patients, rural and remote patients, and patients living in lower socioeconomic areas, and patients who have limited access to healthcare for any other reasons, are

considered and addressed. This may include utilising investigations such as CT (Computed Tomography) colonography where these are more readily available.

8: Next Steps:

Safer Care Victoria will promote and commend these recommendations for progress at state and national level. Key stakeholders will be consulted, including the Royal Australasian College of Surgeons (RACS), the Royal Australasian College of Physicians (RACP), and the Gastroenterological Society of Australia (GESA), the Australian Commission on Safety and Quality in Health Care (ACSQHC), and key jurisdictional Department of Health and Safety and Quality bodies.

Background

The Australian Commission on Safety and Quality in Health Care (ACSQHC), Colonoscopy Clinical Care Standard (CCCS) defines colonoscopy as a diagnostic, therapeutic, and surveillance intervention that examines the lining of the entire large bowel, indicated when signs of colorectal disease or cancer are identified. The main objective of a colonoscopy is to detect serious pathology, including polyp identification and removal for early detection and prevention of cancer [\[4\]](#).

The Cancer Council Victoria reports that in 2022, colorectal cancer accounted for 10 percent of all cancers diagnosed, and just over 11 percent of cancer related deaths in Victoria [\[3\]](#). This is consistent with national figures reported by Cancer Australia, which identifies colorectal cancers as the fourth most common diagnosed cancer, and second most common cause of cancer death in Australia [\[3\]](#).

Focusing improvement efforts on delivery of high-quality and equitable colonoscopy access have profound impacts on consumers, clinicians, and the healthcare system. High-quality colonoscopy is vital to the early detection and treatment of colorectal cancers, and directly correlates with optimised treatment outcomes and survival rates [\[4\]](#). More than 90 percent of bowel cancers can be successfully treated when detected early [\[5\]](#), and research reported by Bowel Cancer Australia suggests up to 32 percent of colorectal cancers may be prevented by colonoscopy screening alone [\[6\]](#).

Demand for colonoscopy has grown, and is expected to increase over time, in part due to National Bowel Cancer Screening Program (NBCSP), which accounts for one-fifth of total colonoscopies, which will generate an estimated 10–14 percent of Medicare Benefit-funded colonoscopies by 2030. It is important to note, the NBCSP has also led to more appropriate use of colonoscopies and better clinical outcomes. Ensuring clinicians are appropriately trained and supported with the conditions required to manage demand and perform the procedure within approved guidelines is critical to providing high-quality, and high-value colonoscopy services in Victoria, and across Australia [\[7\]](#).

The importance of early detection cannot be understated for patients, but the health system too. Health system costs correlate strongly with disease stage at diagnosis. Advanced disease is not only indicative of poorer patient outcomes, but much higher cost to the healthcare system. The total cost of treating colorectal cancer in those with early stages (stages I and II) are lower than treating locally advanced or metastatic colorectal cancers (stages III and IV); which costs on average seven times more than early diagnosed colorectal cancers. Improving access to high-quality colonoscopy to optimise early diagnosis is critical to delivering the best outcomes for patients as well as reducing late-stage treatment costs [\[8\]](#).

Timeliness of colonoscopy

Recommendation 1a: Following referral, triage and assessment, the booking of planned (elective) colonoscopies should follow the national elective (planned) surgical urgency categorisation of 30, 90 and 365 days.

Recommendation 1a seeks to align Victorian colonoscopy urgency categorisation with national guidelines. In 2017, the Victorian Department of Health developed the 'Colonoscopy categorisation guideline' to assist health services to ensure consistent prioritisation of patients requiring colonoscopy regardless of their referral pathway. The current guideline contains three priority categories, detailing criteria for when colonoscopy should be performed; Category 1 within 30 days, Category 2 within 90 days, and Category 3 within 180 days [\[9\]](#). The Victorian Department of Health 'Planned surgery access policy' highlights colonoscopy and upper gastrointestinal endoscopy as the exception to the rule, with all other Category 3 surgeries expected to be performed within 365 days [\[10\]](#). National and interjurisdictional guidance indicates Category 3 colonoscopy be complete with 365 days.

Recommendation 1b: Patients with a positive faecal occult blood test (FOBT) should undergo diagnostic colonoscopy within a maximum of four months after the date of their FOBT test, as should patients referred with critical or red flag symptoms. Four months is a maximum and it is recognised that some symptomatic patients warrant much earlier colonoscopy.

The ACSQHC CCCS emphasises the need for timely and appropriate colonoscopy to investigate signs and symptoms of bowel disease in Quality statement 2, this is echoed by the Cancer Council Australia, Clinical practice guideline for prevention, early detection and management of colorectal cancer which recommends wait times for colonoscopy should not exceed 120 days (four months) when symptoms, including a positive faecal occult blood test (FOBT) are present. Research suggests symptomatic patients who wait greater than 120 days for colonoscopy experience poorer clinical outcomes [\[11\]](#).

In 2006, the Australian Government established the National Bowel Cancer Screening Program (NBCSP) to enable earlier detection of colorectal cancers, and facilitate provision of timely, appropriate, high-quality, and safe diagnostic assessment. The program aims to enable equitable access irrespective of geographic location, socioeconomic status, disability, and cultural background, which are known risk factors for delayed colorectal cancer detection and diagnosis [\[12\]](#).

The NBCSP uses non-invasive faecal occult blood testing to identify people at risk of colorectal cancer. The pathology test is used to detect small amounts of blood which may indicate the need for further investigation, usually using colonoscopy [\[13\]](#). Since the program's inception, more than 10 million screening tests have been completed, and data from the Australian Institute of Health and Welfare (AIWH) demonstrates the NBCSP has effectively contributed to reducing morbidity and mortality from colorectal cancer in Australia [\[14\]](#).

Consent

Recommendation 2: Patients should be appropriately consented which includes an understanding of potential complications, factors relating to duration and technical performance of their procedure, and the timing of appropriate colonoscopy surveillance intervals in relation to any previous colonoscopy.

The ACSQHC CCCS, Quality statement 3 details the requirements for informed decision making and consent when preparing for colonoscopy. The statement details the need to provide clear and concise information in a language and format that is understood by the patient. Information should detail potential complications; what to expect during and after the procedure and follow-up care, including surveillance; as well as the benefits; financial costs; alternative options; and risks in the pursuit of empowering patients to make informed decisions [4]. Colonoscopy is considered a safe procedure but is not without risk, complications are rare but must be explained, complications may include complications associated with anaesthesia, including nausea; abdominal pain; infection; excessive bleeding; and perforation of the colon wall [15].

Adequate bowel preparation is essential to best practice colonoscopy and must be communicated well to patients preparing for the procedure. Bowel preparation aims to clear the bowel using medications, short-term dietary changes, fasting and enemas as required so the bowel can be adequately visualised during colonoscopy. Healthcare providers must provide clear and concise information to optimise bowel preparation, and in turn increase the likelihood of high-quality and complete colonoscopy [4]. Inadequate bowel preparation is associated with lower polyp and cancer detection rates; longer procedure times; increased need for repeat procedures; higher costs; and lower rates of follow-up with screening programs [11].

Scheduling of Colonoscopy Lists

Recommendation 3: Colonoscopy scheduling should occur at no less than 30-minute intervals to allow adequate time to complete a high-quality withdrawal protocol that ensures thorough inspection of the entire mucosal surface. Where a gastroscopy is also performed on the same patient, a minimum of 15 minutes should be scheduled for the gastroscopy.

Performing a complete colonoscopy is vital to early detection of changes in the bowel; recommendation 3 promotes best practice in colonoscopy by encouraging list scheduling that allows sufficient time for high-quality and complete colonoscopy to be performed. Incomplete colonoscopy rates vary from 4 percent to 25 percent and are associated with higher rates of colorectal cancer [16]. The ACSQHC suggests a colonoscopy take at least 20 to 30 mins to perform [17], and clinical lists must be coordinated to provide clinicians with adequate procedural time that supports high-quality colonoscopy practice.

Colonoscopy withdrawal, the removal of the colonoscope from the caecum to the rectum is key to detecting changes in the bowel mucosa. Longer colonoscopy withdrawal times correlate with higher polyp detection rates, whilst conversely rapid or shorter withdrawal times may lead to missed changes and reduce the effectiveness of the investigation [18]. The NBCSP recommends at least 6 minutes is spent on colonoscopy withdrawal [19], however, the Gastroenterological Society of Australia (GESA) has not set a benchmark for colonoscopy withdrawal. It is important to note withdrawal times may not represent entire surveillance time, as endoscopists may inspect the colon during colonoscopy insertion as well as during withdrawal. Colonoscopy withdrawal time may be impacted by colon length, colonic spasm, and quality of bowel preparation whereby the endoscopist

encounters difficulty advancing the endoscope through the colon, leading to incomplete colonoscopy, and impacting overall colonoscopy procedure time [\[19\]](#), [\[16\]](#).

Quality metrics

Recommendation 4: That providers of colonoscopy continue to measure and review objective endoscopist and facility quality metrics for internal quality assurance and accreditation against national standards :

Recertification criteria with GESA

Colonoscopy is the only surgical procedure in Australia where clinicians are required to recertify against a defined set of criteria [\[20\]](#). The Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy (CCRTGE) is a national body comprising representatives from Gastroenterological Society of Australia (GESA), the Royal Australasian College of Physicians (RACP) and the Royal Australasian College of Surgeons (RACS).

Clinicians seeking certification or recertification to perform colonoscopy must:

- Hold current CCRTGE certification
- Have completed at least 150 consecutive colonoscopies over 3 years, with at least 50 of those performed in the 12 months prior to the certification.
- Demonstrate at least 95 percent of the 150 procedures advance to the caecum or terminal ileum of intact colons
- Demonstrate adenoma detection rate of at least 25 percent in eligible patients
- Demonstrate sessile serrated adenoma/polyp detection rate of at least 4 percent in eligible patients
- Undertake an online 'cognitive review' which provides links to education tools for further education and information [\[21\]](#).

ACSQHC Colonoscopy Clinical Care Standard

The ACSQHC CCCS guides provision of safe and appropriate colonoscopy practice, focussing on procedure optimisation and reducing risk of avoidable harm. The clinical care standard outlines the care expected in nine areas of practice including the periods before, during and after colonoscopy, and identifies four mandatory performance metrics. All facilities providing colonoscopy are assessed for accreditation against the following performance indicators detailed in the CCCS:

- Proportion of patients scheduled for a colonoscopy whose bowel preparation was adequate
- Proportion of patients undergoing a colonoscopy who have their entire colon examined
- Proportion of patients who had a colonoscopy that detected one or more adenoma(s)
- Proportion of patients who had a colonoscopy that detected one or more sessile serrated adenoma(s) or sessile serrated polyp(s) [\[4\]](#).

Communication of results surveillance

Recommendation 5: Colonoscopy findings and pathology should be communicated to patient and referring practitioner to facilitate further management and appropriate surveillance. Organisational support is required at hospital and health system level to ensure that surveillance intervals align with the established evidence-based standards.

Quality statement 9 of the ACSQHC CCCS details colonoscopy reporting and follow-up requirements. Healthcare providers must provide patients and the referring clinician with, including:

- Indication for the colonoscopy
- Colonoscopy findings
- Histology results
- Recommendations for follow-up when required, including surveillance
- When prompt treatment or further investigations are required, arrangements should be made and communicated to the patient and referring clinician
- In addition to the above, NBCSP participants should have colonoscopy outcomes, results and adverse events reported to the NBCSP Register [\[4\]](#)
- Surveillance intervals for colonoscopy should be determined after significant cancerous changes have been cleared and histology is known [\[22\]](#).

Assessment of competence and performance during and after training

Recommendation 6: Objective quality metrics and objective assessment tools should be utilised to assess progress during training, assess competence at completion of training, for re-certification of practice, to certify extended scopes of practice, and for ongoing clinical professional development (CPD).

Clinician competence is a significant determinant of the quality of colonoscopy delivery [\[16\]](#). The ACSQHC CCCS details the mandatory requirements for recertification for colonoscopy practice, however there is ongoing variability in the provision and quality of colonoscopy training, and base level metrics.

The CCRTGE provides training aimed at improving and promoting high-quality gastroenterological services. The training and credentialing process is overseen by a committee of senior gastroenterological appointees from GESA, RACP & RACS.

Assessment for recognition of training in colonoscopy involves assessment of the caecal intubation rate (CRI) at the completion of training. Cecal intubation rates (CIR) greater than or equal to 90 percent are recommended as a benchmark for colonoscopy certification. To prove caecal intubation, endoscopists must record clear photo identification of reaching the caecum [\[16\]](#). To become colonoscopy certified, trainees must:

- perform at least 200 large bowel endoscopic examinations that can include colonoscopy, flexible sigmoidoscopy, and colonoscopy via colostomy on patients with intact or non-intact colons
- perform at least 100 unassisted, supervised, complete colonoscopies to the caecum or the ileum in patients with intact or non-intact colons

-
- perform successful snare polypectomies on a minimum of 50 patients
 - achieve at least a 90 percent CIR by completion of training
 - Procedures with obstructing cancer or severe colitis must be recorded but are excluded from the overall intubation rate.

Details of all cases during training must be recorded contemporaneously and sequentially in an online logbook, and entries must be recorded within six months of the case being undertaken [\[21\]](#).

To further support clinicians, in 2023, RACS piloted the 'Renewal of Endoscopy Skills and Training' (REST) Program to support endoscopists who do not meet the recertification standards. The REST Program is overseen by the College's Surgical Gastrointestinal Endoscopy Committee and supports practitioners who may otherwise be excluded from colonoscopy practice due to lack of recertification, however, the most common reason undertaking the REST program is perceived need by the clinician to improve practice, rather than failure to meet recertification [\[20\]](#).

Addressing inequity of access to colonoscopy

Recommendation 7: That the needs and access to colonoscopy by indigenous patients, rural and remote patients, and patients living in lower socioeconomic areas, and patients who have limited access to healthcare for any other reasons, are considered and addressed. This may include utilising investigations such as CT colonography where these are more readily available.

The introduction of the NBCSP has improved colorectal cancer screening rates, and in turn increased provision of clinically indicated colonoscopy [\[7\]](#). However, across Australia, there is significant variation in the rates of colonoscopy access geographically. In Victoria, almost 3400 colonoscopies per 100,000 people are performed per year, more than any other state or territory; however, there is significant disparity particularly in remote regions where only 100 colonoscopies per 100,000 people are performed per year [\[24\]](#).

Data from the AIHW highlights significant variation in uptake and access to colonoscopy for people who identified as being of Aboriginal or Torres Strait Islander background, those who live in more remote parts of Australia, and those who live in low socioeconomic areas. These groups also experience higher rates of positive screening, and concerningly, lower rates of follow-up colonoscopies. Of further concern, these populations also experience longer wait times time between receiving a positive screening result and colonoscopy procedure [\[14\]](#).

Aboriginal and Torres Strait Islander peoples

National data indicates Aboriginal and Torres Strait Islander people have a lower age-standardised colorectal cancer rate than non-Aboriginal and Torres Strait Islander people and slightly lower colorectal cancer mortality rate than non- Aboriginal and Torres Strait Islander Australians [\[11\]](#). The lower incidence and mortality may result from lower life expectancies; lower participation in cancer screening and therefore diagnosis; inadequate death certification; and a higher incidence of unknown primary cancer amongst this population. Reliable data on the diagnosis of cancer for Aboriginal and Torres Strait Islander people are not available, in part due to misclassification of people as non- Aboriginal and Torres Strait Islander [\[12\]](#).

The NBCSP data shows lower participation rates among Aboriginal and Torres Strait Islander peoples compared to non-Aboriginal and Torres Strait Islander populations, however those who do undergo bowel screening are more likely to return a positive screen compared to non-Aboriginal and Torres Strait Islander people (11 percent versus 8 percent non-Aboriginal and Torres Strait Islander peoples). Concerningly, those who return a positive screen are less likely to undergo further diagnostic assessment (57 percent versus 71 percent), and those who do undergo diagnostic assessment, experience longer average wait times for colonoscopy than non-Aboriginal and Torres Strait Islander peoples (median 64 days versus 52 days) [23].

Achieving increased participation by Aboriginal and Torres Strait Islander peoples in colorectal cancer surveillance requires overcoming recognised barriers, including incomplete enrolment in Medicare, and barriers inhibiting Aboriginal and Torres Strait Islander peoples' self-identification. Culturally appropriate and safe identification of Aboriginal and Torres Strait Islander status remains limited and requires focused improvement efforts more generally [23].

Commonwealth and jurisdictional health plans incorporate 'Closing the Gap' targets, and the Australian Institute of Health and Welfare provides regular reports on progress towards meeting these. These reports are available and must be used support health system planning. Data from these reports must be used, taking into account the greatest risk factors experienced by some Aboriginal and Torres Strait Islander peoples to improve participation in diagnostic, surveillance and screening colonoscopy to effectively reduce colorectal cancer rates and improve outcomes for this population Carefully planned and culturally appropriate studies are required to further understand and address unmet needs of Aboriginal and Torres Strait Islander peoples, including development of culturally sensitive resources [23].

Populations at greatest risk of poor access

The disparity in healthcare equity between rural and urban communities is a well-documented for other cancers and diseases. Around 7 million people, 28 percent of the Australian population reside in rural and remote areas, encompassing diverse locations and communities. Data shows those who live in rural areas have a higher incidence of colorectal cancer; are less likely to participate in screening program; are more likely to return a positive screen; and are less likely to undergo a screening colonoscopy compared with metropolitan counterparts. This leads to delayed treatment and poorer clinical outcomes for people in these communities [24].

On average, those living rural and remote areas across Australia experience shorter lifespans and experience higher levels of disease. Reasons for this are multifactorial, including lifestyle differences; disadvantage related to education and employment opportunities; and lower access to health services, including cancer centres [24].

Data assessing screening and colonoscopy access for culturally and linguistically diverse populations indicates the same rate of positive screening as English speaking populations, however, this population experiences lower follow-up diagnostic assessment rates, and longer wait time between positive screening and further assessment [12].

People from low socioeconomic groups, which often include people from populations listed above, and those who live with severe disability, also experience lower rates of participation in NBCSP, and higher rates of positive screening, but a lower incidence of subsequent screening colonoscopy [12]. It is not entirely clear what constitute

the major factors leading to these inequities, and further research is required to better understand the barriers and how they can be overcome.

Young adults (under 45 years)

Since 2005, the rate of early onset colorectal cancer has increased, particularly in people aged under 40 years; in 2024, approximately 6.5 percent of all colorectal cancers are estimated to be diagnosed in this age group [\[25\]](#). Concerningly, people in this demographic are more likely to experience delayed diagnosis, and subsequently have more advanced colorectal cancer when diagnosed.

Delay in diagnosis is attributed to primary care providers not considering colorectal screening (FOBT and colonoscopy) for colorectal cancer even when 'red flag' symptoms are present [\[26\]](#), and general awareness of colorectal cancer symptoms. The NBCSP rightly targets people aged 45 years, above as this is the population who experience colorectal cancer most commonly. However, it is critical to raise awareness of colorectal cancer signs and symptoms, including that people may be diagnosed at any age; and for clinicians to remain aware of the risk of colorectal cancer occurrence in young adults aged under 45 years, and offer colonoscopy when clinically indicated.

Waitlists and colonoscopy alternatives

Prior to, throughout, and since, the COVID-19 pandemic a backlog of patients wait-listed for colonoscopy but overdue by identified triage category has developed and continues to grow. The key contributors to this backlog, include:

- Endoscopy services not being resourced consistently based on population size and need, resulting in marked geographic variance detailed above
- Variation and under-resourcing of the triage process, impacting process and service quality
- Variation in triage practice, despite direct access referral criteria for colonoscopy
- Complexity in triaging gastrointestinal symptoms that may indicate colorectal cancer

Most endoscopy units provide high-quality and efficient colonoscopy services; translating performance of these services into a nationally coordinated and monitored approach could achieve similar benefits nationwide, and should include the following considerations:

- Colonoscopy care delivered in alignment with the health service capability framework to ensure the right patients receive care in the right place
- Care models are locally or regionally clinician-led, enabling timely review with clear triage and selection protocols; appropriate specialist review processes for higher-risk or complex procedures; referral pathways; and advice for unaccepted and inappropriate patients
- Face-to-face consultation is offered for selected patients where virtual care models do not suffice
- Alternative investigations when timely colonoscopy cannot be arranged are considered, including CT colonography and flexible sigmoidoscopy.

-
- **Computed Tomography (CT) Colonography** is minimally invasive, safe, and accurate alternative to colonoscopy that can reliably detect colonic cancers but does have limitations. When bowel changes are identified using CT Colonography, a coloscopy for further investigation is required [\[22\]](#).
 - **Flexible Sigmoidoscopy** Is an invasive investigation that examines the sigmoid colon only, biopsies can be taken during this procedure and may be followed up with a colonoscopy when additional investigation is required [\[22\]](#).

Next steps

Safer Care Victoria will promote and commend these recommendations for progress at state and national level. Key stakeholders will be consulted, including the Royal Australasian College of Surgeons (RACS), the Royal Australasian College of Physicians (RACP), and the Gastroenterological Society of Australia (GESA), the Australian Commission on Safety and Quality in Health Care (ACSQHC), and key jurisdictional Department of Health and Safety and Quality bodies.

The ACSQHC supports the Inter-Jurisdictional Committee (IJC) which is comprised of safety and quality officials of the Commonwealth, States and Territories. The committee was created by the Australian Health Ministers' Advisory Council in 2006 and is responsible for providing advice on the process of policy development and facilitating jurisdictional engagement in the work of the ACSQHC [\[27\]](#). The recommendations contained within this paper will be presented to the IJC who have the levers to coordinate and collaborate with other key stakeholders to action and implement the recommendations.

Conclusion

The health system aims to deliver high-quality care for all, inclusive of colonoscopies, regardless of geography, ability, socio-economic status, and cultural and linguistic background. The ACSQHC CCCS sets the baseline for provision of high-quality colonoscopy, and these recommendations aim to strengthened this. The seven recommendations and next steps to address high-quality colonoscopy practices including colonoscopy access and provision; performance metrics; training; recertification; and accreditation will help prevent and detect colorectal cancers, to benefit patients, clinicians, and the health system.

Safer Care Vicotria will promote this paper and recommendations with relevant peak bodies and jurisdictions to generate improvements for best practice in colonoscopy. The paper and recommendations will be tabled at the Victorian Quality, Safety and Performance subcommittee, and at the Inter-Jurisdictional Committee (IJC) meeting to promote and progress improvements to colonoscopy practice.

References

1. Rees CJ, Thomas Gibson S, Rutter MD, Baragwanath P, Pullan R, Feeney M & Haslam N 2016, 'UK key performance indicators and quality assurance standards for colonoscopy', *British Medical Journal: Gut*, vol. 6, no. 65, pp 1923-1929.
2. Bowel Cancer Australia 2024, Bowel cancer facts, North Sydney, viewed 15 August 2024, <[Bowel Cancer Facts - Bowel Cancer Australia](#)>.
3. Cancer Council Victoria 2024, Bowel cancer statistics and trends, Cancer Council, Melbourne, viewed 30 July 2024, <[Bowel Cancer Statistics - Cancer Council Victoria \(cancervic.org.au\)](#)>.
4. Australian Commission for Safety and Quality in Health Care 2020, Colonoscopy Clinical Care Standard, [ACSQHC], Sydney, viewed on 25 July 2024, <<https://www.cancer.org.au/clinical-guidelines/bowel-cancer/surveillance-colonoscopy>>.
5. Cancer Australia 2024, Bowel Cancer: Colorectal cancer in Australia statistics, Australian Government, Sydney, viewed 30 July 2024, <[Bowel cancer \(Colorectal cancer\) in Australia statistics | Cancer Australia](#)>.
6. Bowel Cancer Australia 2024, Modifiable risk factors, North Sydney, viewed 15 August 2024, <[Modifiable risk factors - Bowel Cancer Australia](#)>.
7. Worthington J, He E, Lew JB, St John J, Horn C, Grogan P, Canfell K, Feletto E 2023 'Colonoscopies in Australia - how much does the National Bowel Cancer Screening Program contribute to colonoscopy use?', *Public Health Research and Practice*, vol. 33 no. 1.
8. Goldsbury DE, Feletto E, Weber MF, Haywood P, Pearce A, Lew JB, Worthington J, He E, Steinberg J, O'Connell DL, Canfell K 2021, 'Health system costs and days in hospital for colorectal cancer patients in New South Wales, Australia', *PLoS One*, vol. 16, no. 11.
9. Department of Health 2017, Colonoscopy categorisation guidelines, State Government of Victorian, Melbourne, viewed 14 August 2024, <[Colonoscopy categorisation guidelines \(health.vic.gov.au\)](#)>.
10. Department of Health 2024, Planned surgery access policy, State Government of Victorian, Melbourne, viewed 14 August 2024, <[Surgical services policies and guides \(health.vic.gov.au\)](#)>.
11. Cancer Council Australia 2018, Clinical practice guidelines for the prevention, early detection and management of colorectal cancer, Sydney, viewed on 15 August 2024, <[Colorectal Cancer Clinical Guidelines | Cancer Council](#)>.
12. Department of Health and Aged Care 2024, National Bowel Cancer Screening Program, Australian Government, Canberra, viewed 15 August 2024, <[National Bowel Cancer Screening Program | Australian Government Department of Health and Aged Care](#)>.
13. Cancer Council Australia 2024, Understanding your FOBT results, Australian Government, Sydney, viewed 15 August 2024, <[Understanding your FOBT results | Cancer Council](#)>.

-
14. Australian Institute of Health and Welfare 2023, National Bowel Cancer Screening Program monitoring report, Australian Government, Canberra, viewed 19 August 2024, < [National Bowel Cancer Screening Program monitoring report 2023, Summary - Australian Institute of Health and Welfare \(aihw.gov.au\)](#)>.
 15. Bowel Cancer Australia 2024, A quality colonoscopy, North Sydney, viewed 15 August 2024, < [A quality colonoscopy - Bowel Cancer Australia](#)>.
 16. Franco DL, Leighton JA, Gurudu SR 2017, 'Approach to Incomplete Colonoscopy: New Techniques and Technologies'. *Gastroenterology Hepatology*, vol. 3, no. 8, pp 476-483.
 17. Australian Commission for Safety and Quality in Health Care 2020, Colonoscopy: what you need to know, [ACSQHC], Sydney, viewed on 15 August 2024, < [Colonoscopy: what you need to know | Australian Commission on Safety and Quality in Health Care](#)>.
 18. Australian Institute of Health and Welfare 2014, Colonoscope withdrawal time, Australian Government, Canberra, viewed 19 August 2024, < [Colonoscope withdrawal time \(aihw.gov.au\)](#)>.
 19. Haga H, Tran E, Reiger N 2022, 'Colonoscopy quality of GP endoscopists in three rural hospitals in Queensland, Australia', *Australian Journal of General Practice*, vol. 51 no. 12, pp-980-985.
 20. Kirkby B 2023, 'Introducing the renewal of endoscopy skills and training program', *Royal College of Surgeons Surgical News*, vol. 24, no. 2.
 21. Gastroenterology Society of Australia 2015, Conjoint Committee for Recognition of training in Gastrointestinal Endoscopy: Information for Applicants, [GESA], Melbourne, viewed 13 August 2024, < [Endoscopy Certification Australia | Information For Applicants \(conjoint.org.au\)](#)>.
 22. Cancer Council Australia 2018, Clinical practice guidelines for surveillance colonoscopy, Sydney, viewed on 15 August 2024, < [Clinical Guidelines for Surveillance Colonoscopy | Cancer Council](#)>.
 23. Cancer Council Australia 2022, Clinical practice guidelines for the prevention, early detection, and management of colorectal cancer: Population screening, Sydney, viewed on 25 July 2024. <<https://www.cancer.org.au/clinical-guidelines/bowel-cancer/surveillance-colonoscopy>>.
 24. Australian Institute of Health and Welfare 2024, Rural and remote health, Australian Government, Canberra, viewed 14 August 2024, < [Rural and remote health - Australian Institute of Health and Welfare \(aihw.gov.au\)](#)>.
 25. Australian Institutes of Health and Welfare 2024, Cancer data in Australia, Australian Government, Canberra, viewed 22 August 2024, < <https://www.aihw.gov.au/reports/cancer/cancer-data-in-australia/contents/overview>>.
 26. Lamprell K, Pulido DF, Arnolda G, Easpaig B, Tran Y, Owais SS, Liauw W & Braithwait J 2023, People with early-onset colorectal cancer describe primary care barriers to timely diagnosis: a mixed-methods study of web-based patient reports in the United Kingdom, Australia and New Zealand, *BioMed Central Primary Care*, vol 24, no. 12.
 27. Australian Commission for Safety and Quality in Health Care 2006, Committees, [ACSQHC], Sydney, viewed on 25 July 2024, < [Committees | Australian Commission on Safety and Quality in Health Care](#)>.

Appendix 1

The SCV colonoscopy roundtable

The primary objective of Colonoscopy roundtable was to identify and address concerns around the provision, quality, and equity of colonoscopy services. The group discussions were based around six main topics:

- **Colonoscopy practice** – using technology, taking your time promoting quality and the Colonoscopy Clinical Care Standard (CCCS)
- **Completion of training**, competence and credentialling
- **Training** colonoscopists – what do we need to change?
- **Audit, registry and recertification** – how are we monitoring quality?
- **Remuneration** is there a better system? What are the future needs?
- **The underperforming colonoscopist** – who is this, how are they identified, how do we manage them and who pays?

Summary of discussions

Each group identified a set of issues in their area of discussion and suggested potential solutions or improvements to practice. There were broad themes that carried between groups and some discussion was had by each group around other group topics.

Broad themes emerged in and between the groups including:

Colonoscopy practice:

Improving diagnostic and assessment procedures for colorectal cancer has benefits for patients, clinicians, and Australia's health system. Some of the identified benefits for each are listed below:

For consumers:

- Empowerment from information about the diagnostic process provided at point of referral
- Reduced anxiety and uncertainty of a possible cancer diagnosis, with reduced time between referral and the patient learning the outcome of diagnostic tests
- Improved patient experience from fewer visits to the hospital, particularly with 'one stop' services
- Potential for improved patient survival by using a faster pathway to prevent disease progression while waiting for tests and treatments
- Assurance that a quality control and recertification process is in place

For clinicians:

- Working within an evidence-based and nationally consistent quality improvement framework to provide high-quality services

-
- Working across primary and secondary care to ensure high quality referrals into a streamlined service that ensures patients receive the right care
 - Improved ability to meet increasing demand and ensure best utilisation of the limited capacity yet highly skilled workforce
 - Having a supportive re-certification process to improve quality and enable coaching and retention of those not performing to benchmarks

For the health system:

- Frontloading and therefore reducing health system costs in the colonoscopy/bowel cancer pathway
- Providing training, improving efficiency, reporting and clinical governance capacity
- Reduced demand for outpatient clinics by up to 59 percent with implementation of open access/virtual triage colonoscopy protocols leading to better triage and case selection
- Fewer medically unjustifiable delays in care
- Improved performance against national standards with agreed local audit against these together with proceduralist performance review rather than the same data being uploaded to GESA
- National aggregation of data, enabling interpretation of variation and benchmarking performance
- Improved quality, safety, and effectiveness of care with reduced variation and equitable improvement in outcomes and ensuring regular independent recertification processes
- Reduced financial and resource costs
- Improved job satisfaction and specialty recruitment for health professionals working in endoscopy services.

Training & Credentialing

- The importance of equity and high-quality in the training of all colonoscopists.
- The need for a standardised skills and curriculum for all colonoscopy training.
- More rigorous assessment and standards to ensure competence at the completion of colonoscopy training.
- The importance of considering specific credentialing for advanced procedural elements of colonoscopy

Preparation and Planning

- The need to mandate well maintained, high-quality equipment and reporting software to support high-quality colonoscopy.
- The need for standards in scheduling, the time taken for, and the technical aspects of, colonoscopy.
- How schedules of remuneration for individuals and facilities, and the staffing of those facilities, influence the performance and incentives to provide high quality colonoscopy.
- The difficulty of predicting future trends in colonoscopy, encompassing a broad view that there will be technological advances, but that, in the short term, demand will continue to increase in the next few years to 2030 and beyond.

Access and case selection, and appropriate urgency allocation

-
- The appropriate referral, triage, assessment, selection, urgency categorization, and consent of patients for colonoscopy.
 - The inequity of access to colonoscopy for certain groups for certain populations who include indigenous, cultural, and linguistically diverse, lower socioeconomic status, or those who live in rural/remote areas.
 - The potential to use CT colonography as an initial investigation where access to colonoscopy may be delayed.

Reporting

- The use of mandated objective metrics (Performance Indicators) to monitor quality in colonoscopy at the proceduralist and facility level.
- The challenges with identifying and remediating substandard colonoscopy and the cost of this.



OFFICIAL