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The Australian Bowel Cancer Screening Pilot:

Outcomes of the Workforce and Quality Issues in
Colonoscopy Workshop

5 April 2004

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Outcomes of the Workforce and Quality Issues in Colonoscopy
Workshop**

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This report was prepared by the Screening Section, Targeted Prevention Program Branch, Australian Government Department of Health and Ageing.

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Outcomes of the Workforce and Quality Issues in Colonoscopy Workshop, 5 April 2004

Purpose

The purpose of this paper is to:

- record and expand upon issues discussed by experts from a variety of disciplines at a workshop on quality and workforce issues in colonoscopy (the Workshop) held on 5 April 2004;
- propose options to support development of activities in these areas that could be undertaken by a range of interested groups and individuals; and
- inform the Australian Government's consideration of a possible national bowel cancer screening program.

Background

In the 2000-01 Budget, the Australian Government announced that it would invest \$7.2 million over four years to improve knowledge about the early detection of bowel cancer, through the Pilot. In the 2004-2005 Budget, a further \$7.5 million was allocated to continue work undertaken in the Bowel Cancer Screening Pilot and support investigation into the benefits and logistics of establishing a national bowel screening program. Evaluation of the Pilot will be finalised in October 2004, after which the Australian Government will consider the possible introduction of a national bowel cancer screening program.

During the course of the Pilot, health professionals within the Pilot sites and on the Pilot working groups identified a range of issues relating to colonoscopy quality and workforce capacity. It is important to have strategies in place to address these issues, not only in the context of a potential national bowel cancer screening program, but also to ensure that service provision in general is of the best standards achievable in terms of quality, consistency, accessibility and appropriateness.

In January 2004, a small group of experts undertook preliminary discussions and identified core issues for attention at a national workshop. These issues are outlined in *Discussion paper to inform workforce & quality issues in colonoscopy workshop April 2004* (Attachment A) which resulted from the January meeting. The document was sent to all invitees of the workshop and informed discussions on the day. A list of participants at the April workshop is at Attachment B.

Executive Summary

Currently colonoscopy services are provided in both public and private facilities and service provision appears to be working effectively. In general, there appears to be a reasonable level of resources provided for colonoscopy, as presently practised but there is a perception that the resourcing may not be provided in a controlled or targeted way.

There are currently no uniform national measures, no systematic requirements for reporting of quality standards nor is there a cohesive system addressing quality in facilities.

There is a perception that this has led to variations in quality between, and within, States and Territories. Similarly, variations in requirements for licensing of facilities across States also influence the quality of services provided. Standards such as the *Standards for endoscopic facilities and services* developed by the Gastroenterological Society of Australia (GESA) and the Gastroenterological Nurses College of Australia (GENCA) are considered highly relevant and acceptable.

Existing standards could form the basis of national standards within a national accreditation system for services in the event of a possible national bowel cancer screening program. There is strong support for a national system of accreditation for facilities and a number of models already exist that could readily inform the establishment of a national accreditation system.

A comprehensive national accreditation system for services could also encompass the training and credentialling of colonoscopists. This could enable the establishment of quality processes within workforce training, for example, accreditation of training of colonoscopists and training components focussed on quality. This would assist in creating a culture of continuous improvement using any approved national bowel cancer screening program as a vehicle. At present there is no formal process in place to ensure ongoing competency of colonoscopists in Australia.

The Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy, a national body comprising representatives from GESA, the Royal Australasian College of Physicians and the Royal Australasian College of Surgeons (both upper gastrointestinal surgery and colon and rectal surgical sections), maintains a record of recognised trained colonoscopists and recognises training of colonoscopists who have completed their training in Australia or who have moved to Australia. There is no mechanism for the ongoing recognition of colonoscopists. The Conjoint Committee is not a licensing, accrediting or credentialling body.

Currently Colorectal Surgery Advanced Trainees are required to train in colonoscopy and to meet Conjoint Committee requirements. General Surgery Advanced trainees cannot sit their Fellowship examinations until they have met at least 50% of the Conjoint Committee's requirements. It is expected that they complete their training in endoscopy and colonoscopy but it is not mandatory that they do so before becoming a general surgeon. There are a number of courses available for specialised training on gastroenterology for nurses. GENCA has developed and adopted Nurse Competency Standards and has a credentialling process for its members. This may provide a model for credentialling health professionals working within any a possible national bowel cancer screening program.

In the event of a national bowel cancer screening program, professional bodies such as the Conjoint Committee, could expand their role to oversee service accreditation including credentialling and the ongoing recognition of colonoscopists and develop materials to underpin accreditation, such as the development of national standards and clinical indicators. If the Conjoint Committee were to undertake this role, there is support for the idea that the Committee be expanded to include the Royal Australian College General Practitioners (RACGP) and GENCA representatives to create a more inclusive and cohesive approach to improving quality in service provision.

The introduction of a standardised reporting system would strongly support a national quality process. There are a number of formats for standard reporting used in Australia. A possible national bowel cancer screening program would be strengthened by consensus on the synthesis of these existing report formats.

Within Pilot sites, streamed funding to create additional colonoscopy lists for Pilot participants appears to have worked well. There is support for this to continue in the event of a possible national bowel cancer screening program. Consideration of mechanisms to support quality in any future screening program could include tying funding to accreditation of facilities and credentialing of proceduralists.

The importance of the role of nurse practitioners as the link between GPs, patients and facilities was also highlighted. Both Mackay and Victoria employed nurse practitioners to receive referrals, undertake pre-procedure assessment, coordination of the colonoscopy, post procedure follow up and ensure completion of data collection. This role was seen as integral to the success of the Pilot at those sites and also in the event of a national program.

Metropolitan workforce capacity issues include the lack of information regarding the capacity of the private sector to provide colonoscopy services; capacity of facilities to meet the demands of a national screening program, informed consent, indemnity issues and funding models that support best practice. Rural and remote workforce capacity issues are similarly focussed on the capacity of facilities to meet demands in any national screening program, availability of practitioners, indemnity and models of service that meet the very different needs of rural and remote communities. These issues need to be further explored in the context of any potential national screening program.

While it appears at present that there is no large and immediate role for new technologies such as CT colonography and flexible sigmoidoscopy in a possible national bowel screening program, a process for the evidence based assessment of new technologies as they arise should be built into any new program. Finally, to support the roll out of quality processes, education will be required for GPs, allied health professionals and consumers on issues such as assessment of personal level of risk, informed consent and public/private implications. This might involve a national information campaign.

Introduction

This paper's focus is on quality and workforce capacity in the provision of colonoscopy services. For the purposes of this paper, the definitions of quality and workforce capacity have been adapted from Lohr¹, Hawe et al² and the Centre for Disease Control and Prevention³.

Quality is defined as:

“...the cumulative result of the interactions of peoples, individuals, teams, organisations and systems. It can be defined as the degree to which the services for individuals and populations increase the likelihood of desired health outcomes”

Workforce capacity is defined as the extent to which the workforce is able to effect an agreed or desired outcome. The critical elements influencing capacity include:

- appropriate staffing levels
- skill levels of health professionals
- efficient processes for credentialing technical and professional health personnel
- education, training and development of health professionals
- adoption of continuous quality improvement programs
- organisational commitment and infrastructure

Colonoscopy services are provided in both public and private facilities. There appears to be a reasonable level of resources available for colonoscopy. The evidence also suggests that the colonoscopy services provided are of good quality and the system of service provision is working effectively. Lack of adequate facilities and workforce capacity in rural and remote areas are issues but are not unique to the provision of colonoscopy services. Service providers regularly canvass options for service delivery to circumvent these constraints. Metropolitan areas appear adequately serviced by proceduralists but are affected by the Australia wide shortage of nurses and in particular specialist gastroenterological nurses.

There are no formal accreditation processes specific to colonoscopy service provision other than those that apply in the context of public hospital accreditation. There are some quality processes in place in the form of licensing requirements for private facilities. There is also no formal credentialing of proceduralists. The relevant professional colleges have credentialing processes for general surgical competence and courses available for specialised training in gastroenterology and coloproctology. Additionally, endoscopic standards for facilities have been developed at state levels and are currently available and are considered highly acceptable and relevant within the industry.

Colonoscopy service provision appears to be meeting the needs of patients efficiently. However, there is a perception that the resourcing afforded to service providers could be more

¹ Lohr, K, (1990). Institute of Medicine. *Medicare : A strategy for quality assurance*. Washington DC: National Academy Press.

² Hawe, P., King, L., Noort, M., Jordans, C., & Lloyd, B. (2000). *NSW Health Indicators to help with capacity building in health promotion*. NSW Health. Sydney: State Health Publication.

³ Center for Disease Control and Prevention National Public Health Performance Standards Program, United States, viewed 10 August 2004, http://www.phf.PerformanceTools/NPHPSP_State_PL.htm.

targeted. This in turn implies there is potential to enhance existing quality and workforce capacity.

Colonoscopy service providers, representatives of professional bodies and high level health administrators, gathered to discuss the quality and workforce issues that may have an impact on the implementation of any possible national screening program. This workshop aimed to identify strategies to tap into the potential to enhance current quality processes and workforce capacity and that could inform the implementation of a possible national screening program.

Discussion

1. The facility, procedure and proceduralists

Licensing of colonoscopy facilities is under the jurisdiction of the States and Territories Health and governed by local Acts/Regulations and guidelines. Each of the States and Territories has different licensing requirements for colonoscopy. States and Territories do not license public endoscopy facilities. Licences are required for private endoscopy facilities (although there is no provision under the relevant South Australian Act to licence private stand alone day surgery or day procedure facilities). Additionally, private facilities do not require licensing in some States if they use a certain level of sedation. “Light” sedation may exclude the facility from licensing. However, the definition of ‘light’ sedation varies between jurisdictions.

Harmonising licensing of facilities would form a strong component of a national colonoscopy quality system. However, this would require jurisdictional change and negotiation at Australian and State Government level to coordinate Acts and Regulations that are disparate in content. This would in reality take many years to achieve. Although it is not completely out of the question, it certainly would have to be regarded as a long-term goal.

Implementing a national accreditation process for services is one option for overcoming disparate licensing requirements. At present accreditation is not a requirement of licensing (although in Queensland the Act requires the licensee to commence a quality assurance program within a specified time and South Australia strongly encourages this). A national accreditation process would support continuous quality improvement in colonoscopy service provision through the implementation of uniform national standards and performance measures for facilities and peer reviewed credentialing for proceduralists. Additionally, there is potential to link service accreditation with licensing although, similar to the idea of harmonising licensing nation wide, this would be a long-term goal.

Funding models to support quality are considered integral to the success of any possible national screening program. One option suggested was to tie funding to accreditation. Linking funding to accreditation of facilities and credentialing of proceduralists and compliance to quality in both public and private facilities would support continuous improvement.

There was strong support for mechanisms that link accreditation with eligibility to attract (uncapped) Medicare Benefits Schedule (MBS) rebates, such as the National Association of Testing Authorities (NATA) accreditation of pathology services. The pathology model is affected through legislation. Advantages of this approach are that it would set up a regulatory framework for national standards, performance indicators and measures, requirements for

services to be enrolled in and performing satisfactorily within a quality management program, peer performance comparisons, and regular independent reviews of services.

However, it is recognised that the legislative process can be lengthy and would have to be supported by the professional colleges representing colonoscopists. An issue to consider with this approach is how to justify regulated accreditation for a diagnostic procedure when other diagnostic procedures do not have the same requirements.

Linking funding to regulated standards would result in rural and remote services having to meet the same standards as those in metropolitan regions. Workshop participants raised the concern that this may disadvantage rural and remote communities who require greater flexibility in service provision to meet the needs of diverse populations. Regulated standards would have the clear advantage of ensuring the same level of quality in rural and remote regions metropolitan regions and could be developed to allow for flexibility within the quality context.

Centralised self-regulatory models of funding that are capped and based on activity may make more efficient use of funds. In addition, they can tie funding to accreditation while allowing flexibility within the process. The Pilot demonstrated such models can work successfully. For example, the Mackay funding model was based on DRG and Casemix funding which allowed for contracting of services to both public and private facilities, in turn permitting pre-existing referral pathways to be retained, and importantly, quality components to be built into the Service agreement.

Victoria also funded its Pilot activities through a model based on DRGs and added funding to incorporate services which do not occur routinely, a pre-admission clinic visit and a nurse practitioner to track patients pre and post procedure. Colonoscopy services were purchased from public hospitals via a tendering process, which included a requirement that QI mechanisms were in place and that the facility was accredited with a recognised organisation. Funding was also based on adequate reporting to the Health Insurance Commission (HIC) and the Department of Health and Ageing.

Funding models such as these can encourage facilities to use resources more efficiently and clinicians to consider the economic impact of their clinical decisions. Additionally DRG / casemix funding models allow payment for fixed and variable costs. While fixed costs stay the same, variable costs depend on activity: the greater the activity the less cost per person screened, which in turn encourages throughput.

Bundling funding based on activity rather than a fee for service basis to drive efficiency also allows each facility to determine how it will expend funds. Ultimately, this will have cost and practice implications. There are precedents for this model within the MBS but it would require medical colleges to agree on the detail. However, this model could disadvantage smaller populations in rural and remote locations as the cost per person may be higher for screening and assessment. This could be overcome by factoring in a rural and remote loading for these services and cross subsidising the services at a State level by achieving efficiencies in the volume of clients.

Funding models for procedures also have to be viewed within the context of how they are administered: through bulk purchase of services for dedicated sessions, or integrated into the

mainstream. Each has its pros and cons and this appears to have been borne out in the Pilot and through the experiences of other screening programs such as BreastScreen Australia.

Bulk purchase of services allows greater control of QI reporting, monitoring and evaluation and as such could be used as a risk management tool for implementation of screening. Dedicated resourcing means there is reduced possibility of funds being shifted to the wider health system, reduced waiting lists because dedicated sessions have been put aside for Program participants and possible reductions in private co-payments.

It also supports participant choice and increases equity of access to follow-up. There may also be greater opportunity to put into place processes that allow appropriate timeframes for patients to go through a process which supports fully informed consent.

Alternatively, bulk purchase of services could result in rigid micro-management of services and it gives right of refusal to providers, in that they can refuse to tender for a contract. Contracting may be time consuming and complex and there is the risk of providers 'cherry picking' times and days of service provision which may impact on other health services, particularly in rural and remote areas.

Integration of funding into mainstream services is a much simpler model with less paperwork for facilities and proceduralists. There may be greater equity in service provision, greater opportunity to meet targets and less opportunity for service providers to 'cherry pick'. However, integrating resources may mean less quality in reporting and monitoring (as a result of less incentive to do so), increased waiting lists and the dilution of funding or loss of funding to system needs. Additionally, in the start up phase this approach may be higher risk than bulk purchase of dedicated sessions as participants may get lost in the system and become harder to track.

However, it may not necessarily be an either/or issue when it comes to funding models. It may be constructive to examine the feasibility and cost effectiveness of diverse methods of resource allocation. For example, it may be more cost effective to begin with bulk purchase funding allocation in the start up phase of a national program, then when the program and colonoscopy services have been established and throughput volumes are known, move to integrated allocation.

Centralised, self regulatory funding, such as activity based funding, can allow for accreditation processes to be integrated into the funding model without resorting to regulations and its associated complexities. It also still adequately meets the quality needs of a national screening program such as independence, accountability and reduced risk of litigation. An alternative to the regulated NATA type model would be for an external agency to undertake the actual accreditation process. This may transfer the indemnity risk to the external accrediting body and maintain and strengthen, with expert guidance, perhaps from the Conjoint Committee or a similar multi-disciplinary professional body, the professional ownership of the accreditation process.

The overseeing professional body could engage with key stakeholders, develop materials to underpin the accreditation process such national standards, performance indicators, data auditing materials, develop policy and track the efficacy of the accreditation process.

Such an approach would provide the opportunity to link accreditation with credentialling of proceduralists and continuing medical education credits. The performance standards of individual providers could be monitored to support maintenance of competency for credentialling as part of the QI reporting for the Program.

Accreditation and credentialling could also be linked to medical indemnity coverage, to take advantage of possible reductions in premiums resulting from improvements to risk management and subsequent decrease in litigation risk. An external agency accrediting facilities, based on national standards, would provide transparency and accountability and, importantly, may be more acceptable to services as a result of its independence.

An external accrediting body is preferable to an 'in-house' accreditation process for a number of reasons. Firstly, there is the perception of increased credibility, transparency and objectivity of the accreditation process through independence of the accreditation body. Secondly, program quality and credibility is increased through an independent and accountable decision making process. Finally, an independent model assures an appropriate level of relevant expertise in the assessment and decision making roles.

There was agreement that if a professional body, such as the Conjoint Committee, were to expand its role to undertake the overseeing of accreditation of services and credentialling of proceduralists, the impetus for any changes to the role of the professional accrediting body would have to come from the relevant professional colleges and be mandated by them. Changes to the role of the professional accrediting body may also require increased Government support. The legal standing of any professional body overseeing accreditation and accreditation would also have to be clearly stated.

Some workshop participants suggested that licensing should be aligned with funding and then integrated with accreditation of services and credentialling of proceduralists. It is recognised that this is a long-term aim and unlikely in the short to medium term. However, it would be useful to establish a small working group to consider the logistics of undertaking such an alignment in the long term.

Workshop participants agreed unanimously that the development of national standards and performance indicators must come from within the industry and needs to be driven by the professions. Standards such as the *Standards for endoscopic facilities and services* developed by the GESA and GENCA are considered highly relevant and acceptable. Existing standards could form the basis of national standards within a national accreditation system in the event of a possible national bowel cancer screening program.

Suggested key performance indicators were identified as ileo-caecal intubation rates, completion rates, withdrawal times, adenoma detection rates, complication rates, adverse events and quality of bowel preparation. There was also backing for development of national guidelines for informed consent procedures as currently timing of consent is contentious. Participants were also keen to see standards developed as a working document with a focus on flexibility, rather than on regulation, to ensure a longer shelf life in the event of new technologies and research.

Peer credentialling of competence and training appeared to be the model of choice among workshop participants. The Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy maintains a record of recognised trained colonoscopists and

recognises training of colonoscopists who have completed their training in Australia or who have moved to Australia. There is no mechanism for the ongoing recognition of colonoscopists. The Conjoint Committee is not a licensing, accrediting or credentialling body.

If the options discussed were to be adopted and auspiced under a professional body, such as the Conjoint Committee, there may be a need to establish subcommittees to oversee service accreditation, credentialling and training. Workshop participants agreed that these subcommittees would have a range of representation including GPs and nurses to ensure a multidisciplinary approach to screening and assessment.

There was strong support for a national register of colonoscopists in the event of a possible national bowel screening program.

Some rural and remote services have raised concerns regarding constraints imposed by Conjoint Committee credentialling, arguing instead for the flexibility to credential at a local level. This would require further exploration. There is strong support for credentialling based on national standards regardless of where and how proceduralists are credentialled.

There are a number of courses available for specialised training on gastroenterology for nurses. GENCA has developed and adopted Nurse Competency Standards and has a credentialling process for its members. This may provide a potential model for credentialling health professionals working within any a possible national bowel cancer screening program.

Workshop participants were also supportive of a national standard for record keeping which is seen as integral part of facility management and operation. There are a number of different systems used throughout Australia for endoscopic reporting. In the event of a possible national bowel screening program these options would need to be closely examined to ascertain the feasibility of using standardised reporting mechanisms through common use software.

2. Workforce capacity

Workshop participants suggested mapping current workforce capacity by region including colonoscopists, nurses and all related workforce, assuming a multi-disciplinary approach would be taken in any national screening program. Participants contended that there is little information on the public sector and even less on the private sector, on issues such as the availability of colonoscopists and nurses, definition of core skills and the types of workforce that currently exist. There was also a suggestion that there may be a maldistribution of the workforce rather than a shortage. Participants agreed that this information would be important prior to rolling out any national screening program.

There are a number of issues with undertaking mapping, including the sheer scale, designating responsibility for collecting, holding and updating the information, and ultimately its relevance to a roll out of a possible national bowel screening program. These issues do not preclude a mapping exercise occurring, rather they set parameters about the exercise. It may be useful for each State and Territory to undertake its own mapping exercise regarding workforce capacity in the event of a possible national bowel screening program.

This would serve the dual purpose of informing each State and Territory about preferred approaches for phasing in a possible national bowel screening program in the unique context of each jurisdiction, and about the type of preparation required.

Workshop participants also stated that workforce capacity must be considered in relation to FOBT positivity rates. There was concern that positivity rates above 4% would require extra workforce capacity to meet demand. At this stage final positivity rates are unknown. However, positivity rates and workforce capacity must be viewed in the context of target group numbers, the initial spike in the workload at the beginning of a program (plateauing out later), downgrading of disease as the program takes effect, and the ability to reset the cutoff rates in immunochemical FOBTs.

Differences in workforce capacity were also noted between metropolitan and rural and remote regions. Metropolitan participants noted systemic funding allocation problems within facilities can impose artificial limitations such as having the capacity in space and equipment but inadequate funding for staff. There were examples provided of this happening in the larger regional facilities as well. Rural and remote regions have particular issues with reduced availability of colonoscopists and nurses, although the nurse shortage is not limited to rural and remote regions of Australia. Rural and remote areas have unique challenges. For example, the Cairns fly in-fly out outreach endoscopy service can only undertake limited colonoscopies because there is insufficient staff locally to dispense the bowel preparation. The service does do colonoscopies where there is a diathermy unit available and facilities to do emergency surgery if needed.

Some services have already attempted to explore options for service delivery to meet geographical and demographic diversity addressing both facilities and workforce capacity. For example, mobile services have the potential to supplement fixed facilities. There are successful examples of this practice in some States now, often including nurses as service providers as well as medically-qualified colonoscopists. All members of these mobile teams are fully trained and procedural experts. Other models canvassed included hub and spoke systems, whereby a centre is established and appropriately staffed and equipped (this has been in used in NSW and Victoria), and the above mentioned fly-in-fly out specialist services operating in Western Australia, Northern Territory, northern South Australia and Queensland. Service delivery challenges include the need for appropriately equipped and staffed facilities and the justification of equipment expenses in area with less than a full time workload.

Importation of trained multidisciplinary staff into rural and remote areas appears to have general support due to the perceived shortage of practitioners in these areas. Participants at the Workshop voiced openness to proceduralists other than colonoscopists, such as general practitioners and registered nurses, undertaking colonoscopies. This openness however, came with a caveat of adequate training and supervision.

Participants also discussed the importance of the role of nurse practitioners as the link between GPs, patients and facilities. Both Mackay and Victoria employed nurse practitioners to receive referrals, undertake pre-procedure assessment, coordination of the colonoscopy, post procedure follow up and ensure completion of data collection. This role was seen as integral to the success of the Pilot at those sites and also in the event of a national program.

The role of anaesthetists was also discussed. It was suggested that Australia appears to have a high use of anaesthetics, mostly sedation, associated with colonoscopy. Although this

information is anecdotal; it warrants further investigation into what actually drives anaesthetic use in colonoscopy procedures, particularly in the event of a national bowel screening program.

Participants suggested that more could be done on developing guidelines for the use of sedation as well as work on the roles of various professionals in colonoscopy teams. Strong support was voiced at the Workshop for a multidisciplinary approach to procedures and identifying the most efficient workforce prior to the possible implementation of a national bowel screening program.

3. *Workforce training*

All workshop participants strongly agreed that workforce training would be an integral component in the event of a national bowel cancer screening program. Training of colonoscopists was identified as an important issue. Particular concerns included the lack of a co-ordinated approach to training, the adequacy of current training, where training of colonoscopists should be undertaken (public and/or private sector) and identification of training needs.

It was noted that some States and Territories are establishing skill development centres and these could play an important role in the event of a possible national program, particularly for the training of proceduralists in rural and remote areas. These special training centres would not necessarily be new but existing centres with a dedicated training area and with enhanced funding for increased training (which could include a multidisciplinary approach) and research. Participants cited the United Kingdom experience where similar centres have resulted in better co-ordinated training and higher standards of performance with associated cost benefits.

A number of questions were also raised regarding training of other health professionals. For example:

- who would be responsible for training and supervision of RN colonoscopists?
- are there sufficient trained supervisors available not just for nurses but other personnel, such as GPs?
- would increasing the numbers and support of dedicated nurses in endoscopy provide an appropriate career structure to improve retention of nursing staff?

There was also a suggestion that if medical staff such as GPs were to be utilised in rural and remote communities, their present levels of training may be inadequate. However, the current workloads of GPs may make it unrealistic to expect them to take up further training and activity. Indemnity of proceduralists, other than colonoscopists, may also be an issue and also warrants further investigation.

There was general agreement that there would be a time lag before new proceduralists were fully trained and that it might take 5-10 years to reach a steady workforce capacity. Participants agreed this provides a strong argument for a staged roll out of any possible national program to allow for workforce capacity to be built up over time.

There will also be a need to provide an adequate and appropriate workforce for Aboriginal and Torres Strait Islander people and people from culturally and linguistically diverse

backgrounds. This may entail specific workforce training. Further exploration of the training needs of the workforce to meet the needs of all relevant population groups will be required.

4. Impact of new technologies

While there was much discussion on new technologies such as Computerised Tomographic colonography (CT colonography), faecal DNA testing and capsule technology, the consensus among participants was that at this stage there is a limited role for new technologies. While over time new technologies may result in better diagnostics, greater patient satisfaction, greater efficiency and efficacy and benefits for providers, workshop participants agreed that current practice of FOBT followed by colonoscopy is the most appropriate available for screening.

Despite high interest in CT colonography, research results are equivocal and suggest that the technology is still not at the stage for widespread application to screening. Workshop participants agreed CT colonography has an accepted and important role to play following incomplete colonoscopy and multi-centre studies are needed to further the evidence on its use in screening.

Flexible sigmoidoscopy (FS) has also generated much interest, and outcomes are still awaited on the Western Australian trial as well as three northern hemisphere randomised control trials. Participants agreed that FS appeared to hold some promise and had advantages for workforce capacity in that nurse endoscopists under limited supervision can also undertake the procedure. It was also agreed that at this point in time, DNA testing and capsule technology require further research.

Participants agreed there is a need to obtain reliable information for any new technology in the areas of cost effectiveness, equipment costs, acceptability, workforce issues and the impact on colonoscopy services. It was also agreed that evolution of technology will occur and that it was important to ensure data generated from any possible national bowel screening program would contribute and inform research into new technologies. To do this, an evidence-based mechanism for assessment of new technologies and for replacing 'old' technologies must be built into any possible future program.

5. Education of the general health workforce and the public

Workshop participants agreed that the introduction of any approved national screening program should be underpinned by strong education strategies to support quality processes for health providers, in particular GPs, and the public.

Participants generally agreed that GPs require information and guidance on a range of quality issues relevant to screening. These include understanding levels of risk, requesting and timing of informed consent, what constitutes an inappropriate referral, knowledge and use of NHMRC guidelines and the use of data collection forms. Participants supported the use of a range of mechanisms to achieve outcomes that support screening such as academic detailing, education links with the RACGP, websites and helplines.

In the event of a possible national screening program, workshop participants acknowledged that, similarly to the training of colonoscopy teams, careful strategic planning for the education of GPs would have to be undertaken. This would require involvement and

commitment from the RACGP in planning for the role of the GP in any possible national screening program.

Workshop participants saw public education on colorectal cancer as targetting the entire population but with a particular emphasis on target age groups. Public education was seen as needing to accommodate cultural, economic and geographic diversity. In particular, the engagement of males in screening was seen as an important issue to address. Again a range of strategies was advocated to reach the target age group. Essential messages to get across to the target group were identified as informed consent and assessment of personal levels of risk.

Key issues for future consideration

A number of issues raised in the discussion require further consideration in the event of a possible national bowel screening program. These issues are identified below and may require formation of collaborative committees or the undertaking of projects to address them prior to the implementation of any possible national bowel screening program. The decision to convene committees and/or undertake projects should be influenced by the consideration of a number of criteria. These criteria were determined by workshop participants and are listed below:

- How is the interest of the Australian population served through this work?
- What would we (the funder or the stakeholders) do with any information/outcomes?
- Is there anyone appropriate or available to develop and implement the work/project?
- What would the project/committee achieve and when?
- Who would champion the outcomes?
- Who has the power/motivation/incentive to implement outcomes/recommendations?
- Is the work cost effective?

Key issues

The above criteria have been applied to the key issues identified below to develop a suggested descending order priority of future projects.

- Choice of funding model to support quality processes. Further exploration is need of the most efficient and effective funding model to support accreditation processes.
- Development of national standards and key performance indicators. This would require a collaborative approach so that a standardised approach to procedures across Australia becomes integral to any approved national screening program.
- Exploration of models of service delivery to meet the needs of demographically and geographically diverse populations. Issues include efficiency and cost-effectiveness of models as well as optimum patient outcomes.
- Identification of professional bodies that could provide leadership to oversee and guide the accreditation process, the credentialling of proceduralists and the identification of training needs and the optimal workforce required for colonoscopy service within an approved national screening program. This requires collaboration between the relevant colleges (both medical and nursing).
- Exploration of the feasibility of an external accreditation processes. If this model is seen as feasible it would require significant input from the relevant professional bodies and State and Territory agreement on the specifics of the model.

- Development of a national standard of record keeping. Further exploration of the feasibility of using standardised software and the options available is required.
- Development of national guidelines for the use and administration of sedation/anaesthetics in the colonoscopy context.
- Harmonising licensing of facilities nation-wide is a long-term goal particularly if there is support for alignment of licensing, accreditation and credentialling of proceduralists to be tied to funding.
- Mapping current workforce capacity. Using this to model long-term need in the event of a possible national bowel screening program and to plan for phasing in of such a national program.

Next steps

This paper will be considered in the evaluation of the Bowel Screening Pilot. It will also be considered by the Australian Screening Advisory Committee. A work program of activities based on the priorities noted above will be established for implementation in the event of the introduction of a possible national bowel screening program.

Attachment A: Discussion Paper



DISCUSSION PAPER

To Inform

Workforce & Quality Issues in Colonoscopy Workshop

**Monday 5 April 2004
9:30am to 4:30pm**

**Holiday Inn, Sydney Airport
Charles Kingsford Smith/Hudson Fysh Function Room**



Purpose

The purpose of this paper is to explore quality and workforce issues in colonoscopy that may impact on the scope and effectiveness of a national bowel cancer screening program. A critical aspect of evaluating the current Bowel Cancer Screening Pilot is to bring together health and clinical experts to discuss issues and options for colonoscopy services in a possible national bowel cancer screening program. The outcomes of these discussions will feed into the evaluation of National Bowel Cancer Screening Pilot and will inform consideration of a possible national bowel cancer screening program.

Background

The Australian Health Technology Assessment Committee (AHTAC) report '*Colorectal Cancer Screening, 1997*' documented the potential for a national colorectal (bowel) cancer screening program in Australia. The AHTAC report recommended Pilot and feasibility studies prior to the establishment of an Australia-wide screening program for bowel cancer. However, due to the lack of consensus among the Australian medical profession on the appropriate screening intervention a budget proposal for a Pilot study was not supported at that time.

Since then, based on the outcomes of additional international research, Australian experts have reached agreement on the appropriate population screening intervention for bowel cancer: faecal occult blood testing.

In 1999, the National Health and Medical Research Council released '*Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer*' (NHMRC Guidelines). In the 2000-01 Commonwealth Budget, the Australian Government announced that it would invest \$7.2 million over four years to improve knowledge about the early detection of bowel cancer, through a Pilot Bowel Cancer Screening Program (the Pilot).

The Pilot is not a clinical trial of the effectiveness of faecal occult blood testing in reducing mortality and morbidity from bowel cancer. International randomised controlled trials have demonstrated that screening using FOBT can reduce mortality from bowel cancer by up to 33%.

The Pilot is designed to test the feasibility, acceptability and cost effectiveness of bowel cancer screening, using FOBT, in both urban and rural Australian settings. The outcomes of the Pilot will be used to inform whether, and how, to introduce a national, organised population screening program in Australia.

The Pilot is being conducted in three sites:

- Mackay (part of the Mackay Division of General Practice)
- Adelaide (part of the Adelaide Southern and Western Division of General Practice)
- Melbourne (part of the North East Valley Division of General Practice)

Up to 69,000 people aged between 55 and 76 years living in the Pilot sites are being invited to use an immunochemical faecal occult blood test (FOBT), to detect traces of blood in their bowel motion and forward the completed FOBT to a laboratory for processing. Those participants who are notified of a positive FOBT result are offered further testing through colonoscopy to identify the source of the bleeding.

Agreements have been established between the Australian Government and the relevant Divisions of General Practice (DGP) and State Government Health Departments to conduct GP and community mobilisation strategies in the Pilot sites. The Pilot site DGPs and the State Government Health Departments have implemented strategies to raise awareness of bowel cancer, highlight the importance of early detection through screening, and facilitate the appropriate progression and clinical management of Pilot participants throughout the screening pathway.

Evaluation of the Pilot will be finalised in October 2004, after which the Australian Government will consider issues around the introduction of a possible national bowel cancer screening program. A small number of expert workshops will be held prior to October to inform the evaluation. The first of these workshops, to discuss issues around colonoscopy quality and workforce is being held on 5 April 2004.

On 16 January 2004, a small group of experts met to discuss workforce and quality issues on the provision of colonoscopy services in this context.

Participants at the workshop included Professor James St John (gastroenterologist), Professor Finlay Macrae (gastroenterologist/ colonoscopist), Associate Professor Barbara Leggett (gastroenterologist/ colonoscopist), Ms Jennifer Muller (Manager, QLD Women's Cancer Screening Services), Dr Chris Stevenson (Australian Institute of Health and Welfare), other representatives from the QLD Health Department and the Australian Government Department of Health and Ageing. The aim of this meeting was to identify core issues for attention at the April workshop. These are outlined below.

Issues

There are a number of issues and knowledge gaps that need to be addressed in the context of a possible national bowel cancer screening program, including:

Workforce issues

- Who performs colonoscopy – gastroenterologists, surgeons, others?
- Would existing private/public sector colonoscopy facilities be able to expand to meet the demands of a national program?
- Is there capacity to provide more colonoscopy services in facilities ie. more sessions (if funded) with the infrastructure currently available in the public/private sector ie. equipment, theatre space, etc?
- What is the current level of colonoscopy activity by provider in the public/private sector?
- How many providers are in the public/private sector currently and what capacity is there to meet the demands of a national program?
- Would changes in compliance with the NHMRC Guidelines increase/decrease capacity to meet the demands of a national screening program?

- Are current colonoscopy services distributed adequately to service the demands of a potential national program (eg. smaller regional and rural areas may not have any choice in colonoscopy services)?
- Currently, the FOBT positivity rate is high. Until the Pilot is finalised there is not sufficient data to allow for a sophisticated analysis and resultant adjustment of the cut-off point. Positivity in FOBTs is critical for various reasons including capacity, over-testing of patients and cost.
- Are the current training and education materials adequate for future needs? For instance, NHMRC Guidelines for the prevention, early detection and management of Colorectal Cancer (CRC) provides a range of advice for all practitioners and health workers who require information about management of patients with colorectal cancer. The guidelines cover issues including consent and family history. Are these guidelines suitable to support a potential national program or should more work be undertaken, if so, by whom?
- Where should training of colonoscopists be undertaken (public/private), and how can training needs be identified? Some States and Territories are currently setting up skills development centres that are being funded at the State and Territory level. Could simulators play a role in training?
- Do current colonoscopy services have an adequate skills mix to provide patients with a quality and timely service? There may be a need for multidisciplinary teams, beyond the common models operational at present, comprised of appropriately experienced staff to cope with the increased demand on colonoscopy services eg. administrative staff, technicians, endoscopy nurses and nurse coordinators. Is there a need to collect and assess information on key skills required for multidisciplinary teams? Are staff skills being best utilised? For instance, could instrument cleaning be more widely undertaken by a technician rather than an endoscopy nurse?
- Provision of dedicated nurses in endoscopy with an appropriate career structure and training may ensure the retention of experienced staff in this field. Consider options to support nurses in this field, possibly by creating dedicated positions and recognition of their special training.
- What is the role of anaesthetists? Australia appears to be a high user of anaesthetics and this seems to be patient driven. Triage is important in determining who is at high risk of complications from colonoscopy and its associated sedation.
- Provision of adequate and appropriate workforce to support people from culturally and linguistically diverse (CALD) backgrounds and Aboriginal and Torres Strait Islander people. Currently within the Bowel Cancer Screening Pilot an Aboriginal and Torres Strait Islander Working Group is involved in developing a set of recommendations for improving participation of indigenous people. There is also similar work being undertaken for people of CALD backgrounds. This may require a specially trained workforce dedicated to assisting participants in these groups.
- It appears that there are a number of newer colonoscopists who are currently under-employed in colonoscopy. What data is available to substantiate this and to inform options?
- The desirability of developing a funding model for a potential national program to include a colonoscopy component with targeted training. Additional demand for colonoscopy may not be met without additional funding.
- The possibility of continuing or re-establishing the Bowel Cancer Screening Pilot Helpline and the 'expert panels' that have been presenting to community groups in the Pilot sites as these resources have proven to be a useful. If this were to happen, who would provide the workforce to continue these resources?

- What will be the implications of Australia's increasing aged population for the workforce both generally and in relation to a national program?

Quality of the colonoscopy procedure

Currently there is no formal process in place to ensure current competency of endoscopists in Australia. This is an issue that would need to be addressed for a potential national program.

The Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy, a national body comprising representatives from the Gastroenterological Society of Australia, the Royal Australasian College of Physicians and the Royal Australasian College of Surgeons, maintains a file of recognised trained endoscopists but does not accredit endoscopists. The Conjoint Committee recognises training of endoscopists who have completed their training in Australia or who have moved to Australia. Not all colonoscopists have Conjoint Committee recognition.

- Would a system of accreditation for colonoscopy be required to support a potential national program? Further work on identifying models, funding processes and appropriate bodies to progress accreditation is important. Would a model of professional peer group accreditation, supported by the Australian Government and implemented through an external agency work? How would litigation issues be addressed, for instance if accreditation were refused?
- Alternatively, would it be feasible to adopt the minimum US Multi-Society Task Force for quality in colonoscopy goals/targets as described in its paper Quality in the Technical Performance of Colonoscopy and the Continuous Quality Improvement Process for Colonoscopy; Recommendations of the US Multi-Society Task Force on Colorectal Cancer? What implications does this have for general colonoscopy services?
- Should goals and targets for colonoscopy be linked to payments for services participating in quality improvement programs? Targets developed by the Task Force assisted in the development of the Pilot Colonoscopy Reporting Form.

Quality of colonoscopy facilities

Some States and Territories require that the performance of endoscopy, such as colonoscopy, should only occur in centres which are 'licensed' to perform such procedures. This is a jurisdictional based licensing scheme and is not compulsory in all States and Territories. Licensed facilities are expected to have good quality processes, including for infection control. It is assumed that these facilities would offer a 'quality' colonoscopy service. Of critical importance in setting provisions for quality colonoscopy are infection control, training and competence of colonoscopy service providers, reporting requirements, emergency protocols and access to support staff.

There are a number of issues around the quality of colonoscopy facilities, including:

- In the future, would it be best practice for health care facilities to be accredited to include training/credentialling of staff?
- Is there a need to identify and review current standards and assess whether they meet future needs? Who would be best placed to undertake such work?
- Who would hold legal responsibility for accreditation of colonoscopy facilities in a potential national program? Could colonoscopy facilities be accredited by the Australian

Council on Healthcare Standards as they already have standards in place for other procedures? Is it feasible to enforce minimum standards in accordance with Gastroenterological Society of Australia/Gastroenterological Nurses College of Australia guidelines or alternatively, could other bodies be funded to develop standards and maintain the process?

- How can it best be ensured that colonoscopy facilities have the capacity to provide services that are timely, have good data capture facilities in place (computerised records, eg endoscribe), and the capacity to collect consistent data.

Informed consent

For the purpose of the Pilot ‘informed consent’ requires that participants be provided with accurate and easily understood information on the risks and benefits of bowel cancer screening to allow them to make a decision on participation in the Pilot. Currently, Pilot participants who receive a positive FOBT result are advised to discuss their result with their GP. If the participant chooses to undergo colonoscopy they should attend a pre-admission clinic to discuss the procedure.

This process raises the following questions around the issue of consent:

- At what stage prior to having a colonoscopy is it best to seek patient consent? The NHMRC Guidelines for the prevention, early detection and management of Colorectal Cancer (CRC) and the Bowel Cancer Screening Pilot Policy and Protocol Manual provide advice on informed consent, but do not discuss when to or whom should seek that consent.
- Is there a need to develop a clinic protocol or minimum standard on consent?
- What protocols for obtaining informed consent currently exist?

New technologies

As part of the Bowel Cancer Screening Pilot, the South Australian Government allocated funding for a local study on virtual colonoscopy. Following prolonged negotiations the study started in late 2003.

Issues around the possible inclusion of new technologies in a potential national program, include:

- Is there a place for virtual colonoscopy in a potential national program?
- Should virtual colonoscopy centres be accredited, dedicated centres?
- If small polyps (4-6mm) were found during a virtual colonoscopy should a colonoscopy be undertaken to remove them or should they be left? Could this lead to legal implications and should there be surveillance of the small polyps?
- The need to plan for various new technology scenarios prior to the implementation of a national program. For instance, randomised controlled trials of screening based on flexible sigmoidoscopy will be complete in 12 to 24 months, and may have workforce issues as flexible sigmoidoscopy can be undertaken by a specialist, GP or nurse. Screening could change over time with the development of new technologies.

Summary

In summary, this paper raises a number of quality and workforce issues in colonoscopy that need to be considered prior to the implementation of a potential national bowel cancer screening program including:

- whether current colonoscopy facilities have the capacity to cope with the demands of a potential national bowel cancer screening program;
- whether current colonoscopy services have an adequate skills mix to provide patients with a quality and timely service;
- the provision of adequate and appropriate workforce to support people from culturally and linguistically diverse backgrounds and Aboriginal and Torres Strait Islander people;
- the possible development of an accreditation system for colonoscopy practitioners/facilities;
- identifying and reviewing current standards and whether they meet future needs;
- who would hold legal responsibility for accreditation of colonoscopy facilities in a potential national program;
- at what stage prior to having a colonoscopy is it best to seek consent; and
- is there a place for virtual colonoscopy in a potential national program?

While Australia is well placed in providing colonoscopy services, the Pilot has provided opportunity to consider the scope for improvements. Further discussions of these issues at the 5 April 2004 workshop will be valuable in developing strategies to enhance the existing workforce and increase the workforce and quality capacity in these areas.

The first step in moving forward in this area is to identify strengths and limitations in current colonoscopy services and to suggest feasible strategies for further developing the capacity of colonoscopy in Australia. In doing this, it will be important to focus on achievable outcomes and setting goals and strategies for quality and capacity building that can be achieved in the short, medium and longer term.

Attachment B: List of participants

The following participants attended the Workforce and Quality Issues in Colonoscopy Workshop 5 April 2004:

Dr Peter Bampton
Head of Gastrointestinal Endoscopy
Department of Gastroenterology
Flinders Medical Centre SA

Dr Ian Hamilton
Colonoscopists QLD

Mr Andrew Bui
Epworth Medical Centre VIC

Dr Peter Hewett
Head
Colorectal Surgery Department
The Queen Elizabeth Hospital SA

Associate Professor Don Cameron
Royal Australasian College of Physicians

Dr Keith Horsley
Director of Health Services
Department of Veterans' Affairs ACT

Dr Wayne Clapton
Medical Director/Manager
SA Cancer Registry

Ms Cathy Hotstone
Australian Institute of Health and Welfare
ACT

Dr Andrew Clouston
Department of Anatomical Pathology
Concord Hospital NSW

Ms Di Jones
Director of Education
GENCA QLD

Dr Alistair Cowen
Gastroenterologist QLD

Dr Lisa-Ann Koe
Royal North Shore Hospital NSW

Dr Phillip Craig
Royal Australasian College of Physicians

Dr Barbara Leggett
Director
Department of Gastroenterology
Royal Brisbane Hospital QLD

Mr Graham Cullingford
Royal Australian College of Surgeons

Dr Andrew Little
Cabrini Medical Imaging
St Francis Xavier
Cabrini Hospital VIC

Ms Rebecca Dadds
Senior Project Officer
Cancer Institute NSW

Mr Paul Long
Royal Australasian College of Physicians
NSW

Dr Hooi Ee
Consultant, Gastroenterology
Sir Charles Gairdner Hospital WA

Dr Andrew Luck
Royal Australasian College of Surgeons

Dr Katie Ellard
Digestive Health Foundation NSW

Professor Peter Gibson
President, Department of Gastroenterology
Box Hill Hospital VIC

Ms Joylene Morcom
Nurse Endoscopist
Repatriation General Hospital SA

Ms Michelle Muir
President
Gastroenterological Nurses College of Australia
TAS

Ms Jennifer Muller
Director
Cancer Screening Services Unit
QLD Health

Associate Professor Graham Newstead
Colorectal Surgical Society of Australasia

Ms Robyn Nikolsky
Clinical Nurse Consultant
Mackay District Health Service
Mackay Base Hospital QLD

Dr Garry Nind
Royal Hobart Hospital TAS

Dr Ian O'Rourke
Chief Executive Officer
Institute for Clinical Excellence NSW

Dr Andrew Pascoe
Private Practitioner QLD

Dr Grant Phelps
Royal Australian College of Physicians

Professor Finlay Macrae
The Royal Melbourne Hospital VIC

Dr Richard Mendelson
Division of Imaging Services
Royal Perth Hospital WA

Professor James St John
Gastroenterologist VIC

Dr Margaret Stevens
Chief Medical Advisor & Executive
Director
Public Health
Population Health Division WA

Dr Chris Stevenson
Australian Institute of Health and Welfare
ACT

Dr Doug Taupin
Gastroenterologist
The Canberra Hospital ACT

Professor Robert Thomas
Director
Department of Surgical Oncology
Peter MacCallum Cancer Institute VIC

Dr Ian Roberts Thomson
The Queen Elizabeth Hospital SA

Dr Charlie Viiala
Diagnostic Unit WA

Mr Rory Wilby
Program Manager
Prevention and Cancer Screening
Department of Human Services VIC

Dr Tom Wilson
Gastroenterological Society of Australia
SA

Ms Margaret Porter-Doherty
QLD Women's Cancer Screening Services
QLD Health

Ms Anne Rauch
Manager
Australian Council of Healthcare Standards
NSW

Ms Elaine Siggins
Gastroenterological Society of Australia
NSW