

Horizon scanning of new and emerging medical technology in Australia: Its relevance to Medical Services Advisory Committee health technology assessments and public funding

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Objectives: In 1998, a formal process using full health technology assessments (HTAs) was implemented to determine the suitability for public subsidy of new and emerging medical technologies in the Australian private healthcare sector. This process is overseen by the Medical Services Advisory Committee (MSAC). In 2004, horizon scanning was introduced in Australia with the stated objective of identifying new and emerging medical technologies into the public healthcare sector, with consideration to the publicly subsidized private healthcare sector. How well horizon scanning works in identifying new and emerging technologies suitable for government subsidized funding in the private healthcare sector is examined in this study.

Methods: A descriptive evaluation of the impact of horizon scanning as an early alert and awareness system identifying new and emerging technologies before these technologies are submitted to MSAC for a full HTA. All MSAC HTAs commenced after the introduction of horizon scanning in 2004 were cross-checked with the list of Prioritizing Summaries or Horizon Scanning Reports to determine whether a prior Prioritizing Summary or Horizon Scanning Report had been carried out.

Results: Of the forty-three technologies that were the subject of a full MSAC HTAs in the time period examined, only eleven had been the subject of either a Prioritizing Summary or Horizon Scanning Report. As a result of a full MSAC HTA, twelve of the technologies that were not the subject of a Prioritizing Summary or Horizon Scanning Report were given positive recommendations for public funding.

Conclusions: Horizon scanning was set up to scan the introduction of new and emerging medical technologies into the public healthcare sector, with consideration to the publicly subsidized private healthcare sector. Based on the number of new and emerging technologies that have been the subject of a full MSAC HTA without first being subjected to either a Prioritizing Summary or Horizon Scanning Report, horizon scanning in Australia does not function as an “early alert and awareness system” for funding in the publicly subsidized private healthcare sector in Australia.

Keywords: Horizon scanning, MSAC, HTA, Australia, Funding

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THE AUSTRALIAN HEALTHCARE SYSTEM

The Australian healthcare system, with regard to the funding of new and emerging medical technology, is a dual system. Put simply, public hospitals and the associated provision of medical technology are managed and funded by state governments (public healthcare sector). Private hospitals and the associated provision of medical technology are funded by private health insurers with public funding subsidy from the Australian Federal Government (private healthcare sector). The Medicare Benefits Schedule (MBS) lists professional fees for medical procedures in the private healthcare sector. The funding of these professional fees is shared between Medicare (funded by the Australian Federal Government) and the private health insurers. Any gap resulting from the professional fee charged exceeding the MBS professional fee is paid directly by the patient. In the quarter ending September 30, 2008, just under half (44.8 percent) of the Australian population had private health insurance (15).

In April 1998, a formal process of health technology assessment (HTA) for public funding subsidy in the private healthcare sector was implemented in Australia. This process uses the criteria of safety, effectiveness, and cost-effectiveness (evidence based medicine) to determine whether a new medical procedure should be listed on the MBS and the associated professional fees funded (for privately insured patients). An expert panel, the Medical Services Advisory Committee (MSAC), was established to oversee this process. The funding of implantable prostheses, operating theater costs (including high-cost equipment), and hospital bed-days in the private healthcare sector is determined separately.

A full MSAC HTA is a lengthy and expensive process, with a high proportion of the technologies not being recommended for public funding (14). In comparison, horizon scanning is quick, much less expensive and has the potential to identify these technologies earlier leading to the possibility of earlier adoption of the technologies that have proven safety, effectiveness, and cost-effectiveness and identify further research requirements for others. Additionally, it has the potential to identify technologies that should not be adopted due to “concerns” about safety, effectiveness, and cost-effectiveness.

HORIZON SCANNING

In 2006, Douw and Vondeling (6) surveyed the horizon scanning processes of all thirteen member organizations of EuroScan and reported on eleven, including Australia. A theme that emerged from this survey was that all processes share the same concerns, namely, to miss an important technology and to select an unimportant technology. In the majority of cases, it was unclear if criteria were applied systematically in the process and no checks were reported for a consistent use of criteria. In all but one, the process was described as sub-

jective. (A possible definition of an “important” technology is one that meets the requirements of safety, effectiveness, and cost-effectiveness.)

EuroScan has suggested that horizon scanning now be referred to as an “early alert and awareness” system (1). According to Murphy et al. (13), an effective early alert and awareness system is a system that identifies innovations in the field of health technology likely to have a significant impact and disseminates information relevant to the needs of the user which is timely, so as to enable appropriate decision making (such as resource allocation), facilitate appropriate adoption, and identify further research requirements.

THE AUSTRALIAN HORIZON SCANNING PROCESS

In late 2003, the Australia and New Zealand Horizon Scanning Network (ANZHSN), was established under (MSAC) with the stated objects of providing advanced notice of significant new and emerging medical technologies (NEMTs) to Health Departments in Australia and New Zealand, and to exchange information and evaluate the potential impact of these technologies on their respective health systems. An additional aim was to also identify and share information on “big ticket” NEMTs before they were widely diffused so their introduction could be better managed (12).

Central to the operation of the ANZHSN is the Health Policy Advisory Committee on Technology (HealthPACT), a subcommittee of MSAC. It comprises representatives from all state and territory health departments as well as the Australian Department of Health and Ageing and the New Zealand Ministry of Health and the New Zealand District Health Boards.

HealthPACT oversees the operation of the National Horizon Scanning Unit (NHSU), a team from the Adelaide Health Technology Assessment Unit, Department of Public Health at the University of Adelaide (AHTA). Also a member of the ANZHSN and overseen by HealthPACT is the New & Emerging Techniques—Surgical (NET-S) horizon scanning team, administered by (ASERNIP-S) in conjunction with the Royal Australasian College of Surgeons.

The NHSU or NET-S undertake horizon scanning and provide advice, in the form of Prioritizing Summaries, to HealthPACT on the state of play of the introduction and use of NEMTs. A Prioritizing Summary is a short, approximately two to three pages, report that provides a summary on a NEMT and is intended to be used as a basis for deciding if a technology should be further assessed.

The Terms of Reference of HealthPACT (8) are to (i) assist the introduction of new and emerging medical technologies into the public sector, with consideration to the private sector, in Australia and New Zealand through horizon scanning, including reporting on safety, effectiveness, and cost implications, (ii) provide a forum to collaborate and exchange information nationally and internationally, (iii)

inform the Medical Services Advisory Committee and the Australian Health Ministers' Advisory Council (AHMAC), and (iv) oversee the operation of the National Horizon Scanning Unit (NHSU).

Supplementary Diagram 1: The Horizon Scanning Pathway

Supplementary Diagram 1 (which can be viewed online at www.journals.cambridge.org/thc) illustrates the Horizon Scanning pathway in Australia (12). A Prioritizing Summary recommends to HealthPACT a choice of four alternative pathways. Archive (technology will not be actively monitored), monitor (periodic specific and separate search to identify any new information is carried out), a Horizon Scanning Report (preliminary HTA) or, a full health technology assessment (HTA). Monitoring and Horizon Scanning Reports are the responsibility of HealthPACT. Full HTAs are the direct responsibility of MSAC. This full HTA is called an MSAC Reference.

The first technology to be subject to horizon scanning in Australia was capsule endoscopy for the diagnosis of small bowel diseases with a Prioritizing Summary dated November 2003. Between November 2003 and the end of May 2008, a total of 301 Prioritizing Summaries were generated, 130 by ASERNIP-S and 171 by the (AHTA) Unit. Over the same period, thirty-six Horizon Scanning Reports were generated, fourteen by ASERNIP-S, eighteen by the AHTA and, four by the New Zealand Health Technologies Assessment (NZHTA).

An MSAC Application, also a full HTA, is identical to an MSAC Reference except that it is generated by an external agent, most frequently the manufacturer or distributor of the technology associated with the procedure. Similar to HealthPACT, a key Term of Reference of MSAC is to advise on the strength of evidence pertaining to new and emerging medical technologies and procedures in relation to their safety, effectiveness, and cost-effectiveness, and under what circumstances public funding should be supported (10).

Sources of Data for Horizon Scanning

According to the ANZHSN (2), sources of information for identifying NEMTs for horizon scanning include a wide variety of sources including the following: access to horizon scanning/early warning systems in other countries; review of industry literature (manufacturing and pharmaceutical); review of major and specialist medical and scientific journals; animal studies; human trials, that is, devices or procedures first tested on humans; interest group profiles; experts and expert groups, including professional colleges, formal and informal networks; conference papers; newspapers and other media sources, including financial reports; the Internet; licensing agencies, for example, Therapeutic Goods Administration (TGA), Food and Drug Administration (FDA), Medical Devices Agency (MDA); manufacturers; and re-

view on health futures and technology forecasting (time span >10 years).

Applications of Horizon Scanning

Horizon Scanning can be used in a variety of ways (3) including the following: identify NEMTs, which potentially have major implications for the health system; assist in the control of technologies in the health system; rationalize adoption and use of NEMTs; assess areas of technological change; identify under-used technologies; identify broader health problems; and long-term planning, anticipate future needs.

In addition to NEMTs, Horizon Scanning can also provide timely information about changes in the delivery and use of existing technologies.

All Prioritizing Summaries are carried out as a result of a recommendation of HealthPACT. It is possible, perhaps due to budget restrictions, for a technology to be identified but have no Prioritizing Summary.

OBJECTIVES AND METHODS

Objective

The primary objective of this study is to examine what link, if any, exists between HealthPact's Horizon Scanning and the funding pathway for the public subsidy in the private health-care sector for NEMTs. In Australia, the funding pathway for public subsidy in the private healthcare sector of NEMTs is a listing on the MBS after a full HTA assessment overseen by the MSAC. This listing is achieved by a positive recommendation by MSAC accepted by the Federal Australian Government Minister for Health and Ageing.

The method used in this study to evaluate this link was to work backward from all full MSAC HTAs that have been commenced post the introduction of horizon scanning and examine how many of these had been identified by horizon scanning before the MSAC full HTA being carried out. All three hundred one Prioritizing Summary and thirty-six Horizon Scanning Reports carried out as part of horizon scanning were cross-checked with the forty-three MSAC Applications and fifteen MSAC References commenced between November 2003 and May 2008. The focus of this study is not the NEMTs assessed by horizon scanning but rather the NEMTs not assessed by Horizon Scanning but assessed as part of a full HTA by MSAC.

Horizon scanning in Australia was established to provide advanced notice of significant new and emerging technologies to Health Departments in Australia and New Zealand, and to exchange information and evaluate the potential impact of emerging technologies on their respective health systems (4). In Australia, these Health Departments include those of the States and Territories as well as the Federal Department of Health and Ageing.

Table 1. Twenty Completed MSAC Applications With no Prior Prioritising Summary or Horizon Scanning Report

	MSAC Application	Date lodged	Outcome date	Outcome
1076	Transurethral microwave thermotherapy (TUMT)	Mar'04	Nov'05	Positive
1077	Sacral nerve stimulation for fecal incontinence	Mar'04	Jul'05	Positive
1079	Peripheral arterial tonometry with ascending aortic waveform analysis using the SphygmoCor system	May'04	Jun'06	Negative
1080	Coronary (Radi) pressure wire	May'04	Mar'06	Positive
1081	Uterine artery embolization	Jun'04	Mar'06	Interim
1083	Intac implants	Jul'04	Nov'05	Negative
1084	Uro Vysion	Jul'04	Mar'06	Negative
1085	Carbon labeled urea breath test	Sept'04	Jun'06	Positive
1091	Laparoscopic remotely assisted radical prostatectomy	Dec'04	Aug'06	Positive
1093	Endovascular neurointerventional procedures	Dec'04	Aug'06	Negative
1095	Computed tomography colonography	Jan'05	Aug'06	Negative
1096	Hepatitis B DNA testing	Mar'05	Jun'07	Positive
1102	Double balloon enteroscopy	Aug-Oct'05	Feb'07	Positive
1104	Endoscopic ultrasound and fine needle aspiration for lung cancer	Dec'05	Aug'07	Positive
1099	Lumbar nonfusion posterior stabilization devices	May'05	May'08	No change
1106	Endoscopic argon plasma coagulation therapy	May'06	May'08	Positive
1107	Acticon artificial bowel sphincter	Jun'06	Apr'08	Positive
1108	Endobronchial ultrasound +/- fine needle aspiration in lung cancer staging and the diagnosis of mediastinal masses	Aug'06	May'08	Positive/ Negative
1113	Endovenous laser treatment for varicose veins	Oct'06	May'08	Positive
1119	Capsule endoscopy for Peutz Jeghers syndrome	Apr'07	May'08	Positive

Sources of Data

The data on all MSAC Applications and References, commenced after the introduction of horizon scanning in late 2003, were sourced from the MSAC Web site (11). The data collected on each MSAC Application or Reference included the lodgment date, outcome date, and outcome of the Application/Reference. The data on Prioritizing Summaries and Horizon Scanning Reports (up to May 2008) were sourced from the ANZHSN Web site (5).

The list of MSAC Applications/References commencing after the introduction of horizon scanning was manually cross-checked for NEMTs that had been the subject of a Prioritizing Summary or Horizon Scanning Report. The data collected for each Prioritizing Summary that also had an MSAC Application/Reference included the stage of development of the NEMT, the date, and recommendation of the Prioritizing Summary report. The data collected for each Horizon Scanning Report included the date and outcome of the report.

Method

Horizon scanning was set up to scan the introduction of new and emerging medical technologies into the public sector, with consideration to the private sector. The hypothesis used in this study is that, if a NEMT has been assessed as part of an MSAC Reference or Application (commenced since the introduction of horizon scanning), it should also have been earlier identified and assessed by horizon scanning.

All MSAC Applications and References, commenced after the introduction of horizon scanning, were divided into four groups and tabulated (Tables 1, 2, 3, and 4). (i) Group 1

(NEMT-G1): NEMTs that have *not* been the subject of a Prioritization Summary or a Horizon Scanning Report. MSAC recommendation known. (MSAC Applications). (ii) Group 2 (NEMT-G2): NEMTs that have *not* been the subject of a Prioritization Summary or a Horizon Scanning Report. MSAC recommendation unknown. (MSAC Applications). (iii) Group 3 (NEMT-G3): NEMTs that have been the subject of a Prioritization Summary or a Horizon Scanning Report. MSAC recommendation known (except for two applications). (MSAC Applications). (iv) Group 4 (NEMT-G4): NEMTs that have either been the subject of a Prioritization Summary or a Horizon Scanning Report or were recommended directly by HealthPACT. (MSAC References)

The method used in this study is that of working backward from the NEMTs that have actually had a full MSAC HTA. A limitation of this method is that it does not give any real indication of how many NEMTs have had a Prioritizing Summary recommend either a Horizon Scanning Summary or a full HTA with neither being carried out.

RESULTS

There were forty-three MSAC applications and fifteen references commenced post the introduction of horizon scanning. (NEMTs with Applications commenced post the introduction of Horizon Scanning that had been the subject of a prior MSAC Application "pre Horizon Scanning" were excluded.)

Table 1, NEMT-G1, lists twenty NEMTs that have not been the subject of a Prioritizing Summary and have known MSAC recommendations (12). Five of the MSAC HTAs listed in this table resulted in a negative recommendation

Table 2. Twelve Incomplete MSAC Applications With no Prior Prioritising Summary or Horizon Scanning Report

MSAC Applications		Lodgement date
1109	Deep brain stimulation for essential tremor and dystonia	Sept'06/Feb'07
1110	Staging of rectal carcinoma by MRI	Sept'06
1114	Urinary metabolic profile	Oct'06
1116	Macular optical coherence tomography (OCT)	Mar'07
1117	Doppler cardiac output measurement without imaging	Mar'07
1118	Vagus nerve stimulation	Apr'07
1122	Automated liquid-based cytology	Not stated
1123	Computer assisted total knee arthroplasty (CATKA)	Aug'07
1124	Cryotherapy for recurrent prostate cancer and renal cancer	Nov'07
1125	Molecular testing for the diagnosis of myeloproliferative disorders	2008
1126	Molecular testing for developmental delay/mental retardation	2008
1129	Perflutren lipid microsphere injectable ultrasound contrast agent for use in patients with suboptimal echocardiograms	2008

for funding, one with a partially positive recommendation (Application 1108), and one with a “no change to existing funding” (Application 1099).

Over half the NEMTs in NEMT-G1 had a positive funding recommendation. This would seem to indicate that the lack of a Prioritizing Summary is not due to either a low probability of a positive result from a full MSAC HTA or that the NEMT is in too early a stage of development to be identified by Horizon Scanning.

NEMT-G2, incomplete MSAC Applications with no prior Prioritizing Summary or Horizon Scanning Report, is shown in Table 2. Unlike NEMT-G1, the results of these twelve full MSAC HTAs are unknown at this stage due to being only recently lodged with MSAC and/or the time required to reach a recommendation (16 months plus).

All of these more recent NEMTs submitted to MSAC for a full HTA are still without a Prioritizing Summary or Horizon Scanning Report. In other words, there has been no trend toward an increase in the number of NEMTs submitted to MSAC as a direct result of the Horizon Scanning process.

NEMT-G3, MSAC Applications with prior Prioritizing Summary or Horizon Scanning Report, is shown in Table 3. Of the eleven NEMTs listed in this table, seven had full HTAs initiated independently of the Horizon Scanning process (MSAC Applications). The four full HTAs that were at least partially “linked” with Horizon Scanning included capsule endoscopy with a Prioritizing Summary commenced after the August 2002 application by the manufacturer and distributor of the capsule, Given Imaging (Application 1057) for a full MSAC HTA.

Three NEMT-G3s with recommendations not to proceed to a full HTA (recommendations of archive and monitor) are currently the subjects of MSAC Applications.

Only one NEMT in this group, Artificial Intervertebral Disc Replacement (AIDR) had an MSAC Application carried out as a direct result of the Horizon Scanning process.

Of interest, one NEMT with an archive recommendation from a Prioritizing Summary (photosensitive vaporization for

benign prostatic hyperplasia) appears to have been listed on the MBS and thus funded, some years before the summary being conducted (MBS Item number 37207).

The NEMTs in Table 4 were or are currently the subject of a full MSAC HTA (Reference) either as a result of a direct recommendation by HealthPACT or a recommendation resulting from Horizon Scanning. Perhaps an extreme example of the process is Reference 37, Digital Mammography. This technology was originally the subject of a Prioritization Summary dated February 2004. This was followed by a Horizon Scanning Report dated July 2004 and another Prioritization Summary dated December 2005. An MSAC Reference was commenced in April 2006 resulting in a positive recommendation for funding dated April 2008.

DISCUSSION

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social, and environmental issues affecting the welfare of Australians. In 2004, the Australian Government asked the Productivity Commission to undertake a research study detailing and explaining the impact of advances in medical technology on public and private healthcare expenditure, and the associated costs and benefits for the Australian community. A key point made by this study published in August 2005 was the following: “Better coordinated, more systematic health technology assessment (HTA) with transparent objectives, underpinned by the principle of enhancing overall community well-being, would be a good step forward. HTA can help to target use of new technologies and promote overall cost-effectiveness of healthcare spending” (16).

The report highlights several procedural and coverage gaps in Australia's health technology assessment processes. “There is scope for better coordinated, more systematic health technology assessment with transparent objectives, underpinned by the principle of enhancing overall community well-being,” said Commissioner Weickhardt. “Health

Table 3. Summary of the Assessment Process Pathways of the Eleven MSAC Applications With Prior Prioritising Summary or Horizon Scanning Report

Technology evaluated	Prioritising Summary			Horizon Scanning Report		MSAC	
	Date of report	Stage of development	Recommendation	Date of report	Outcome	Lodgement date	Outcome
1057—Capsule endoscopy—diagnosis of small bowel diseases	Nov'03	Nearly established	Application currently being processed			Aug'02	Positive Sept'03
1090—Artificial intervertebral disc replacement (AIDR)	Nov'03	Investigational	Full HTA			Dec'03	Interim Jun'06
1098—Breast magnetic resonance imaging (MRI)	Jan'04	Investigational	HS Report	May'04	Qualified positive	2005	Interim Feb'07
1087—Elecsys [®] proBNP immunoassay—hospital setting / community setting	Feb'04	Yet to emerge	HS Report	Jun'04	Qualified positive/negative	Jul'04	Positive/Negative Feb'07
1100—Intersphincteric injection of silicone biomaterial for severe passive fecal incontinence	Aug'04	Experimental	HS Report	Not done		Aug'05	Negative Feb'07
1103—Fetal fibronectin test for preterm labor	Aug'04	Nearly established	Archive			Oct'05	Negative Feb'07
1101—Repetitive transcranial magnetic stimulation (rTMS)—treatment and rehabilitation of stroke patients	Feb'07	Yet to emerge	Application expected to be lodged			Aug'05	Negative Jun'07
1105—Computed tomography coronary angiogram	Mar'06	Nearly established	Summary superseded by full HTA application to MSAC			Jan'06	Positive/Negative Apr'08
1112—Intragastric balloon	Dec'05	Should be taken out of use	Archive			Oct'06	Negative May'08
1111—Remote monitoring systems for patients with implanted cardiac devices	Mar'06	Yet to emerge	Lack of high quality effectiveness data—monitor.			Sept'06	Unknown
1130—Home-based (unattended) sleep studies	Feb '07 & '08	Established	Monitor & further research required			Not stated	Unknown

Table 4. Fifteen MSAC References

	MSAC Reference	Date lodged	Outcome date	Outcome
Ref 30	Drug-eluting stents	Dec'03	Mar'05	No decision
Ref 31	Endometrial ablation techniques for chronic refractory menorrhagia	Jan'04	Jul'05	Unchanged
Ref 32	Implantable cardioconverter defibrillators for the prevention of sudden cardiac death	Oct'04	Jun'06	Positive
Ref 33	Endovascular treatments for intracranial aneurysms	Oct'04	Jun'06	Positive
Ref 34	Gamma knife radiosurgery	Mar'05	Nov'06	Negative
Ref 35a	Positron emission tomography (PET) review: colorectal, melanoma, and ovarian cancer	Jun'06	May'08	Positive
Ref 35b	PET for head and neck and esophageal gastric	Jun'07		
Ref 35c	PET for lymphoma	Not stated		
Ref 35d	PET for glioma and sarcoma	2008		
Ref 35e	PET for myocardial viability, breast cancer and cervical cancer	2008		
Ref 36	Pediatric cardiac transplant (nationally funded centers)	Not stated		
Ref 37	Digital mammography	Apr'06	Apr'08	Positive
Ref 38	Gene amplification tests for determining HER-2 status in breast cancer	Sept'06		
Ref 39	Human papilloma virus—triage for PAP smears	Sept'06		
Ref 40	Macular optical coherence tomography (OCT) for glaucoma	Jul'07		

technology assessment can enhance overall cost effectiveness of healthcare through better targeting of new technologies, especially compared with existing, often blunt, rationing mechanisms" (9).

Horizon scanning was set up to scan the introduction of new and emerging medical technologies into the public sector, with consideration to the private sector. Despite this "consideration to the private sector," there is no prerequisite for a NEMT that is the subject of an MSAC Application or Reference to have been the subject of either a Prioritizing Summary or a Horizon Scanning Report. Conversely, a NEMT that has had a negative Prioritizing Summary or Horizon Scanning Report can still be the subject of a subsequent MSAC Application. NEMTs that have not been subjected to the horizon scanning process are being independently submitted to MSAC with outcomes of positive recommendations. These cases need to be examined to determine why they were not the subject of either a Prioritization Summary or a Horizon Scanning Report.

Ideally, a fully effective horizon scanning process or "early alert and awareness system" is one that scans for new and emerging medical technology entering either or both the public and private health sectors. If this were the case, it should not be possible for a manufacturer/distributor of a NEMT to submit a successful application for a full HTA to MSAC that has not already been assessed by Horizon Scanning.

A possible problem with the identification of NEMTs is the discrepancy between the clinical definition of new and emerging and the definition of new and emerging from a funding viewpoint. An example of this is the Radi coronary pressure wire (MSAC Application 1080), given a positive recommendation for funding in March 2006 without being identified by horizon scanning. The published clinical papers

on this technology date back to 1993, which would seem to indicate that clinically this is not a new and emerging technology. However, from a funding viewpoint, this technology required a new listing on the MBS for public funding.

This definitional discrepancy does not appear to account for the lack of a Prioritizing Summary for NEMTs such as double balloon enteroscopy (MSAC Application commenced in late 2005 and positive funding recommendation in February 2007). A very basic literature search using the term "double balloon enteroscopy" resulted in 176 publications, all published post 2003. Of interest, a check of the EuroScan Web site (7) does not show either the Radi coronary pressure wire or double balloon enteroscopy as being the subject of horizon scanning by any of the other Euroscan members.

Horizon scanning in Australia also lacks transparency in that the manufacturer/distributor is not notified that a Prioritizing Summary or a Horizon Scanning Report is to be conducted on the NEMT associated with their product. Notification of the intention to conduct a Prioritization Summary on a NEMT could be made to the manufacturers/distributors through associations such as the Medical Technology Association of Australia (MTAA) or AusMedtech (part of AusBiotech). This system of notification to the manufacturers/distributors has already been introduced for MSAC References.

The current MSAC process that evaluates potentially beneficial NEMTs but ends with the conclusion of "insufficient evidence" does not go far enough. Horizon scanning needs to identify potentially beneficial NEMTs as early as possible and use the Prioritizing Summary to predict the rate of development of the NEMT, identify any gaps in the clinical and economic evidence and, make detailed recommendations as to how to close these evidence gaps in a timely and cost-effective manner. One important step toward

achieving this is better harmonization between horizon scanning, MSAC, and the manufacturers/distributors of the products associated with NEMTs.

CONCLUSIONS

A theme that emerged from the interviews conducted by Douw and Vondeling (6) was that all systems share the same concerns, namely those of missing important technologies and selecting unimportant ones.

Based on the number of NEMTs submitted to MSAC as Applications without prior Prioritizing Summaries, many NEMTs are not being identified by horizon scanning. Because these NEMTs are equally important to both the public and the private healthcare sectors, the existence of NEMTs that receive a positive MSAC recommendation without a prior Prioritizing Summary demonstrates that the current horizon scanning is failing.

Based on the NEMTs examined in this study, the sourcing process used to identify NEMTs for horizon scanning is either not sufficiently systematic or there is a failure in the subsequent selection process of NEMTs to be subjected to a Prioritizing Summary.

Horizon scanning in Australia has the potential to identify and speed up the funding of NEMTs with proven safety, effectiveness, and cost-effectiveness in both the public and the private health sectors. However, many of the NEMTs examined in this study have highlighted several areas where horizon scanning needs to be re-examined if it is to be considered relevant and have an impact on the funding of NEMTs in Australia. The majority of NEMTs examined in this study would not have been funded in the private healthcare sector if an application to MSAC, lodged totally independently of horizon scanning, had not been submitted.

The descriptive evaluation in this study examined horizon scanning in Australia only from the perspective of NEMTs that have been the subject of a full HTA by MSAC. Related work needs to be carried out looking at the recommendations of all Prioritizing Summaries and Horizon Scanning Reports carried out since the process commenced. In particular, the question of what percentage of Prioritizing Summaries and Horizon Scanning Reports had recommendations to advance to a full HTA.

SUPPLEMENTARY MATERIALS

Supplementary Diagram 1 (www.journals.cambridge.org/thc)

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