Prevention of cervical cancer

Annabelle Farnsworth and Heather S Mitchell

CERVICAL SCREENING in Australia is one of the great public health success stories, as witnessed by a continuing dramatic fall in the incidence of carcinoma of the cervix and mortality from this disease (Box) since the introduction of the National Cervical Screening Program (NCSP).[1,2] Here, we highlight two areas of current interest — quality assurance and cost control.

Quality assurance in cervical screening

A critical aspect of the NCSP is that screening tests are performed at an optimal level.[3] Asymptomatic women and their health carers who participate in screening assume that this is the case.

Since 1987, Australia has had compulsory laboratory accreditation. The National Pathology Accreditation Advisory Committee (NPAAC) sets quality standards for pathology laboratories, and The National Association of Testing Authorities and the Royal College of Pathologists of Australasia inspect individual laboratories triennially to ascertain standards compliance.

For gynaecological cytology, these quality standards include performance standards, which are numerical outcome measures set by the NCSP, in conjunction with the NPAAC. Although the performance standards comprise only one part of an inspection, if a laboratory falls outside these standards this may indicate that the overall reporting quality is substandard.

A recent independent audit of the NCSP highlighted that the standards which had been set were valid and the inspection process was sound.[4] However, the 3-year interval between inspections and the lengthy appeal process meant that Medicare was continuing to pay for smears from laboratories with questionable quality for excessive periods of time. In response to this audit, a number of initiatives have been undertaken or are currently in progress.

Laboratory accreditation

The Department of Health and Ageing commissioned a review of laboratory accreditation and has endorsed its numerous recommendations.[5] Significantly, the timely management of laboratories that fall outside quality guidelines is being addressed.

Douglass Hanly Moir Pathology, North Ryde, NSW.
Annabelle Farnsworth, FRCPA, FIAC, Medical Director, Director of Cytology.
Victorian Cytology Service, Carlton South, VIC.
Heather S Mitchell, FRACP, FAFPHM, Deputy Director.
Reprints will not be available from the authors. Correspondence: Dr Annabelle Farnsworth, Douglass Hanly Moir Pathology, 95 Epping Road, North Ryde, NSW 2113. afarnsw@dhm.com.au

ABSTRACT

- Cervical screening in Australia is a successful public health initiative.
- Since the introduction of the National Cervical Screening Program in 1991, there has been a significant fall in incidence of and mortality from cervical cancer.
- Laboratory quality procedures are critical to ensuring optimal outcomes.
- Laboratory accreditation procedures are being reviewed in line with recent government recommendations.
- For a sustainable program, cost-containment issues need to be considered; screening interval, management of screen-detected abnormalities, and new technologies are the critical drivers of cost.

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Requirements for laboratories reporting gynaecological cytology

The NPAAC has undertaken this review and the requirements remain substantially unchanged, as they have proven to be robust. Issues pertaining to qualifications and quality audits of staff, both scientific and medical, are being addressed by the NPAAC Review Committee.

Performance standards

A technical subcommittee of the NPAAC is currently reviewing the performance standards and will examine their appropriateness as well as the numerical values. The review is also addressing the minimum number of Pap smears a laboratory reports annually; both New Zealand and the United Kingdom set minimum annual numbers as part of their quality standards. Minimum numbers of Pap smears may also be critical when assessing staff performance.

Cost control

The annual cost of the NCSP to government in 1993 (the most recent evaluation) was $138 million.[6] Cervical screening is expensive when expressed in a league table of cost per quality-adjusted life-year saved.[7]

In the program, the main pressure points for cost control include: participation, the proportion of women requiring further investigation, and new technologies.

Participation

Australia has a 2-year screening interval.[8] However, there are no barriers to women being screened more frequently

than this, and all such tests are reimbursed by Medicare. Early rescreening is exceedingly common: almost half the women with negative Pap smear reports in 1997 had a further smear before 24 months had elapsed.[1]

The 2-year screening policy is under review. It is a short rescreening interval by international standards.[8] Alternatively, significant cost savings could be achieved if Medicare were to pay for only one screening test every 2 years. We estimate that the potential savings to government from reduced claims to Medicare could be of the order of $32 million per year (calculations available on request).

Proportion of women further investigated

The lifetime risk of a woman being diagnosed with cervical cancer in a developed country like Australia, in the absence of any screening, has been estimated as 1.58%.[9] By contrast, the lifetime risk of a woman having a colposcopy in Australia is 76.8%.[10] These figures suggest significant overinvestigation, with most investigated abnormalities having a very low probability of becoming malignant.

With recent advances in understanding of the natural history of cervical abnormalities (particularly the transient nature of most low-grade abnormalities), and the improved quality of cytology reporting, it is timely to review current recommendations for managing women with screen-detected abnormalities. This review is in progress.[11]

Adoption of new technologies

A range of new approaches for screening for the prevention of cervical cancer have been developed, including new methods of collecting the cell sample, entirely new screening tests, the use of computers in reporting the cell sample, and testing for the presence of human papillomavirus DNA. None of the new technologies are currently listed on the Medicare Benefits Schedule. On the advice of the Medical Services Advisory Committee, the Minister for Health and Ageing decided, in October 2002, that liquid-based cytology or human papillomavirus testing for triage of women with abnormal smears would not be included on the Medicare Benefits Schedule.

New technologies in cervical screening could be expensive. It is essential that an evidence-based approach be used to determine their possible role in cervical screening in Australia.

Competing interests

None identified.

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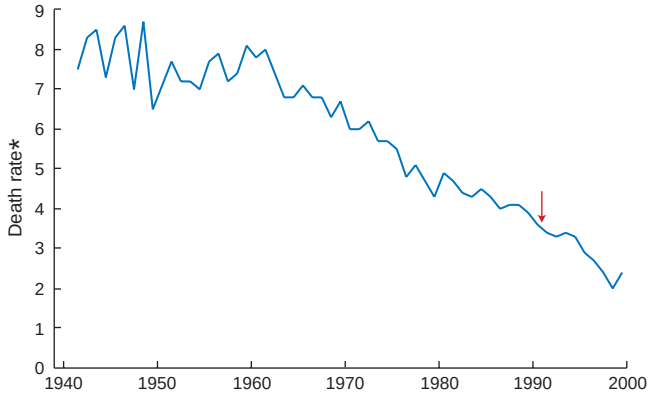
Mortality from cervical cancer in Australia



*Age-standardised death rate (Australian Standard Population 1991). Cervical screening has been available for Australian women since the 1960s.[1] The arrow shows when the organised approach to cervical screening commenced (1991). *(Redrawn from: Australian Institute of Health and Welfare. Australian long term trends in mortality. Canberra: AIHW, 2002.)*

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