



Australasian Association of
Nuclear Medicine Specialists

PRE-BUDGET SUBMISSION:

**RE-INDEXATION OF NUCLEAR MEDICINE-RELATED ITEMS ON
THE MEDICARE BENEFITS SCHEDULE (MBS)**

28 January 2022

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EXECUTIVE SUMMARY

Nuclear medicine is a small but vital component of patient care. It is crucial for the appropriate management of cancer patients in the initial staging of disease, and can help to avoid futile surgery, guide and then monitor treatment response assessment and surveillance. It also has applications for a range of other medical conditions, notably dementia, paediatric renal disorders, heart disease and a range of endocrine diseases. It has a growing role in therapy to cancers. Its' importance was noted both in the MBS review and in the recent announcement on critical technologies by the Department of Prime Minister and Cabinet.

For many patients, nuclear medicine provides a more accurate test or treatment option and leading to improved clinical outcomes. It enables early diagnosis, accurate staging and treatment prior to disease progression, prevention of futile therapies being employed and a reduction in costs and unnecessary radiation resulting from inefficient duplication of diagnostic tests.

On average one in two Australians will require nuclear medicine during their lifetime. Currently over 700,000 nuclear medicine services are delivered in Australia every year.

Despite its crucial role, nuclear medicine is chronically underfunded due to a 23-year freeze on the indexation of Medicare Benefits Services (MBS) rebates.

This rebate freeze was initially imposed on all MBS services. Since then, indexation in line with inflation has been restored for all other medical fields **but nuclear medicine items remain frozen**. There is no justifiable reason for its exclusion.

After 23 years of this indexation freeze, the nuclear medicine sector is becoming unsustainable. The field is evolving rapidly, particularly in precision cancer treatment (theranostics), but has endured substantial growth in costs associated with service delivery and critical radiopharmaceuticals. The cost gap is now so substantial that the nuclear medicine sector can no longer absorb these costs.

A failure to reindex these services will result in increased out of pocket costs for patients and an overall reduction in the availability of nuclear medicine services to the Australian community. The MBS Review Taskforce noted in 2018 that the availability and utilisation of nuclear medicine treatments is significantly impacted by pricing issues. It recommended an increase in fees to mitigate the substantial cost gap; however, four years on, this recommendation has not been actioned.

Failure to address this issue, resulting in further constriction of nuclear medicine accessibility and availability, will reduce the capacity of our health system to successfully treat patients with many serious health conditions, resulting in poorer health outcomes and increased costs to the economy.

Policy presented in this submission

The Australasian Association of Nuclear Medicine Specialists (AANMS) is seeking to bring nuclear medicine services in line with other medical services funded under the MBS by re-instating indexation of nuclear medicine services so that rebates keep pace with inflation.

This will ensure ongoing access to crucial nuclear medicine services for patients and deliver significant economic benefits by enabling the early diagnosis and treatment of serious and potentially life-threatening conditions.

MBS INDEXATION FOR NUCLEAR MEDICINE

Key Recommendation

That the government re-index nuclear medicine related items on the MBS to reduce out-of-pocket costs for patients and ensure ongoing access to crucial nuclear medicine services.

Background: Nuclear Medicine

Nuclear medicine is an internal medicine specialty that uses small amounts of radioactive materials or “tracers” to provide a picture of organ and tissue physiology and structures in order to diagnose, stage and treat disease. This allows the nuclear medicine specialist to visualise disease in organs and tissues that are traditionally difficult to see using other imaging techniques such as x-rays, CT and MRI. Nuclear medicine doctors are medical specialists with around eight years of post-graduate medical training.

Nuclear medicine is a critical clinical tool for assessing, diagnosing, staging and treating illnesses and conditions early and effectively, providing functional information versus a point in time image (such as an x-ray). The use of nuclear medicine can optimise patient treatment and outcomes by enabling a more accurate, targeted diagnosis and assessment of medical conditions.

Nuclear medicine tests allow quick and accurate diagnoses of a wide range of conditions and diseases, such as heart disease, blood clots in lungs, bone infections, orthopaedic injuries, tumours, and cancer metastasis (spread). It is also used to detect conditions such as irregular blood flow to tissues and blood cell disorders.

In addition, nuclear medicine therapy may be used to control, and in some cases cure, a range of conditions using targeted isotope delivery to the cancer cells— a rapidly growing field called theranostics. These include thyroid cancer, overactive thyroid, prostate cancer, neuroendocrine tumours and bone pain caused by cancer metastasis. Theranostics combines nanotechnology with personalised medicine to significantly improve treatment efficacy and deliver therapy to targeted tissue.

On average, one in two Australians will require nuclear medicine during their lifetime.

This results in over 700,000 nuclear medicine services being delivered in Australia every year.

Background: MBS indexation freeze

MBS rebates were initially frozen by the Labor government in 1998 and have not been indexed for 23 years. Over that time the effective cost of nuclear medicine for service providers has grown and is now unsustainable.

In the 2018-2018 Budget, the government announced it would commence the phased reintroduction of indexation of MBS rebates in recognition of the growing gap between service costs and the government’s contribution to patients’ health care costs.

Indexation for targeted diagnostic imaging services was restored from July 2020. Nuclear medicine and MRI were initially excluded; however, re-indexation for MRI has now been scheduled for July 2022, **leaving nuclear medicine as the only component of diagnostic imaging not scheduled to be re-indexed.**

The extent of the cost gap

Reimbursement rates for nuclear medicine have not been indexed for 23 years, while **inflation has risen over 58 per cent since rebates were frozen in 1998**.¹

Over this timeframe, the cost of delivering nuclear medicine services has grown significantly, partly due to the cost of radioactive isotopes which have seen a dramatic cost increase and supply chain issues globally. The cost of radiopharmaceuticals is not funded separately, but rather is expected to be covered under the MBS fee-for-service pricing structure.

In a 2012 MBS Review of Funding for Diagnostic Services, it was noted that ‘schedule fees for nuclear medicine do not necessarily recognise the large variation in the cost of radiopharmaceuticals needed to perform them’, acknowledging that, in some instances, radiopharmaceutical costs can be higher than the schedule fee.²

The MBS Review Taskforce then acknowledged in their 2018 final report that the availability and utilisation of nuclear medicine treatments in Australia are “*significantly affected by these pricing issues, with rebates failing to cover the cost of the radiopharmaceuticals*” (pg. 37).² The taskforce recommended that the fees for nuclear medicine items be increased so that they adequately cover the cost of radiopharmaceuticals and their administration – however, four years on, this recommendation has not yet been adopted.

The table below, produced by the MBS Review Taskforce in 2018, highlights the extent of the cost gap between some radiopharmaceutical prices and MBS fees:

Radiopharmaceutical	Item No.	MBS Fee (AUD) ¹	Quoted Price (AUD) ²	Gap (AUD)
Y-90 citrate (for intracavity administration)	16003	650.50	2,169.00	1518.50
I-131 (thyroid cancer)	16006	499.85	652.86	153.01
P-32	16012	295.15	2,250.00	1954.85
Sm-153 lexidronam	16018	2,442.45	4,130.06	1687.61

1. Fee includes radiopharmaceutical and administration

2. Excluding delivery fee. Correct at 26/09/2017, for delivery to a large Australian metropolitan hospital.

Implications of the multi-decade freeze

The growing gap between MBS rebates and service delivery costs can only be offset by providers in a limited number of ways, such as through:

- Out-of-pocket costs for consumers;
- Costs being absorbed by the service provider; and
- Creating efficiencies in service delivery or limiting the availability of some services to reduce costs.

None of these strategies is sustainable over the long term and without re-indexation they will lead to increased costs for patients and reduced access to critical services.

¹ Australian Bureau of Statistics (ABS): Consumer Price Index, Australia. Available from:

<https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/sep-2021#data-download>
(accessed 24 January 2022)

² MBS Review Taskforce: Final Report on the MBS Items for Nuclear Medicine, 2018.

The lack of adequate funding is also impacting on the nuclear medicine workforce, in particular the attractiveness of the specialty for trainees. Since 2017 there has been an annual decline in the number of nuclear medicine trainees. In 2021 there were only 25 trainees across 44 accredited training positions. Anecdotal evidence from AANMS members suggests that this is due to a combination of inadequate funding and a lack of interest in nuclear medicine training due to the perception that other specialties are better funded, remunerated and supported by the government.

The need to restore indexation

Nuclear medicine has improved patient care across a wide range of conditions in many ways. By enabling non-invasive imaging of metabolic functions within the body, it allows physicians to cost-effectively obtain medical information that would otherwise be unavailable or would require more invasive procedures such as biopsy or surgery.

The recent MBS Review highlights a number of important benefits of nuclear medicine in Australia, and its role in enhancing clinical effectiveness and outcomes: Some examples include: ³

- FDG-PET imaging has demonstrated a significance impact on the management of nearly all solid tumours. The MBS Review Taskforce for Nuclear Medicine noted that *“cancer care would likely be altered in large numbers of Australian patients if there was greater access to PET services before and after their treatment”* (pg. 34).
- ⁶⁸Ga DOTATATE PET was considered by the committee to be the *“best test for neuroendocrine tumours”*
- ⁶⁸Ga-PSMA PET has been demonstrated to have *“improved diagnostic accuracy compared to conventional imaging for the staging and re-staging of men with prostate cancer, principally through the detection of otherwise unsuspected sites of disease”*
- Selective internal radiation therapy (SIRT) has clinical evidence for effectiveness for metastatic colorectal cancer, neuroendocrine tumours, other liver-dominant metastatic tumours (e.g. breast cancer), cholangiocarcinoma and hepatocellular carcinoma.
- Nuclear medicine lung items are indicated for pre-operative assessment for lung volume reduction surgery, assessment of activity of inflammatory lung disease and suspected pulmonary embolism.
- Nuclear medicine liver and spleen studies assist in the diagnosis of functional gall bladder syndromes and can help characterise liver and splenic lesions.
- Nuclear medicine’s imaging technique is effective in diagnosis and assessment of neurological disorders including Parkinson’s disease and dementia’s including Alzheimer’s disease.

The committee’s sentiment about nuclear medicine and its role in cancer is important. In 2021, it is estimated that 151,000 Australians will be diagnosed with cancer.⁴ Cancer incidence continues to grow in Australia, as does cancer survival due to advances in screening, early detection and better outcomes from treatment. In addition, an increase in late-stage cancer presentations is predicted as a result of delayed screening due to the COVID-19 pandemic. In 2020 direct health system costs related to cancer were estimated at \$4.5 billion per annum.

³ MBS Review Taskforce: Final Report on the MBS Items for Nuclear Medicine, 2018.

⁴ Australian Institute of Health and Welfare, *Cancer in Australia 2021*. Available online: <https://www.aihw.gov.au/reports/cancer/cancer-in-australia-2021/summary> (accessed 24 January 2022)

With early diagnosis using nuclear medicine, these costs can be reduced greatly.

For example, early detection of bowel cancer can result in the removal of the cancer for a cost of less than \$2,000. However, if caught at a later stage, the cost of treatment rises to \$66,000 on average. As roughly 78% of these cases are diagnosed in late stages, the savings that could be gained from the increased use of nuclear medicine for early diagnoses is significant.⁵ A 2008 Commonwealth funded PET Management Impact study also demonstrated the significant impact of nuclear medicine on management and outcomes for patients with recurrent colorectal cancer.⁶

When these benefits are expanded to cancer diagnoses writ large, the economic benefits of re-indexation, and thus increased usage, of nuclear medicine related items for diagnosis become evident.

The cost of status-quo maintenance

There are ultimately two outcomes that could occur if this status-quo is maintained

1. *Reduced availability of nuclear medicine services*

As costs continue to increase, this lack of indexation will result in nuclear medicine practitioners reducing their scope of services, as the revenue derived from providing some services is not sufficient to cover the total costs of service provision.

According to a survey conducted by Synergies of 64 AANMS members, 59 per cent of respondents indicated they had responded to the rising costs by ceasing to provide some nuclear medicine procedures. A further 22 per cent indicated they closed sites altogether. These respondents have instead utilised inferior services that provide better remuneration through the MBS.

For a number of conditions nuclear medicine procedures are clearly the most effective means of diagnosing and/or treating these conditions. While in some cases there are alternative procedures that can be used as substitutes for these procedures, they are less precise and less effective and hence lead to inferior patient health outcomes and often additional costs being imposed on the healthcare system. As discussed above, the economic losses suffered by failing to detect a cancer in early stages are significant.

2. *Increased out-of-pocket costs for patients*

Practitioners may continue to provide nuclear medicine services, but be forced to shift the costs of provision onto the patient in order to maintain the economic viability of conducting the procedures. This will ultimately result in nuclear medicine services becoming increasingly cost prohibitive to patients. Due to Medicare regulations concerning gap payments, the relatively high cost of individual test and the risk to practices of delayed or “lost” payment cheques, the pressure to bulk bill is very high and many would rather cease providing a test that is marginally profitable at best rather than risk even more by delayed payments and increased cost of administrating the process of Medicare cheque recovery and banking.

Where nuclear medicine diagnostic testing is superior to alternative methods, and patients are unable to access services due to the increasing out-of-pocket costs, there will be an increased risk of adverse health outcomes and additional downstream costs on the health system.

⁵ Synergies Economic Consulting, *Economic cost of lack of indexation for nuclear medicine*, 2021.

⁶ Scott et al. (2008), *PET Changes Management and Improves Prognostic Stratification in Patients with Recurrent Colorectal Cancer: Results of a Multicenter Prospective Study*, *Journal of Nuclear Medicine*, Vol. 49, No. 9, pp. 1451 – 1457. 2008.

PROPOSAL

AANMS is seeking an initial 10 per cent increase for all MBS items for nuclear medicine in the 2022-23 Budget, to bring reimbursement levels closer to appropriate levels. Given that inflation has risen over 58 per cent since rebates were frozen in 1998, this initial payment is crucial to re-establish the viability of nuclear medicine in Australia.

In subsequent years, nuclear medicine MBS items should be reindexed in line with inflation, based on the Consumer Price Index (CPI).

Budget

Initial year: Approximately **\$33.6 million**.

Ongoing estimated cost over the forward estimates⁷: Approximately **\$9.3 million per year**.

About the AANMS

The Australasian Association of Nuclear Medicine Specialists (AANMS) is a peak body representing medical practitioners working in the field of nuclear medicine diagnosis and therapy. It works to promote and advance the clinical practice of nuclear medicine, which can be used to both diagnose and treat patients with cancer, dementia, paediatric renal disorders, heart disease and endocrine diseases.

There are currently almost 500 qualified nuclear medicine specialists in Australia, operating from approximately 200 sites around the country. The role of AANMS is to represent the interests of these specialists, while also supporting research, training, and networking in the field.

The AANMS is, on behalf of its membership, requesting the re-indexation of nuclear medicine related items on the MBS, in order to ensure that patients have access to the best services that promote the best outcomes.

Contact

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⁷ This figure is based historical Consumer Price Index (CPI) data from the past 21 years. It assumes that future inflation will remain consistent with historical trends.