MSAC REAPPLICATION TEMPLATE

Reapplication Name:	Rhenium-188 brachytherapy for non-melanoma skin cancer
Previous application number	1657.1
Name of previous application	Rhenium-188 brachytherapy for non-melanoma skin cancer

A. Funding Source

1. **Please check the box that corresponds with the program through which the health technology would be funded:**

☒ Medicare Benefits Schedule (MBS). Please:

a) Upload an in principle Statement of Clinical Relevance[1] when uploading this template.
b) Note in Table 2 below, any changes to the proposed MBS item(s) compared to the previous ADAR.

☐ National Blood Agreement.

☐ National Health Reform Agreement Addendum (high-cost, highly specialised therapies).

☐ National Diabetes Services Scheme.

☐ Other. Please specify the funding program:

2. **Has the funding source changed compared to your previous application?**

☒ No

B. Regulatory Information

1. Does your proposed service or technology involve (check as many as applicable):

☒ the use of a medical device, *in-vitro* diagnostic test, radioactive tracer, or any other type of therapeutic good? Please complete the section titled B1: ARTG Listing.

☐ a service or laboratory requiring accreditation by the National Association of Testing Authorities (NATA)? Please complete the section titled B2: NATA Accreditation.

☐ an MBS item descriptor that refers to a specific radiopharmaceutical or a set of radiopharmaceuticals? Please complete the section titled B3: Radiopharmaceuticals.

☐ None of the above. Proceed to the Other information section.

[1] The in principle Statement of Clinical Relevance demonstrates 'in principle' support for the proposed service. This must be from the most relevant professional medical/health group (i.e., an official college or society) that represents practitioners who would **perform** the proposed services, and (in the case of investigative technologies only) practitioners who would **request** the proposed service.

B1: ARTG Listing

If your service or technology involves the use of a therapeutic good, it cannot receive public funding until the therapeutic good has market authorisation (unless it is exempt). Market authorisation usually means a listing on the Australian Register of Therapeutic Goods (ARTG).

The department will not progress a Notice of Intent or ADAR for a reapplication involving the use of a therapeutic good until you provide evidence that:

- the therapeutic good is listed on the ARTG; or
- you (or the relevant sponsor) have commenced the TGA registration/listing process; or
- the therapeutic good is exempt.

For further information refer to the Regulatory Processes information on the MSAC website.

2. Has the proposed health technology been listed or registered or included in the Australian Register of Therapeutic Goods (ARTG) by the Therapeutic Goods Administration (TGA)?

☐ No (Go to question 4)

☒ Yes. Please state the ARTG ID, TGA approved indication(s) and TGA approved purpose:

ARTG ID:	400142
TGA approved indication(s):	Non-melanoma skin cancer
TGA approved purpose:	The Rhenium Skin Cancer Therapy (Rhenium-SCT) is intended to be used to treat skin cancer using the radioisotope, rhenium-188. The main component of the Rhenium-SCT is a radioactive resin (rhenium-188-Compound). The resin is applied over a protective foil affixed to the tumour allowing for precise application to the target area without directly touching the skin. The penetration range of its beta-radiation is very shallow in the human tissue (up to 3mm)

3. Is the intended purpose in this reapplication the same as the intended purpose of the ARTG listing?

☒ Yes. Go to the next applicable section (B2: NATA Accreditation; B3: Radiopharmaceuticals; or Other Information).

☐ No. Please explain the differences below, then proceed to the next applicable section (B2: NATA Accreditation; B3: Radiopharmaceuticals; or Other Information)

Other Information

Please advise us if there is anything relevant to MSAC's consideration of the reapplication that is not addressed elsewhere in this template. For example, proposed major changes to the ADAR unrelated to matters of concern raised by MSAC; or the health technology is subject to a recall or other regulatory action. You can also list here any additional organisations, experts, or other stakeholders for consultation.

N/A.

Table 1: Summary of key matters of concern

COMPONENT	MATTER OF CONCERN	HOW MATTER WILL BE ADDRESSED IN ADAR
Clinical place in therapy	MSAC suggested treatment should be limited to those most likely to benefit and clearly describe the patient and lesion factors that indicate likelihood of benefit from the treatment. Additionally, they noted an appropriate referral pathway should be defined.	**Addressed.** Consistent with recent discussions with MSAC and the Department of Health, the resubmission will define the comparator population using the eviQ criteria for definitive EBRT in cutaneous BCC/SCC. These criteria are widely accepted by Australian clinicians and were used to shape the EPIC-Skin trial inclusion framework. Patients considered for Rhenium-SCT will therefore be drawn only from the cohort in whom radiotherapy is clinically appropriate per eviQ. Selection for Rhenium-SCT will apply added layers of discernment over and above eviQ EBRT eligibility: 1. **Specialist surgical input before modality choice** – patients will be referred by, or have a documented consultation with, a dermatologist or plastic surgeon (where available) to assess surgical suitability and expected cosmetic/functional outcomes. 2. **Lesion demarcation by skin specialist clinician -** precise lesion borders will be clinically demarcated by the referring dermatologist/plastic surgeon, with photo-documentation and millimetre measurements 3. **Rhenium-SCT–specific eligibility thresholds** – objective lesion parameters and risk screens (below) that are more restrictive than general EBRT eligibility. Rhenium-SCT may be selected within the eviQ EBRT-eligible cohort when all of the following are met: • **Histology and risk:** Biopsy-proven BCC or SCC without features that, under eviQ/standard practice, mandate margin-controlled surgery or escalate to deep-tissue RT approaches (e.g., high-risk histology, extensive perineural involvement, or deep invasion).

COMPONENT	MATTER OF CONCERN	HOW MATTER WILL BE ADDRESSED IN ADAR
		• **Lesion geometry and depth:** Lesion depth ≤ 3 mm and surface area ≤ 8.0 cm², confirmed by clinical assessment and high-frequency ultrasound or pathology confirmation of depth – not used for conventional EBRT • **Site considerations:** Location and surface curvature are suitable for conformal applicator placement and exploit the steep beta dose fall-off (eg. convex/irregular surfaces where conformality is advantageous), without proximity that would compromise ocular or other critical structures. Screening by these specialist clinicians will limit patient selection for Rhenium-SCT to those with significant concerns for the cosmetic or functional outcomes from surgical interventions and/or those with significant concerns for invasive procedures. The treating clinician will make the determination for Rhenium-SCT suitability over other radiotherapy modalities based on lesion location and shape. An expert advisory panel estimated the switching rate to Rhenium-SCT to be 30% from conventional EBRT modalities. These clinicians retain final decision-making capacity for the treatment used. Patients who live remotely, and/or cannot withstand multiple fractionations of conventional EBRT will be strong candidates for switching over from EBRT to Re-SCT as outlined by the expert advisory panel We will include a detailed referral pathway and decision tree clarifying this process. We will also perform a sensitivity analysis on the potential annual volume of patients. The intent is to use these to define eligible populations.

COMPONENT	MATTER OF CONCERN	HOW MATTER WILL BE ADDRESSED IN ADAR
Proposal for public funding	MSAC requested a review of the MBS items – including suitability of components of the MBS items, and justification of fees and variations in cost of carpoule	**Addressed.** Following a pre-submission meeting with MSAC on the 29th July with members of MSAC Secretariat and the department, new MBS items have been drafted. The new items are structured in a way that satisfied departmental feedback and will clarify fee structure and incorporate all relevant gaps and safety nets into estimates. As agreed in the pre-submission meeting, a planning item will be proposed that applies once to each treatment session for patient. Additionally, four treatment items will be proposed that includes the rhenium paste, and the service costs for lesions from 0-300mm^2, 301-500mm^2, 501-700mm^2 & 701-800mm^2. Consumables have been removed from any calculations The resubmission will also provide an explanation and breakdown of the financials that has gone into determining the total cost of the carpoule.
Financial/budgetary impacts	MSAC requested more accurate costings of both Re-188 brachytherapy (including realistic wastage) and EBRT – based on additional stakeholder engagement and feedback and preferably including independent advice, including further clinical input regarding the fractions and type of EBRT most likely to be used for patients and lesions suitable for Re-188 brachytherapy, to ensure an accurate comparison of the total costs and relative benefits.	**Addressed.** Costings for Re-188 and comparator EBRT will be updated as discussed in the pre-submission meeting with the MSAC. Greatly more data on comparator type and fractionation schedule will be provided based on most recent real-world data. Specifically, the submission will provide more robust and validated real world data from GenesisCare that will assist with the estimation of the market size. Together with findings from the clinician surveys and advisory board panel, this data will deepen insight into the most appropriate EBRT modality types and fractionation schedule for accurately calculating comparator costs. Recommendations provided by MSAC and ESC will also be reflected in the utilisation and financial estimates, such as revised uptake rates and updated EBRT usage for the indicated lesions.

COMPONENT	MATTER OF CONCERN	HOW MATTER WILL BE ADDRESSED IN ADAR
		Financial modelling will include all this updated guidance to give greater assurance to the MSAC on realistic budget impacts going forward.
Economic evaluation	MSAC requested that the resubmission feature a "a fit-for-purpose economic evaluation," preferably a basic cost-effectiveness/cost-consequence analysis presented as the cost per treatment and/or cost per lesion treated, including the costs of retreatment and complications as well as cost of delivery. Further examination of the potential costs and consequences of adverse events related to Re-188 therapy.	**Addressed.** A new simplified cost-effectiveness model will be submitted, presented as a cost per lesion treated. The model will also include a cost-consequence analysis, that will compare all costs and outcomes between the treatments. The model will reflect all the recommendations given by MSAC, such as including the cost of retreatment, wastage, adverse event management, patient outcomes (e.g. cosmesis) and indirect costs, such as patient travel time and productivity loss (all non-health related costs are not included in the base case - only supplementary analyses). Sensitivity analyses will also be provided as part of the model, exploring the impact of variables such as EBRT fractions, retreatment rates, adverse event rates etc.

Table 2: Summary of changes to PICO criteria since previous consideration by MSAC

☒ The proposed ADAR **will not** contain any changes to the PICO previously considered by MSAC.

☐ The proposed ADAR will reflect changes to the PICO as detailed below.

PICO COMPONENT	COMPONENT DESCRIPTION AS CONSIDERED BY MSAC	REVISED COMPONENT DESCRIPTION AND RATIONALE
POPULATION		For the purposes of this resubmission, the population remains the eviQ-defined cohort for definitive radiotherapy (EBRT) in cutaneous BCC/SCC. This reflects historical Australian referral practice to radiation oncology and does not extend beyond established RT indications. Entry to the RT cohort occurs only after a documented dermatology/plastics consultation (Or Skin GP in remote locations where derm/plastic consult is not available as previously outlined) in which risks, benefits and alternatives are explained. Surgery is either contraindicated or declined on that basis. This operationalises standard practice in an auditable way and does not expand the denominator used for comparative and economic analyses. This allocation remains within-RT allocation, is more stringent that selection for conventional EBRT, and does not imply any capture from a surgical pathway. Where informed patient preference (post-consult) could increase Rhenium-SCT share above 30% (the original switching rates from conventional EBRT to RE-sct that were outlined by expert advisory panel), this will be explored only as a within-RT sensitivity. The population remains unchanged, and the treating clinician is the final arbiter of suitability, following specialist consult. We will provide a more detailed patient pathway outlining this process.