



Australian Government

Department of Health

Consultation Survey on MSAC Application 1638

Proton beam therapy for paediatric and rare cancers

This feedback survey relates to the application form and Population, Intervention, Comparator and Outcome (PICO) Confirmation for new and amended requests for public funding (including but not limited to the Medicare Benefits Schedule (MBS)).

Please use this template, to prepare your feedback on the application form and/or the PICO Confirmation. You are welcome to provide feedback from either a personal or group perspective for consideration by the Department of Health when the application is being reviewed.

The data collected will be used to inform the Medical Services Advisory Committee (MSAC) process to ensure that when proposed healthcare interventions are assessed for public funding in Australia, they are patient focused and seek to achieve best value.

This feedback survey should take approximately 15 minutes to complete.

You may also wish to supplement your responses with further documentation or diagrams or other information to assist the Department in considering your feedback.

Thank you for taking the time to provide valuable feedback.

Responses may be provided to the MSAC, its subcommittees, a health technology assessment group and the applicant. Should you require de-identification please contact the HTA team (details below).

While stakeholder feedback is used to inform the application process, you should be aware that your feedback may be used more broadly by the applicant.

Please reply to the HTA Team:

Email: HTA@health.gov.au

Postal: MDP 959 GPO 9848 ACT 2601

PART 1 – PERSONAL AND ORGANISATIONAL INFORMATION

1. Respondent details

Name: Min Ku

Email: min.ku@asmirt.org

Phone No: (03) 9419 3336

2. (a) Is the feedback being provided on an individual basis or by a collective group? (please select)

Individual

Collective Group

(b) If individual, specify the name of the organisation you work for

(c) If collective group, specify the name of the group

Australian Society of Medical Imaging and Radiation Therapy

3. How would you best identify yourself?

General Practitioner

Specialist

Researcher

Consumer

Care giver

Other

(a) If other, please specify

Professional Society

PART 2 – CLINICAL NEED AND PUBLIC HEALTH SIGNIFICANCE

4. Describe your experience with the medical condition (disease) and/or proposed intervention and/or service relating to the application form

Radiation therapists treat paediatrics, young adults and patients with rare cancers using radiation therapy (photons). This includes all steps of radiation therapy treatment from the initial planning radiation therapy scan, computer planning and treatment. Radiation therapists work with other multi-disciplinary teams (eg radiation oncologists, nurses, physicists etc) and the patient and their families to ensure the best quality treatment and care to the patient. Radiation therapists are tertiary educated and knowledgeable in the radiobiological, dosimetric and physical properties of protons and photons and have a robust understanding of the resultant acute and late toxicity on these patients.

5. What do you see as the benefit(s) of the proposed medical service, in particular for the person involved and/or their family and carers?

This proposed medical service should provide improved access for appropriately triaged patients who currently elect to receive standard of care via Photon radiation therapy due to the long time required for decision making to receive Proton Beam Therapy overseas. For patients with diagnoses that have been previously funded by the MTOP, having access to proton therapy in Australia eliminates the need to travel overseas for this treatment. The reduced acute and late toxicities leading to fewer long-term side effects is also very beneficial particularly for the paediatric and adolescent and young adult patients. Reducing cognitive impairment and growth impairment in children due to improved dosimetry ensures better outcomes for them both socially and physically.

Proton therapy differs from conventional RT with the main difference being the unique properties of the proton particle. When using protons, it is possible for the dose to be shaped more closely to the target and avoid normal tissue. Currently patients can experience severe acute and late side effects which greatly affects their quality of life. By using protons in paediatrics and young adults' healthy tissue can be spared, thus creating less problems for the patient in the future. With rare cancers 'hard to get' locations restricted by dose limiting structures such as the spinal cord and brain stem can be better accessed for treatment to occur.

The immediate benefits to the patient and their family are reduced side effects during treatment, enabling the completion of the course of treatment without interruption or breaks. It can also prevent long term side effects. Proton therapy would be much more manageable for patients for this reason. Currently those patients who would benefit from proton therapy are sent overseas to Europe or United States of America. Unfortunately, this is not a viable option for many families, exacerbated by the COVID crisis. Furthermore, many families find this process difficult and disruptive, especially if the patient has other siblings that need to be taken care of as well. By offering this kind of treatment closer to home makes it more accessible for all Australians and their families.

6. What do you see as the disadvantage(s) of the proposed medical service, in particular for the person involved and/or their family and carers?

This service will be offered in Adelaide and hence if you are not resident in Adelaide, then the person involved and/or their family and carers will have to spend time away from home, work, family to have treatment. This may pose a financial burden on some people.

7. What other benefits can you see from having this intervention publicly funded on the Medicare Benefits Schedule (MBS)?

This treatment, especially for paediatrics and young adults would be made accessible to all if it were available through Medicare. This treatment should not only be made available to only those who have the additional funds to pay for it. As this type of treatment is already available world-wide, Australians should have the opportunity to access this type of treatment as well.

This intervention will provide job opportunities in Adelaide and increase employment for radiation therapists, medical physicists, engineers and cancer nurses. It will also enable Australians to conduct research on proton therapy using Australian equipment in Australia. The provision of this equipment in Australia will create an opportunity for Australian researchers to contribute to international research.

8. What other services do you believe need to be delivered before or after this intervention, eg Dietician, Pathology etc?

The requirements for this service will be similar to those required for photon radiation therapy.

Cancer treatment involves a multi-disciplinary team. Depending on treatment site, most of our current radiation therapy patients have access to dietitians, social services, speech pathologists, specialist nurses, play therapists, psychologists and counsellors. There are a number of childhood cancer organisations that provide excellent support for families who are required to travel from interstate such as Little Hero's and the Ronald McDonald House that are interested in the proton project.

PART 3 – INDICATION(S) FOR THE PROPOSED MEDICAL SERVICE AND CLINICAL CLAIM

9. Do you agree or disagree with the proposed population(s) for the proposed medical service as specified in Part 6a of the application form? (A4 page 39)

- Strongly Agree
 Agree
 Disagree
 Strongly Disagree

(a) Specify why or why not:

ASMIRT agrees with the proposed tumours for paediatric patients that are likely to benefit from proton therapy. Paediatric and young adults need special attention as they continue to grow and develop. Often their bodies are more sensitive to radiation and long-term side effects from current Radiation can be debilitating, having a significant effect on their Quality of Life. Additionally, these long-term side effects are a significant cost to the health care system.

For the adult population, “brain tumours” encompasses a broad range of pathologies, of which most are currently treated with photon radiation therapy. The recommendation is that the applicant is more specific regarding the particular rare brain, base of skull and spine tumour diagnoses for the adult population. Retrospective case studies cited by the applicant describe outcomes using protons as the same as for photons. Whilst protons can be used to treat tumours in these three (3) anatomical sites successfully, it is recommended to limit the population to those patients with proven improved clinical outcomes, so as not to overwhelm the service with demand by patients who can be treated using photons.

10. Have all the associated interventions been adequately captured in Part 6b of the application form?

- Yes
 No

(b) Please explain:

This process mimics that for photon radiation therapy. There is no specific section for associated interventions. As such, the boxes above have not been checked.

11. Do you agree or disagree that the comparator(s) to the proposed medical service as specified in Part 6c of the application form? (A5 page 43)

- Strongly Agree
 Agree
 Disagree
 Strongly Disagree

The process of external beam radiation therapy is the same whether photons or protons are used.

IMRT is currently the 'gold standard' of radiotherapy. Whilst the beam is able to be modulated and can create a highly conformal plan, the inherent properties of photons means that entry dose and exit dose from the beam will pass through normal, healthy tissue. This could be a large dose of radiation if it is in the direct path of the target, or a smaller dose called 'low dose wash'. Both of these should be avoided where possible. The benefit of protons is a reduced entry dose and no exit dose, meaning we can treat the target precisely, but avoid treating normal, healthy tissue thus reducing acute and long-term side effects. Additionally, protons produce less 'low dose wash' to normal tissue.

12. Do you agree or disagree with the clinical claim made for the proposed medical service as specified in Part 6d of the application form? (A8 page 49)

- Strongly Agree
 Agree
 Disagree
 Strongly Disagree

(a) Specify why or why not:

ASMIRT agree that this type of treatment is superior in terms of safety for specific cases. Reducing side effects is one of the main goals when treating paediatrics and young adults. The claim for clinical effectiveness outcomes for adult patients is very broad. More information regarding which patients would benefit from dose escalation is required.

PART 4 – COST INFORMATION FOR THE PROPOSED MEDICAL SERVICE

13. Do you agree with the proposed MBS item descriptor, as specified in Question 53 of the application form? (A3 page 37)

- Strongly Agree
 Agree
 Disagree
 Strongly Disagree

(b) Specify why or why not:

ASMIRT agrees with the proposed MBS item descriptor as it mimics the descriptor for IMRT/VMAT photon radiation therapy. However, there are differing statements concerning the number of replans that should be allowed. The descriptor has three (3) listed, while the IMRT comparator that is used to justify this only contains one (1) replan - see page 37.

Proton therapy is very dependent on shape eg. patient loses weight. Children losing weight will have more drastic effects on contours and vital organs that present in the treatment field. ASMIRT suggest that consideration be given to having one replan per week for the course of the patients' treatment. Although this may not be required for many patients, for some patients, this may be essential. Consideration needs to be given to reducing financial burdens for patients and their families.

Do you agree or disagree with the proposed MBS fee, as specified in Question 53 of the application form?

- Strongly Agree
 Agree
 Disagree
 Strongly Disagree

(c) Specify why or why not:

ASMIRT is unable to comment on the proposed MBS fee in the document, as this appears to have been redacted.

PART 5 – ADDITIONAL COMMENTS

14. Do you have any additional comments on the proposed intervention and/or medical condition (disease) relating to the proposed medical service?

Currently the length of time of follow-up, data has been proposed as a minimum 5 years and longer for paediatrics/adolescent and young adults. ASMIRT suggests that this minimum is increased to 7 or 10 years due to the importance of follow up and changes observed for paediatrics and adolescent and young adult patients who have received radiotherapy.

15. Do you have any comments on this feedback survey? Please provide comments or suggestions on how this process could be improved.

NIL

Again, thank you for taking the time to provide valuable feedback.