

Section 1: Application Summary

Name of Product	Elekta Unity
Australian launch date	Received CE mark in June 2018 and was included on the Australian Register of Therapeutic Goods (ARTG) for regulatory clearance in Australia in July 2018.
Products used in (please select)	<input checked="" type="checkbox"/> diagnosis <input checked="" type="checkbox"/> prevention <input checked="" type="checkbox"/> treatment <input checked="" type="checkbox"/> management
Contact details	Michelle Joiner

Your details

Name	Michelle Joiner	Position	Director of Global Media Relations
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Name of Company	Elekta	ABN	

Executive Summary: [200 words max.] NB Executive Summary must be suitable for use in Award promotion

Elekta's Precision Radiation Medicine is revolutionizing cancer care. Bringing together science, technology and clinical intelligence, we're working with clinicians towards a future where everyone can benefit from precise and individually tailored radiotherapy treatments. We're giving millions of patients the chance to live more moments that matter.

Section 2: Product Details

Describe the technology [300 words max.]

Elekta Unity is a revolutionary high-field MR-linac that is ushering radiation therapy into the era of personalized, precision cancer care. Elekta Unity is truly leading-edge because it overcomes the technical barriers that have hindered the integration of precision radiation therapy with real-time high-field magnetic resonance imaging. It is the only system to truly unlock the imaging capabilities of magnetic resonance radiation therapy (MR/RT) by using a 1.5 Tesla magnet. Elekta Unity integrates the best of precision radiation therapy and high-field MR imaging without compromise. Through integrated and responsive software, tumors and surrounding tissue can be precisely located, their movement tracked, and treatment adapted in real time based on live information.

What health problem is the technology addressing and how does it address the problem? [300 words max.]

Elekta Unity gives the power to see while you treat at the time of radiation delivery, enabling truly personalized radiation therapy regimens. With Elekta Unity, tumors and surrounding tissues can be located and their movement tracked with unsurpassed accuracy at the time of treatment. This allows treatment plans to be adapted while the patient is on the table in response to changes in tumor position, shape, biology and the relationship to sensitive organs over time. This radical improvement – “see while you treat” – should allow clinicians to be more confident that they are accurately and precisely dosing the target area at all times, helping to achieve the goal of potential reductions in treatment margins around the tumor to spare more healthy tissue. It may also allow clinicians to deliver a higher dose of radiation per fraction to the tumor, which

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may improve treatment outcomes or reduce the number of treatment sessions.

- *Potentially reducing margins with more certainty*
The ability to visualize the target during treatment gives physicians confidence that they can reduce treatment margins while ensuring accurate dose delivery to the tumor and sparing of healthy tissue.
- *Expanding treatment options*
Managing hard-to-treat cancers and increasing treatment options is enabled by the ability to visualize daily changes in tumor and surrounding healthy tissue with sub-millimetric resolution and superior soft tissue contrast provided by the 1.5T Philips MRI scanner.
- *Assessing tumor response*
Elekta Unity leverages functional MRI protocols to probe radiobiology and potentially detect/assess tumor response with diagnostic quality imaging provided by the state-of-the-art 1.5T Philips MRI scanner.

What other products are currently available to address this issue and how does this technology differ from and/or improve on existing technology? [300 words max.]

ViewRay's MRIdian:

Elekta Unity is the first system to overcome technological barriers to enabling simultaneous radiation delivery and fast acquisition of high-quality diagnostic-standard MR images. It does this by using a powerful, high-field 1.5 Tesla magnet in its MRI system, which can match current MR diagnostic imaging standards.

Having regard to the consumer's quality of life, does the product provide a balance between invasiveness and efficacy? [300 words max.]

Radiation therapy (RT) has become one of the most common treatments for cancer, and about 50 to 60 percent of all cancer patients receive it at some point during their treatment. For decades, the safe and effective delivery of radiation has required achieving balance between critical factors: delivering radiation to as much of the tumor as possible to effectively kill cancer cells while protecting healthy tissue from radiation exposure. The two key challenges to achieving this balance are the limited ability to clearly differentiate between the tumor and surrounding soft tissue and uncertainty about the precise location of the boundary between the two at the time of treatment. This uncertainty is due to the fact that tumors change shape, size and location over time in response to therapy. Even within a single treatment session normal physiologic processes, such as breathing and digestion, can change the spatial relationship between a tumor and its surrounding tissue. The uncertainty resulting from this continual movement often limits the ability to deliver the desired treatment.

Include scientific evidence to support the claims. This may include published data, unpublished scientific data, results of clinical trials and/or patient feedback. Photographs may be submitted. Product samples will not be accepted.

Elekta.com/unity for product images and videos. We also have a biography of the research/clinical data to date.

Section 3: Declaration

I certify that the information provided in this application is accurate and that the company accepts the Rules of the Award. Representative/s of the company will participate in promotional activities relating to the Award.

Name: Michelle Jones Position: Director of Global Media Relations

Signature of the CEO/Authorised Representative: Michelle Jones

Date: 4 / 08 / 2019

Please send your application to MTA Secretariat – Kerrin Rennie Award

CLOSING DATE: 26 JULY 2019