Radium-223 Therapy

For Metastatic Prostate Cancer to Bones

Patient Information Guide
What is Radium-223 Therapy?

Radium-223 Therapy is a type of treatment that is used for people who have prostate cancer that has spread, or metastasised, to the bones. Its aim is to damage the cancer cells in the bone, leading to the tumours shrinking in size, or even disappearing altogether. It is also used to reduce or diminish pain that can be associated with cancer in the bones.

How Does Radium-223 Therapy Work?

Radium-223 is a radioactive form of the element radium, and releases a type of radiation called alpha radiation. This type of radiation can be quite destructive, however it can only travel very short distances. Radium-223 shares similar chemical properties to calcium, and acts in a similar way in the body. Cancer cells in the bone take up more calcium than usual. As Radium-223 acts in a similar way to calcium, it travels directly to the
tumours location and emits radiation that destroys the unhealthy cells. This makes Radium-223 Therapy a very effective treatment for bone cancers, as any damage to healthy cells is kept to a minimum.

**Is This Treatment Safe?**

The radiation used in Radium-223 therapy has a very high energy level, which makes it very destructive. However, due to the nature of this radiation, it only travels very short distances (two to ten cells in depth), ensuring that the damage occurs to the cancer cells in the bone and not to healthy cells. This minimal uptake into healthy cells means that the side effects associated with this therapy are negligible. This may include a temporary reduction in the number of blood cells produced, and infrequently, symptoms of nausea, vomiting and diarrhoea.

**When Would I Consider Using This Treatment?**

This treatment is a very specific type of therapy so it can only be used for people who have had prostate cancer that has spread to the bones. As this is such a new therapy, there is limited research involving other types of cancer, for example breast cancer. It is currently only approved for use in patients with prostate cancer, though may be of benefit to other patients with bone metastases. This therapy may ease the pain that often comes with cancer in the bones. If this therapy is being considered, a diagnostic scan is performed (Technetium-99m bone scan) to ensure the radiation will target the right areas during treatment.

Radium-223 Therapy is now covered by Department of Veterans’ Affairs (DVA).
What Do I Do Now? What Is The Process?

**Step 1:** Enquire via the Theranostics Australia (TA) Website.

**Step 2:** Obtain a referral from a General Practitioner or Specialist

**Step 3:** Access the TA Portal with credentials assigned to you by Theranostics Australia or an approved Medical Provider.

**Step 4:** Complete the Patient Questionnaire and upload requested medical files to your account.

**Step 5:** Organise an initial consultation with a TA physician either in person, teleconference or via Skype.

**Step 6:** The TA physician will advise of your options. If you meet the therapy criteria and agree to the various consents, your treatment can commence.

How Do I Contact Theranostics Australia?

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