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Tēnā koe Jody

Thank you for your email about the use of chemotherapy and radiation in cancer.

Although a lot of people understand the word chemotherapy to mean an anti-cancer treatment, chemotherapy can technically be defined as any treatment (therapy) with a chemical (medicine). For this reason, antiparasitic medicines could be described as "antiparasitic chemotherapy". Some medicines additionally have a range of different uses, including cancer and non-cancer conditions, depending on how they are used (i.e., the dose and combination with other medicines). Many similarities exist between cancer cells and parasites, so there is research into using anti-cancer medicines for parasitic infections. In the context of cancer, a more accurate term for chemotherapy would be cytotoxic (i.e. toxic to cells) chemotherapy.

Cytotoxic chemotherapy is a type of cancer treatment that uses medicines to destroy or slow the growth of cancer cells. It may be given alone or with other cancer treatments, such as surgery or radiotherapy, and can be given in a variety of ways, including by mouth or infusion, depending on the type and stage of the cancer being treated. Treatment may be given with curative intent, with the goal of achieving a complete remission and preventing the cancer from recurrence. Treatment may also be given with non-curative (palliative) intent, with the aim of prolonging life and/or improving quality of life, where a cure of the underlying cancer is unlikely to be achieved. Treatment intent depends on a range of factors including the chemotherapy being used, the type and stage of cancer being treated, previous treatment history and various patient characteristics, including other medical conditions.

All treatments have risks and benefits. Like any medicine or treatment process, cytotoxic chemotherapies and radiation therapy have a range of different side effects. Some possible side-effects may include impacts on bone density. What the possible side-effects are, how likely they are and how severe they might be will again depend on a range of factors including the specific therapy being used (i.e which cytotoxic chemotherapy or which radiation process), the type and stage of cancer, previous treatment history and various patient characteristics (e.g. other medical conditions). It is important to have a conversation with a health professional about the possible side-effects of treatment so that the person with cancer and their whānau

can make an informed decision. It is a personal decision that involves consideration of how the risk of side-effects compares to the likely benefit from treatment for a particular individual.

If your query relates to a specific person, we would strongly encourage them and their whānau to have these conversations with their oncologist in the first instance.

You may also find the information on cancer treatment from the Cancer Society useful (<u>https://www.cancer.org.nz/cancer/cancer-treatment/</u>).

Thank you again for getting in touch with us with your questions. We hope that our response gives you some more information and a suggested pathway to find out more information.

Nāku noa, na

Nicola Hill

Pou Whakahaere Mātāmua, General Manager

Te Aho o Te Kahu, Cancer Control Agency