**Consolidation: Non-Hodgkin lymphoma (NHL) case study answers**

**Questions**

1. **How does non-Hodgkin lymphoma (NHL)** **impact the systems of the body?**

NHL impacts the lymphatic system, which is part of the body's immune system. NHL often begins in lymph nodes and can spread to other areas, such as the bone marrow, liver or spleen.

Although her bone marrow was not affected, the spread of lymphoma to lymph nodes in different areas can cause:

* swelling of lymph nodes (e.g. in the neck and groin), leading to discomfort or pain;
* impact on immune function, making the body more vulnerable to infections;
* fatigue, weight loss, and weakness, as the body’s energy is used to fight the lymphoma.

1. **How does NHL impact physical health?**

As seen in Elara, fatigue is one of the commonest symptoms.

Unexplained weight loss, like Elara’s 5kg over three months, is common in NHL, often due to a combination of the body’s increased metabolic demands from fighting the disease and reduced appetite.

The enlargement of lymph nodes (lymphadenopathy), such as those in the groin and neck, can cause physical discomfort, even if the swelling is painless.

1. **How does NHL impact mental health?**

The fear of mortality, uncertainty about the future and the physical changes associated with treatment can lead to increased anxiety and depression.

Physical changes, such as hair loss during chemotherapy, can impact self-esteem and body image.

The combination of a cancer diagnosis and the need for treatment (e.g. hospital visits) may lead to social withdrawal or a sense of isolation.

1. **Explain the aims of each treatment offered (chemotherapy, radiotherapy, monoclonal antibody therapy).**

The goal of chemotherapy is to destroy rapidly growing cancer cells throughout the body. For Elara, six cycles of chemotherapy aimed to target the lymphoma cells in her lymph nodes, reduce the size of tumours and induce remission.

Radiotherapy was used after chemotherapy to target and shrink any remaining lymphoma in specific areas (such as the neck and groin). The purpose is to eliminate any localised disease and reduce the risk of recurrence in those areas.

Monoclonal antibody therapy (Rituximab) is designed to target and destroy lymphoma cells by binding to a protein on the surface of the cells. It is used to maintain remission after initial treatments like chemotherapy and radiotherapy, preventing the lymphoma from returning. Rituximab is a maintenance therapy that is typically administered over a longer period (in Elara’s case, every two months for two years).

**5. What other support could be offered to this patient, considering her current and future needs?**

Given Elara's current and future needs, additional support could include the following:

* Ongoing counselling could be offered through NHS services or local cancer support networks, to address the emotional impacts of both her cancer diagnosis and her recent divorce. Support groups for cancer patients are offered by Macmillan or Maggie’s.
* Considering her recent divorce and the potential financial strain of treatment, she may be eligible for financial assistance, such as benefits through the NHS or government schemes (e.g. Personal Independence Payment or Employment and Support Allowance) to alleviate financial stress.
* She could be referred to an organisation like [www.prehab4cancer.co.uk](http://www.prehab4cancer.co.uk/) to help improve her physical health.
* Considering her increased alcohol use after her divorce, she may benefit from referral to NHS addiction services or a local support group (e.g. Alcoholics Anonymous) to address this issue and help her find healthier coping mechanisms.
* Beyond physical monitoring, long-term emotional and psychological support, especially after her maintenance therapy ends, could help her transition into remission and deal with any lingering effects of the disease and treatment. This could include ongoing therapy and mental health services provided by the NHS.
* Dietitians can help her with nutritional advice during and after treatment. Also, integrating wellness services such as yoga or mindfulness groups offered through local cancer charities like Macmillan or through the NHS could help improve her overall well-being.