Grade 2 (Intermediate Grade) Oral Cancer:

Treatment Methods:

Surgery:

1. **Similar to Grade 1, but more extensive**: Surgery for Grade 2 oral cancer may involve a wider excision of the tumor and surrounding tissues, as the tumor might be larger or have spread more extensively. In some cases, lymph nodes in the neck may also be removed to ensure comprehensive treatment. This approach aims to achieve clear margins and reduce the risk of recurrence. Post-surgery recovery may involve reconstructive procedures to restore oral function and appearance, as well as close monitoring for any signs of cancer recurrence.

Radiation Therapy:

1. **Standalone or combination**: Radiation therapy can be used alone or alongside surgery to treat Grade 2 oral cancer. As a standalone treatment, it may be chosen if surgery is not feasible or as a postoperative measure to destroy residual cancer cells. The precise application helps to target the tumor while sparing healthy tissue, reducing side effects.
2. **Brachytherapy**: Involves placing radioactive material directly inside or near the tumor. This internal radiation therapy delivers high doses of radiation to the cancer cells with minimal exposure to surrounding healthy tissues. Brachytherapy can be highly effective for intermediate-grade cancers, providing targeted treatment with fewer side effects compared to external radiation. It is often used when the cancer is localized and accessible.

Chemotherapy:

1. **Combination with radiation (chemoradiation)**: Chemotherapy is often combined with radiation therapy (chemoradiation) to enhance the effectiveness of radiation. This approach can help to shrink the tumor before surgery or eliminate remaining cancer cells post-surgery. Chemoradiation is particularly useful for treating intermediate-grade cancers that have a higher risk of spreading or recurring.
2. **Common drugs**: Chemotherapy drugs like Cisplatin, Carboplatin, and 5-fluorouracil (5-FU) are commonly used in treating Grade 2 oral cancer. These drugs work by interfering with the DNA of cancer cells, preventing them from growing and dividing. Treatment schedules and dosages are carefully managed to maximize effectiveness while minimizing side effects, such as nausea, fatigue, and an increased risk of infection.

Targeted Therapy:

1. **Specific mechanisms (e.g., Cetuximab)**: Targeted therapy involves drugs that specifically target cancer cell mechanisms. Cetuximab, for instance, targets the epidermal growth factor receptor (EGFR), which is often overexpressed in oral cancer cells. By blocking this receptor, Cetuximab inhibits the growth and spread of cancer cells. Targeted therapy is usually well-tolerated and can be combined with other treatments to enhance effectiveness, providing a more personalized approach to cancer treatment.

Immunotherapy:

1. **Drugs like Pembrolizumab or Nivolumab**: Immunotherapy helps the immune system recognize and attack cancer cells. Drugs like Pembrolizumab (Keytruda) and Nivolumab (Opdivo) are immune checkpoint inhibitors that block proteins used by cancer cells to evade the immune system. By inhibiting these proteins, the drugs boost the immune response

against cancer. Immunotherapy is especially beneficial for patients with certain biomarkers or those who have not responded well to other treatments, offering a promising option for intermediate-grade oral cancers.