# PLGG Targeted Therapies: CEA scenarios/sensitivity

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| **Sensitivity Analyses** | **Base Case Scenario #1**  Dabrafenib vs. chemo/radiation as first-line treatment.   * Lifetime duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 100% dabrafenib price * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls & exposed: Bouffet et al., NEJM 2023. | **Scenario #1b**  Dabrafenib vs. chemo/radiation as first-line treatment.   * 2-year duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 100% dabrafenib price * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls & exposed: Bouffet et al., NEJM 2023. | **Scenario #1c**  Dabrafenib vs. chemo/radiation as first-line treatment.   * Lifetime duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 50% dabrafenib price reduction * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls & exposed: Bouffet et al., NEJM 2023 | **Scenario #1d**  Dabrafenib vs. chemo/radiation as first-line treatment.   * Lifetime duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 75% dabrafenib price reduction * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls & exposed: Bouffet et al., NEJM 2023 | **Scenario #1e**  Dabrafenib vs. chemo/radiation as first-line treatment.   * Lifetime duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 100% dabrafenib price * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls: n=34 SickKids controls * Data source for exposed: Bouffet et al., NEJM 2023. |
| **Proportion of patients radiated at subsequent progression.** | 1. *20% proportion radiated at subsequent progression* | 1. *20% proportion radiated at subsequent progression* | 1. *20% proportion radiated at subsequent progression* | 1. *20% proportion radiated at subsequent progression* | 1. *20% proportion radiated at subsequent progression* |
| **Discount rate** | 1. 0.0% 2. 3.0% | 1. 0.0% 2. 3.0% | 1. 0.0% 2. 3.0% | 1. 0.0% 2. 3.0% | 1. 0.0% 2. 3.0% |
| **Survival Distribution** | 1. 2nd-best fitting distribution | 1. 2nd-best fitting distribution | 1. 2nd-best fitting distribution | 1. 2nd-best fitting distribution | 1. 2nd-best fitting distribution |

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| **Sensitivity Analyses** | **Base Case Scenario #2**  Dabrafenib vs. chemo/radiation as SECOND-line treatment.   * Lifetime duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 100% dabrafenib price * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls: n=18 SickKids * Data source for exposed = Liana’s JCO Paper 2020 | **Scenario #2b**  Dabrafenib vs. chemo/radiation as SECOND-line treatment..   * 2-year duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 100% dabrafenib price * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls: n=18 SickKids * Data source for exposed = Liana’s JCO Paper 2020 | **Scenario #2c**  Dabrafenib vs. chemo/radiation as SECOND-line treatment..   * Lifetime duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 50% dabrafenib price reduction * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls: n=18 SickKids * Data source for exposed = Liana’s JCO Paper 2020 | **Scenario #2d**  Dabrafenib vs. chemo/radiation as SECOND-line treatment.   * Lifetime duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 75% dabrafenib price reduction * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls: n=18 SickKids * Data source for exposed = Liana’s JCO Paper 2020 | **Scenario #2e**  Dabrafenib vs. chemo/radiation as SECOND-line treatment.   * Lifetime duration of dabrafenib treatment * 0% radiation at progression (*Post-2014 SickKids data indicates that no patients who received chemo and progressed were radiated*) * 100% dabrafenib price * Discount rate: 1.5 * Survival Distribution: Best fitted * Data source for controls: Liana’s JCO Paper 2020 * Data source for exposed = Liana’s JCO Paper 2020 |
| **Proportion of patients radiated at subsequent progression.** | 1. *20% proportion radiated at subsequent progression* | 1. *20% proportion radiated at subsequent progression* | 1. *20% proportion radiated at subsequent progression* | 1. *20% proportion radiated at subsequent progression* | 1. *20% proportion radiated at subsequent progression* |
| **Discount rate** | 1. 0.0% 2. 3.0% | 1. 0.0% 2. 3.0% | 1. 0.0% 2. 3.0% | 1. 0.0% 2. 3.0% | 1. 0.0% 2. 3.0% |
| **Survival Distribution** | 1. 2nd-best fitting distribution | 1. 2nd-best fitting distribution | 1. 2nd-best fitting distribution | 1. 2nd-best fitting distribution | 1. 2nd-best fitting distribution |