**Effectiveness and Cost-Effectiveness of Sequential Treatment of Patients with Chronic Myeloid Leukemia in the United States - A Decision Analysis**

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# Table S1: Effectiveness results base-case analysis

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **0% discounting** | | | | **3% discounting** | | | |
|  | **Life years** | **Delta LYs** | **QALYs** | **Delta QALYs** | **Life years** | **Delta LYs** | **QALYs** | **Delta QALYs** |
| Chemo | 5.43 |  | 3.86 |  | 4.86 |  | 3.47 |  |
| Bosutinib -> chemo/SCT | 11.28 | 5.85 | 8.54 | 4.68 | 9.06 | 4.20 | 6.86 | 3.39 |
| Imatinib -> chemo/SCT | 12.09 | 0.81 | 9.14 | 0.60 | 9.61 | 0.55 | 7.29 | 0.43 |
| Bosutinib -> ponatinib -> chemo/SCT | 12.42 | 0.33 | 9.61 | 0.47 | 9.92 | 0.31 | 7.61 | 0.32 |
| Bosutinib -> nilotinib -> chemo/SCT | 12.48 | 0.06 | 9.68 | 0.07 | 9.96 | 0.04 | 7.65 | 0.04 |
| Dasatinib -> chemo/SCT | 12.70 | 0.22 | 9.71 | 0.03 | 10.02 | 0.06 | 7.80 | 0.15 |
| Nilotinib -> chemo/SCT | 12.79 | 0.09 | 9.75 | 0.04 | 10.08 | 0.06 | 7.82 | 0.02 |
| Imatinib -> ponatinib -> chemo/SCT | 13.16 | 0.37 | 10.21 | 0.46 | 10.40 | 0.32 | 8.12 | 0.30 |
| Bosutinib -> dasatinib -> chemo/SCT | 13.21 | 0.05 | 10.23 | 0.02 | 10.44 | 0.04 | 8.14 | 0.02 |
| Imatinib -> nilotinib -> chemo/SCT | 13.22 | 0.01 | 10.25 | 0.02 | 10.45 | 0.01 | 8.14 | 0.00 |
| Imatinib -> bosutinib -> chemo/SCT | 13.40 | 0.18 | 10.37 | 0.12 | 10.57 | 0.12 | 8.22 | 0.08 |
| Dasatinib -> ponatinib -> chemo/SCT | 13.71 | 0.31 | 10.60 | 0.23 | 10.75 | 0.18 | 8.35 | 0.13 |
| Dasatinib -> nilotinib -> chemo/SCT | 13.76 | 0.05 | 10.63 | 0.03 | 10.79 | 0.04 | 8.38 | 0.03 |
| Nilotinib -> ponatinib -> chemo/SCT | 13.78 | 0.02 | 10.65 | 0.02 | 10.80 | 0.01 | 8.39 | 0.01 |
| Imatinib -> dasatinib -> chemo/SCT | 13.88 | 0.10 | 10.70 | 0.05 | 10.88 | 0.08 | 8.43 | 0.04 |
| Dasatinib -> bosutinib -> chemo/SCT | 13.93 | 0.05 | 10.75 | 0.05 | 10.90 | 0.02 | 8.45 | 0.02 |
| Nilotinib -> bosutinib -> chemo/SCT | 14.00 | 0.07 | 10.80 | 0.05 | 10.95 | 0.05 | 8.48 | 0.03 |
| Nilotinib -> dasatinib -> chemo/SCT | 14.44 | 0.44 | 11.10 | 0.30 | 11.23 | 0.28 | 8.67 | 0.19 |

Legend: Chemo, chemotherapy; LYs, life years, QALYs, quality-adjusted life years; SCT, stem cell transplantation;

# Table S2: Scenario analysis

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Scenario** | **A: Base-case** | | | **2nd line effectiveness dasatinib** | | | **2nd line effectiveness ponatinib** | | |
|  | **Cost (US$)** | **Effectiveness (QALY)** | **ICUR (US$/ QALY)** | **Cost (US$)** | **Effectiveness (QALY)** | **ICUR (US$/ QALY)** | **Cost (US$)** | **Effectiveness (QALY)** | **ICUR (US$/QALY)** |
| Chemo | 94,492 | 3.47 |  | 94,492 | 3.47 |  | 94,492 | 3.47 |  |
| Imatinib🡪 chemo/SCT | 749,272 | 7.29 | 171,700 | 749,272 | 7.29 | 171,700 | 749,272 | 7.29 | 171,700 |
| Imatinib🡪 nilotinib 🡪 chemo/SCT | 965,597 | 8.14 | 253,500 | 1,075,028 | 8.43 | 285,500 | 955,830 | 8.12 | 249,400 |
| Nilotinib🡪 dasatinib🡪 chemo/SCT | 1,200,921 | 8.67 | 445,100 | 1,200,921 | 8.67 | 522,600 | 1,085,828 | 8.39 | 481,100 |

Legend: Chemo, chemotherapy; QALY, quality-adjusted life years; SCT, stem cell transplantation;