**Appendix 1. Methods of computing the expected costs and treatment effectiveness (life-years or quality-adjusted life-years gained) for a patient with R/R PTCL treated with pralatrexate or conventional chemotherapy during 15 years of the modeled simulation**

Expected cost (PT) = $\sum\_{j=1}^{n782}\sum\_{i=1}^{5}PROBij\left(PT\right)xCOSTij(PT)$

Where,

Expected cost (PT) = the expected cost that a *pralatrexate*-treated patient with R/R PTCL would have for 15 years from the start of the simulation

i = 1 if “initial treatment state,” 2 if “treatment pause state,” 3 if “subsequent treatment state,” 4 if “SCT success state,” and 5 if “dead state”

j = 1st,…, 782nd cycle

PROBij (PT) = probability of transition to the health state “i” during the cycle “j” for a *pralatrexate*-treated patient with R/R PTCL

COSTij (PT) = cost associated with the health state “i” during the cycle “j” for a *pralatrexate*-treated patient with R/R PTCL

Expected cost (CC) = $\sum\_{j=1}^{782}\sum\_{i=1}^{5}PROBij\left(CC\right)xCOSTij(CC)$

where,

Expected cost (CC) = the expected cost that a *conventional chemotherapy*-treated patient with R/R PTCL would have for 15 years from the start of the simulation

PROBij (CC) = probability of transition to the health state “i” during the cycle “j” for a *conventional chemotherapy*-treated patient with R/R PTCL

COSTij (CC) = cost associated with the health state “i” during the cycle “j” for a *conventional chemotherapy*-treated patient with R/R PTCL

Expected LYs (PT) = $\sum\_{j=1}^{782}\sum\_{i=1}^{5}PROBij\left(PT\right)xUnitLYs $

Where,

Expected LYs (PT) = the expected life-years that a *pralatrexate*-treated patient with R/R PTCL would have for 15 years from the start of the simulation

Unit LYs = “1 week/52.1 weeks” if alive or “0 week/52.1 weeks” if dead

Expected LYs (CC) = $\sum\_{j=1}^{782}\sum\_{i=1}^{5}PROBij\left(CC\right)xUnitLYs $

where,

Expected LYs (CC) = the expected life-years that a *conventional chemotherapy*-treated patient with R/R PTCL would have for 15 years from the start of the simulation

Expected QALYs (PT) = $\sum\_{j=1}^{782}\sum\_{i=1}^{5}PROBij\left(PT\right)x$UnitLYs x Uij(PT)

where,

Expected QALYs (PT) = the expected quality-adjusted life-years that a *pralatrexate*-treated patient with R/R PTCL would have for 15 years from the start of the simulation

Uij (PT) = utility weight of being in the health state “i” during the cycle “j” for a *pralatrexate*-treated patient with R/R PTCL

Expected QALYs (CC) = $\sum\_{j=1}^{782}\sum\_{i=1}^{5}PROBij\left(CC\right)x$UnitLYs x Uij(CC)

Where,

Expected QALYs (CC) = the expected quality-adjusted life-years that a *conventional chemotherapy*-treated patient with R/R PTCL would have for 15 years from the start of the simulation

Uij (CC) = utility weight of being in the health state “i” during the cycle “j” for a *conventional chemotherapy*-treated patient with R/R PTCL