

Table 9. Severity modifier considerations for One Wales Medicines Assessment Group (OWMAG)

AWMSG criteria for applying a severity modifier weight	New medicine considerations
<p>OWMAG can:</p> <ul style="list-style-type: none"> • apply a QALY weight of 1 if the medicine is indicated for patients with a condition associated with an absolute QALY shortfall < 12 and/or a proportional QALY shortfall < 0.85. • apply a QALY weight of 1.2 if the medicine is indicated for patients with a condition associated with an absolute QALY shortfall ranging between 12 and 18 and/or a proportional QALY shortfall ranging between 0.85 and 0.95. • apply a QALY weight of 1.7 if the medicine is indicated for patients with a condition associated with an absolute QALY shortfall >18 and/or a proportional QALY shortfall ≥ 0.95. <p>If the absolute and proportional QALY shortfalls imply different levels of severity, QALY weighting selection is guided by the shortfall that shows greatest severity.</p>	<p>The general population expected life-year and expected total QALY estimates are taken from the pooled 2017–2019 population health state profiles offered by the health survey 2014³³ in combination with the valuation model of Hernandez et al.(2022)^{34,35}. The median age of 64 and the gender distribution are taken from the CHRONOS study (59% male)². The general population is estimated to achieve 11.28 QALYs.</p> <p>Expected life-year and expected total QALY estimates for patients being treated with the current standard of care is estimated according to the line of therapy. The <u>quality of life</u> estimate of 0.71 is sourced from Odom et al³⁶, this is used across each line of therapy. There is a linear reduction in QoL modelled across OS, this is informed by clinical expert opinion. Patients treated with a third line therapy of trifluridine-tipiracil plus bevacizumab are estimated to achieve 0.32 QALYs. The fourth line of regorafenib is estimated to achieve 0.20 QALYs. Fifth line therapy consists of BSC which is associated with an OS of 4 months resulting in 0.12 QALYS.</p> <p>AWTTC considers the QALY shortfall estimates to be informed by recent and robust data sources.</p> <p>AWTTC considers the most plausible absolute QALY loss to be around 10.96 in the 3rd line, 11.08 in the 4th line and 11.16 in the fifth line. The relative reduction in QALYs exceeds 95% in all lines of treatments. Due to the high relative shortfall, each line meets the AWMSG criteria for the 1.7 QALY modifier weight. This estimate is deemed plausible due to the very low overall survival expected for this patient cohort.</p>
<p>AWTTC: All Wales Therapeutics and Toxicology Centre; BSC: best supportive care; OS: overall survival; QALY: quality-adjusted life-year</p>	