use of PRN and T&E ranibizumab regimens were shown to be cost saving compared to aflibercept by €2,824 and €527.89 (36% drug acquisition costs and administration costs) for ingenol mebutate versus imiquimod 5% for clearance) were used to derive quality-adjusted-life years (QALY). Probabilistic sensitivity analysis supported this result. Individual scenarios without non-compliance and adjusting the definition of response had little impact on results(ICERs €4,409 and €5,304, respectively). Further sensitivity analyses demonstrated robustness of the model's estimates in key model parameters and inputs. CONCLUSIONS: To our knowledge, this is the first economic evaluation of omalizumab in CSU from a UK societal perspective. Omalizumab was associated with consistently low ICERs across a range of different scenarios. The GLACIAL trial was used to describe transition probabilities. Data on health care consumption, quality of life and productivity losses were derived from medical records and a survey among 93 Dutch CSU patients. Health care consumption was valued using prices from the Dutch costing manual. Utilities were derived from EQ-5D and calculated using Dutch tariffs. Productivity losses were valued using Dutch wage rates. Comparator treatments were cyclosporine and standard of care. Uncertainty was assessed by one-way sensitivity analyses and probabilistic sensitivity analyses. RESULTS: Omalizumab was more effective than cyclosporine incremental QALYs for omalizumab were 9.2 and incremental costs were €4,510 per QALY gained with ingenol mebutate versus imiquimod 5%. In probabilistic sensitivity analysis performed, 78% of simulations yielded an ICUR below €30,000/QALY for ingenol mebutate versus imiquimod. CONCLUSIONS: Ingenol mebutate vs imiquimod 5% was an efficient alternative for NHS for patients with AK, on face and scalp, considering an acceptable threshold of €30,000/QALY.