

Appendix B: Detailed Costing Methodology

Costs within the model were calculated for neonatal conjunctivitis treatment, erythromycin ointment and medical assessment of side effects of prophylaxis. Costs were derived from the published literature, including drawing on costing analysis performed by CADTH in their 2015 analysis of prenatal sexually transmitted infections screening and presented in Canadian dollars (1-4). Cost of erythromycin ointment was the wholesale price provided by an Ontario hospital pharmacy in 2019(2). Application cost was assumed to be negligible given that it is performed by nursing staff in hospital at the time of birth as only one of many routine tasks. Adverse event costs were based on the cost of one ambulatory care appointment with a primary care practitioner for the infant calculated from the Ontario schedule of benefits for physician services(3), given that the chemical conjunctivitis that may occur with prophylactic treatment is unlikely to require additional treatment(4).

For cases of ophthalmia neonatorum, mean calculated infection treatment costs for term infants cited in the 2018 CADTH Health Technology Assessment of Prenatal STI screening(1) were used. Costs of gonococcal ophthalmia neonatorum treatment, usually undertaken in hospital, were taken from bottom-up costing undertaken by CADTH(1) including the cost of hospitalization, diagnostic testing, pediatric and infectious disease specialist consultation and a single dose of intramuscular ceftriaxone. The costs of missed ophthalmia neonatorum infection and subsequent blindness were calculated based on an expected lifetime of 82years(5) and discounted at a rate of 1.5% per annum(6) using a Canadian costing study assessing annual cost of vision loss in Canada (4). Costs of chlamydia ophthalmia neonatorum, typically treated in the outpatient setting, were calculated using the 2016 OCCI ambulatory care case cost and include pediatric and infectious disease specialist consultation costs, as well as 14 days of oral erythromycin therapy(1).

References

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