Pharmaceuticals Canada Inc, Dorval, QC, Canada, 3Misericordia

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Abstracts

COSTEFFECTIVENESS OF INTERMITTENT VS. CONTINUOUS
ANTI-TNF ALPHA THERAPY IN PLAQUE PSORIASIS
Lloyd AC1, Webber JM2, Leimbacher P1, Conway P1, Wurbarton J1
1Fourth Hurdle Consulting, London, UK, 2Fourth Hurdle Consulting
Ltd, London, UK, 3Wyeth Pharmaceuticals, Maidenhead, UK, 4Wyeth
Europa, Berkshire, UK

OBJECTIVE: To assess the cost-effectiveness of intermittent vs.
continuous anti-TNF alpha therapies in chronic plaque psoriasis.

METHODS: An economic model was constructed to estimate
the cost per month in remission for intermittent etanercept 25 mg
twice weekly (biw) or 50 mg biw, continuous adalimumab or
continuous infliximab compared with no systemic therapy
(NST). Patients considered had chronic plaque psoriasis with
both Psoriasis Area and Severity Index (PASI) and Dermatology
Life Quality Index (DLQI) ≥ 10 at baseline, and so would be
eligible for anti-TNF alpha treatment under UK guidelines.
Remission was defined at patients experiencing an improvement
of at least 75% of their baseline PASI. Response rates were taken
from registration studies for each agent: maintenance of response
with continuous therapy and likelihood of response to intermit-
tent therapy were extrapolated from published studies to a time
horizon of ten years using a Markov process. Costs were
estimated from a UK payer perspective including drug cost,
administration visits and hospital stay for treatment failures.

RESULTS: Cost per month in remission for each therapy com-
pared with NST was estimated to be: GBP162 (95% CI: 93–287)
for etanercept 25 mg biw; GBP418 (337–531) for etanercept
50 mg biw; GBP1,867 (1,643–2,136) for infliximab and GBP588
(452–804) for adalimumab. The cost-effectiveness ratios
for continuous therapies were sensitive to the criteria used for
withdrawal from treatment. The cost-effectiveness ratios
for continuous therapies were sensitive to the duration of treatment
interruption achieved and response rate after therapy re-
introduction. All regimens were found to be particularly ap-
propriate in psoriasis patients with severe disease at baseline.

CONCLUSION: The model found intermittent treatment with
etanercept to be more efficient than continuous treatment with
other anti-TNF alpha therapies, as it allows patients to be main-
tained in response at lower drug cost.

THE COST-EFFECTIVENESS OF RANIBIZUMAB COMPARED TO
PDTV AND BSC FOR THE TREATMENT OF AGE-RELATED
MACULAR DEGENERATION IN CANADA
Lozano-Ortega G1, Machuk RW1, Hass HE2, Barbeau M2,
Mathen MK3
1Oxford Outcomes, Vancouver, BC, Canada, 2Novartis
Pharmaceuticals Canada Inc, Dorval, QC, Canada, 3Misericordia
Health Centre, Winnipeg, MB, Canada

OBJECTIVE: To evaluate the cost-effectiveness of ranibizumab
versus photodynamic therapy with verteporfin (PDT-V) and best
standard care (BSC) for the treatment of all wet age-related
macular degeneration (AMD) lesion subtypes (predominantly
classic (PC), minimally classic (MC) and occult lesions (OC)) in
Canada. METHODS: A ten-year Markov model with three-
month cycles was adapted to the Canadian setting to simulate the
evolution of visual acuity (VA) levels in subfoveal wet AMD
patients according to Canadian guidelines. Analyses were per-
formed from the perspective of the Ontario Ministry of Health
with each AMD subtype modeled separately. The initial distri-
bution of patients across VA levels followed the distribution
observed in MARINA and ANCHOR (sham controlled phase III
randomized multicentre clinical trials) at randomization. Transi-
tion probabilities were based on data from the same trials.

Treatment with 0.5 mg ranibizumab was assumed, with nine
injections in year 1 and six injections in year 2. Treatment dura-
tion was assumed to be one year for PC and two years for MC
and OC lesions. Five clinicians completed a resource use ques-
tionnaire from which therapy and adverse event costs were esti-
ated (2007 CDN$). Quality-of-life estimates were obtained from
a time trade-off study carried out in a sample of the UK
general population. Outcomes were measured in terms of
quality-adjusted-life-years (QALY) and discounted (along with
costs) at 5% annually. One-way and probabilistic sensitivity
analyses were performed to estimate uncertainty around incre-
mental cost-effectiveness ratios (ICER). RESULTS: Ranibizumab
demonstrated cost-effectiveness relative to PDT-V and BSC in all
lesion types assuming a $50,000 threshold. The ICER for PC
lesions was $4,167/QALY and $21,857/QALY relative to PDT-V
and BSC respectively. For MC and OC lesions the ICER was
$37,363/QALY and $38,151/QALY respectively relative to BSC.

CONCLUSION: Ranibizumab offers good value for money
compared to current standard treatments for all wet AMD lesion
types.