period: In the period of four as well as eight – weeks course of treatment with imiqui-
mold 5% cream, therapy resulted in significantly higher chance of achieving complete
clearance. Patients treated with imiquimod more frequently achieved clearance level
higher than 75% of baseline actinic keratoses compared with the subject in vehicle
group. Acrilisa® were more frequently reached within the group of subjects who
received imiquimod in comparison with vehicle group. The chance of experienc-
ing local skin reaction such as erythema, flaking/scaling/dryness, scabbing/crusting,
comeda, vessels, erosion/laceration was significantly higher in experimental group.
Imiquimod five percent cream versus vehicle in long time period: Imiquimod 5% cream
used 3 times a week for 24 weeks was an effective treatment for actinic keratosis
measured by the probability of achieving complete clearance and partial clearance rate
(more than 75% reduction in baseline lesions). Frequency of adverse events and local
skin reactions was higher during the imiquimod treatment in comparison with
placebo. Imiquimod five percent cream versus vehicle in patient with solid organ
transplants: Treatment with imiquimod 5% cream for 24 weeks in kidney, heart and
liver transplant patients resulted in significantly higher probability of achieving com-
plete and partial clearance rates of actinic keratoses. There were no significant differ-
ences in incidence of adverse events between groups. CONCLUSIONS: Imiquimod
five percent cream appears to be effective and safe alternative therapy for the treat-
ment of actinic keratosis.

RESTOR® VERSUS ACRILISA®: ND-YAG LASER INCIDENCE RATE
COMPARISON 18 MONTHS AFTER SURGERY

METHODS: A retrospective study was carried out using Kaplan Meier survival cure.
Imiquimod 5% cream used 3 times a week for 24 weeks was an effective treatment for actinic
keratosis which were assigned to each patient according to their characteristics. National sta-
istics provided death rates. The expected events over one year for a cohort of 10,000
subjects were: HF = 995; asthma/COPD = 143; deaths = 605. CONCLUSIONS:
These expected numbers represent the occurrence of events in the natural
history cohort. They were obtained by summing the outcome probabilities across the
patient group. They do, however, represent the first step in creating a comprehensive
method for risk benefit quantification via DES and large patient databases; benefit can be
modelled if expressed as the occurrence of an event. The method will need to incorporate uncertainty in all the input parameters and to update the probabilities
after an event has occurred.

CONCLUSIONS: Risk benefit quantification via DES and large patient databases can be
modelled if expressed as the occurrence of an event. The method will need to incorporate uncertainty in all the input parameters and to update the probabilities
after an event has occurred.

RESULTS: A total of 16 RCTs comparing LTE/TM versus distinct therapeutic alterna-
tives and 5 CT comparing BM/TM versus different therapeutic options fulfilled criteria
to be included in the meta-analysis. Although heterogeneity of both comparisons was
not very high in both the LTE/TM group (Q = 24.47; p = 0.057; F = 38.7 %) and the
BM/TM group (Q = 5.19; p = 0.028; F = 22.94 %), the estimation of the OR by the
random effects model was considered the most appropriate. According to this
model the final OR for the LTE/TM group was 0.36 [IC95%: 0.37–0.83], p < 0.05 and for the
BM/TM group the OR was 0.94 [IC95%: 0.66–1.34], p > 0.05. In the sensitivity analysis
performed for each of the RCTs included in the meta-analysis we also applied the
random effects model to the global estimation of OR. CONCLUSIONS: According to available data,
the use of LTE/TM is associated with a significant reduction in the development of conjunctival hyperaemia versus the comparators used in the RCTs, whereas the use of
BM/TM produces a conjunctival hyperaemia rate similar to its comparators.

THE APPLICATION OF DISCRETE EVENT SIMULATION TO
QUANTITATIVE RISK BENEFIT ANALYSIS

OBJECTIVES: To date, quantitative risk benefit has mainly involved the translation of
Cost-effectiveness techniques or utility adjusted epidemiological statistics. We aim
to describe how Discrete Event Simulation “DES” offers the possibility of modelling
the occurrence of several adverse events and beneficial events simultaneously whilst
accounting for competing events. METHODS: Firstly, a longitudinal patient database
is used to identify the target patient population. Secondly, incidence rates for the out-
come events are calculated from the entire database, thereby providing the necessary
granu-
arity in terms of the predictive factors for the outcomes. The annual probability for
each outcome is then assigned to each patient in the cohort and DES generates time to
each event. Therby the expected events for an unexposed patient cohort is created
to which relative risks are applied to model drug exposure. An example using glau-
coma patients is presented using data from The Health Improvement Network.
RESULTS: We obtained data on 17,652 glaucoma patients who were known to be
receiving glaucoma therapy at January 1, 2007. Patients were characterised according
to the principal determinants of the outcomes (heart failure, asthma/COPD exacer-
batation). The same database provided general population incidence rates for the outcomes
which were assigned to each patient according to their characteristics. National sta-
istics provider death rates. The expected outcomes over one year for a cohort of 10,000
subjects were: HF = 995; asthma/COPD = 143; deaths = 605. CONCLUSIONS:
These expected numbers represent the occurrence of events in the natural
history cohort. They were obtained by summing the outcome probabilities across the
patient group. They do, however, represent the first step in creating a comprehensive
method for risk benefit quantification via DES and large patient databases; benefit can be
modelled if expressed as the occurrence of an event. The method will need to incorporate uncertainty in all the input parameters and to update the probabilities
after an event has occurred.

SPECIALITY GROUPS – DISORDERS – Cost Studies

COSTS-OF-ILLNESS OF ULCUS CRURIS IN GERMANY: RESULTS OF
two APPROACHES

OBJECTIVES: Estimation of cost-of-illness (COI) of leg ulcers in two German cross-
sectional studies using different methodological approaches. METHODS: A direct and an
indirect method for cost estimation were utilized. In a nationwide cross-sectional study
147 institutions (hospitals, residencies, nursing services, dermatological offices, services for
homeless and addicts) treating patients with ulcus cruris, resource consumption and
associated costs were estimated. The mean total COI per year and patient was
€ 9,569 (€ 9851) while direct costs summed up to € 7,730 (€ 9111). Of direct costs, € 7,611 (€ 9772)
were covered by the Statutory Health Insurances (SHI) and € 1027 (€ 7310) by the patients. For SHI, major cost factors
were inpatient costs, non-drug treatments and physicians/nurses fees. Moreover, clini-
cal predictors such as wound size, number and duration as well as wound etiology
and characteristics of care (quality, support) were identified. All patients were severely
impaired in their HRQoL, implying a high burden of disease and relevant intangible
costs. CONCLUSIONS: Chronic leg ulcer patients generate highly relevant COI. Despite
different recruitment and cost estimation methods, both studies resulted in comparable
total, indirect and intangible costs; observed differences can be attributed to sample
characteristics. The results point to early and qualified disease management in all
related health services areas.

COSTS OF PATIENTS WITH OCCUPATIONAL SEVERE CHRONIC HAND
ECZEMA REFRACTORY TO TOPICAL CORTICOSTEROIDS FOR
EMPLOYER’S MUTUAL INSURANCE COMPANIES IN SPAIN

OBJECTIVES: To estimate the direct and indirect costs of occupational severe chronic
hand eczema (OSCHE) in patients refractory to topical corticosteroids from the per-
spective of employer’s mutual insurance companies (EMIC) in Spain. METHODS:
An employer’s mutual insurance company in Spain usually covers 75% of salaries and
100% of medical treatments of patients on occupational sick leave. A decision analytic
model was developed to perform a cost analysis of OSCHE in patients refractory to topical corticosteroids from an employer’s mutual insurance company perspective over a one year time horizon. A structured questionnaire was elaborated and answered by a Spanish panel of four dermatologists and two occupational physicians, to identify their treatment and estimate the use of resources associated to OSCHE. The clinical information was obtained from published literature and was complemented by physicians. The information regarding costs associated to the different types of disability was obtained from data of 156 patients from one of the main EMIC in Spain. Disabilities are classified by EMIC in three groups according to the time spent on sick leave: Partial disability (3 months), partial permanent disability (24 months) and total permanent disability (limited to current profession). RESULTS: Annual total costs of OSCHE for a Spanish EMIC were on average over €60,000 per patient. Direct costs represented 1.4% and indirect costs 98.6% of total costs. Total permanent disability was the most important cost driver, representing 69.3% of total costs, although only 18% of patients were estimated to reach this type of disability. CONCLUSIONS: Disability is the most important predictor of total costs in patients with OSCHE for the EMIC in Spain. Indirect costs are by far the most important cost driver (98.6%) for this disease. An effective therapy for OSCHE may significantly reduce the number of disabilities and therefore indirect costs.

PSS10 COST OF MODERATE TO SEVERE PSORIASIS PATIENTS IN SPAIN Sánchez-Carazo JL1, Daudén E1, Yanclocha F1, Toribio J1, Pujol R1, Puig L1, Yébenes M1, Sabater F2
1Hospital General de Valencia, Valencia, Spain, 2Hospital La Princesa, Madrid, Spain

OBJECTIVES: to estimate the total costs of moderate to severe psoriasis patients in Spain. METHODS: An observational study was conducted at 123 centers in Spain recruiting 1217 patients (60.8% males, mean age 45.1 ± 13.9 years, 95.6% with active treatment). 93.5% of patients showed a 35% improvement of their psoriasis (VACP study). Direct and indirect resource consumption during the study was collected for every patient using patient notebooks. Direct resource use consisted in inpatient hospitalization, surgeries, emergency room visits, consultations (primary and secondary care, nursery, other health care professionals and secondary medical visits), laboratory and drug, nurse visits, medication (prescription and non-prescription drugs paid by patients), and phototherapy sessions. Indirect costs included productivity losses (full or part-time), social assistance and out-of-pocket expenses paid directly by patients (travel costs, formal caregivers). Resource use unitary costs were obtained from e-Salud database. Costs were adjusted to 2006 prices. RESULTS: Mean total annual cost per patient was €6881 (95% confidence interval [CI], €5365–€8370). Direct and indirect costs accounted for €6420 (95%CI, €5667–€7745) and €461 (95%CI, €299–€662) representing 93.3% and 6.7% of total estimated costs respectively. The most important categories of direct costs were prescription medication (€3667, 95%CI, €2954–€4381), 53.3% of direct costs), phototherapy sessions (€1405, 95%CI, €1144–€1666, 20.4%), consultations (€517, 95%CI, €434–€596, 7.2%) and hospital day visits (€636, 95%CI, €294–€1278, 6.3%). The most important categories of indirect costs were lost work (€2616, 95%CI, €1565–€507.5% of indirect costs) and travel costs (€85, 95%CI, €76–€95, 18.5%). CONCLUSIONS: In Spain, mean annual cost per patient with moderate to severe psoriasis represents €6881, of which 93% were direct costs and 7% indirect costs.

PSS11 COST OF TREATMENT FAILURE IN ACUTE INFECTIOUS CONJUNCTIVITIS IN SCOTLAND, SPAIN, THE NETHERLANDS AND POTENTIAL ECONOMIC BENEFIT OF TOPICAL MOXIFLOXACIN 0.5% Roberts J1, Lufama A2, Berdeaux G2
21. Cemka, Bourg-La-Reine, France, 2Cemka, Bg la reine, Hauts de Seine, France, 3ALCON, Pari, Belgium, 4Oblicare Consulting, Barcelona, Spain, 5Roi Access Medical/Medca/Trans University Rotterdam, Amsterdam, The Netherlands, 6Abacus, Londen, UK

OBJECTIVES: This study estimated the economic consequences of topical moxifloxacin compared with topical ofloxacin in the treatment of acute infectious conjunctivitis in Scotland (SC), Spain (ES) and The Netherlands (NL). METHODS: The rates of treatment failure, defined as no improvement or worsening symptoms, were estimated by a meta-analysis of randomized controlled trials (RCT) of moxifloxacin. The resources consumed and costs of treatment failure were assessed by a survey of 39 General Practitioners (GP) and 14 Ophthalmologists (OPH). National databases were used to estimate resource costs. The potential economic benefit was estimated, and sensitivity analyses were performed using moxifloxacin’s failure rate advantage from trials directly comparing the drugs and meta-analysis of patients with confirmed bacterial infection (from 3.3% to 6.5% lower). RESULTS: Treatment failure costs are driven by extra physician consultations, and bacterial cultures. The average cost of a treatment failure in ES, SC and NL respectively is €38, €72, €53 when managed by a GP compared to OPH estimates of €108, €133, and €215, OPH extremes were €93 to €279. Assuming 1.5% of the population experiences acute infectious conjunctivitis and 10% of these patients are hospitalized due to symptom improvement, the estimated annual cost of failure ranges from €57,000 to €322,500 per million inhabitants. Primarily OPH used the studied drugs. With 4.7% less treatment failure with moxifloxacin instead of ofloxacin used by OPH, the economic benefit was estimated at €5,1, €6,3, €10,13 per patient in ES, SC and NL respectively. This is a cost saving of approximately 11% on specialist treatment independent of the country. Sensitivity analysis resulted in an economic benefit from €3,58 to €14,01 as extremes of all countries. CONCLUSIONS: The decrease of treatment failure rate using moxifloxacin instead of ofloxacin in acute infectious conjunctivitis provides an economic benefit in three countries of interest.

PSS12 THE ECONOMIC IMPACTS OF ACUTE OTITIS MEDIA IN TAIWAN Hou EC2, Chuang CJ3, Chuang CH4, Chuang LJ1
1Cathay General Hospital, Taipei, Taiwan, 2Chung Gung University, Taoyuan, Taiwan

OBJECTIVES: To estimate the total costs associated to acute otitis media (AOM) for a Spanish EMIC were on average over €60,000 per patient. Direct costs represented 1.4% and indirect costs 98.6% of total costs. Total permanent disability was the most important cost driver, representing 69.3% of total costs, although only 18% of patients were estimated to reach this type of disability. CONCLUSIONS: Disability is the most important predictor of total costs in patients with OSCHE for the EMIC in Spain. Indirect costs are by far the most important cost driver (98.6%) for this disease. An effective therapy for OSCHE may significantly reduce the number of disabilities and therefore indirect costs.

PSS13 CATALCART SURGERY COST IN PATIENTS WITH AND WITHOUT ASTIGMATISM: A FRENCH NATIONAL DRG DATABASE ANALYSIS Colin X1, Lufama A2, Berdeaux G2
21. Cemka, Bourg-La-Reine, France, 2Cemka, Bg la reine, Hauts de Seine, France, 3ALCON, Pari, Belgium, 4Oblicare Consulting, Barcelona, Spain, 5Roi Access Medical/Medca/Trans University Rotterdam, Amsterdam, The Netherlands, 6Abacus, Londen, UK

OBJECTIVES: To compare the cost of cataract surgery in patients with and without astigmatism, as reported in the French national Diagnosis Related Group (DRG) database (PMSI: Programme de Médicalisation des Systèmes d’Information). METHODS: The 2007 DRG database was used. Patients with cataract surgery were identified by the surgery procedure codes (BRGA001, BRGA101, BRGA106, BRGA134). Patients with declared astigmatism had a H522 ICD10 code. DRG standard cost was adjusted according to the number of procedures. Surgery and anaesthesia costs estimated from the Exche Nationale des Coûts were adjusted with the same method. Average costs were calculated in both groups. Student t-test and chi-square were used to compare the two groups. RESULTS: A total of 475 declared astigmatic and 577,798 without declared astigmatism patients were extracted (age: 73.6 years, 2 males: 3 females). Astigmatic patients were more often operated on in a private hospital. Astigmatic patients showed a trend to a longer operation time, longer hospital stay (2.41 versus 2.17 days; p = 0.001) and a 10% failure rate in symptomatic improvement in control group patients, the decrease of treatment failure rate using moxifloxacin instead of ofloxacin used by OPH, the economic benefit was estimated at €5,1, €6,3, €10,13 per patient in ES, SC and NL respectively. This is a cost saving of approximately 11% on specialist treatment independent of the country. Sensitivity analysis resulted in an economic benefit from €3,58 to €14,01 as extremes of all countries. CONCLUSIONS: The decrease of treatment failure rate using moxifloxacin instead of ofloxacin in acute infectious conjunctivitis provides an economic benefit in three countries of interest.