**Introduction.** To inform the development of a national clinical guideline for Chronic Obstructive Pulmonary Disease (COPD), prioritized by the National Clinical Effectiveness Committee in Ireland, a systematic review was conducted to examine the cost-effectiveness of pulmonary rehabilitation programs (PRPs), outreach programs (OPs), and long-term oxygen therapy (LTOT), compared with usual care.

**Methods.** Medline, Embase, the Cochrane Library and grey literature sources were searched up to 19 June 2018. Studies evaluating cost-effectiveness published post-2008 in English were included. Screening, data extraction, and quality assessment using the Consensus Health Economic Criteria and International Society for Pharmacoeconomics questionnaires were conducted independently by two reviewers. Costs were converted to 2017 Irish Euro using consumer price indices for health and purchasing power parity.

**Results.** From 8,661 articles identified, seven studies (one comparing both PRPs and LTOT) were included (PRPs: five; OPs: one; LTOT: two). PRP cost-utility analyses (n = 4) reported conflicting results due to considerable heterogeneity in program and study design, with incremental cost-effectiveness ratios (ICERs) ranging between EUR 12,391 and EUR 509,122 per quality adjusted life-year (QALY) gained. The remaining study investigated hospitalizations avoided and found outpatient and community-based PRPs to be dominant, while home-based PRP produced an ICER of EUR 1,913. OPs were found to be less costly, but also less effective. However, the results of the underpinning trial were neither statistically nor clinically significant. LTOT was found to be cost-effective, with ICERs of EUR 17,603 and EUR 26,936 per QALY gained.

**Conclusions.** Applying a willingness-to-pay threshold of EUR 45,000 per QALY gained, this systematic review found that, compared with usual care, there is inconsistent but generally favorable evidence for PRPs, no clear evidence for the cost-effectiveness of OPs, and that LTOT is likely to be cost-effective. However, there was a lack of methodologically robust studies included in the review and most were not directly transferable to the Irish context.

## PP10 Quality Of Reporting Economic Evaluations In Rehabilitation Research

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**Introduction.** Economic evaluations are a growing field of interest in the rehabilitation area. Research has questioned the quality of reporting of health economic evaluations. Poor reporting hinders the ability to provide accurate information for health care decision making. Therefore, the objectives of this study are to document on overall reporting quality of the published literature for rehabilitation economic evaluations; to identify if reporting quality has improved in health economic evaluations within the field of rehabilitation therapy since the publication of the Consolidated Health Economic Evaluation Reporting Standards (CHEERS); and to identify factors that could influence the reporting trends.

**Methods.** We searched databases for economical evaluations performed in the rehabilitation area published between 2013 and 2018. Study selection was performed by two independent reviewers using Covidence software. Data extraction was conducted by one reviewer using Microsoft Excel and independently verified by another reviewer. The quality of reporting was evaluated independently by two reviewers using the CHEERS checklist.

**Results.** The search of the literature resulted in a total of 2195 published articles. Of these, 117 were considered to be potentially relevant. Independent review of these 117 articles led to the inclusion of 88 articles. This study is ongoing and complete results will be presented at the conference. Fifty papers have been analyzed in full. In general, the quality of reporting of the economical evaluations in the rehabilitation field was poor. The total mean and median for the CHEERS checklist was 17 points (out of 25) (range 8-24). Most of the analyzed studies did not report important methodological features of the economical evaluation as evaluated by the CHEERS checklist.

**Conclusions.** The quality of reporting of economic evaluations in the rehabilitation field is poor and inconsistent. Commonly the methods of the analyzed studies are under reported, thereby creating challenges in determining whether the information presented is sound.

## PP12 Cost-Utility Analysis Of Dolutegravir For HIV-1 Infection In Thailand

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**Introduction.** HIV drug resistance (HIVDR) has significantly increased in Thailand. However, a new generation integrase inhibitor, dolutegravir, has not yet been included in the country's National List of Essential Medicines (NLEM). Since these drugs are high in costs, an economic evaluation is needed to support the decision. This study aims to assess the cost-utility analysis of dolutegravir for HIV-1 infection in Thailand.

**Methods.** A Markov model was developed to evaluate the cost-utility as follows: (i) the current practice of darunavir/ritonavir (DRV/r) + tenofovir (TDF) + lamivudine (3TC); (ii) DRV/r + etravirine (ETR) + TDF + 3TC; (iii) DRV/r + raltegravir (RAL) + TDF + 3TC; (iv) DRV/r + RAL + ETR; and (v) DRV/r + RAL + maraviroc (MVC); (vi) DRV/r + dolutegravir (DTG) + MVC; (vii) DRV/r + DTG + ETR; (viii) DRV/r + DTG + TDF + 3TC. The model incorporated cost data adjusted for 2017 using the consumer price index, and effectiveness data from a review of published studies. Outcomes were measured in life years, quality-adjusted life-years (QALYs), and incremental cost-effectiveness ratios (ICERs), and future costs and outcomes were discounted at 3 percent per annum. Finally, a probabilistic sensitivity analysis was conducted to deal with uncertainties around the parameters.

**Results.** All alternative treatment regimens for HIV patients resistant to first- and second-line antiretroviral therapies (ARTs) in Thailand were found to be not cost-effective at the willingness-to-pay (WTP) of THB 160,000/QALY (USD 5,197/QALY). However, the eighth regimen of DRV/r + DTG + TDF + 3TC had the lowest lifetime cost at THB 5.3 million (USD 172,145) while increasing QALY by approximately 14 QALYs.

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