

**Conclusions.** Initial signs are that there are likely to be a number of ways in which IDEAL and RWE could complement one another.

## VP19 Cost-Effectiveness Of Combination Inhaled Long-Acting Bronchodilators

Thomas Plunkett ([tplunkett@hiqa.ie](mailto:tplunkett@hiqa.ie)), Paul Carty, Michelle O'Neill, Patricia Harrington, Susan M Smith and Mairin Ryan

**Introduction.** To inform the development of a national clinical guideline for Chronic Obstructive Pulmonary Disease (COPD), prioritised by the National Clinical Effectiveness Committee (NCEC) in Ireland, a systematic review was conducted to examine the cost-effectiveness of long-acting beta2-agonists (LABAs) in combination with long-acting muscarinic antagonists (LAMAs) compared with LAMA or LABA monotherapy.

**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 (CHEC-list) and International Society for Pharmacoeconomics (ISPOR) questionnaires were conducted independently by two reviewers. Costs were adjusted to 2017 Irish Euro using consumer price indices and purchasing power parity as per national guidelines.

**Results.** From a total of 8,661 articles identified, nine studies (all cost-utility analyses) were included in the review. Studies ranged from low to high quality and compared LAMA/LABA combination therapy with LAMA monotherapy. The results reported were mixed, ranging from combination therapy being dominated by (that is, more costly and less effective than) LAMA monotherapy to being dominant (that is, less costly and more effective). However, when excluding low quality, less applicable studies, the remaining six studies reported incremental cost-effectiveness ratios (ICERs) of between EUR 2,770 and EUR 26,462 per quality-adjusted life year (QALY) gained. Only one study additionally compared LABA monotherapy as a comparator, reporting combination therapy to be even more cost-effective than in the LAMA monotherapy comparison.

**Conclusions.** Applying a cost-effectiveness willingness-to-pay threshold of EUR 45,000 per QALY gained, this systematic review found that LAMA/LABA combination therapy is cost-effective compared with LAMA or LABA monotherapy in COPD patients.

## VP21 Economic Burden Of Pertussis Treatment In Brazil, 2014

Ângela Bagattini ([angelabagattini@gmail.com](mailto:angelabagattini@gmail.com)), Gabriela Policena, Louise Russell and Cristiana Toscano

**Introduction.** Despite availability of a cheap, widely accessible vaccine, pertussis remains an important cause of morbidity and

mortality in children worldwide. A resurgence of pertussis in Brazil peaked at 8,815 cases in 2014. We estimate the economic burden of pertussis hospitalizations and outpatient cases in Brazil in 2014.

**Methods.** Taking the Brazilian public health system (SUS) perspective we obtained numbers of hospitalizations from the National Hospitalization Information System (SIH) for discharge diagnosis ICD10:A37 and numbers of confirmed outpatient cases from the surveillance information system (SINAN). We estimated costs per case for seven age groups (<1, 1-4, 5-9, 10-19, 20-39, 40-64, and 65+ years). Hospitalization costs were obtained from SIH, which reimburses direct medical (hospital stay, healthcare professional services, and physical therapy) and non-medical costs (parent/caregiver stay accompanying a hospitalized child). Cost of outpatient management was estimated from national guidelines (diagnostic exams, medical visits, and medications) and national pricing lists. Total economic burden was derived by multiplying costs/case by numbers of hospitalized and outpatient cases, respectively, and converted to US Dollars (USD) (December 2014: 1 BRL = USD 0.39).

**Results.** A total of 8,815 pertussis cases occurred in Brazil in 2014; 55.9 percent were hospitalized. Total cost to the public health care system was USD 2.6 million, 95 percent for hospitalizations. Cost/case was highest at the extremes of age for both hospitalized <1y, BRL 1,378.54 (USD 537); 65y+, BRL 1,875.00 (USD 731) and outpatient cases BRL 41 (USD 16) for <4y and 20y+. Children <4 years accounted for 95.4 percent of hospitalizations, 51.2 percent of outpatient cases, and 95.4 percent of total costs. Children <1 year accounted for 88.1 percent of hospitalizations, 29.1 percent of outpatient cases, and 89.3 percent of total costs.

**Conclusions.** Pertussis economic burden in an outbreak year was largely due to hospitalizations in children <1y. Additional prevention strategies are required targeting this population.

## VP22 Applying The IDEAL Framework To NICE Interventional Procedure Guidance

Sharika Anjum ([sharika.anjum@nhs.net](mailto:sharika.anjum@nhs.net)), John Powell and Kevin Harris

**Introduction.** The IDEAL (Idea, Development, Exploration, Assessment, Learning) Framework measures the maturity of evidence base behind surgical innovation. The NICE Interventional Procedures (IP) programme issues guidance for the United Kingdom National Health Service (NHS) on use of surgical innovation. One of four recommendations can be made: (a) standard arrangements, (b) special arrangements, (c) research only, and (d) do not use. This study aimed to investigate whether the recommendation of NICE IP guidance corresponded with the stage of innovation as determined by IDEAL, thus IDEAL's role in informing future guidance production.

**Methods.** A retrospective sample of 103 pieces of guidance issued between 2015 and 2018 was analysed. One researcher examined the evidence base and determined the corresponding stage of the IDEAL framework, numbered 1, 2, 2a, 3 and 4. The primary outcome measure was the association between stage of evidence on IDEAL framework and the recommendation of published NICE IP guidance.