

discounting rate of 3% was used for both costs and health outcomes simulation. One-way sensitivity analysis was performed. **RESULTS:** Therapy conversion to IAsp would result in increased life expectancy by 0.81 years per patient (13.93 vs. 13.12) and QALY by 1.44 QALYs per patient (9.87 vs. 8.43), due to reduced incidences of diabetes-related complications. Treatment and management costs of diabetes were increased by CNY (Chinese Yuan) 11,690 (48,850 vs. 37,160) and 1,982 (39,924 vs. 37,942) respectively. However, the costs of complications, including cerebrovascular disease, renal complications, ulcer/amputation/neuropathy, eye complications, and hypoglycemia events, were reduced by CNY 199,028 (102,590 vs. 301,618), resulting in total direct medical cost saving of CNY 185,357. Sensitivity analyses demonstrated robustness of the results. **CONCLUSIONS:** Switching from HI to IAsp in T2DM patients in China was associated with not only improvement of life expectancy and QALYs, but also significant reduction in total direct medical costs. Therapy conversion to IAsp from HI is a cost-saving treatment strategy for T2DM patients in a Chinese setting.

PDB46

SHORT AND LONG-TERM COST-EFFECTIVENESS OF STARTING INSULIN DETEMIR IN INSULIN-NAÏVE PEOPLE WITH TYPE-2 DIABETES

Home PD¹, Gálvez GG², Malek R³, Hammerby E⁴, Nikolajsen A⁵, Andersen MFB⁵, Henriksen O⁵

¹University of Newcastle upon Tyne, Newcastle upon Tyne, UK, ²Instituto Jalisciense de Investigación en Diabetes y Obesidad, Guadalajara, Mexico, ³Internal Medicine, CHU Stéf, Sétif, Algeria, ⁴Novo Nordisk A/S, Søborg, Denmark, ⁵Last Mile P/S, Copenhagen K, Denmark

OBJECTIVES: To assess the cost-effectiveness (CE) of starting insulin detemir (IDet) ± oral glucose-lowering drugs (OADs) in people with type 2 diabetes (T2D) in countries in different economic circumstances based on observational data gathered in routine clinical practice. **METHODS:** The A₁chieve[®] study assessed safety and outcomes over 24 weeks in 66,726 people with T2D starting insulin analog therapy. The CE analyses included people starting IDet in Algeria (n=473), India (n=1,491), Mexico (n=101), Indonesia (n=109), South Korea (n=487) and in Malaysia based on people in 4 ASEAN countries (n=456). Data were collected on clinical effectiveness, adverse events, and patient reported outcomes using the EQ-5D questionnaire. CE analyses used the IMS CORE diabetes model with 1 and 30 year time horizons, with country-specific costs for complications and therapies and background mortality rates. Incremental cost-effectiveness ratios (ICER) are expressed as cost/QALY in local currencies, USD and fractions of local GDP per capita based on starting IDet. CE was pre-defined as <3*GDP. **RESULTS:** One-year ICERs were Algeria (DZD 617,658; USD 7,758; GDP 1.48), India (INR 58,454; USD 1,054; GDP 0.71), Mexico (MXN 62,952; USD 4,835; GDP 0.48), Indonesia (IDR 22,920,222; USD 2,381; GDP 0.68), South Korea (KRW 4,273,409; USD 3,935; GDP 0.18), Malaysia (MYR 17,613; USD 5,758; GDP 1.34). 30-year ICERs were: Algeria (DZD 368,200; USD 4,625; GDP 0.88), India (INR 39,214; USD 707; GDP 0.48), Mexico (MXN -2,887; USD -222; GDP -0.02); Indonesia (IDR 3,995,329; USD 415; GDP 0.12), South Korea (KRW 15,139; USD 14; GDP 0.00) and Malaysia (MYR 10,499; USD 3,432; GDP 0.80). Sensitivity analyses on the 30 year time horizon showed the findings to be robust. **CONCLUSIONS:** Starting IDet in T2D as performed in the A₁chieve[®] study was found to be cost-effective across all country settings based on a 1 and 30 year time horizon.

PDB47

SHORT AND LONG-TERM COST-EFFECTIVENESS OF SWITCHING THERAPY FROM BIPHASIC HUMAN INSULIN 30 TO BIPHASIC INSULIN ASPART 30 IN PEOPLE WITH TYPE-2 DIABETES

Home PD¹, Soewondo P², Hussein Z³, Shafie AA⁴, AlRaddady K⁵, Baadbad R⁵, Hammerby E⁷, Nikolajsen A⁷, Andersen MFB⁸, Henriksen O⁸

¹University of Newcastle upon Tyne, Newcastle upon Tyne, UK, ²University of Indonesia, Jakarta, Indonesia, ³Hospital Putrajaya, Putrajaya, Malaysia, ⁴Universiti Sains Malaysia, Penang, Malaysia, ⁵King Saud Medical City, Riyadh, Saudi Arabia, ⁶Pharmacoconomics Center of KSMC, Riyadh, Saudi Arabia, ⁷Novo Nordisk A/S, Søborg, Denmark, ⁸Last Mile P/S, Copenhagen K, Denmark

OBJECTIVES: To assess the cost-effectiveness (CE) of switching from biphasic human insulin 30 (BHI 30) ± oral glucose-lowering drugs (OADs) to biphasic insulin aspart 30 (BIAsp 30) ± OADs in people with type 2 diabetes (T2D) in countries in different economic circumstances based on observational data gathered in routine clinical practice. **METHODS:** The A₁chieve[®] study assessed safety and outcomes over 24 weeks in 66,726 people with T2D starting insulin analog therapy. The CE analyses included people switching to BIAsp 30 in Saudi Arabia (n=401), India (n=866) and Indonesia and Malaysia based on people in 4 ASEAN countries (n=175). Data were collected on clinical effectiveness, adverse events, and outcomes using the EQ-5D questionnaire. CE analyses used the IMS CORE diabetes model with 1 and 30 year time horizons, with country-specific costs for complications and therapies and background mortality rates. Incremental cost-effectiveness ratios (ICERs) are expressed as cost/QALY in local currencies, USD and in fractions of local GDP per capita based on switching from BHI 30 to BIAsp 30. CE was pre-defined as <3*GDP. **RESULTS:** One-year ICERs were: Saudi Arabia (SAR 12,913; USD 3,443; GDP 0.17), India (INR 36,001; USD 649; GDP 0.44), Indonesia (IDR 120,507,714; USD 12,520; GDP 2.92), Malaysia (MYR 40,321; USD 13,180; GDP 3.08). 30-year ICERs were: Saudi Arabia (SAR 837; USD 223; 0.03 GDP), India (INR 21,696; USD 391; GDP 0.26), Indonesia (IDR 51,416,633; USD 5,342; GDP 1.25), Malaysia (MYR 19,967; USD 5,342; GDP 1.25). Sensitivity analyses on the 30 year time horizon showed the findings to be robust. **CONCLUSIONS:** Switching from BHI 30±OADs to BIAsp 30±OADs in T2D as performed in the A₁chieve[®] study was found to be cost-effective across all country settings at 1 and 30 year time horizons. The Malaysian analyses showed borderline cost-effectiveness using 1 year time horizon but cost-effectiveness assuming 30 year time horizon.

PDB48

SHORT AND LONG-TERM COST-EFFECTIVENESS OF SWITCHING THERAPY FROM INSULIN GLARGINE TO BIPHASIC INSULIN ASPART 30 IN PEOPLE WITH TYPE-2 DIABETES IN SAUDI ARABIA AND INDIA

Home PD¹, Soewondo P², Shafie AA³, AlRaddady K⁴, Baadbad R⁵, Hammerby E⁶, Nikolajsen A⁵, Andersen MFB⁷, Henriksen O⁷

¹University of Newcastle upon Tyne, Newcastle upon Tyne, UK, ²University of Indonesia, Jakarta, Indonesia, ³Universiti Sains Malaysia, Penang, Malaysia, ⁴King Saud Medical City, Riyadh, Saudi Arabia, ⁵Pharmacoconomics Center of KSMC, Riyadh, Saudi Arabia, ⁶Novo Nordisk A/S, Søborg, Denmark, ⁷Last Mile P/S, Copenhagen K, Denmark

OBJECTIVES: To assess the cost-effectiveness (CE) of switching therapy from insulin glargine (IGlar) ± oral glucose-lowering drugs (OADs) to biphasic insulin aspart 30 (BIAsp 30) ± OADs in people with type 2 diabetes (T2D) in Saudi Arabia and India based on observational data gathered in routine clinical practice. **METHODS:** The A₁chieve[®] study assessed safety and outcomes over 24 weeks in 66,726 people with T2D starting insulin analog therapy. Most participants (96%) stated better glycemic control as reason to switch therapy, 31% also stated problems with hypoglycemia as reason of switch. The CE analyses included people switching to BIAsp 30 in Saudi Arabia based on people in 7 Gulf countries (n=103) and in India (n=191). Data were collected on clinical effectiveness, adverse events, and patient reported outcomes using the EQ-5D questionnaire. CE analyses used the IMS CORE diabetes model with 1 and 30-year time horizons, with country-specific costs for complications and therapies and country-specific background mortality rates. Incremental cost-effectiveness ratios (ICERs) are expressed as cost/QALY in local currencies, USD and in fractions of local GDP per capita based on switching from IGlar to BIAsp 30. CE was pre-defined as <3*GDP. **RESULTS:** For both a 1 and 30 year time horizons the switch was found to be less costly and have better outcomes. 1-year ICERs were: Saudi Arabia (SAR -8,958; USD -2,388; GDP -0.12) and India (INR -60,194; USD -1,086; GDP -0.73). 30-year ICERs were: Saudi Arabia (SAR -14,242; USD -3,798; GDP -0.19) and India (INR -55,914; USD -1,008; GDP -0.68). Sensitivity analyses on the 30 year time horizon showed the findings to be robust. **CONCLUSIONS:** Switching therapy from IGlar to BIAsp 30 in T2D as performed in the A₁chieve[®] study was found to be dominant across both country settings based on a 1 and 30 year time horizon.

PDB49

SHORT AND LONG-TERM COST-EFFECTIVENESS OF STARTING BIPHASIC INSULIN ASPART 30 IN INSULIN-NAÏVE PEOPLE WITH TYPE-2 DIABETES

Home PD¹, Soewondo P², Hussein Z³, Shafie AA⁴, AlRaddady K⁵, Baadbad R⁶, Hammerby E⁷, Nikolajsen A⁷, Andersen MFB⁸, Henriksen O⁸

¹University of Newcastle upon Tyne, Newcastle upon Tyne, UK, ²University of Indonesia, Jakarta, Indonesia, ³Hospital Putrajaya, Putrajaya, Malaysia, ⁴Universiti Sains Malaysia, Penang, Malaysia, ⁵King Saud Medical City, Riyadh, Saudi Arabia, ⁶Pharmacoconomics Center of KSMC, Riyadh, Saudi Arabia, ⁷Novo Nordisk A/S, Søborg, Denmark, ⁸Last Mile P/S, Copenhagen K, Denmark

OBJECTIVES: To assess the cost-effectiveness (CE) of starting biphasic insulin aspart 30 (BIAsp 30) therapy ± oral glucose-lowering drugs (OADs) in people with type 2 diabetes (T2D) in countries in different economic circumstances based on observational data gathered in routine clinical practice. **METHODS:** The A₁chieve[®] study assessed safety and outcomes over 24 weeks in 66,726 people with T2D starting insulin analog therapy. The CE analyses included people starting BIAsp 30 in Saudi Arabia (n=901), India (n=7,546), Indonesia (n=153), in Malaysia based on people in 4 ASEAN countries (n=430) and in Algeria based on people in 3 countries in North-West Africa (n=279). Data were collected on clinical effectiveness, adverse events, and patient reported outcomes using the EQ-5D questionnaire. CE analyses used the IMS CORE diabetes model with 1 and 30 year time horizons, with country-specific costs for complications and therapies and background mortality rates. Incremental cost-effectiveness ratios (ICER) are expressed as cost/QALY in local currencies, USD and in fractions of local GDP per capita based on starting BIAsp 30. CE was pre-defined as <3*GDP. **RESULTS:** 1-year ICERs were: Saudi Arabia (SAR 10,741; USD 2,864; GDP 0.14), India (INR 35,182; USD 635; GDP 0.43), Indonesia (IDR 40,487,477; USD 4,207; GDP 1.2), Malaysia (MYR 13,061; USD 4,270; GDP 1.00), Algeria (DZD 246,422; USD 3,095; GDP 0.73). 30-year ICERs were: Saudi Arabia (SAR -3,004; USD -801; GDP -0.04), India (INR 20,516; USD 370; GDP 0.25), Indonesia (IDR 15,710,332; USD 1,632; GDP 0.47), Malaysia (MYR 8,038; USD 2,627; GDP 0.61), Algeria (DZD 155,659; USD 1,955; GDP 0.46). Sensitivity analyses on the 30 year time horizon showed the findings to be robust. **CONCLUSIONS:** Starting BIAsp 30 in T2D as performed in the A₁chieve[®] study was found to be cost-effective across all country settings based on a 1 and 30 year time horizon.

PDB50

COST-EFFECTIVENESS OF SWITCHING TO INSULIN ASPART FROM HUMAN SOLUBLE INSULIN IN CHINESE PATIENTS WITH TYPE-2 DIABETES ON A BASAL-BOLUS REGIMEN

Ji QH¹, Ye Q², Zhang YZ³

¹Xijing Hospital, Fourth Military Medical University, Xi'an, China, ²Institute of Health Policy & Management, Erasmus University Rotterdam, Rotterdam, The Netherlands, ³Novonordisk(China) Pharmaceuticals Co., Ltd., Beijing, China

OBJECTIVES: To evaluate long-term health economic outcomes of switching from human soluble insulin (HI) to insulin aspart (IAsp) on a basal-bolus regimen in type 2 diabetes mellitus (T2DM) patients in a Chinese setting. **METHODS:** The previously published and validated IMS Core Diabetes Model was used to project long-term life expectancy, quality-adjusted life years (QALY) and total direct medical costs. Baseline patient characteristics and treatment effects were based on Asian subgroup (n=185, countries including China, Bangladesh, India, Pakistan, Indonesia, South Korea, Malaysia, Philippines, Singapore and Taiwan) in A1chieve study which is a prospective, multi-centre, open-label, non-