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PHARMACEUTICAL INTERVENTIONS FOR PRIMARY PREVENTION OF CARDIOVASCULAR DISEASE IN THAILAND

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OBJECTIVES: To assess cost-effectiveness of blood pressure and/or cholesterol lowering drugs for cardiovascular disease prevention. METHODS: A Markov model using Generalized Cost-Effectiveness Analysis with “do-nothing” as a comparator; health sector perspective; discounted 3% annually. Extensive one-way and probabilistic sensitivity analyses were undertaken. RESULTS: In the base case analysis, rilpirinex was shown to be dominant compared with enoxaparin, Rilpirinex was associated with 0.0065 additional QALYs per patient while saving an average of CNY 232 per patient over 5 years. Probabilistic sensitivity analyses estimated that rilpirinex is more effective and less expensive in 57.8% of all stochastic model runs. The probability of rilpirinex being cost-effective was 60% with a willingness-to-pay threshold of CNY 20,000 per QALY and 80% with a threshold of CNY 100,000. CONCLUSIONS: Compared with enoxaparin in a pooled analysis of Chinese patients enrolled in the phase II-III registration trials (RECORD 2 and 3). Utility outcomes and the probability of long-term events were based on systematic review and published data. Resource use related to VTE prevention and 30-day complications was based on guidelines, published price lists and interviews conducted in six Tier 3 hospitals in Beijing, Shanghai and Guangzhou City. Unit cost data were collected from the government pricing bureau presented in 2004 CNY from the health-care system perspective. Costs and outcomes were discounted 3% per year. Probabilistic sensitivity analyses were undertaken. RESULTS: In the base case analysis, rivaroxaban was shown to be dominant compared with enoxaparin. Rivaroxaban replaced an associated with 0.0065 additional QALYs per patient while saving an average of CNY 232 per patient over 5 years. Probabilistic sensitivity analyses estimated that rivaroxaban is more effective and less expensive in 57.8% of all stochastic model runs. The probability of rivaroxaban being cost-effective was 60% with a willingness-to-pay threshold of CNY 20,000 per QALY and 80% with a threshold of CNY 100,000. CONCLUSIONS: Compared with enoxaparin in a pooled analysis of Chinese patients, rivaroxaban improved health outcomes and produced cost savings in VTE prevention after THR and TKR in China. Sensitivity analyses indicated the results of model are robust.

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COFMPCV19 -EFFECTIVENESS OF RIVALROXABAN VERSUS ENOXAPARIN FOR PREVENTION OF VENOUS THROMBOEMBOLISM (VTE) AFTER TOTAL HIP AND KNEE REPLACEMENT (THR, TKR) IN CHINESE PATIENTS

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OBJECTIVES: To evaluate the cost-effectiveness of rivaroxaban against enoxaparin for prevention of venous thromboembolism (VTE) after total hip (THR) and knee (TKR) replacement in China. METHODS: An economic model was developed, consisting of three modules: prophylaxis, post-prophylaxis, and long-term complications. The first two modules were represented using a decision tree while the third module used a Markov process. Safety and efficacy data during prophylaxis were derived from a pooled analysis of Chinese patients enrolled in two phase III registration trials (RECORD 2 and 3). Utility outcomes and the probability of long-term events were based on systematic review and published data. Resource use related to VTE prevention and 30-day complications was based on guidelines, published price lists and interviews conducted in six Tier 3 hospitals in Beijing, Shanghai and Guangzhou City. Unit cost data were collected from the government pricing bureau presented in 2004 CNY from the health-care system perspective. Costs and outcomes were discounted 3% per year. Probabilistic sensitivity analyses were undertaken. RESULTS: In the base case analysis, rivaroxaban was shown to be dominant compared with enoxaparin. Rivaroxaban replaced an associated with 0.0065 additional QALYs per patient while saving an average of CNY 232 per patient over 5 years. Probabilistic sensitivity analyses estimated that rivaroxaban is more effective and less expensive in 57.8% of all stochastic model runs. The probability of rivaroxaban being cost-effective was 60% with a willingness-to-pay threshold of CNY 20,000 per QALY and 80% with a threshold of CNY 100,000. CONCLUSIONS: Compared with enoxaparin in a pooled analysis of Chinese patients enrolled in the phase II-III registration trials (RECORD 2 and 3). Utility outcomes and the probability of long-term events were based on systematic review and published data. Resource use related to VTE prevention and 30-day complications was based on guidelines, published price lists and interviews conducted in six Tier 3 hospitals in Beijing, Shanghai and Guangzhou City. Unit cost data were collected from the government pricing bureau presented in 2004 CNY from the health-care system perspective. Costs and outcomes were discounted 3% per year. Probabilistic sensitivity analyses were undertaken. RESULTS: In the base case analysis, rivaroxaban was shown to be dominant compared with enoxaparin. Rivaroxaban replaced an associated with 0.0065 additional QALYs per patient while saving an average of CNY 232 per patient over 5 years. Probabilistic sensitivity analyses estimated that rivaroxaban is more effective and less expensive in 57.8% of all stochastic model runs. The probability of rivaroxaban being cost-effective was 60% with a willingness-to-pay threshold of CNY 20,000 per QALY and 80% with a threshold of CNY 100,000. CONCLUSIONS: Compared with enoxaparin in a pooled analysis of Chinese patients, rivaroxaban improved health outcomes and produced cost savings in VTE prevention after THR and TKR in China. Sensitivity analyses indicated the results of model are robust.